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UNIVERSITY OF NORTHERN COLORADO

Greeley Colorado

The Graduate School

THE IMPACT OF PRETRIAL SUPERVISION CONDITIONS:
EVALUATING PRETRIAL RELEASE ORDERS
OF ONE COLORADO COUNTY

A Thesis Submitted in Partial Fulfillment of the Requirements
of the Degree of Master of Arts

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College of Humanities and Social Sciences
Department of Criminology and Criminal Justice

August 2019

This Thesis By: Anthony Mark Azari

Entitled: *The Impact of Pretrial Supervision Conditions: Evaluating Pretrial Release Orders of One Colorado County*

Has been approved as meeting the requirements for the Degree of Master of Arts in College of Humanities and Social Sciences in Department of Criminal Justice

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ABSTRACT

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Pretrial risk assessments are tools that have been created to address concerns associated with monetary bail in the United States. A pretrial risk assessment tool provides an objective analysis of an arrested person to determine whether he or she will reappear in court or will be rearrested upon being released from jail. One of the goals of pretrial risk assessments is to reduce the financial bail burden the criminal justice system poses on suspected defendants by providing a tool to determine the relative risk defendants pose in the community. Another goal of pretrial risk assessments is to reduce jail overcrowding. Currently, research has only examined if these tools work in reducing rearrest and failure to appear, but little research has considered other factors such as supervision conditions or whether the implementation of the tool is effective. This thesis examined data from a validation study done on the Colorado Pretrial Risk Assessment Tool (CPAT). A quantitative study involving 322 cases was performed. This study found that there are certain types of offenses that are predictive of the type of supervision utilized. This study also found unique differences in the overall effectiveness of differing supervision conditions (e.g. electronic monitoring, substance abuse monitoring, pretrial supervision, etc.) when preventing pretrial failure to appear or pretrial rearrest. Implications include changes in supervision administration, the types of supervision

orders administered, and the effectiveness of certain supervision types. Most notably this research indicated that more studies must be conducted analyzing supervision effectiveness.

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CHAPTER I

INTRODUCTION

One of the cornerstones of the criminal justice system in the United States is procedural fairness. In the Constitution of the United States, the Eighth Amendment guarantees certain protections against those accused of an offense (Cornell Law Institute, n.d.). Unfortunately, numerous aspects of the criminal justice system target those who are in poverty (Arnold, Dobbie, & Yang, 2018). Numerous attempts have been made both in the law and in the courts to try to address this issue, but disparity still exists today (Adair, 2006). An early attempt to push for equity in the bail system stemmed from the U.S. Supreme Court's *Stack v. Boyle* (1951) decision. Before *Stack v. Boyle* (1951), the severity of the crime had the most significant impact on whether a defendant would receive bail or not and little emphasis was placed on the defendant's unique individual circumstances. Defendants were often ordered to pay significant bail amounts to be released from jail and high bail amounts were not uncommon. After *Stack v. Boyle* (1951), the Supreme Court agreed that each defendant's circumstances should be considered before the setting of bail, which led to numerous efforts in bail reform, such as the passage of the Bail Reform Acts of 1966 and 1984 (Goldkamp, 1985).

To try to address the issues of inequality in how bail is granted, the United States has embarked on numerous bail reform experiments. In 1966, the Bail Reform Act was passed. The goal of this new legislation was to depart from the traditional standards set aside for defendants who are accused of crimes in non-capital cases. Miller (1969) stated

that two fundamental premises were established by the 1966 Act. First, the Act stated that a person's financial status should not be a reason for denying pretrial release. Second, the danger of nonappearance at trial should not be the only criterion considered when bail is assessed. The Bail Reform Act of 1966 required judges to take into consideration a defendant's family ties, weight of the evidence against them, employment, financial resources, character and mental condition, how long they have resided in the community, and prior criminal record (Bail Reform Act, 1966). A unique attribute to the Bail Reform Act of 1966 is that magistrates had to release individuals without issuing a cash or surety bond unless it could be proven that such measures were needed to guarantee appearance.

Even with the passage of the 1966 Bail Reform Act, significant problems were still apparent. Advocates for bail reform argued that judges were too reliant on cash bail and that judges were misusing preventative detention (Goldkamp, 1985). During the 1980s, the second wave in bail reform occurred and states across the U.S adopted new bail policies. Many of these new policies focused on pretrial services and led to the Bail Reform Act of 1984; however, inequalities were still apparent.

The Bail Reform Act of 1984 passed due to the public feeling that dangerous defendants were being released into the public. Under this new act, federal judges were once again allowed to take into consideration the severity of the charges (e.g., bank robbery, sexual assault, and murder). Under the Bail Reform Act of 1966, it was illegal for judges to set bail based solely upon the danger that the defendant posed to the community. The court had to take in the strength of the evidence, use of aliases, and ties to the community when determining bond. Due to these new considerations, numerous defendants were released back into the community regardless of the severity of their

charges. Both of the 1966 and 1984 Acts set the guidelines to be adhered to within the criminal justice system, but the question remained how to effectively implement these guidelines and balance community safety. To address these concerns, community supervision programs were developed to monitor and supervise defendants while they were released on pretrial.

The first established pretrial service program was in 1961 in New York City (Pretrial Justice Institute, 2009). Since then, hundreds of jurisdictions have adopted pretrial service programs to serve the needs of their courts. One of the key responsibilities of pretrial service programs across the United States is to provide a bail recommendation for defendants recently incarcerated. Judges often rely on these recommendations to set an appropriate bail for the defendant.

Another essential facet of pretrial services is to provide recommendations on the type of supervision a defendant should receive while their case is pending. During the pretrial stage of a defendant's case, pretrial services have a wide range of latitude on what types of supervision can be utilized. Pretrial service agency's responsibilities are to guarantee that defendants appear in court and are not rearrested. Supervision is a crucial component in fulfilling the agency's mission.

To ensure that the correct amount of supervision is provided, pretrial service agencies often rely on pretrial risk assessments in order to determine an appropriate bail amount and supervision level for defendants. Pretrial risk assessments are designed to assess the risk that a defendant poses when being released back in the community. Pretrial risk assessments should be able to determine with a relative degree of accuracy whether a defendant will fail to appear or will be rearrested. As pretrial risk assessments

have become more commonplace across the United States, numerous research studies have been conducted examining the effectiveness of each assessment (Bechtel, Holsinger, Lowenkamp, & Warren, 2016); however, many of these studies fail to examine the supervision component of pretrial release for defendants who are successful in securing bond. Supervision implementation can greatly impact whether a defendant is successful or unsuccessful post-release.

Upon examining available literature, there appears to be a distinct lack of studies examining pretrial supervision and the role it plays in defendant success. One possible reason for the small selection of literature may be because each case is unique. Taxman (2002) noted that supervision for each defendant can differ significantly based upon the defendant's specific needs. For example, someone who has stable employment but has a serious addiction to drugs or alcohol may be required to participate in drug or alcohol testing only. This can be drastically different for a defendant who does not have stable employment, has a long record of failures to appear in court, and has a serious addiction to drugs or alcohol. A defendant such as this may have electronic monitoring and intensive supervision added as well as drug or alcohol testing. The effectiveness of differing amounts of supervision conditions on reducing failure to appear or pretrial rearrest rates is still unknown.

The study planned to investigate recently gathered data from a study conducted by the University of Northern Colorado (UNC) on the Colorado Pretrial Risk Assessment Tool (CPAT). The CPAT is one of the first empirically derived assessment tools of its kind in the United States (Jones, 2008). Using data from a multijurisdictional study involving ten counties, a 12-factor tool of empirically driven questions was created. This

tool was last modified in 2012. The study conducted by UNC aimed to 1.) Revalidate the current tool, 2.) Gather feedback about general perceptions about the tool and how it is used on a daily basis from professionals who rely upon it, and lastly, 3.) To make modifications to the tool to address current needs and concerns. The study team, comprised of UNC students and faculty, gathered information on numerous variables tied to pretrial release during the examination of the Colorado Pretrial Risk Assessment Tool. This study specifically looked at variables that affected pretrial success. The most important variables examined included offense type, types of supervision utilized, and the defendant demographics of gender, race/ethnicity, and age. This study's research questions were:

- Q1 Are there certain types of supervision that are utilized more often with certain types of criminal activity?
- Q2 What types of supervision orders are most effective in identifying pretrial misconduct?

Pretrial is one of the most important phases during a defendant's experience in the criminal justice system. Defendants who are released on pretrial have a substantially lower occurrence of recidivating and are likely to obtain a favorable case disposition while their case progresses through the criminal justice system (Oleson, Lowenkamp, Wooldredge, VanNostrand, & Cadigan, 2017). It should be the primary goal of pretrial service programs to release defendants more frequently while also making sure to not endanger the community. One method of providing community safety is effective supervision in the pretrial phase. Supervision can also help jurisdictions in releasing defendants who pose significant risks. With an adequate level of supervision, pretrial service agencies can minimize risk while supporting the defendant at the same time. This

study's goal was to identify which supervision conditions are most effective at meeting these needs. Increased safety, through effective supervision, is one important aspect of this study's role in criminal justice.

This study also aimed to add to the existing literature on pretrial supervision. Current research on the topic of supervision is limited. Mamalian (2011) notes that of the available literature on the subject of pretrial risk assessments, the supervision component seems to be largely unaddressed.

CHAPTER II

REVIEW OF LITERATURE

The United States Constitution makes it clear that defendants have certain rights afforded to them during their experience in the criminal justice system. The Eighth Amendment of the United States Constitution states that excessive bail shall not be required (Cornell Law Institute, n.d.). This Amendment affects all decisions relating to pretrial release and when considering appropriate bond for defendants. Karakatsanis (2015) argued that the current money bail system in the United States violates this Amendment due to the fact that a majority of all defendants in the criminal justice system come from backgrounds of significant poverty. Judges and criminal justice professionals face the challenge of setting an appropriate bail along with conditions of release that balance community risk and defendant rights. Wice (1974) stated that the criterion for all judges to examine is the seriousness of the offense. Wice (1974) found that judges had predetermined bail amounts for each category of crime and very rarely looked at the defendant's history or the conditions of the case. This led to all defendants who have been accused of a similar crime being lumped into one category even though the case specifics affect their likelihood of pretrial release (Stevenson & Mayson, 2017).

Judges also must factor in the community danger a particular defendant poses. Karnow (2008) stated that judges in the United States are required to first consider community safety before setting the bail for a defendant. Unfortunately, this often means

that the bail is set too high for the defendant to obtain pretrial release. Modification to the United States bail system occurred with the passage of the Bail Reform Act of 1966. The intended goal of the Bail Reform Act was to correct some of the gross injustices of the bail system in the United States (Goldkamp, 1985). Additionally, the act also made it illegal to hold someone with no condition of bail unless the offense was violent in nature, if the crime committed was punishable by life imprisonment or death, if it was a drug offense that could result in a sentence of longer than ten years, or if there was a serious risk of flight, obstruction of justice, or witness tampering. The Bail Reform Act did not come without resistance. Numerous opponents argued that the Bail Reform Act of 1966 was too lenient and was releasing dangerous defendants (Stevenson & Mayson, 2017). This public outcry led to the passage of the Bail Reform Act of 1984. Under this new law, courts were allowed once again to deny bail for individuals they deemed too dangerous to the community.

To meet the need of the new guidelines under the Bail Reform Act of 1984, pretrial supervision has been utilized to monitor defendants who pose a risk to the general community (Lowenkamp & VanNostrand, 2013). The main aim of pretrial supervision is to balance defendant risk and defendant rights while simultaneously insuring defendants refrain from failing to appear and future misconduct.

What still remains unaddressed is the supervision component of pretrial release (Taxman, 2002). It is apparent that prior history has focused largely on bail but relatively little attention has been given to the supervision of defendants if released on bail. Taxman (2002) claimed that supervision is increasingly being utilized every year and also argues that additional attention should be devoted to supervision and pretrial release.

To address the issue of unfair bail, numerous states, as well as the Department of Justice, have developed pretrial risk assessments to meet the demand for objective tools that are accurate and can be used for numerous and diverse sets of defendants. With the use of pretrial risk assessments, jurisdictions across the United States are aiming to create a fair and impartial method of setting bail that truly assesses defendant risk.

This literature review will cover a general theoretical review of the Risk Needs Responsivity Model proposed by Andrews, Bonta, and Wormith (2006), the general history of pretrial risk assessments, how pretrial risk assessments are implemented today, a review of the current studies on pretrial risk assessments, types of supervision that are utilized, and a detailed explanation of why this study is needed.

Risk Needs Responsivity Model

This study's theoretical framework falls within the Risk Needs Responsivity Model (RNR Model). The RNR Model was proposed in 1990 by Andrews et al. (2006). The model states that defendant sentencing and treatment should be empirically driven and that the services provided should be given to those who are at most risk for future misconduct. According to the Kaebele and Cowhig (2018) with the Bureau of Justice Statistics, over 4 million people in the United States are on some form of community supervision.

The RNR Model argues that risk, as well as the needs, should be taken into account when determining if defendants should receive treatment and how much treatment should be given. Past research studies have found that too much supervision can actually hinder a defendant and too little supervision can also lead to a defendant failing (Taxman, 2002). The goal is to find an appropriate balance.

Andrews et al. (2006) argued that the RNR Model tries to match the offender's needs based upon the risks that they pose. Andrews et al. (2006) stated that criminal justice practitioners needed to create a risk principle. The risk principle, according to Andrews et al. (2006), should be composed of two parts: prediction and matching. Prediction is the process of determining which defendants are most likely to reoffend and when based upon certain risk factors. Andrews et al. (2006) stated that many students and professionals are unaware of the research on prediction in criminology. Current literature indicates when prediction instruments are statistically driven they are more accurate than clinical predictions. Matching is the utilization of an assessment, such as the CPAT, in determining the level of risk appropriate for the defendant. Andrews et al. (2006) argued that an appropriate level of risk should be matched to the appropriate level of need for each defendant.

Numerous Colorado counties use the CPAT to inform what levels of supervision a defendant should receive based on the risk score derived. Most of these counties take into account the severity of the offense and the CPAT score to come up with a supervision level. The level of supervision defendants receive varies by each individual county but most counties have a range from no supervision, to regular supervision, to intensive or enhanced supervision. The CPAT serves as the prediction instrument in this study and the supervision element serves as the matching component. No study to date has examined these risk/needs matrices to determine if these supervision recommendations are valid and effective.

The RNR Model's basic argument is that the needs of the defendant should be addressed through the risk that the defendant poses. Supervision, and the amount

received, acts as the need in this study and the risk is the defendant's likelihood towards failure to appear or rearrest. The ultimate aim of this study is to see if certain supervision conditions are better than others in aiding and assisting defendants while they are in the pretrial phase of their case. The RNR Model provides a framework for this study focusing both on the risk as well as the need.

It is the hope that pretrial risk assessments will be able to help identify the risks as well as the needs of defendants. The CPAT should serve as an instrument to help predict the level of need. In order to understand how the CPAT currently is utilized, a firm understanding behind the origins of the tool is needed.

Background of Pretrial Risk Assessment

The very first pretrial risk assessment was the Vera Point Scale developed in New York City in 1961 (Bechtel et al., 2016). The Vera Point Scale was an experiment that was launched in New York City to test the hypothesis that defendants could be categorized by the degree of risk they posed to fail to appear in court or being rearrested based upon an objective point system (Pretrial Justice Institute, n.d.). The Vera Point scale was constructed in conjunction with the Manhattan Bail Project and was established by journalists Herbert Sturz and Louis Schweitzer (Lowenkamp, VanNostrand, & Holsinger, 2013; Kohler, 1962). Both visited a jail in Manhattan and found out that too many people were being held before trial. Schweitzer and Sturz lobbied for criminal justice reform and received attention from New York's mayor at the time, Robert Wagner (Kohler, 1962). Schweitzer and Sturz created a concrete plan of study to resolve this problem and received funding for the first pretrial risk study.

Over a period of years, their study analyzed the backgrounds of thousands of defendants to assess whether the accused could be trusted to return for his or her trial without being required to purchase a bond. Factors assessed included employment history, local family ties, and prior criminal records (Kohler, 1962). After analyzing thousands of records, a point system was devised to determine relative risk. Defendants that had fewer points received recommendations for public recognizance bonds. Defendants that received higher points received recommendations for higher cash bonds.

Once defendants were classified, the project was divided into an experimental and a control group (Kohler, 1962). The experimental group received recommendations for public recognizance bonds based upon the results of the point scale developed but allowed the judge to set the final bond amount. The control group received no recommendations from the point scale and let the judge decide bond amount entirely. Data were collected over a period of three years with over 3,505 individuals receiving public recognizance bonds based upon the scale developed. Out of the 3,505 individuals released, only 1.6 percent of them failed to show up for subsequent court hearings (Kohler, 1962). Additionally, the study found that with the public recognizance recommendation from the scale provided to judges, 60 percent of the experimental group was released (Kohler, 1962). This was in stark contrast to only 14 percent of the control group being released (Kohler, 1962). Following the successful implementation of the Vera Point Scale, numerous other pretrial risk assessments were later created and adopted.

One of the biggest challenges of pretrial risk assessments is the aspect of pretrial supervision. The main goal of any pretrial service agency is to ensure that defendants re-

appear for subsequent court dates and to prevent defendants from being rearrested. While the Vera Point Scale was largely a success, the element of supervision was not tested.

Today, pretrial release is being used at a higher rate than it has ever been used before (Lowenkamp & VanNostrand, 2013). Due to this increased rate, the reliability of the tool may be of question as it is used in a higher percentage of cases. There has been a recent call that pretrial risk assessments also take into account the type of supervision assigned based upon the risk to public safety that a particular defendant poses. This area of pretrial supervision research has been largely neglected.

Pretrial Risk Assessments Widely Used

In order to understand how supervision is assigned, it is important to address some of the most widely utilized pretrial risk assessments in use. Pretrial risk assessments and the scores they provide can significantly impact the type and level of supervision that is utilized. Some of the most recognized pretrial risk assessments include the Virginia Pretrial Risk Assessment (VPRA), Public Safety Assessment (PSA) by the Laura and John Arnold Foundation, and the Federal Pretrial Risk Assessment (Pretrial Justice Institute, n.d.). A general understanding of these risk assessments is important as they represent the forefront of pretrial risk assessment research in differing communities across the United States. Understanding what is inside each risk assessment, what they predict, and their accuracy is important in the understanding of how supervision conditions are assigned in each area. No specific risk assessments could be found that link to pretrial risk and supervision. It is important to understand how supervision has already been addressed through current risk assessment tools in order to better inform this study.

Virginia Pretrial Risk Assessment

The Virginia Pretrial Risk Assessment Instrument was developed in 2003 (Department of Criminal Justice Services, 2009). The VPRAI, or “Virginia Model”, was developed to assist pretrial services programs for the State of Virginia. The VPRAI takes into consideration current charges, pending charges, outstanding warrants, criminal history, employment, primary childcare giver, and history of drug abuse (Department of Criminal Justice Services, 2009) The VPRAI was also used in a study looking at supervision conditions (Danner, VanNostrand, & Spruance, 2016). Danner et al.’s (2016) study examined 14,209 defendants that received VPRAI. At the conclusion of the study, the results indicated that of the defendants released, only 2,182 or 15.2 percent of the defendants failed to appear or received a technical violation (Danner et al., 2016). The results also indicated the charge category or type of charge received (e.g., drug, theft/fraud, firearm, failure to appear, traffic cases not including DUI cases, non-violent misdemeanors, violent, driving under the influence, and other charges) was an important variable to take into consideration. Danner et al. (2016) found that failure to appear rates and pretrial rearrests varied quite drastically when examining differing offenses. In the results, Danner et al. (2016) reported significant differences between the failure to appear rates and pretrial rearrest rates for defendants who were charged with a misdemeanor and those who were charged with a felony. Finding statistically significant results, Danner et al. (2016) argued that specific supervision conditions should be tailored to the type of charge received based upon past actuarial data. Danner et al. (2016) argued that supervision conditions should be tailored to the charge received and should influence the type of supervision assigned. These results were important to take into consideration

because certain charges were more likely to have defendants engaging in pretrial crime or fail to appear than others. Their results also indicated that the type of charge received could be predictive of an individual's likelihood to fail to appear.

Public Safety Assessment

The Laura and John Arnold Foundation released the Public Safety Assessment in an attempt to create the very first risk assessment that could be used nationally (Laura and John Arnold Foundation, 2013). In 2009, the research team attempted to create the best possible risk assessment that could be validated. In order to create this risk assessment, they analyzed over 1.5 million case records from over 300 U.S. jurisdictions (Laura and John Arnold Foundation, 2013). Two research objectives were highlighted during this study. The first focused on what the best predictors were in identifying new criminal activity and the second objective examined how to create the best possible assessment tool to predict new criminal activity.

The project looked at hundreds of risk factors to determine the best predictors of pretrial misconduct (Laura and John Arnold Foundation, 2013). Once all the records were assessed, the PSA developed a scale that incorporated nine factors: 1) age at current arrest, 2) if the current offense was violent, 3) if the defendant was 20 or younger, 4) if they had pending charges at the time of the offense, 5) if they had a prior misdemeanor conviction, 5A) if they had a prior felony conviction, 6) if they had a prior violent conviction, 7) if they had a prior failure to appear in the last two years, 8) if they had a prior failure to appear older than two years, and 9) if they had a prior sentence to incarceration. After creating this tool, they assessed the predictive ability of the tool in every county in Kentucky in 2013. The results showed that it was highly predictive in

reducing criminal reoffending and a failure to return to court (Laura and John Arnold Foundation, 2013). Today, the PSA is often used to determine the appropriate level of supervision. Based upon the PSA score a defendant receives, supervision can range from maximum supervision and electronic monitoring, to pretrial supervision with pretrial officers, to substance abuse monitoring. The problem, however, is that the PSA was never created to predict supervision level. The only prediction that the PSA could accurately make is the defendant's likelihood of pretrial failure either through a failure to appear or a rearrest. Further analysis of the PSA should be performed to examine how supervision is assigned and whether it is effective.

Federal Pretrial Risk Assessment

Today, the accepted pretrial risk assessment used by the Federal Courts is the Pretrial Risk Assessment (PTRA). According to Cohen and Lowenkamp (2018), over 90 percent of all defendants that were arrested for a crime in the federal system received a pretrial risk assessment. The PTRA was most recently validated in 2012 with a sample of 5,077 defendants. While the scale did validate, Cohen and Lowenkamp (2018) pointed out that the scale does have its deficiencies. The previous validation study did not take into consideration how race and gender are affected by this scale. Previous studies have argued that race and gender can deeply affect the validity and reliability of any pretrial risk assessment (Zettler & Morris, 2015). Cohen and Lowenkamp (2018) researched this element of the scale and found that it was relatively unbiased when examining race and gender but that future research will be needed to determine the relative effectiveness.

When a pretrial service program makes a recommendation for bail to the court, these recommendations often include supervision conditions for those if released out on

bail. These supervision conditions can be wide ranging from simple court reminders that include calls, texts, and physical mail about upcoming court dates all the way to intensive supervision where the defendant's activity and daily life are monitored. These conditions can hinder or aid defendants being released on bail. For example, a defendant may receive court appearance reminders via cell phone texts or messages. If a defendant does not have access to such technology, then failure to appear may be disproportionately represented (Taxman, 2002). Differing research studies have analyzed the pretrial success rates of those who received supervision conditions as a requirement of their release. Carver (1993) found that inappropriate amounts of supervision could increase the likelihood of pretrial rearrest. Other studies have shown mixed results. Welsh (1978) found that pretrial release with supervision conditions improved appearance rates but did not impact rearrest rates. The question that often arises is whether or not these supervision conditions actually assist in preventing failure to appear rates or rearrest rates prior to conviction or acquittal.

Colorado Pretrial Risk Assessment Tool (CPAT)

The current study uses data associated with the CPAT. The foundations of this tool began in 2005 with the Colorado Improving Supervised Pretrial Release (CISPR) Project (Jones, 2008). The CISPR project was created because of a broader national movement towards evidence based criminal justice services (Jones, 2008). The original CISPR Project had ten Colorado counties participating (Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, and Weld) (Jones, 2008). The intended goal of the CISPR Project was to improve the efficiency of the pretrial release procedure and the effectiveness of pretrial supervision. The CISPR Project was statewide

in scope with over 81 percent of the state's defendants currently under pretrial release (Jones, 2008). The CISPR Project utilized data from other validated studies to conduct a prototype tool as Colorado's first risk assessment tool.

At the conclusion of the CISPR Project, numerous variables were found to predict pretrial risk. In 2012, a reevaluation of the original Colorado tool was performed. Analyzing 2,000 records of defendants booked in county jails across Colorado, a multivariate analysis was performed to see which variables were the best predictors of pretrial rearrest. The study analyzed 24 variables in total. At the conclusion of the study, a twelve-variable tool was devised. These variables included: 1) having a home or cell phone, 2) defendant owning or renting a residence, 3) whether the defendant contributes to residential payments, 4) past or current problems with alcohol, 5) past or current mental health treatment, 6) age at first arrest, 7) past jail sentence, 8) past prison sentence, 9) having active warrants, 10) having other pending cases, 11) whether the defendant is currently on supervision, and 12) having a history of revoked bond or supervision.

What remains unknown, however, is how effective supervision practices are in Colorado. Numerous jurisdictions use the CPAT score in conjunction with offense severity to come up with supervision recommendations. What research does not seem to examine is if these supervision recommendations are effective at reducing the likelihood of pretrial failure. Determining if the supervision utilized is effective or not is key to promoting pretrial success.

Implementation of Current Risk Assessment Tools

Numerous studies have evaluated the different pretrial risk assessments currently in use (Bechtel et al., 2016; Mamalian, 2011). Bechtel et al.'s (2016) meta-analytic review analyzed all existing literature on pretrial risk assessment studies. In total, they incorporated 163 studies for review. Bechtel et al. (2016) argued that sound conclusions could not be made about the impact of pretrial release conditions because most studies lack methodological rigor. In order to make any firm conclusions on the effectiveness of these tools, according to Bechtel et al. (2016), greater transparency is needed and studies must adopt a strong methodological approach. Overall, Bechtel et al.'s (2016) analysis concluded that of the studies that could be analyzed, the risk assessments with more restrictive proposed bond types had lower failure to appear rates. However, any number of mitigating factors could have influenced these outcomes and acknowledges that selection bias could have affected the studies reviewed. Bechtel et al. (2016) ultimately concluded that further empirical analysis must be performed before any solid conclusion can be made.

Mamalian's (2011) analysis also mirrored the results of Bechtel et al. (2016) stating, "[w]hen one considers the challenges with local data collection, coupled with the absence of credible national level data, it becomes abundantly clear that researchers must think creatively about how best to answer these questions (referring to how to mitigate pretrial failure to appear and pretrial rearrest)" (pg. 26). What is apparent from both studies is that the creation, implementation, and validation of differing risk assessment instruments should be met with caution in analysis. When testing the validity of differing risk assessments, a strong methodological study design should be considered first.

Pretrial Risk Assessment Measures

As pretrial risk assessments have grown in popularity over time, their validation and accuracy have been called to question (Bechtel et al., 2016). Recent research has examined what factors are most important to take into consideration (Levin, 2016), how much weight to give each factor (Austin & Murray, 2009; Colorado Pretrial Assessment Tool, 2013), what level of risk should be given based upon the responses given (Cooprider, 2009), and whether or not particular risk assessment scales can accurately determine the risk of an individual and their likelihood to fail to appear (Bechtel et al., 2016; Cohen & Lowenkamp, 2018; Danner et al., 2016; Henry & Clark, 1999; Jones, 2008; LJAF Research Summary, 2013; Podkopacz's, 2006; Siddiqi, 2005). Further research also indicates that these tools may be racially biased in their construction (Eckhouse, Lum, Conti-Cook, & Ciccolini, 2018). Eckhouse et al. (2018) argued that each risk factor should be examined separately to determine how it can contribute to existing biases inherent in the tool. These demographical differences can greatly impact the utility and reliability of the tool.

Numerous studies have examined which factors are most important to take into consideration when evaluating a defendant's likelihood to fail to appear or reoffend while released on bond. VanNostrand and Keebler (2009) analyzed legal cases processed through the federal pretrial risk assessment system. The indicators they acknowledged to be important were the nature of the current charges pending, whether the defendant had a history of criminal arrest or conviction, whether they had active community supervision at the time of the arrest, history of failure to appear, history of violence, residence stability, employment stability, community ties, and substance abuse.

In Bechtel et al. (2016), it was recommended that pretrial risk assessments take into consideration, along with the factors listed above, age, financial history, and physical or mental health. In Jones' (2008) report on the CPAT, it was found that the mere possession of an electronic device helped predict whether someone was likely to fail to appear or not. Jones (2008) found that those with a form of communication were much less likely to fail to appear in court than those without because if a defendant is able to be contacted by the courts or legal counsel, they are more likely to appear in court. Recent studies also recommend considering the demographical differences between differing defendants as they can significantly affect whether a pretrial defendant will be successful or not.

Demographics and Supervision Conditions

Recent studies have explored the impact of individual pretrial defendant characteristics as it relates to gender, socioeconomic status, race, and pretrial success. As additional studies continue to analyze these demographical variables, it is apparent that individual defendant characteristics are important considerations to take into account when setting appropriate supervision conditions.

Gehring and Van Voorhis (2014) conducted a study that looked at whether a defendant's gender affects pretrial success rates. Through their analysis of variables that included mental health, employment, substance abuse, physical abuse, and homelessness prior to incarceration, they determined that the needs and services of male defendants and female defendants differed drastically (Gehring & Van Voorhis, 2014). The results indicated that female defendants were more likely to suffer from the effects of physical abuse than male defendants (Gehring & Van Voorhis, 2014). They also found that female

defendants faced additional challenges that were not comparable to male defendants. For example, female defendants were more likely to be responsible for childcare when they were homeless than male defendants (Gehring & Van Voorhis, 2014). The ultimate finding from this study was that pretrial service agencies should utilize tools that differ based upon defendant characteristics and needs, because a defendant's characteristics may impact the likelihood of success. Gehring and Van Voorhis' (2014) feared that that pretrial supervision should be tailored to defendant characteristics and needs. A "one size fits all" approach may not help and may actually harm defendants.

Levels of Supervision

Supervision can be on a wide spectrum from minimal supervision to high supervision. Examples of differing levels of supervision include phone contact, minimal or intensive check-ins with pretrial officers, electronic monitoring, alcohol or drug treatment, and restrictions on what the defendant can and cannot do while out on release. A defendant can receive any level of supervision based upon the specific details and circumstances of his/her case. For example, a defendant who has a prior record of failing to appear at court may be assigned electronic monitoring or may be required to meet with pretrial officers until the conclusion of their case.

Some studies have specifically focused on supervision conditions as they relate to pretrial release. Fennessy and Huss (2013) found that demographic differences in age, gender, employment, and ethnicity played significant roles in predicting whether a defendant would be successful or unsuccessful in desisting future criminal conduct. Fennessy and Huss' (2013) results also indicate that not all defendant case characteristics are important to take into consideration. This affects supervision conditions because

certain types of supervision may not be appropriate given these defendant characteristics. For example, electronic monitoring may be an appropriate form of supervision if the defendant does not need to travel for work related purposes. The success rates based upon the type of supervision and type of employment a defendant has could be quite varied. This study once again indicates that supervision conditions should be tailored specifically to the defendant. More attention should be placed upon what supervision conditions are most needed to aid in the defendant's eventual success.

Most of the studies that have been published on defendant demographics have generally come to the same conclusion: demographics are important to take into consideration when supervision conditions are assigned (Gehring & Van Voorhis, 2014; Fennessy & Huss, 2013). These studies also claim that any risk assessment tool being used should differ based upon the circumstances of the defendant (Gehring & Van Voorhis, 2014; Fennessy & Huss, 2013) Differing circumstances can include whether the defendant is male or female, the age of the defendant, whether the defendant was employed or unemployed prior to arrest, and what other support mechanisms the defendant can rely on such as family or friends.

A reason there may be a lack of literature on pretrial supervision is because supervision may be too difficult to study due to the many variables in each defendant's individual case. One defendant's pretrial risk assessment score could be different from another's due to community stability mechanisms such as family interaction, employment, and residential history. Due to the wide variability of defendant backgrounds and supervision conditions imposed, trends and success rates in the type of supervision used may not be identifiable. Another possible reason why there may be a

distinct absence of literature is because each state, and sometimes each county, utilizes a different form of a risk assessment leading to different supervision outcomes. For example, numerous counties in the State of Colorado use the CPAT, but the actual utilization of this tool can vary. The CPAT can give a level of risk based upon the responses given but how the results are interpreted and utilized can vary greatly. A CPAT assessment can indicate that a defendant poses a medium level of risk to the larger community but one county can interpret that result and assign electronic monitoring and another county can interpret that result and assign basic supervision. Both of these supervision conditions can provide widely differing results.

Byrne and Stowell (2007) pointed out the ever-changing demographics of defendants under pretrial supervision and make the case that supervision should be tailored accordingly. One example of how this should be tailored is through the economic status of defendants. With a broad array of defendants from differing socio-economic backgrounds, some defendants have a wider array of support than others. One defendant may have more access to resources than another leading to a higher likelihood of pretrial success. Since one defendant may have more access to resources than another, pretrial services should focus and tailor more supervision to the defendant with less resources than other to help increase the likelihood of pretrial success. Lastly, there has not been one uniformly accepted risk assessment across the United States, leading individual states, or counties, to adopt differing risk assessment tools and methods (Bechtel, et al., 2016). With so many differing risk assessments and risk assessment outcomes, it can be very difficult to develop a comprehensive study that studies all levels of supervision.

Supervision Conditions

It has been argued that the research regarding supervision conditions in pretrial risk assessments has not received the same amount of attention compared to other studies associated with pretrial risk assessments (Levin, 2016). Past research has focused on the types of risk assessments utilized (Bechtel et al., 2016), case classification with pretrial risk assessments (Cooprider, 2009), types of bonds success rates with differing pretrial risk assessments (Bechtel et al., 2016), and the validation of pretrial risk assessments nationwide (Lowenkamp, Holsinger, & Dierks, 2017). These studies fail to analyze the supervision conditions that are utilized with each defendant. Levin (2016) argued that the pretrial release period is a critically important stage in the criminal justice process for a defendant. Equally important are the supervision conditions that are imposed on a defendant once released (Levin, 2016).

Pretrial Supervision and Utilization

According to Cooprider (2009), there are three purposes of pretrial supervision. 1) to prevent a defendant from failing to appear in court, 2) to prevent the defendant from obtaining a new arrest resulting in the defendant's jail incarceration for a new charge, and 3) to prevent the defendant from committing a "technical" or rule violation. Examples of this include the defendant testing positive for drugs on a drug test, violating a curfew order, or failing to comply with other subsequent requirements. Other literature has pointed out that pretrial risk assessments were created to reduce jail overcrowding. Austin, Krisberg, and Litsky (1985) emphasized that pretrial detainees have increased from 54 percent in 1978 to over 60 percent in 1982. Today, that number may be as high as 80 percent in some areas (Aiken, 2017).

The supervision conditions assigned to defendants are important to evaluate because successful case adjudication of a defendant often relies on the level of supervision imposed. A balance of high supervision and low supervision must be devised in order to create the optimal environment for the individual. For example, a defendant who is charged with a drug related crime should receive some form of supervision to monitor drug use and drug activity. For example, a defendant may be ordered to check in with pretrial supervision once a week due to the fact that it is required for all defendants. However, this unnecessary burden may cause the defendant to fail, as the likelihood of receiving a technical violation increases. For example, missing an appointment or violating a condition release (such as missing a day of employment to meet with a pretrial officer) would constitute a technical violation. The balance of supervision and non-supervision should be tailored to promote defendant success.

Today, pretrial supervision is implemented through a variety of ways. Pretrial supervision can be very minimal, where defendants are notified of upcoming court dates to intensive supervision where they are monitored or required to regularly meet with pretrial personnel. Common types of supervision include phone contacts, texting, mailing, electronic monitoring, work release, face-to-face contacts, and alcohol and drug monitoring. Pretrial supervision is deemed successful if a defendant does not miss subsequent court dates or does not become rearrested while being released. In order to prevent a defendant from failing to appear, courts often utilize reminder calls and postcards about upcoming court dates (Rosenbaum, Hutsell, Tomkins, Bornstein, Herian, & Neeley, 2012). Many states are now utilizing texting as a form of reminder where the defendant will receive an automated text that they have an upcoming court date (Guerico,

2015). Texting has been proven effective in ensuring defendants appear for court (Guerico, 2015).

Types of Supervision Techniques

Upon examining the existing literature, there appears to be two types of supervision. The first type monitors the defendant and makes sure that the defendant does not violate the conditions of release that were set. The second type of supervision involves a form of treatment and rehabilitation. This type of supervision is seen most often with defendants who are facing drug charges. Substance abuse monitoring ensures that the use of illicit substances is being monitored but this type of supervision also helps the defendant during the treatment phase of rehabilitation.

Another noticeable feature of currently used supervision conditions is that they are placed on a continuum of severity. When a defendant is arrested, the severity of the charge, along with other risk factors, is taken into consideration. Based upon these two items, a defendant can be given little to no supervision all the way to complete or intensive supervision. Intensive supervision is reserved for the defendants that pose the most risk. If an offense is more severe, then the level of supervision increases and if the offense is less severe, the level of supervision decreases. The amount of supervision a defendant receives can greatly impact whether the defendant will be successful or unsuccessful.

The most common forms of supervision will be discussed next, but other forms of supervision may be utilized. The supervision conditions a defendant receives are typically tailored to meet the needs of that individual. This next section will cover the research on the various forms of supervision.

**Phone Contacts, Texting,
and Mailing**

Pretrial service programs call, text, and send notices in the mail to defendants to remind them of upcoming court dates and to answer any questions that the defendant may have. According to the National Association of Pretrial Service Agencies (2008), pretrial service programs should be held responsible for notifying defendants of upcoming court appearances. While this is not a direct form of supervision where pretrial services actively monitor a defendant, this is still being considered a form of supervision due to the fact that defendants are being monitored indirectly. The main goal of these supervision strategies is to reduce failure to appear rates however studies remain inconclusive as to whether these reminders work. Lowenkamp et al. (2017) found that these reminders yielded similar court appearance rates than those who did not receive these reminders (Rosenbaum et al., 2012; H. Howat, S. Howat, Forsyth, & Biggar, 2016).

Electronic Monitoring

One of the most widely used supervision techniques is electronic monitoring. This supervision technique has been regarded as an intensive supervision technique as defendants are monitored using GPS and are often restricted on what they can and cannot do while released. Due to the wide use of this supervision technique, numerous studies are available on its relative effectiveness. Payne and Gainey (2004) stated that the available research has focused on three areas: the invasion of privacy defendants receive with this form of supervision (Lilly & Ball, 1987), how electronic monitoring is used to aid in rehabilitation and prevention (Maxfield & Baumer, 1990), and whether electronic monitoring is an effective deterrent in preventing pretrial crime and violations (O'Toole, 1999; Roy, 1997). The literature showed that electronic monitoring has increased in use

within the past few years. With the increases in technological advances in this form of intervention, pretrial service officers and criminal justice professionals are now able to monitor numerous defendants at once (DeMichele, Payne, & Button, 2007). The research, however, has shown that with the increased caseloads, effective supervision is not being maintained (DeMichele et al., 2007). Also, some defendants need more supervision than others and pretrial services and criminal justice professionals are not able to monitor defendants effectively.

Face-to-Face Contacts

Face-to-face contact is another form of supervision where pretrial service officers and defendants meet to discuss upcoming court dates and other information related to pretrial release. How face-to-face communication occurs and how often depends entirely on the pretrial service program available and the defendant's individual circumstances. Some pretrial service programs across the country meet defendants face-to-face through field visits at the defendant's house (Cooprider, 2009). Other programs require defendants to check in at pretrial service offices on a weekly or monthly basis (Goldkamp & White, 2006). The effectiveness of face-to-face contacts is not entirely conclusive. In a study conducted by Petersilia, Turner, and Deschenes (1992) and a similar study conducted by Solomon, Kachnowski, and Bhati (2005), those who were placed on intensive supervision differed very little in rearrest and violation dates with those placed on minimal supervision or no supervision. In a separate study, Erwin (1986) found that intensively supervised probationers generated higher rearrest rates than those given regular supervision. To date, there has been little research performed on whether face-to-face supervision is effective or not in the pretrial population.

Alcohol and Drug Monitoring

A final type of pretrial supervision is the utilization of alcohol and drug monitoring. Pretrial service agencies utilize urinary analysis and breathalyzers to assure that those placed on supervision are not violating the conditions of their release. Recent research has also questioned the effectiveness of this type of supervision. Britt, Gottfredson, and Goldkamp (1992) conducted an experimental study examining whether drug monitoring was effective or not in reducing pretrial rearrest. The results of their study showed that the chances of pretrial rearrest were only slightly reduced and absolutely no difference was found with failure to appear rates (Britt et al., 1992). Today, drug testing, despite empirical findings, is still widely used in pretrial service programs.

Summary

Overall, the literature appears to support the conclusion that differing forms of supervision have differing effects on the success rates of defendants during the pretrial stage of their case. What is unknown, however, is if these supervision techniques work. Of the literature available on the topic of supervision and defendant success, supervision effectiveness is largely inconclusive. This literature review supports the need for more analysis on the subject.

CHAPTER III

METHODOLOGY

The data for this thesis were collected from a larger project funded by the State of Colorado and the University of Northern Colorado (UNC) analyzing the validity of the Colorado Pretrial Assessment Tool (CPAT). Validity was defined as the risk assessment tool's ability to accurately predict a defendant's likelihood of failing to appear or being rearrested. This tool was devised to estimate the relative risk that a particular defendant will be rearrested or will fail to appear upon being released from jail. The tool uses a series of risk items to determine if the defendant will fail to appear or will be rearrested prior to trial.

The risk items in the CPAT include a series of questions that pertain to defendant attributes. Based upon responses, defendants are given a certain number of points, which ultimately indicates a probable pretrial outcome. The tool categorizes defendants into one of four outcome categories. Category one indicates a very low likelihood that a defendant will be rearrested or will fail to appear and category four indicates a high likelihood that a defendant will be rearrested or will fail to appear to a scheduled court setting. The study gathered information on defendants who received a CPAT interview during the years of 2015 and 2016 from seven Colorado counties. These data came from the Colorado Crime Information Center (CCIC), county court records, and county pretrial records. The unit of analysis in the retroactive validation was CPAT interviews.

In order to determine if this tool was accurately predicting risk, numerous records were collected throughout the state of defendants that received a pretrial risk assessment. A total of 4,600 CPAT interviews were conducted with a final total of 3,386 CPAT interviews being matched to existing CCIC and county court data. Variables collected in the retroactive validation included defendant demographics, bonding history, pretrial supervision, and charge information.

This study only focused on one county for analysis. While the retroactive validation had a total of seven counties participating, the data varied greatly on the type and amount of supervision used. Furthermore, some counties provided a plethora of data for analysis while others provided very limited information with regard to supervision implementation. One county was chosen for study because it provided enough supervision information along with defendant case information to do an in-depth analysis of supervision and its effectiveness.

The selected county utilized a supervision matrix to establish a level of supervision that is appropriate for the particular defendant. All of the judges, courtroom actors, and pretrial personnel in the selected county have approved this supervision matrix. When a defendant is charged, and arrested for a particular crime in this county, pretrial staff meet with the individual and complete the CPAT. Once a defendant has been given a specific CPAT level designation and pretrial supervision is ordered by a judge, the supervision matrix is utilized. This matrix takes into account the defendant's history and charges to select an appropriate classification.

The supervision matrix includes five offense classifications and four CPAT classifications. The supervision matrix takes into account the severity of the offense as

well as the CPAT risk score to determine a baseline of supervision. Based upon these two factors, defendants are either given no supervision, regular supervision, or enhanced supervision. The supervision level of no supervision was utilized with defendants who pose little to no risk to the community upon pretrial release. No supervision however does entail court reminders through text or phone calls. Regular supervision is utilized for defendants who pose a moderate risk but do not pose a high risk to the community, are likely to return to court, and are not likely to be rearrested while being released. Also, a clear focus is placed on making sure that defendants have support systems in place upon release.

The highest form of supervision is enhanced supervision. Enhanced supervision is utilized with defendants who pose a significant risk to the broader community upon release. Enhanced supervision can include face-to-face contacts, remote check-ins, substance abuse monitoring, and electronic monitoring. Based upon the supervision level given, certain supervision conditions are assigned.

This study's goals focused on two research questions:

- Q1 Are there certain types of supervision that are utilized more often with certain types of criminal activity?
- Q2 What types of supervision orders are most effective in identifying pretrial misconduct?

This project focused on the variables: (1) defendant offense or offenses charged (2) supervision conditions or orders imposed, (3) and lastly, if the defendant was rearrested if released on bond, and whether the defendant failed to appear for subsequent court dates. This study examined other demographical variables as well, which will include gender and age.

Unfortunately, this study was unable to apply the supervision matrix provided by the county to examine the data reported. The supervision matrix as mentioned earlier uses the CPAT score and the offense severity to come up with an appropriate level of supervision. The offense severity, however, largely depended on whether the crime was a felony or misdemeanor. The specific level of charge (i.e., felony, misdemeanor) was not available in the dataset and could not be incorporated in the analysis. Since the data did not provide information as to whether a particular offense was a misdemeanor or felony, the supervision matrix could not be utilized.

To address the limitation of offense severity and to be able to answer research question one, a new form of categorizing offense information had to be derived. With the limited information that was available on the offenses committed, it was decided that the best way to approach these data were to adopt the method used by the Colorado Bureau of Investigation (CBI) and how they code their offense data. A breakdown of how each offense was coded can be found in Table 1. This coding was used as a proxy for all of the differing offenses that were apparent in the dataset. There were over 30 differing types of offenses available in the dataset. This new coding would allow for offenses to be grouped together for further statistical analysis. This coding was chosen due to the flexibility it presented in analyzing the data. Additionally, this coding scheme is accepted by the larger state of Colorado. When analyzing criminal records, CBI must also be able to draw definitive conclusions from the data from each county as well. This appeared to be the best approach to take when analyzing these data.

For the purposes of this study, charges were broken down into four categories: (1) offenses that were violent (1=Yes, 0=No), (2) offenses that were drug or driving under

the influence (DUI) related (1=Yes, 0=No), (3) whether the offense was property related (1=Yes, 0=No). A fourth category was also created entitled “other” (1=Yes, 0=No), which captured all offenses that would not fit into one of the other three categories. A breakdown of each offense category is listed in Table 1.

Table 1

Offense Category Descriptions

Offense Category	Offenses Included
Violent Offense	Harassment, first degree assault, second degree assault, third degree assault, extortion, resisting arrest, throwing a missile, stalking, menacing, child abuse knowing or reckless endangerment, sex assault, sexual contact no consent, sexual exploitation, first degree kidnap, second degree kidnap, domestic violence, vehicular homicide, and robbery.
DUI/Drug Offense	DUI, DUI per se, DUI/DWAI (Driving While Ability Impaired) first offense, DUI/DWAI-misdemeanor second offense, DUI/DWAI third offense, DUI/DWAI felony fourth offense, possession of ketamine classes I/II/III, sale or manufacturing of a controlled substance, open marijuana container, and drug paraphernalia.
Property Offense	Criminal mischief, burglary first degree, burglary second degree, burglary third degree, possession of burglary tools, forgery, trespass, unlawful acts theft, identity theft, theft under 50, theft 50-299, theft 750-1999, theft 5,000 to 19,999.
Other Offense	All other offenses not listed

Another limitation that was noticed in the dataset revolved around the issuance of multiple charges. Upon analyzing the data, it became apparent that particular defendants

received numerous charges at the same time. This created a question of how to accurately measure the variable for offense type. Due to this issue, it was determined that a test of independence would be difficult to measure as a defendant may be charged with less serious violations on top of a serious violation. To solve for this, a new variable was derived entitled “top offense charge.” To compute this variable, each case was examined to determine the most severe charge. Utilizing the most severe charge, the offense was coded as: 1) violent offense, 2) offense related to DUI/Drug crime, 3) offense related to property crime, or 4) “other” as an offense that could not be put into any of these categories.

Upon computing this variable, an outside investigator also coded the data as well to determine if there was inter-rater reliability between both investigators in interpreting the data. After the coding from both investigators was completed, a kappa score was computed. A kappa score would be able to tell if there was significant variation in the coding from one investigator to another. A kappa score of 1 indicated complete agreement and a kappa score of 0 indicates no agreement. The final kappa score for this study came out to be .864, showing high inter-rater reliability.

Another limitation noticed in the data concerned how the results were reported for the levels of supervision utilized. The data indicated that a wide array of supervision was utilized. The data further indicated that this particular county relied upon supervision orders. Supervision orders are set and determined by a judge. A judge can order any number of orders during pretrial release. To make sense of these orders and to be able to do further statistical analysis, each order was defined.

The last limitation in this study was in regard to the effect differing supervision orders have on the overall failure to appear rate and pretrial rearrest rate. Unfortunately, the variables of failure to appear and pretrial rearrest only indicated that the defendant at some point in the pretrial process failed to appear or was rearrested. It remains unknown whether this was due to the supervision condition itself or whether it was due to an outside condition not represented here in this thesis.

In the dataset, a total of 11 supervision orders were apparent. The definition of each supervision order can be found in Table 2. What is evident after examining each order is that some orders can be wide ranging from little to no supervision to intensive supervision.

Table 2

Supervision Order Descriptions

Supervision Order	Order Description
Pretrial Supervision	Monitoring (such as face to face visits or remote check-in) of defendants with pretrial staff during the pretrial phase of their case
Substance Abuse Monitoring	Any type of supervision that involved the monitoring of defendant use of drugs or alcohol
Electronic Monitoring	Any type of monitoring where defendants are required to wear an ankle bracelet utilizing global positioning to monitor their location
No Contact Order	A supervision order where defendants were barred from contacting a specific party
Standby Order	An order requiring defendants to have a law enforcement officer present when retrieving personal property where a no contact order is in place
No Weapons Order	A judicial order where defendants are barred from possessing any type of weapon
No Drugs Order	A judicial order barring defendants from using or consuming drugs
No Alcohol Order	A judicial order barring defendants from consuming alcohol
Report to Probation	A type of order that requires defendants to report to probation within a certain length of time
Driving Restriction	A judicial order requiring defendants to comply with enhanced restrictions on driving or barring defendants from driving at all
Other Supervision	Any supervision order where a defendant received a form of supervision that could not be classified in one of the other categories

It remains unknown how these supervision orders are derived and chosen. For example, defendants are often given a host of supervision recommendations by pretrial staff. These recommendations are usually compiled into a bond report and are given to a judge. Upon receiving these recommendations, a judge will either accept the recommendation or will reject certain recommendations. Only after a judge's approval are these supervision recommendations actually implemented.

It is further unknown how much supervision a defendant receives after receiving a supervision order. For example, a defendant may be given substance abuse monitoring but it is unknown how intensive this monitoring is. Unfortunately, the dataset did not have the amount of supervision a particular defendant received after receiving a judicial order. Further analysis should be completed with this information included.

The data for this study were entered into the Statistical Package for the Social Sciences (SPSS) for evaluation. A total of 322 cases were available for analysis. A frequency distribution was performed analyzing each variable individually. The particular county whose data were being analyzed provided the supervision information in the form of judicial orders. A judicial order is a court order provided by a judge about certain supervision conditions a defendant must adhere to. Some orders appeared in forms of treatment and other orders appeared in forms of requirements that defendants must meet. These supervision orders were wide ranging with over 60 being included in the dataset. There were numerous supervision orders available in the dataset for analysis. To make sense of the data provided, the supervision orders will be broken down into certain categories.

The categories that were chosen include: 1) whether pretrial supervision was utilized (n=178), 2) whether substance abuse monitoring was utilized (n=105), 3) whether electronic monitoring was utilized (n=7), 4) whether a no contact order was utilized (n=175), 5) whether a no weapons restriction was utilized (n=106), 6) whether a report to probation order was utilized (n=45), 7) whether a no drugs order was utilized (n=118), 8) whether a no driving or a driving restriction order was utilized (n=45), 9) whether a no alcohol order was utilized (n=126), and 10) whether a standby order was utilized (n=37). A final category of 11) “other” supervision order was also created to capture any remaining supervision orders (n=31).

To examine these results further, a chi-square test of independence was performed to determine if any relationships existed between differing offense categories utilized and the supervision orders utilized. A chi-square test was chosen due to its ability to determine relationships across both variables of offense type and supervision order imposed. This test will come out statistically significant if the variables appear to be related to each other. If the offense categories are truly independent of the supervision orders, utilized statistical significance will not be evident.

Lastly, logistic regression examines if certain supervision orders are effective at predicting pretrial failure to appear or pretrial rearrest. Logistic regression was chosen due to its ability to analyze dichotomous dependent variables. Due to the variables of failure to appear and rearrest being dichotomous, logistic regression was the best option available to see if the supervision conditions imposed were effective at reducing pretrial failure to appear or pretrial rearrest.

Research Question 1

Q1 Are there certain types of supervision that are utilized more often with certain types of criminal activity?

After the frequency distribution was derived, eleven chi-square tests for independence were completed. The goal of the chi-squares analyses was to identify if relationships exist between differing offense types and supervision conditions. It was hypothesized that the supervision conditions imposed would be related to the offense category of a particular defendant. The independent variable in this test was the offense categories of violent offenses (0=No, 1=Yes), property offenses (0=No, 1=Yes), and drug and DUI offenses (0=No, 1=Yes). A fourth offense category entitled “other” (0=No, 1=Yes) was also utilized for offenses that did not fit into the three categories already created.

The dependent variables in this analysis were the supervision conditions imposed. The dependent variables consisted of the supervision orders of whether or not pretrial supervision was used (0=No, 1=Yes), whether electronic monitoring was used (0=No, 1=Yes), whether substance abuse monitoring was used (0=No, 1=Yes), whether a no alcohol supervision order was used (0=No, 1=Yes), whether a no weapons order was used (0=No, 1=Yes), whether a no drugs order was used (0=No, 1=Yes), whether a no contact order was used (0=No, 1=Yes), whether a civil standby was used (0=No, 1=Yes), whether a report to probation order was used (0=No, 1=Yes), and whether a driving restriction was used (0=No, 1=Yes). A final category of “other” supervision (0=No, 1=Yes) was also derived for any supervision orders that would not fit into any of the other prior supervision orders. These results will further guide the study in additional statistical analysis.

The supervision orders were coded in a dichotomous manner due to the available information in the dataset. The dataset indicated whether an individual had received a particular supervision order or did not receive a particular supervision order. In order to determine if these supervision orders were effective at reducing pretrial failure to appear or pretrial rearrest, dichotomous coding indicating whether the defendant had received a particular pretrial order or not was the best choice.

Research Question 2

Q2 What types of supervision orders are most effective in identifying pretrial misconduct?

In order to answer the study's second research question, separate binary logistic regression models were utilized. All of the supervision orders (pretrial supervision, electronic monitoring, substance abuse monitoring, no alcohol supervision order, no weapons order, no drugs order, no contact order, civil standby, report to probation, driving restriction, other supervision) were compared to whether a defendant was rearrested (0=No, 1=Yes) while out on bond and whether the defendant failed to appear (0=No, 1=Yes) in court. Pretrial rearrest and failure to appear were analyzed because they often dictated whether a defendant would be successful or unsuccessful upon pretrial release. It was hypothesized that certain supervision orders, along with certain defendant demographics, would be more effective than others in predicting failure to appear and pretrial rearrest.

Logistic Regression Analysis

Logistic regression was used in this study to determine if certain supervision conditions were effective and whether they could predict pretrial failure to appear or

pretrial misconduct. Given the nature of the data that is being used in this study, logistic regression was the best statistical tool to examine the effects of supervision conditions as related to pretrial failure to appear or pretrial misconduct. Logistic regression was chosen because the dependent variable in the data were dichotomous, indicating either the defendant had failed to appear or was rearrested or did not fail to appear and was not rearrested. The main aim of this research question was to see if the supervision orders were effective at reducing pretrial failure to appear or pre-trial rearrest. A logistic regression analysis would be able to determine if these conditions are effective or not.

Logistic Regression Model One

The dependent variable that was utilized in Model One included whether a defendant failed to appear or successfully appeared for all subsequent court dates. Failure to appear is being included in this analysis as pretrial success and failure largely depends on whether the defendant appeared or did not appear for subsequent court dates. It was hypothesized that differing types of supervision and defendant demographics will affect the likelihood of failure to appear in differing defendant situations. Failure to appear was coded as “1” indicating that the defendant did fail to appear and “0” indicating that the defendant did not fail to appear.

The independent variables in this study included differing types of pretrial supervision orders. The main goal of analyzing these independent variables was to see if there were any correlations in predicting pretrial misconduct or failure to appear. The supervision orders were coded as “1” indicating that the particular defendant had a particular supervision order and “0” indicating that the defendant did not have that particular supervision order. All of the supervision orders were put into the same model

in order to see if certain supervision conditions had an effect on pretrial failure to appear and pretrial rearrest. Each supervision type was studied separately because each type may react differently in reducing pretrial failure to appear or pretrial rearrest. In order to determine if specific types of supervision were effective or not at reducing pretrial failure to appear or pretrial rearrest, each supervision type needed to be examined separately.

The control variables for this study included differing types of offense categories, defendant gender, and defendant age. Each offense category was coded as “1” indicating that a defendant was charged with that particular offense and “0” indicating that the defendant was not charged with that particular offense. These were included because prior literature has shown that differing defendant demographics can greatly impact pretrial success (Gehring & Van Voorhis, 2014)

Gender was included in this study as prior research has supported that pretrial success can vary based upon defendant gender. Due to the study population available in this sample, gender was coded as “0” indicating female and “1” indicating male. Male was chosen as the reference category as that was the predominant study population in the sample.

Lastly, age was being measured continuously. Past research has supported that age also can impact whether a defendant is successful or unsuccessful on pretrial release (Freiburger & Hilinski, 2010). Age was measured continuously in this study and the mean and standard deviation were captured to understand the general distribution of the data available.

It was hypothesized that any type of supervision order that was utilized would produce an effect on whether a defendant would be successful during pretrial release.

Differing supervision orders would have differing effects on overall defendant success. It was unknown which supervision orders would be effective prior to running each statistical model but it was hypothesized that certain supervision orders indicated more or less effectiveness based upon whether failure to appear was trying to predict failure to appear or pretrial rearrest.

Offense type was examined as it was hypothesized that certain offenses would have higher or lower likelihoods of defendants failing to appear based upon the individuals in the offense category. It was hypothesized that gender would play an effect on pretrial misconduct or failing to appear as well. This was tested because prior studies indicated that defendant genders could have differing effects on pretrial success (Zettler & Morris, 2015) Lastly, age was measured as a continuous variable. It was hypothesized that the older the defendant is, the less likely they are to fail to appear in court.

Logistic Regression Model Two

The second regression model utilized the dependent variable of pretrial misconduct as it related to rearrest. It was hypothesized that certain supervision conditions and defendant demographics would be able to predict future pretrial failure as it related to rearrest during the pretrial stage. Furthermore, it was hypothesized that certain supervision conditions would be able to predict pretrial rearrest better than failure to appear.

The supervision conditions were coded the same for Model Two as they were for Model One in this study. It was hypothesized that certain supervision would be able to reduce a defendant's likelihood to fail to appear or get rearrested better than others. This may be due to the fact that a certain type of supervision was used more often than others

or may be more intensive. This could greatly impact whether a defendant is successful or unsuccessful on pretrial release.

Lastly, the control variables were also coded the same as they were in Model One of this study. Gender was coded as “1” indicating male and “0” indicating female. Being male was treated as the reference category since the majority of defendants in the sample were male. It was hypothesized certain gender types would be more likely to be rearrested than other gender types. Lastly, age was analyzed as a continuous variable. It was hypothesized that the older the defendant is, the less likely they were to be rearrested during the pretrial period of their case.

These independent variables could yield valuable findings for future research on pretrial supervision as it relates to pretrial rearrest. This model aims to provide future guidance on effective types of supervision based on defendant characteristics and defendant needs. Ultimately, the hope is that these independent variables would help guide future decisions in regard to supervision and identifying defendant risks as related to supervision and pretrial failure to appear.

CHAPTER IV

RESULTS

Descriptive Statistics

The first step in the analysis was an examination of the results in the form of a frequency distribution. The frequency distribution in Table 3 indicates that 79.5 percent of defendants were reported as male and 20.5 percent were female (See also, Bechtel et al., 2016). Additionally, the mean age of defendants was 34.37 with a standard deviation of 10.38. Also, 7.1 percent of the defendants failed to appear indicating slightly lower FTA rates compared to other studies (Austin et al., 1985). Austin et al. (1985) had a failure to appear rate of 14 percent.

Using the new offense categories, the frequency distribution revealed that 38.5 percent of defendants had a violent offense, representing the largest offense category. The second largest offense category with 23.0 percent of the sample was DUI or drug related crime. The third largest offense category with 17.4 percent of the sample and the least amount of offenses was property related crime. The last offense category of “other” contained 14.6 percent of the sample.

A frequency distribution was also performed on all supervision orders. The first notable finding is that only 2.2 percent of the sample received electronic monitoring. This result may vary because the county may use electronic monitoring more sparingly than other jurisdictions across the United States (Cadigan, 1991). One of the most utilized

supervision orders of this dataset was the supervision order of pretrial supervision with 55.6 percent of the entire sample. As noted above, it is unknown the amount and type of supervision a defendant received based upon this order. Additionally, another widely used form of supervision appears to be the use of a no contact order.

The results suggest that 51.6 percent of the entire dataset had a supervision order of no contact. The dataset also indicated that about a third of the entire study population had a supervision order related to drug or alcohol use. The results indicate that 36.6 percent received a no drugs order, 39.1 percent received a no alcohol order, and 32.6 percent received an order for substance abuse monitoring. Overall, this dataset had wide variability on the use of supervision orders. This appears to be a unique attribute to this particular county. Based upon these frequencies, a chi-square analysis was performed next, examining the offenses defendants are charged with compared to the types of supervision received.

Table 3

Frequency Distribution of Defendant Demographics

Variable	N (%)
Gender:	
Male	256 (79.5)
Female	66 (20.5)
Failure To Appear Rates:	
Yes	23 (7.1)
No	299 (92.9)
Technical Violation Rates or Rearrest:	
Yes	106 (32.9)
No	216 (67.1)
Offenses Categories:	
Most Serious Charge:	
Violent Offense	124 (38.5)
DUI/Drug Offense	74 (23.0)
Property Offense	56 (17.4)
Other Offense	47 (14.6)
Types of Supervision Utilized:	
No Drugs Order Utilized	
Yes	118 (36.6)
No	204 (63.4)
No Alcohol Order Utilized	
Yes	126 (39.1)
No	196 (60.9)
No Contact Order Utilized	
Yes	166 (51.6)
No	147 (47.8)
Other Supervision Utilized	
Yes	31 (9.6)
No	291 (90.4)
Electronic Monitoring	
Yes	7 (2.2)
No	315 (97.8)
Substance Abuse Monitoring	
Yes	105 (32.6)
No	217 (67.4)
Pretrial Supervision	
Yes	178 (55.6)
No	143 (44.4)
Driving Restriction	
Yes	45 (14.0)
No	277 (86.0)

Table 3

Frequency Distribution of Defendant Demographics

Variable	N (%)
No Weapons Order Utilized	
Yes	106 (32.9)
No	216 (67.1)
Standby Order Utilized	
Yes	37 (11.5)
No	285 (88.5)
Report to Probation	
Yes	45 (14.0)
No	277 (86.0)
Age: \bar{X} =34.37, <i>SD</i> :10.38	
Total:	322 (100)

Research Question 1

Q1 Are there certain types of supervision that are utilized more often with certain types of criminal activity?

Eleven chi-square tests for independence were conducted between the types of offenses and the type of supervision utilized overall. Each supervision order was coded dichotomously in order to determine if relationships existed between differing defendant populations. Dichotomous coding also made it easier to determine if some supervision orders were used more frequently than others with certain defendant populations. It was hypothesized that the supervision conditions imposed would be related to the offense category of a particular defendant. The results revealed that the chi-square tests were statistically significant. Unfortunately, numerous chi-square tests appeared to be in violation of the assumptions of independence (i.e. electronic monitoring, substance abuse monitoring, driving restrictions, and other supervision). These violations occurred because one of the assumptions of performing a chi-square test is that there are five cases

in each column. Unfortunately, some offense categories had less than five cases in each category, leading to a violation of this assumption. Of the supervision orders that did not violate these assumptions, further analysis was performed. Below is a breakdown of each supervision condition, along with the type of supervision orders received.

Pretrial Supervision and Offense Committed

The first chi-square test was between the supervision order of whether or not pretrial supervision was used compared to whether or not the most serious offense was violent, property related, drug or DUI related, or “other” offense. It was predicted that pretrial supervision as a supervision order would be utilized more often with violent offenses and drug offenses more often than offenses that were property related or “other” offenses. The alpha level for this test and all other tests was set at .05. It was found that pretrial supervision utilized as a supervision order and the type of offense were dependent of each other at $X^2(3, N=301) = 22.683, p < .001$, Cramer’s $V = .275$ (See Table 4). The results indicated that pretrial supervision as a supervision order was most utilized with defendants who had a violent offense as the most serious offense. The second highest offense category that had pretrial supervision as a supervision order was any defendant that had a drug or DUI charge as the most serious offense category. The third highest offense category that had pretrial supervision as a supervision order was any defendant who had a property offense as the highest offense category. Lastly, any defendant that had an offense that was placed in the “other” category had supervision assigned to them at 4 percent of the time.

Table 4

Pretrial Supervision Compared to Offense Category

Offense Category	Yes Pretrial Supervision	No Pretrial Supervision	
Violent Offense	75 (24%)	49 (16%)	
Property Offense	33 (10%)	23 (7%)	
Drug Offense	54 (17%)	20 (6%)	
Other Offense	14 (4%)	33 (10%)	
Total	176 (58%)	125 (41%)	301 (100%)

Chi-Square: 22.683, $p < .001$, Cramer's V: .275

No Contact Order and Offenses Committed

The second chi-square test was between the supervision order of whether or not a no contact order was utilized, and the type of offense committed. It was predicted that no contact orders would be used more often with violent offenses than any other offense category. It was found that the utilization of a no contact order along with the type of offense committed were dependent of each other at $X^2(3, N=300) = 128.006$, $p < .001$, Cramer's $V = .653$ (See Table 5). The results indicate that no contact orders are utilized more often with charges that are violent than charges that are not. The second highest offense category that utilizes a no contact order is property offenses at 11 percent of the time. The third highest was "other" offenses at 6 percent of the time, and drug offenses were the least likely to receive no contact orders at 1 percent of the time.

Table 5

No Contact Order and Most Serious Offense

Offense Category	Yes "No Contact"	No "No Contact"	
Violent Offense	108 (36%)	15 (5%)	
Property Offense	34 (11%)	22 (7%)	
Drug Offense	5 (1%)	69 (23%)	
Other Offense	19 (6%)	28 (9%)	
Total	166 (55)	134 (44%)	300 (100%)

Chi-Square: 128.006, $p < .001$, Cramer's V: .653

No Weapons Order and Offenses Committed

The third chi-square test was between the supervision order of whether or not a no weapons order was utilized, and the type of offense committed. It was predicted that a no weapons order would be used more often with violent offenses than any other offense. It was found that the utilization of a no weapons order along with the type of offense committed were dependent of each other at $X^2(3, N=300) = 82.904, p < .001$, Cramer's $V = .525$ (See Table 6). The results indicate that no weapons order are utilized more often with charges that are violent than charges that are not. The second highest charge offense category that utilizes a no weapons order is "other" offenses at 4 percent of the time. The third offense category that uses no weapons orders the most is property offenses at 3 percent of the time and the last offense category that uses no weapons orders is drug offense at only 1 percent of the time.

Table 6

No Weapons Order and Most Serious Offense

Offense Category	Yes “No Weapons Order”	No “No Weapons Order”	
Violent Offense	79 (26%)	44 (15%)	
Property Offense	9 (3%)	47 (15%)	
Drug Offense	5 (1%)	69 (23%)	
Other Offense	12 (4%)	35 (11%)	
Total	105 (36%)	195 (67%)	300 (100%)

Chi-Square: 82.904, $p < .001$, Cramer’s V: .525

**No Alcohol Order and
Offenses Committed**

The fourth chi-square test was between the supervision order of whether or not a no alcohol order was utilized, and the type of offense committed. It was predicted that a no alcohol order would be utilized the most with drug offenses more than any other type of offense. It was found that with the utilization of a no alcohol order along with the type of offense committed were dependent of each other at $X^2(3, N=301) = 35.616, p < .001$, Cramer’s $V = .345$ (See Table 7). The results indicate that a no drugs order is utilized the most with violent offenses at 17 percent of the time. The second highest offense category that uses a no alcohol order is the offense category of drug offenses at 16 percent of the time. The third highest offense category that utilized a no alcohol order was property offenses at 5 percent of the time. The offense category that utilized a no alcohol order the least was the offense category of “other” at 1 percent of the time.

Table 7

No Alcohol Order and Most Serious Offense

Offense Category	Yes Alcohol Order	No Alcohol Order	
Violent Offense	52 (17%)	71 (23%)	
Property Offense	17 (5%)	39 (13%)	
Drug Offense	48 (16%)	26 (8%)	
Other	6 (1%)	41 (13%)	
Total	123 (38%)	177 (56%)	301 (100%)

Chi-Square: 35.616, $p < .001$, Cramer's V: .345

Chi-Square Test Violations

Upon running the chi-square tests, there appeared to be some tests that were in violation of the assumptions of running a chi-square test. The supervision orders that violated these assumptions included the supervision orders of substance abuse monitoring, stand by orders, report to probation, electronic monitoring, no drugs orders, driving restriction utilized, and other supervision. Each of these supervision orders did not have a sufficient number of defendants in one or more categories leading to a violation of the chi-square analysis. A chi-square analysis requires that there be at least five cases in each category in order to be included. With each of these supervision conditions left out, a sufficient number of cases was not available.

Research Question 2

Q2 What types of supervision orders are most effective in identifying pretrial misconduct?

Two binary logistic regression models were run to assess the impact of a number of factors on the likelihood that a defendant would either fail to appear or would be rearrested prior to trial. The models contained the variables of 1) pretrial supervision 2) whether electronic monitoring was being utilized, 3) no contact orders, 4) no alcohol orders, 5) no drugs orders 6) standby orders 7) report to probation, 8) substance abuse monitoring 9) driving restriction was utilized, 10) no weapons order utilized, and 11) “other” supervision. Additionally, the control variables of top offense being violent, drug or DUI related, property related, age, and being male were included.

A test of multicollinearity was also performed to make sure that the model was not in violation of the assumptions of logistic regression. Multicollinearity in a model can be an indicator that certain variables are not just affecting the response variable but other variables in the model as well giving inaccurate results. A collinearity diagnostic was performed to detect if collinearity was present. The collinearity diagnostic produced a variance inflation (VIF) factor that would indicate which variables were highly correlated with each other. A VIF value of three or higher indicates that collinearity is present between two values. All VIF values were below three in all collinearity diagnostic tests. The results indicated that multicollinearity issues were not present in this dataset.

Examination of Failure To Appear Rates

In the first model, it was hypothesized that certain supervision conditions and defendant demographics will be able to predict future pretrial failure as it relates to

failure to appear during the pretrial stage. The hypothesis was partially supported with some variables appearing statistically significant. The full model reached statistical significance at $X^2 (1, N=299) = 28.296, p = <.05$ indicating that the model was able to distinguish between defendants who fail to appear. The results of this model can be seen in Table 8. The model was able to explain between 9% (Cox and Snell) and 21% (Nagelkerke R^2) of the variance in FTA and correctly classified 92.3% of cases. Of the variables included in the model, defendants who received pretrial supervision and received a standby order were statistically more likely to fail to appear. Pretrial supervision had an odds ratio of 9.78 indicating that with the utilization of pretrial supervision, defendants are 9.78 times more likely to fail to appear. Additionally, the use of a standby order had an odds ratio of 9.68. This odds ratio indicated that with the utilization of a standby order, defendants were 9.68 times more likely to fail to appear for court.

Of the controls that were utilized, only defendants that had the top charge being drug related were statistically significant. According to this model, defendants who had a drug related charge as the top charge were 90.4 percent less likely to fail to appear in court than other defendants. The logistic regression model estimating the odds of FTA indicated that many control variables did not meet statistical significance. Interestingly, these controls pertained to various types of monitoring such as substance abuse, pretrial supervision, and electronic monitoring. Prohibitive conditions were also not statistically significant such as: no alcohol or drugs, driving restrictions, and no weapons orders. Further analysis should be completed in the future examining the effectiveness of these interventions.

Table 8

Logistic Regression Model Predicting FTA (0=No, 1=Yes)

Variable	<i>B</i>	<i>SE</i>	<i>Wald</i>	<i>p-value</i>	<i>Odds Ratio</i>
Pretrial Supervision	*2.281	.737	9.581	.002	9.788
Substance Abuse Monitoring	1.048	.647	2.620	.106	2.852
Electronic Monitoring	1.105	1.177	.882	.348	3.020
No Contact Order	-2.34	.619	.143	.705	.792
Standby Order	*2.271	.795	8.149	.004	9.685
No Alcohol Order	-.347	.604	.329	.566	.707
No Drugs Order	.559	.641	.760	.393	1.748
Report To Probation	.886	.683	1.685	.194	2.426
Driving Restriction	.985	.669	2.167	.141	2.678
No Weapons	.011	.651	.000	.987	.990
Other Supervision	.028	.898	.001	.975	1.028
Top Charge Violent	-1.503	.813	3.417	.065	.223
Top Charge Drug	*-2.348	.956	6.027	.014	.096
Top Charge Property	-.877	.805	1.189	.276	.416
Male Gender	-.113	.580	.038	.845	.893
Age	-.008	.025	.105	.746	.992
Constant	-3.702	1.344	7.583	.006	.025

* $p < .05$

Note. $r^2 = .21$

Chi Square= 28.296

Examination of Rearrest Rates

The second binary logistic regression model was run to assess the impact of differing supervision conditions along with the control variables of top offense, gender, and age on the likelihood that a defendant will recidivate before trial. It was hypothesized that certain supervision conditions and defendant demographics were able to predict future pretrial rearrest as it relates to rearrest during the pretrial stage. The hypothesis was partially supported with some supervision conditions appearing statistically significant. Model Two contained the same independent and control variables as the previous model.

The full model reached statistical significance at $X^2 (1, N=299) = 28.083, p = <.05$, indicating that the model was able to distinguish between defendants who recidivate

prior to trial. The model was able to explain between 8% (Cox and Snell) and 12% (Nagelkerke R^2) of the variance in new arrest and correctly classified 69.3% of cases (see Table 9). Of the variables included in the model, defendants who received a no contact order, standby order, and a no drugs order were statistically more likely to recidivate. Receiving a no contact order had an odds ratio of .45 indicating that with the utilization of a no contact order, defendants are 55% less likely to recidivate. The effectiveness of a standby order, however, appears to be contrary to the effectiveness of a no contact order. The results indicate that with the utilization of a standby order, defendants are 3.15 times more likely to recidivate than a defendant who does not receive a no contact order. The same appears to be true for defendants who receive a no drugs order. Defendants who receive a no drugs order are 2.36 times more likely to recidivate than defendants who did not receive a no drugs order.

None of the control variables or the constants were statistically significant in this model. What Model Two indicates is that the control variables by themselves are not statistically significant indicating that defendant charge or demographics are not predictive of one's likelihood of becoming rearrested according to the data available for analysis.

Table 9

Logistic Regression Model Predicting Recidivism (0=No, 1=Yes)

Variable	<i>B</i>	<i>SE</i>	<i>Wald</i>	<i>p-value</i>	<i>Odds Ratio</i>
Pretrial Supervision	-.023	.288	.006	.937	.978
Substance Abuse Monitoring	.454	.372	1.484	.223	1.574
Electronic Monitoring	.447	.813	5.302	.302	1.563
No Contact Order	*-.806	.359	.143	.025	.447
Standby Order	*1.148	.441	6.777	.009	3.151
No Alcohol Order	-.636	.368	2.988	.084	.529
No Drugs Order	*.862	.366	5.542	.019	2.367
Report To Probation	.219	.381	.332	.565	1.245
Driving Restriction	.644	.397	2.637	.104	1.904
No Weapons	-.140	.350	.161	.688	.869
Other Supervision	.744	.437	2.898	.089	2.104
Top Charge Violent	.449	.477	.884	.347	1.566
Top Charge Drug	-.586	.525	1.247	.264	.556
Top Charge Property	.554	.475	1.359	.244	1.740
Male Gender	-.112	.323	.120	.845	.893
Age	.000	.288	.006	.729	.894
Constant	-.992	.684	1.815	.178	.398

* $p < .05$

Note. $r^2 = .12$

Chi Square= 28.083

CHAPTER V

DISCUSSION AND CONCLUSION

The purpose of this study was to examine the impact that certain pretrial supervision conditions have on a defendant's likelihood of pretrial success. To date, little to no research has been performed examining the supervision element of pretrial release. When examining the data, some important conclusions can be made. The results of this study seem to support the utilization of differing types of pretrial supervision conditions; however, the techniques and types of supervision varied in effectiveness. This discussion will review the results of this study and their implications, limitations, and will provide recommendations for future studies.

Supervision Type

Frequency distributions were used to analyze the data in its most basic form. The results indicated that the most common supervision condition utilized was pretrial supervision. This result was not surprising as pretrial supervision is commonly utilized as a basic pretrial supervision order across numerous jurisdictions (Taxman, 2002). Prior research has found that how pretrial supervision is implemented can impact the success rates of defendants. Literature available on the subject seems to indicate that the amount of supervision defendants receive can change the results significantly. Austin et al. (1985) pointed out that not all defendants need the same amount of attention. They also argued that supervision could be effective if it has been carefully considered. In addition, the

amount of supervision each defendant needs can vary based upon individual circumstances. For example, a defendant that has not been charged with a serious crime may not need to monitoring as the defendant does not pose a significant risk to the community. Taxman (2002) points out that numerous counties across the United States sometimes issue blanket supervision orders even though this may not be needed. Austin et al.'s (1985) study found that intensive supervision specifically tailored to each defendant could be effective for specific defendants but across-the-board intensive supervision for all defendants may be impractical.

What is unknown in this dataset is the type of supervision defendants undergo while receiving the order of pretrial supervision. According to the county being studied, when defendants receive the supervision order of pretrial supervision, defendants are required to return to pretrial services where they are given supervision conditions associated with the risk score they received with the CPAT assessment along with the offense they were charged with. Unfortunately, this can lead to a wide degree of variability in regard to what types of supervision defendants receive. It is hypothesized that this is a frequently used supervision order due to this wide variability.

Other common supervision orders found in the frequency distribution were the utilization of no contact orders, no alcohol orders, and no drugs orders. These supervision orders were interesting due to the fact that these orders were only protection orders and defendants were not being directly monitored. Benitez, McNiel, and Binder's (2010) study of stay away orders found wide variability in their effectiveness. Benitez et al. (2010) found that protection orders are effective in reducing the risk of violence toward a victim, but it is important to take into consideration defendant characteristics. Benitez et

al. (2010) argued that a defendant's characteristics, criminal histories, gender, age, employment status, substance abuse, and mental health should all be considered when implementing protection orders. This current study indicates that protection orders are widely utilized with all types of defendants. What is unknown, however, is how these protection orders are derived and chosen in the county under study. Further, it is unknown how these protection orders are implemented. This study only provided information that a protection order was utilized. Further analysis should be performed examining the effectiveness of these orders.

The descriptive statistics also revealed that substance abuse monitoring, along with no alcohol orders and no drugs orders, are widely used. Of the available research on defendants who abuse drugs and alcohol, most research focuses on substance abuse monitoring only. Little to no research focuses on the implementation of specific protection orders tied to substance abuse (i.e. no drugs orders or no alcohol orders). The available literature suggests that no drugs and no alcohol orders are used in conjunction with substance abuse monitoring (Britt et al., 1992). The inconsistent application of substance abuse monitoring in association with no drugs or no alcohol orders suggests that further examination of the combination of tools is necessary to predict pretrial success or failure.

Failure to Appear Rates and Rearrest Rates

The pretrial failure to appear rate in the study was also slightly lower than expected. This current study's population indicated that only 23 cases (or 7 percent) out of a total of 322 cases failed to appear. Past literature indicates that pretrial failure to appear rates can differ significantly. Rosenbaum et al. (2012) conducted a study looking

at the effectiveness of sending a post card as a reminder of upcoming court dates in order to reduce failure to appear rates. Rosenbaum et al.'s (2012) study found that with the utilization of a post card intervention, the failure to appear rate was at 9.6 percent. Without the intervention, Rosenbaum et al.'s (2012) control group had a failure to appear rate of 12.6 percent. Maxwell's (1999) article had a failure to appear rate of 24 percent. This shows that there is a wide fluctuation in rates of failure to appear across all studies. Out of this study's entire dataset, only 7 percent of cases failed to appear. This appears to be lower than other studies examining the topic. Past research that has examined the topic of failure to appear had a significantly higher population of defendants who failed to appear (Bornstein, Tomkins, & Neeley, 2011). Past research has indicated that an average of approximately 10 percent of any study population fails to appear (Bechtel et al., 2016).

Also notable was the pretrial rearrest rate in this study of 106 defendants or 32.9 percent of the entire sample. The rearrest in this study appears to be higher than other studies examining pretrial supervision effectiveness. Austin et al.'s (1985) study had a rearrest rate of 7.6 percent and Lowenkamp and VanNostrand (2013) had a rearrest rate of 25 percent. One possible explanation behind this wide variance in rates may be related to the definition of rearrest and how it is different in each study. Numerous studies have indicated that rearrest is conceptualized and analyzed differently based upon the available data from the participating county (Bechtel et al., 2016). The definition of what constitutes as arrest can vary significantly from state to state and even county to county. For example, some counties document a particular incident as an arrest if an individual is fingerprinted and booked into a jail. Other counties use a broader definition and argue that arrest occurs when an individual is taken into custody from a law enforcement

officer, regardless of if they are fingerprinted or booked. This can lead to wide variations in what arrest really means. Further studies should examine arrest with a consistent definition.

Academic articles have also indicated that examining the variables of failing to appear and pretrial rearrest should be examined separately (Bechtel et al., 2016). Risk indicators for defendants who failed to appear included age, prior histories of failing to appear, pretrial instruments, juvenile arrest, prior conviction, prior jail, prior property or drug crimes, and cases that involve a victim injury (Bechtel et al., 2016). Defendants that had a higher likelihood of rearrest were defendants that had a drug related charge or had specific demographics. Additionally, the results seemed to indicate that there was widespread use of supervision conditions. When analyzing the data, it appears that defendants can receive a wide range of orders based upon the needs of the defendant. This specific tailoring is not utilized in all pretrial programs in the United States (Taxman, 2002).

Supervision and Criminal Activity

The chi-square analysis examining supervision conditions revealed that the charge received does matter when determining an appropriate level of supervision. A breakdown of some of the major findings is presented below. When examining the type of supervision conditions that defendants received, the results revealed some supervision orders were utilized more than others with certain types of defendants. The most widely used supervision orders were the utilization of pretrial supervision, substance abuse monitoring, no alcohol orders, no weapons orders, and no contact orders. While these supervision orders were used the most, the frequency and utilization appeared to vary

based upon the type of defendant. Defendants that were most likely to receive pretrial supervision were defendants that had violent charges or drug offenses. This result was expected as these two types of defendant populations are the most at risk to the community or most at risk for offending. Violent defendants, by the type of charge they received, posed a significantly higher risk to the community than defendants with lower level charges. Due to these elevated risks, pretrial supervision was expected. Additionally, drug offenders also posed a risk to the community in regard to future offending. Past literature has supported the drug offender population as one of the most vulnerable populations (Britt et al., 1992). Due to addiction issues, enhanced monitoring is often utilized to increase the likelihood of pretrial success.

One of the more interesting supervision conditions examined was the utilization of protection orders. The results indicated that the protection orders used most heavily included no contact orders, no weapons orders, and no alcohol orders. This was not surprising as current literature indicates that protection orders are often used with a variety of defendants (Benitez et al., 2010). For example, a protection order of no contact can be used with any case involving assault or theft. No contact orders can also be used with anyone that the court does not want the defendant to have contact with. Due to this wide utility, it is not surprising to see how broadly these types of supervision orders were implemented. It is unknown if these supervision orders are effective at reducing future offending. Benitez et al. (2010) suggested that current studies seem to indicate that no contact orders are effective at reducing criminal offenses, however their effectiveness can vary based upon who receives the contact order and why. Future research should examine defendants charged with property offenses and determine what is effective at reducing

failure to appear and rearrest. Only through further research can more precise conclusions be drawn.

Another reason why protection orders may be used at an increased rate with certain defendants is due to the legal requirements behind certain types of offenses. In Colorado, if a defendant is charged with a crime that involves a serious bodily injury, a mandatory protection order (MPO) can be issued. An MPO is a protection order that is put in place automatically by the courts for cases involving assault or domestic violence. A mandatory protection order often stays in place until the case's resolution. This may be one possible reason why certain offenses have protection orders more than other offenses.

Another interesting finding was that drug offenders received certain protection orders more often than other offenders. According to the chi-square analysis, drug offenders were the second most likely to receive pretrial supervision and no alcohol orders. One possible explanation behind this result is that alcohol and drug offenders face specific sanctions due to their current charges. According to the Setting and Selection Type of Bond Criteria (2016), repeat drug offenders face additional legal requirements that the court is legally required to impose. These restrictions can include enhanced monitoring as well as additional stay away orders. These additional restrictions might have been one of the reasons why drug offenders were more likely to receive specific supervision orders than other offenders.

Overall, research question one also showed to have some significant limitations. Numerous tests could not be run because they violated the assumptions of chi-square. To solve for this, future studies should look at the types of supervision orders implemented and expand the pool of eligible cases to be considered.

Of what limited tests that were not violated, there appeared to be a relationship between the type of offense committed and supervision conditions received. Violent offenders were the most likely to receive the most supervision conditions. With this finding, future studies should consider if these supervision conditions are effective at reducing pretrial failure to appear or pretrial rearrest among this population. Additionally, future studies should look at each offender population specifically and see if these supervision conditions are effective or not in reducing pretrial failure.

Supervision Conditions and Pretrial Misconduct

The two logistic regression models in this study yielded interesting findings regarding a supervision condition's effect on pretrial failure to appear rates and pretrial rearrests. Model One's and Model Two's results also took into account the control variables of offense type, age, and gender and their effect on failure to appear and pretrial rearrest. Both models were statistically significant and predicted both pretrial failure to appear and pretrial rearrest better than the null.

In Model One, while controlling for the other variables in the model, the supervision orders that had a statistically significant affect in predicting pretrial failure to appear were pretrial supervision and standby orders. The control variable of top charge drug offense also came out statistically significant. What is interesting was the affect that these variables had on the dependent variable of failure to appear. Defendants that received pretrial supervision and a standby order were more likely to fail to appear with the utilization of these supervision tactics. One possible explanation behind why this is occurring in the results is due to the fact that defendants may be receiving supervision orders that are too overbearing and too intensive. Prior literature has supported that over

supervising a defendant can be detrimental toward defendant success (Taxman, 2002). If defendants are over supervised, the literature indicates that defendants are actually more likely to fail than to succeed.

Another possibility as to why the results appear contradictory to the expected direction is because of the type of defendants that are receiving pretrial supervision as a supervision order. Research question one revealed that certain types of defendants are receiving certain types of supervision and that supervision is tied to offense type. When examining possible reasons why defendants might fail to appear at a higher rate, two possible conclusions might exist. The first conclusion is that while offenders are out on pretrial release, they are still engaging in criminal activity. It could be possible that high-risk offenders may be worried that they will be charged with additional charges if they appear in court. This can be seen when looking at the effect no contact orders have on failure to appear rates and rearrest rates in the data. In Model One, looking at the effect that differing supervision conditions have on failure to appear rates, it appears that defendants are more likely to fail to appear with the utilization of no contact orders but the opposite is evident when examining rearrest rates. The other possible conclusion is that offenders are concerned about the resolution of their case. Offenders who are charged with violent crimes are likely to face severe consequences. Upon conviction, a defendant may not return to court due to the sentence they have received or may receive. A reason why this supervision order appears to increase failure to appear rates is due to the fact pretrial supervision as a supervision order is used most commonly with violent offenders who receive lengthy sentences.

With regard to offenders who receive standby orders, they may not appear in court again due to the nature of the order itself. A standby order is used in conjunction with no contact orders. It could be possible that offenders are not appearing in court due to violating the protection order itself. Just because a protection order is issued does not necessarily mean that the defendant follows the conditions of the protection order. Some defendants willingly violate protection orders for any number of reasons and due to these violations, a defendant may be nervous about appearing in court due to the possibility of returning back to jail. Understanding why these violations occurred should be examined in future studies.

Overall, it remains unknown why these orders increase failure to appear rates rather than decrease them. What is unknown from the data used in this study is how exactly each of these supervision orders is carried out. For example, standby orders came out significant in Model One, indicating that with the utilization of standby orders failure to appear rates were higher. Why these results are being received is undetermined. One possible conclusion lies within the implementation of this order. Maybe defendants do not feel at ease returning to court with the utilization of these orders. Without further knowledge behind how and why these orders are implemented, concrete conclusions cannot be made. Further information as to how each supervision order is implemented could greatly inform the results of this study.

Another interesting result of Model One is that a majority of the variables failed to reach statistical significance (e.g. substance abuse monitoring, electronic monitoring, no contact orders, no alcohol orders, no drugs orders, report to probation, driving restrictions, no weapons, other supervision, top charge violent, top charge drug, top

charge property, being male, and age). Statistical insignificance in this model simply means that the supervision orders utilized are neither effective nor ineffective in predicting pretrial failure to appear when all the variables in the model are accounted for. Ideally, all of the supervision conditions associated with this model should appear statistically significant, indicating that the presence of a particular supervision condition decreased the likelihood of a defendant failing to appear. In total, only two of the supervision variables had statistical significance: standby orders and pretrial supervision. This study should be replicated before these results are fully accepted.

When examining the results of Model Two (see Table 9), it was apparent that some supervision orders were not effective at reducing pretrial rearrest as well. The model indicated that the supervision orders of standby orders, no drugs orders, and no contact orders had a significant impact on rearrest. The results further indicated that the only supervision order that reduced a defendant's likelihood of rearrest was a defendant who received a no contact order. This result was surprising compared to defendants who received the supervision order of standby. Defendants who received a standby order were more likely to be rearrested with the utilization of this order. What is surprising about both of these orders is that they are often used in conjunction with each other. A standby order, as previously defined, is an order where defendants are required to be escorted by law enforcement in order to retrieve specific household items or to make contact with a party with whom they are not allowed to have contact. Since both of these supervision orders are used in conjunction with each other, it was surprising to see that both of them were in opposition to each other. A test of multicollinearity revealed that this was not affecting the models. Multicollinearity occurs when certain cases in a dataset have similar

coding to one another. For example, defendants who receive a no contact order are highly likely to receive a standby order as well. Since both of these supervision conditions are used commonly with each other, a concern of multicollinearity was examined. This, however, was not apparent after running additional statistical tests.

Another possible explanation why no contact orders are moving in the opposite direction of standby orders is that defendants do not know that they are not allowed to contact the party in the no contact order unless they have law enforcement with them. Defendants may be violating these no contact orders due to the fact that they may be confused about when and how they can converse with the other party. Only through future research can more thorough conclusions be made as to why these results are appearing.

Model Two also revealed that defendants who received no drugs orders were significantly more likely to be rearrested. This result also was not surprising due to the fact that drug defendants are a difficult population to work with in the criminal justice system (Henry & Clark, 1999). Prior literature has indicated that drug defendants face serious addiction issues. Erratic behavior associated with addiction issues is difficult to address (Chandler, Fletcher, & Volkow, 2009).

The results in Model Two were similar to Model One when examining the amount of supervision orders that appeared to be statistically significant. In total, only three supervision orders appeared to be statistically significant in this model: no contact, no drugs orders, and standby orders. These results seem to indicate future analysis is needed to see if similar results are obtained in order to create effective supervision conditions.

Controls

While the control variables were not the main focus of this study, they were important to examine as they could impact the results that were derived. The first control variable that was utilized was the defendant's gender. The results indicated that the majority of respondents in the study were male. Zettler and Morris (2015) pointed out that there are differences between males and females in their likelihood of success. Zettler and Morris (2015) argued that prior studies have found that females are more likely to FTA than males. Since this study had such a low count of females, the results might have been different if there were more females than males in the study population. The mean age also was 34.37 years of age. These results were similar to other pretrial studies (Lowenkamp et al., 2013). Lastly, the highest offenses committed were violent offenses. Examining these controls, they appeared to be similar to other studies examining supervision in the United States (Bechtel et al., 2016). Since the defendant makeup of this study is similar to other studies in the United States, the reliability and validity of these results should be stronger if this study was replicated in other jurisdictions.

Theoretical Framework

This study's theoretical framework was based upon the RNR Model proposed by Andrews et al. (2006). According to this model, the supervision a defendant receives should be tied to the risk that they present. The risk the defendant poses should dictate the needs of the defendant prior to trial (Andrews et al., 2006). Based upon these needs, the responsibility should also be examined in order to create an optimal environment (Andrews et al., 2006).

The RNR Model was chosen for this study due to the differing components that supervision plays during pretrial release. The risk principle in this study was a defendant's likelihood of pretrial failure, either through failing to appear in court or pretrial rearrest. The needs are addressed through the various types of supervision that a defendant could receive. In this study, the intervention types were the differing supervision orders that defendants receive. Lastly, the responsiveness was how well defendants respond to a particular form of supervision by examining failure to appear rates and rearrest rates.

This study indicated that the first logistic regression model examining supervision orders and pretrial failure to appear were predictive of each other. The first model, in its entirety, did come out statistically significant. The supervision orders that came out to be statistically significant were the supervision orders of pretrial supervision and civil standby. The odds ratios, however, seemed to indicate that with the utilization of pretrial supervision and civil standby orders, defendants were more likely to fail to appear than without the utilization of both these orders. The only variable in the model that decreased pretrial failure to appear was defendants who received a top charge of drugs or alcohol. According to the RNR Model, the responsiveness is actually in the opposite direction for both pretrial supervision and civil standby orders. Unfortunately, it is not clear at this point from the data why this might be occurring for both supervision orders. Further analysis should examine why this might be occurring specifically for FTAs alone.

When examining the second model, there appeared to be no statistically significant relationship evident when the supervision order of pretrial supervision, along with civil standby were utilized when the dependent variable is prediction of rearrest.

What the results indicate is that defendants that receive a standby order along with defendants who receive a no drugs order are significantly more likely to be rearrested. The only order that appeared to decrease rates of rearrest were defendants that received no contact orders. These results are interesting because the RNR model argues that the needs should be paired to responsivity of the defendant (Andrews et al., 2006). The results further indicate that standby orders and no drugs orders increase rates of rearrest rather than decrease them.

If the intervention is affecting the responsivity negatively, the intervention should be reevaluated. These results appear to be contrary to this theoretical framework (Andrews et al., 2006). Very limited information was provided on the extent of how supervision is assigned once defendants are ordered to visit with pretrial services. Further analysis should be performed examining exactly how supervision is assigned and implemented and examining defendant success rates.

Policy Implications

This study lays the foundation for policy implications and future research. First, this study aligns with the results of previous work with supervision (Taxman, 2002; MacKenzie, 2000; Sherman, L., Gottfredson, D., MacKenzie D., Eck, L., Reuter, P., & Bushway, S., 1997). In Model One analyzing failure to appear, pretrial supervision increased the likelihood of pretrial failure to appear. In Model Two, no contact orders, standby orders, and no drugs orders increased the likelihood of pretrial rearrest. However, it is possible that the method of supervision and implementation can greatly affect whether the defendant is successful or unsuccessful while they are currently on pretrial. While some of these supervision orders appear to be increasing pretrial failure, further

analysis should be performed on why this might be occurring. Unfortunately, this study only had access to information indicating whether a particular supervision order was implemented or not. Due to these results, future policy considerations should examine whether certain pretrial supervision orders are effective at reducing pretrial failure to appear or pretrial rearrest prior to full implementation.

Another policy consideration relates to the differing types of orders judges use to monitor defendants. Upon analyzing the data, this appeared to greatly impact how much supervision a particular defendant could receive and also impacted the likelihood of defendant success prior to trial. Of the available literature on the topic of pretrial supervision, studies have examined electronic monitoring, intensive supervision, and substance abuse monitoring. These supervision conditions have indicated mixed results in effectiveness (Taxman, 2002). Goldkamp and White (2006) indicated that pretrial supervision has more promising effects than simple court reminders.

Overall, the findings from this study indicate that future research is needed to determine which supervision orders are effective and which are not. This study found varying effectiveness of differing supervision orders when predicting pretrial failure to appear and pretrial rearrest but these findings need to be replicated before further policy considerations are considered.

Limitations and Future Research

This study had some limitations that affected the quality and reliability of the results. One of the first limitations of this study was that the secondary nature of the data. As with most studies involving secondary data analysis, there are some data that were not collected that would have been beneficial to the broader analysis of this study. One piece

of data that would have been highly helpful is in regard to the offense severity.

Unfortunately, the data that were available did not capture the seriousness of the charge that a particular defendant received. Due to this limitation, certain statistical tests could not be performed.

Future analysis should consider looking at each supervision condition in differing jurisdictions across the United States and examining how supervision is implemented. It is important to also determine the effectiveness of differing supervision strategies at reducing pre-trial misconduct or failure to appear. This study only included data from one county. As Austin et al. (1985) found, court appearance rates in three locations varied widely from the low 80's to the high 90's. It is likely that these results may be vastly different in other regions of the United States. These data provided a good starting point but additional analysis is needed.

Another limitation to this study was the amount of information available on the differing supervision conditions that are utilized with defendants. These data provided information in the form of supervision orders that judges had set. What these data did not provide, however, is information regarding how much supervision was utilized and how pretrial supervision was carried out. For example, the data indicated that substance abuse monitoring was utilized as well as some element of pretrial supervision. What was missing in the data included the type of substance abuse monitoring and how frequently it was utilized. Further, another missing piece of data included the location of monitoring and information relating to sanctions received if found in violation of the terms of release. This type of information would have helped in explaining the results. This

information would have also helped in determining why some supervision orders are effective at reducing pretrial failure to appear or pretrial rearrest why others are not.

Another unknown aspect was the effect of the supervision condition on a defendant. For example, a defendant may be given substance abuse monitoring but still utilize alcohol or drugs. Given the nature of the monitoring, the defendant may not have been caught or somehow avoided detection. This follows closely with the intent to treat model (Gupta, 2011). This model states that the results in the data may not be entirely correct, given that there may be other outside factors. For example, defendants may not always comply with the conditions of their release. An example would be a defendant who receives intensive supervision. A defendant may miss court due to them forgetting about the court date or may have had another obligation. This may not be because of the supervision condition that they missed court but rather a willful failure to appear regardless of the supervision condition. Determining why defendants missed a court appearance or received a failure to appear should be examined further to see if this is due to the supervision condition itself or some other outside factor. In regard to pretrial supervision, information on where, how, and how much supervision is utilized would also help in determining effective supervision conditions. Additionally, understanding the defendant's reaction to the particular form of supervision may help in the general understanding of a particular form of supervision effectiveness.

The data also does not provide information about why certain defendants were not successful on pretrial release. For example, the data only indicated that a particular defendant was rearrested. Unfortunately, it is unknown why this individual was rearrested. This rearrest could have happened due to an outside factor that was totally un-

related to the supervision condition imposed. For example, someone may be rearrested due to the commission of a new crime. This new arrest was not because of the supervision conditions. The data however still indicated that this individual was rearrested. Further analysis should be performed in the future looking at why a particular arrest occurred and whether the arrest was related to the supervision conditions imposed.

Lastly, this study lacked analysis of demographic information of defendants. The study analyzed age and gender of defendants but other information related to defendant race or socioeconomic status would also greatly inform the study. This dataset did not have this information available for analysis. Donnelly and Macdonald (2018) cite that race alone, along with the pretrial conditions imposed, can contribute significantly to the disparity in eventual conviction. Gehring and Van Voorhis (2014) mentioned that gender and economic status could also play an impact on defendant success. What is evident in the literature is that defendant demographics matter when examining defendant success on pretrial. This information would have been significantly helpful in determining what works during the pretrial stage according to differing demographics.

Overall, there is a significant lack of literature relating to supervision associated with pretrial release. As judicial districts rely more often on pretrial programs and less on bail, more studies are needed on the subject. With increased attention on the subject of pretrial supervision, a better allocation of resources can be achieved. This will take further analysis with strong methodological rigor.

Conclusion

The increasing utilization of pretrial services has indicated the importance of this study. Prior literature has varied greatly in the recommendation of effective supervision

strategies (Taxman, 2002; Bechtel et al., 2016). What has become apparent is that supervision and the role it plays should be used in a manner that is conducive to a defendant's overall success. Numerous studies have argued that a therapeutic approach toward defendant supervision may be more effective than current supervision practices.

This study's results indicated that further analysis is needed in determining effective supervision practices. It was apparent from the findings that certain offenses are being tailored to certain forms of supervision. The frequency distribution indicates that a wide array of supervision practices is utilized. What was also apparent was that certain forms of supervision appear to be increasing rates of pretrial failure rather than decreasing them. Lastly, it appears from the results that supervision should be tailored toward a direct result of reducing pretrial failure to appear or pretrial rearrest. The results indicate that supervision causes differing outcomes, depending on the intended result and that supervision should be geared toward one intended outcome instead of two. Future studies should look at failure to appear and pretrial rearrest separately to determine effective supervision practices.

With increased attention on the supervision component of pretrial services, lower rates of pretrial rearrest or failure to appear are possible. With lower rates of pretrial incarceration, pretrial rearrest, and pretrial failure to appear, the justice system can have more integrity in fair adjudication and fair sentencing.

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doi:10.1177/0734016815583350

APPENDIX

INSTITUTIONAL REVIEW BOARD APPROVAL



Institutional Review Board

DATE: December 21, 2018

TO: Anthony Azari, M.A.
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [1360904-1] Title: Evaluating Effective Supervision Strategies of the Colorado
Pretrial Risk Assessment

SUBMISSION TYPE: New Project

ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS

DECISION DATE: December 21, 2018

EXPIRATION DATE: December 21, 2022

Thank you for your submission of New Project materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

Anthony -

Thank you for a clear and thorough IRB application for the use of existing data. Your protocols are verified exempt.

Best wishes with your study.

Sincerely,

Dr. Megan Stellino, UNC IRB Co-Chair

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Nicole Morse at 970-351-1910 or nicole.morse@unco.edu. Please include your project title and reference number in all correspondence with this committee.