Assessing the Relative Influence of Interpersonal Relationship Factors on Probationer Rule Compliance

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ASSESSING THE RELATIVE INFLUENCE OF INTERPERSONAL RELATIONSHIP FACTORS ON PROBATIONER RULE COMPLIANCE

by

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ABSTRACT

The quality of probation officer-client therapeutic alliance (TA) can result in improvements in supervision success including reduced rearrest and non-compliance. However, less is known about how clients’ perceptions of procedural justice during interactions with their probation officer (PO) influence the quality of the PO-client TA and impact supervision outcomes. While extant research supports the importance of procedural justice for shaping citizen’s legitimacy beliefs and compliance to the law within policing, we know little about how and whether these concepts influence the PO-client TA in community supervision and whether they impact compliance. Using self-reported survey data collected from a sample of adult individuals on county-level probation (N = 172), this study examined the influence of client perceptions of procedural justice, legitimacy, and legal cynicism in predicting the PO-client TA. Multivariate regression analyses examined the collective effect of these interpersonal relationship factors on clients’ odds of receiving a technical violation and receiving a positive drug test. Results indicated that clients’ perceptions of procedural justice were positively associated with the PO-client TA. Clients who viewed their PO treated them fairly and with respect were more likely to report a higher quality relationship. However, perceptions of procedural justice, legitimacy, and the TA were unrelated to compliance outcome. Risk level was the strongest predictor for receiving a technical violating and positive drug test. These findings suggest that while procedural justice was associated with a stronger TA, procedural justice alone may be insufficient to elicit supervision compliance. This study suggests the need to expand future research to consider procedural justice in the context of other supervision outcomes, including client satisfaction. Though the current study found procedural justice did not impact
technical violations and positive drug tests, it may improve clients’ satisfaction of the supervision process, which could result in greater client success and improved outcomes.
For my parents, Mark and Kathy Alward and my grandmother, Patricia Lannon, for their endless love and support. I am beyond fortunate to have such loving and caring parents who have always supported and encouraged me to follow my dreams.
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CHAPTER ONE: INTRODUCTION

Statement of the Problem

In the past four decades, the number of individuals under criminal justice control increased exponentially, with the United States emerging as the world leader in incarceration (Clear & Frost, 2015; Travis et al., 2014). Although considerable research emphasizes the rise of the U.S. carceral state, contemporary research notes the simultaneous rise of individuals under probation supervision (Pew Trust, 2018). Considered an alternative sanction in lieu of incarceration, the number of adults on probation supervision increased from roughly one million individuals in 1980, peaking to more than 4.3 million in 2007 (Kaeble & Cowhig, 2018). Today, 1 in 66 adults is on probation supervision translating to a total of 3.6 million individuals, more than double the rate of adults confined in prisons (Pew Trust, 2018; Kaeble & Cowhig, 2018).

This exponential rise in probation supervision population left many correctional agencies with increased caseloads and limited resources that challenged the capacity of community corrections to reform justice-involved persons (Petersilia, 1997; Lutze, 2014; Cullen, Jonson, & Mears, 2017). Coinciding with the demise of rehabilitation and the idea that ‘nothing works’ (Martinson, 1974), many scholars questioned the role of community supervision and whether probation services can be effective alternatives to incarceration (Bonta et al., 2008; Drake, 2011; Nagin et al., 2009).

Empirical research indicates that probation has little to no impact on reducing recidivism (Bonta et al., 2008; Taxman, 2002). For example, prior research reports that probation services were no more effective in reducing reoffending compared to intermediate sanctions such as fines and community service (Bonta et al., 2008). In addition, several studies identified that the majority of individuals sentenced to community supervision fail to adhere to their conditions in
some manner (Gray et al., 2001; Skeem et al., 2007; Werth, 2012). Common violations include failure to complete treatment programs, not paying restitution, drug use, and convictions for new offenses (Gray et al., 2001; Langan & Cunniff, 1992; Taxman & Cherkos, 1995). At present, nearly a third of individuals under community supervision fail to successfully complete their terms of supervision (Pew Trust, 2018; Kaeble, 2018). In fact, probation technical violations and revocations represent a driving force of supervision failures and prison admissions. Of the nearly 2 million probation exits in 2016, roughly 29% were unsuccessful with about 12% resulting in reincarceration (Pew Trust, 2018). As a result of probation noncompliance and rule-violations, nearly 240,000 individuals return to jail or prison annually, at a cost of almost 3 billion dollars (Council of State Governments, 2019; Pew Trust, 2018). High rates of probation violations and overall offender noncompliance has led researchers to proclaim community corrections faces a “crisis of legitimacy” (Reinventing Probation Council, 2000; Taxman et al., 1999).

As one response to this perceived illegitimacy, researchers shifted focus to supervision officers to better understand their role in supporting successful supervision (Gleicher, Manchak, & Cullen, 2013; Lutze, 2014; Taxman, 2008). In particular, focus on probation officer (PO)-client interactions and the quality of the interpersonal relationship has received increased empirical attention (Blasko & Taxman, 2018; Dowden & Andrews, 2004; Kennealy et al., 2012; Manchak et al., 2014; Skeem et al., 2007). More recently, researchers have applied the concept of the therapeutic alliance to community corrections (Andrews et al., 1996; Bonta & Andrews, 2016; Trotter, 2006). Originating from the general psychotherapy literature, the therapeutic relationship or therapeutic alliance (TA) represents the bond clients develop with their therapists (Horvath & Symonds, 1991; Norcross, 2010). Some recent scholarship has started to investigate the influence of the TA in the community supervision context (Blasko et al., 2015; Morash et al.,
This research found that when individuals on probation reported a strong and quality relationship with their supervision officer, clients were more likely to follow the conditions of their supervision leading to fewer rearrests (Kennealy et al., 2012; Manchak et al., 2014; Skeem et al., 2007).

Contemporary correctional scholarship has also started examining the client-practitioner relationship by drawing on the foundation of procedural justice theory (Blasko & Taxman, 2018). The concept of procedural justice posits that when individuals believed legal authorities treat them with respect and fairness, they are more likely to obey with the law (Baker, 2018; President’s Task Force on 21st Century Policing, 2015; Mazerolle et al., 2013; Sunshine & Tyler, 2003; Tyler, 2006; Tyler & Huo, 2002). The traditional application of procedural justice has focused primarily on police-citizen interactions (Lee et al., 2010; Piquero et al., 2005). This research consistently reports a strong positive association between perceived procedurally just treatment and individuals’ compliance with the law or perceptions of legitimacy (Mazerolle et al., 2013; Sunshine & Tyler, 2003).

Procedural justice demonstrated the value of citizens view criminal justice institutions. Individual perceptions of fair treatment by legal authorities are directly associated with perceptions of legitimacy (Sunshine & Tyler, 2003; Tankebe, 2013; Tyler, 2006). Stated more simply, when people view legal authorities treat them with respect, are unbiased, provide opportunities to express voice or share their side of the story in the decision-making process, then they are more likely to believe in the legitimacy of the law and legal institutions (Sunshine & Tyler, 2003; Tyler, 2006; Tyler & Huo, 2002). This concept of legitimacy represents the idea that people will obey legal authorities because they trust authorities to use their authority as in lawful or appropriate ways (Beetham, 1991; Bottoms & Tankebe, 2012; Tankebe, 2013). People
will view legal institutions as legitimate to the extent that authorities reflect the shared values of social group in the use of their power (Beetham, 1991; Coicaud, 2002). Research consistently finds a positive association between people’s procedural justice judgements and perceptions of legitimacy (Mastrofski et al., 1996; Reisig & Lloyd, 2009; Sunshine & Tyler, 2003, 2006). Though similar to research examining procedural justice, traditional application of citizen’s legitimacy beliefs focus on police and court interactions (Reisig et al., 2007; Tyler, 2003, 2004). This research finds when citizens encounter the police and believe they are treated with procedural justice, they will be more likely to view the police as legitimacy and more willing to provide information in crime control efforts (Sunshine & Tyler, 2003; Tyler, 2006).

Given the importance of procedural justice for eliciting compliance with the police and obedience to law, scholars have sought to extend this work across criminal justice settings, including corrections. Though less empirically researched within the community supervision literature, a recent study applied elements of procedural justice with the TA by creating an instrument to examine client’s perceived fairness of the supervision process (Blasko & Taxman, 2018). In their study, Blasko and Taxman (2018) found that when individuals on probation view their PO as fair or procedurally just, they are less likely to reoffend and violate their terms of probation. These findings are important for advancing procedural justice and legitimacy theory in probation supervision and suggest several avenues for future research upon which to build.

One area warranting additional research surrounds the need to assess clients on probation perceptions of legitimacy and how such attitudes influence supervision outcomes. While developing quality relationships with supervising officers and treating individuals with respect and dignity are related to compliance with supervision conditions (e.g., Blasko & Taxman, 2018; Skeem et al., 2007), successful supervision outcomes might hinge on client perceptions of
legitimacy. That is, while previous research demonstrates the importance of relationship quality (i.e., TA) and procedurally just treatment (Blasko & Taxman, 2018; Kennealy et al., 2012; Manchak et al., 2014; Skeem et al, 2007), the degree to which clients on probation comply with conditions of supervision may depend on their acceptance of probation officers as legitimate authority figures. Examining perceptions of legitimacy within community supervision represents an especially salient issue given that prior research reveals a direct association between greater levels of legitimacy and decreased recidivism (Beijersbergen et al., 2016; Penner et al., 2014; Wallace et al., 2016).

Another question requiring additional research encompasses exploring the mechanism that underlies the relationship between the TA and supervision compliance. For example, several studies suggest that the association between the TA on probationer compliance operates indirectly through perceptions of procedural justice (MacCoun, 2005; Ross et al., 2008; Skeem et al., 2007). Based on prior research, this could indicate that the effect of a strong TA on supervision compliance operates to the extent that clients perceive they are treated fairly and with respect whereby engendering great trust in the criminal justice system. Testing mediation effects could help explain that a stronger TA leads to enhanced procedural justice perceptions whereby resulting in successful supervision outcomes (e.g., reduced re-arrest). In addition to an indirect effect of procedural justice, prior studies imply that individuals’ legal cynicism perceptions mediate the relationship between procedural justice and compliance with the law (Augustyn, 2015; Gau, 2015; Kaiser & Reisig, 2017; Trinkner & Cohn, 2014). Broadly defined, the concept of legal cynicism represents individuals negative orientations of the law and towards legal actors (Gifford & Reisig, 2019; Sampson & Bartusch, 1998). Fine and Cauffman (2015) suggest that legal cynicism reflects a belief that “individuals feel that the law does not apply to
them” (p. 345). Although this research largely exists outside of community supervision literature, Wright and Gifford (2018) argued for greater application of the concepts of legal cynicism and legitimacy into community corrections given the direct role officers play as agents of change in the successful supervision process. Probation officers are uniquely positioned to address and target clients’ skepticism towards the legal system through sustained interactions with the individuals they supervise. Clients on probation that harbor greater legal cynicism might make it difficult for probation officers to develop quality relationships and a strong therapeutic alliance. It is therefore crucial to assess the extent to which probationer’s perceptions of legal cynicism moderate or weaken the relationship between the TA on supervision compliance (e.g., self-reported offending, arrest, revocation).

Given the sheer size of the probation supervision population, it is important to examine the influence of interpersonal dynamics to better understand how the behavior of those in lawful positions can influence individuals’ compliance and experiences with the supervision process. Although research implicates the independent effects of relationship factors and procedural justice on positive supervision outcomes (e.g., fewer re-arrests), this research is limited and several gaps in the literature persist. For example, research has yet to investigate whether traditional elements of procedural justice theory and legitimacy in predicting a strong TA. Beyond understanding the association of procedural justice, legitimacy, and legal cynicism with the TA, few studies have explored these relationship factors and their effect on probationer rule compliance and satisfaction with the supervision process. And we know little regarding which factors are most important for eliciting probationer rule compliance. More importantly, research fails to consider the degree to which procedural justice, mediates the relationship between the TA on probationer supervision outcomes (e.g., self-reported offending, arrest, revocation).
Using a sample of individuals on active county probation supervision, this study provides an exploratory investigation that aims to examine the independent and conditional influence of procedural justice, legitimacy, legal cynicism, and the TA in predicting compliance with probation supervision. The first research question intends to assess the influence of client characteristics (e.g., age, race, risk levels) and interpersonal relationship (i.e., procedural justice, legitimacy, and legal cynicism) factors in predicting a strong TA. The second research question explores the degree which relationship factors, procedural justice, legitimacy and legal cynicism predict client rule compliance. In doing so, this study will examine the salience of interpersonal relationship factors by identifying whether procedural justice, TA, perceived legitimacy, or legal cynicism is most predictive of supervision compliance. The third research question investigates whether legal cynicism moderates the strength of the relationship between the TA on supervision compliance. The final research question investigates whether the effect of the TA on supervision compliance operates indirectly, through perceptions of procedural justice. More specific, this dissertation aims to explore whether perceptions of procedural justice mediates the effect of the TA on rule compliance.

This dissertation contributes to an underdeveloped area within the procedural justice and legitimacy literature by exploring their application within the probation supervision context. Given the importance of procedural justice and legitimacy for eliciting citizens acquiescence to the law and legal authorities, this study provides contributions for understanding how interpersonal dynamics of procedural justice, legitimacy, and legal cynicism influence compliance with conditions of probation supervision and the mechanism that underlies the TA. This study may inform practice about the importance of procedural justice theory and legitimacy for eliciting cooperation and compliance and inform hiring and training practices for integrating
procedural justice in supervision training curriculums. In the forthcoming sections, this
dissertation outlines a detailed discussion of the theoretical and empirical literature along with
data and analytic strategies to answer the proposed research questions.
CHAPTER TWO: THEORETICAL FRAMEWORK

Introduction

Probation supervision has a long history, its origins traced to the innovative work of Boston shoemaker, John Augustus (Dressler, 1970). Often credited as the “father of probation”, Augustus played a prominent role for the initial development of probation services recognizing that not all offenders need to be incarcerated (Dressler, 1970; Petersilia, 1997). Augustus believed that supporting individuals in the community could help people stabilize their lives and serve as a more effective alternative to incarceration. Augustus’ vision quickly spread as Massachusetts became the first U.S. state to formally adopt probation services for juveniles in 1878 (Labrecque, 2017; Petersilia, 1997). By 1956, the federal government passed legislation designating probation as a court service with all 50 states adopting juvenile and adult probation laws (Petersilia, 1997).

The early era of probation supervision was rooted in the belief that offenders were sick, requiring assistance to address social needs responsible for criminal offending (Labrecque, 2017; Petersilia, 1997). Initially, probation officers were volunteers often drawn from religious groups. As the use of probation expanded, the nature of supervision transformed into a paid position. The hiring of new probation officers shifted away from volunteers to more traditional elements of police, namely individuals with law enforcement backgrounds (Dressler, 1962; Petersilia, 1997). This new probation officer worked directly for the court, conducting presentence investigations and providing other court support, eventually evolving into “the eyes and ears of the local court” (Petersilia 1997, p. 157). Gradually, as the number of arrested individuals increased so too did the need for presentencing investigation and other court functions ultimately leading to new elements of control and law enforcement practices (Petersilia, 1997). As Rothman observed
(1980), the early development of probation supervision was met rather haphazardly, with unclear missions and often contradictory goals.

Despite a difficult evolution, the chaotic development of probation supervision remained largely insulated from public view until correctional rehabilitation came under attack in the early 1970s. Robert Martinson’s (1974) review of correctional treatment research suggested “with few and isolated exceptions, the rehabilitative efforts that have been reported so far have had no appreciable effect on recidivism” (p. 25). This report led to the conclusion that “nothing works”, dealing a contentious blow to the perceived effectiveness of rehabilitative ideals and probation supervision (Petersilia, 1997). This demise of rehabilitation and belief that ‘nothing works’ (Martinson, 1974) significantly altered the ideology of probation supervision, with researchers challenging whether probation can be an effective alternative to incarceration (Bonta et al., 2008; Drake, 2011; Nagin et al., 2009). This “tough-on-crime” movement ushered in crime control and risk-management strategies (Feeley & Simon, 1992; Gordon, 1990) including increased drug testing and intensive probation supervision (ISP) (Lutze, 2014; Petersilia, 1997; Skeem & Manchak, 2008). In addition, technological advances in electronic monitoring, computerized data records, and improvements in drug testing capacities fundamentally altered the role orientations and goals of community correction agencies (Gordon, 1990; Feeley & Simon, 1992). Feeley and Simon (1992) characterized this ideological transformation as the “new penology”, asserting that the criminal justice system abandoned rehabilitation for a risk-management approach. That is, risk increasingly replaced the traditional discourse surrounding rehabilitation and clinical diagnosis whereby the reintegration of offenders into the community were replaced with viewing supervision as a means to sanction a group of chronic offenders (Feeley & Simon, 1992).
Following decades long support of crime control and risk management approach (Feeley & Simon, 1992; Gordon, 1990; Lynch, 1998), substantial increases to U.S. prison and correctional populations drew public attention questioning the effectiveness of a crime control approach. Growing research found that punishment and crime control practices were ineffective for reducing crime, financially taxing, and resulted in a criminogenic effect (i.e., increased criminal offending) (Nagin et al., 2009; Rhine et al., 2006). Taken together, this led to a renewed interest in the potential of rehabilitation as a viable correctional strategy. This pendulum shift back to rehabilitation led correctional agencies to adopt evidence-based practices (EBPs), or “best practices” (Sherman, 1998) to improve supervision outcomes. This emergence of EBPs has reoriented the field of corrections towards a ‘what works’ perspective of correctional interventions that work to reduce offender recidivism (Andrews, Bonta, & Hoge, 1990; Gendreau, 1996; Gendreau, French, & Taylor, 2002). Grounded in the general personality and cognitive social learning of crime (GPCSL), Canadian researchers developed an alternative framework that stressed the role that individual’s cognitions (e.g., thinking), personality, and engagement in antisocial behaviors play in understanding and explaining criminal behavior (Andrews, Bonta, & Hoge, 1990).

Drawing on the GPCSL framework, Andrews and colleagues (1990) (see also Bonta & Andrews, 2017) shifted focus away from traditional sociological and structural disadvantage explanations of crime towards an approach which views crime as a learned behavior. For instance, the GPCSL integrates elements of Sutherland’s theory of differential association with cognitive-behavioral strategies to represent a broader social learning theory of crime. These scholars identified several individual-level psychological and criminological covariates that can be used to predict future criminal behavior. Using the GPCSL as a framework, scholars
identified 15 principles of effective intervention (PEI) including several strategies and tools correctional practitioners can use for implementing best correctional practices. Most notably among the PEI are the principles of risk, needs, and responsivity (RNR) that together represent the RNR model that has emerged as the effective delivery of core correctional interventions.

**RNR Model**

The RNR model for effective correctional intervention emerged as an alternative framework to the instrumental or deterrence-based policies of the ‘get-tough’ movement. The RNR model instructs that more intensive treatment interventions should target criminogenic needs and be provided to high-risk offenders. Correctional treatment interventions should utilize cognitive-behavioral techniques that match service delivery to individual characteristics (Andrews et al., 1990; Andrews & Bonta, 2006; Lipsey, Landenberger, & Wilson, 2007). The RNR framework posits three main principles for the effective delivery of correctional rehabilitative interventions (Andrews et al., 1990; Andrews & Bonta, 2017). These three principles include: (a) risk; (b) criminogenic needs; and (c) responsivity.

**Risk Principle**

The risk principle represents the first component of the RNR model that requires correctional agencies to use a validated risk assessment to measure the risk level of an offender. Correctional agencies should use third or fourth generation validated risk instrument that incorporate both static (e.g., based on historical factors) and dynamic risk factors (e.g., psychosocial factors linked to criminal behavior than that change) (Andrews et al., 1990; Andrews & Bonta, 2017; Gendreau et al., 1996). The risk principle stipulates that correctional interventions be commensurate to an individual’s risk level to effectively reduce recidivism. In other words, more intensive interventions are reserved for individuals with the greatest
propensity to reoffend (Andrews & Bonta, 2017; Lowenkamp & Latessa, 2004; Lowenkamp, Latessa, & Holsinger, 2006; Smith et al., 2009). That is, individuals classified as high risk the appropriate targets of intensive treatment because there is greater opportunity and room for improvement to address antisocial behaviors. However, the inappropriate assignment of treatment intervention to lower-risk offenders can produce an iatrogenic effect resulting in increased reoffending (Andrews et al., 1990; Lowenkamp & Latessa, 2005). Providing lower-risk offenders more intensive interventions may disrupt their prosocial networks and increase socialization with procriminal peers, thus introducing lower-risk offenders to antisocial cognitions or behaviors (Andrews & Bonta, 2017; Andrews et al., 1990). Research consistently supports the importance of identifying and targeting high-risk offenders in efforts to reduce offender recidivism (Andrews & Dowden, 2006; Andrews et al., 1999; Lowenkamp, Latessa, & Holsinger, 2006). This research identifies the importance for community corrections agencies to use actuarial risk assessments to reliably identify appropriate services for high risk individuals to achieve effective offender rehabilitation.

**Needs Principle**

The need principle represents the second component of the RNR model. This principle states that high-risk offenders have multiple criminogenic needs that should be targeted with the intention of reducing recidivism (Andrews & Bonta, 2006; Andrews et al., 1990). Andrews and Bonta (2017) distinguish criminogenic and noncriminogenic needs. Criminogenic needs are dynamic risk factors that when addressed are linked with reduced recidivism. The major criminogenic needs are characterized by the Central Eight risk/need factors, including the “big four” and “modest four” (Andrews & Bonta, 2017; Rettinger & Andrews, 2010). The big four criminogenic needs refer to personal and interpersonal factors linked to the occurrence of
criminal behavior. The big four are comprised of: (1) criminal history; (2) antisocial attitudes; (3) antisocial personality pattern; and (4) antisocial associates. The remaining four criminogenic needs represent substance abuse, family/marital, education/employment, and leisure/recreation. Noncriminogenic needs may be dynamic risk factors, however when altered are weakly related to reduced reoffending (Andrews & Bonta, 2017; Andrews et al., 1990; Smith et al., 2009; Vieira et al., 2009). The needs principle indicates that targeting criminogenic needs will result in reduced reoffending. This principle also asserts practitioners should assess criminogenic needs routinely to adjust treatment inventions and ensure interventions are corresponding to offender’s changing risk/needs levels (Andrews & Bonta, 2006). Several meta-analyses provide empirical support demonstrating these types of criminogenic needs are robust predictors of recidivism (Andrews & Bonta, 2017; Bonta, Law, & Hanson, 1998; Dowden & Andrews, 1999; Gendreau, Little, & Goggin, 1996). Other meta-analyses also report correctional interventions targeting high risk offenders’ criminogenic needs are more successful in reducing offender recidivism compared to inventions targeting noncriminogenic needs (Andrews & Bonta, 2006, 2017; Andrews & Dowden, 2006; Landenberger & Lipsey, 2005; Smith et al., 2009; Wilson et al., 2005).

**Responsivity Principle**

The last principle of the RNR model is the responsivity principle. This principle suggests the importance of how practitioners deliver correctional programs and intervention. That is, correctional interventions should be delivered in accordance to the learning style of the individual. Two elements comprise the responsivity principle: (1) general responsivity, and (2) specific responsivity (Bonta & Andrews, 2017). The general responsivity element suggest that cognitive learning and behavioral therapies (CBT) represent the most successful treatment
interventions. For example, effective strategies include reinforcement, skill building, and modeling of prosocial behaviors. In community corrections, considerable research demonstrates the effectiveness of employing cognitive-behavioral treatment interventions for reducing offending recidivism (Cullen & Gendreau, 1989; Lipsey, Chapman, & Landenberger, 2001; Lösel & Schmucker, 2005; Wilson, Bouffard, & Mackenzie, 2005). Smith and colleagues (2009) provide additional support finding evidence that correctional interventions adhering to general responsivity surpass the principles of risk and needs and are more effective in reducing offending recidivism.

Specific responsivity calls for adapting the style and mode of service delivery to relevant offender characteristics which might hinder treatment responsiveness (Andrews et al., 1990; Andrews & Bonta, 2017). Some of the key characteristics include gender, dosage, and motivation or readiness to change (Andrews & Bonta, 2017; Hubbard, 2007; Gendreau, 1996; Wright et al., 2012). Research examining the effectiveness of specific responsivity principle has received considerably less empirical attention (Hubbard, 2007, van Voorhis, 1997). Though limited, research has assessed the effectiveness of interventions across several specific responsivity factors including gender differences (Hubbard, 2007; Wright et al., 2012), intelligence (Hubbard & Pealer, 2009), depression (Hubbard, 2007; Hubbard & Pealer, 2009), and sexual abuse history (Hubbard, 2007; Hubbard & Pealer, 2009. Of this existing research, Spiropoulos and colleagues (2014) provide support that responsivity factors such as age and race moderate the relationship between treatment type and recidivism. In addition, Hubbard and Pealer (2009) argued that individuals with multiple responsivity factors, such as low intelligence and self-esteem may be at a greater disadvantage to succeed in program success. This research states that correctional interventions should consider specific responsivity factors to ensure the
effectiveness of correctional treatment interventions (Gendreau et al., 2006; Lipsey & Cullen, 2007; Lindenberg & Lipsey, 2005).

Core Correctional Practices

Over the last four decades, the principles of effective correctional intervention have shifted the field of community supervision towards a ‘what works’ paradigm (Andrews & Bonta, 2017; Andrews et al., 1990). Coinciding with the emergence of the RNR model, scholars developed a number of core correctional practices (CCPs) designed to improve effectiveness correctional treatment and ensure treatment fidelity (Dowden & Andrews, 2004). Beginning in the early 1980s, Andrews and Kiessling introduced five CCPs aimed to improve the effectiveness correctional inventions. Grounded in a social learning theory of criminal behavior, CCPs are empirically validated intervention strategies used to evoke prosocial offender behavioral change. The five CCPs include: (1) effective use of authority, (2) anticriminal modeling and reinforcement, (3) problem solving, (4) use of community relationships, and (5) interpersonal relationships (Andrews & Kiessling, 1980).

The first component of the CCP is the effective use of authority which suggests correctional staff and treatment providers use a “firm but fair” approach in their interactions with offenders. More specific, correctional staff should elucidate the procedural rules and processes inherent in the correctional supervision context by providing greater transparency in the application of formal rules (Andrews & Carvell, 1998). In doing so, correctional staff should also avoid interpersonal conflict or abuse with clients by achieving compliance through positive reinforcement of prosocial behaviors.

The second component of the CCP argues that correctional staff should appropriately model antisocial attitudes and reinforce anticriminal behaviors using positive and/or negative
reinforcement. The reinforcement of prosocial behavior is based on Andrew’s (1982) personal, interpersonal, and community-reinforcement (PIC-R) view of crime. The PIC-R contends that the likelihood an individual will engage in criminal behavior is predicated on the modeling, rehearsal, and reinforcement of communication and styles of behavior. That is, to reduce the probability that clients partake in crime they need to have anticriminal behavior and/or sentiments modeled and appropriately reinforcement to be effective (Andrews, 1982). Correctional staff that fail to reinforce or counteract individuals’ criminal attitudes can undermine the integrity of the rehabilitation goals of correctional treatment interventions (Dowden & Andrews, 2004)

The third component is problem solving which aims to teach cognitive skills to offenders (Dowden & Andrews, 2004). Problem solving requires correctional staff to actively engage with their clients about solving key obstacles associated with maintaining noncriminal pursuits. For instance, staff assisting offenders in problem-solving interpersonal conflicts (e.g., family, work, peers) or personal/emotional issues. Prior research supports the importance of training officers in problem-solving skills to improve the effectiveness of correctional services (Dowden & Andrews, 2004; Trotter 1996, 1999; Taxman, Yancey, & Bilanin, 2006). Bonta and colleagues (2011) evaluated the effectiveness of CCPs finding evidence that officers trained in problem-solving skills were more likely to utilize skills in practice. Results also found that officers employing relationship-building skills and cognitive-behavioral to address criminogenic needs reported significantly lower recidivism rates than individuals supervised by untrained officers. (Bonta et al., 2011).

The fourth dimension of the CCP is community relationships which states that correctional staff should be involved in arranging treatment services for their clients (Dowden &
Andrews, 2004). This means correctional staff should be liaisons for their clients by ensuring offenders are matched to services (e.g., employment and medical referrals) that target their criminogenic needs (Andrews & Kiessling, 1980). Although it is important to note that the brokerage of treatment services will be dependent on both access and availability of community resources in which the offenders or clients reside.

The final component of the CCP is the interpersonal relationship between supervision officer-client. Dowden and Andrews (2004) argue that the most important dimension within the CCP, is that correctional staff should seek to establish high-quality relationships—characterized by open, warm, and enthusiastic communication—with the individuals they supervise. Furthermore, this component asserts that development of mutual trust and respect between officer-offender will enhance the effectiveness of treatment interventions. In particular, officer-offender relationship quality is especially salient within the correctional supervision context for ensuring offender cooperation and compliance with conditions of supervision.

Research examining the five dimensions of CCPs demonstrates that officers adhering to the principles of effective intervention strategies leads to improved community supervision outcomes (e.g., reduced rates of recidivism) (Bonta et al., 2008; Bourgon et al., 2010; Dowden & Andrews, 2004; Lowenkamp, Holsinger, Robinson, & Alexander, 2014; Robinson et al., 2012; Trotter, 1996). Dowden and Andrews (2004) meta-analysis represents one of the most comprehensive reviews that assessed the role of CCPs in reducing recidivism rates. Utilizing data collected from 273 studies, meta-analytic results demonstrated that effective use of disapproval was the most infrequent skill officers used, found in only 3% of the studies. Problem solving and use of community resources were the most commonly used CCPs—found in 16% of the studies. Despite officer usage of CCPs ranging from 3% to 16%, results indicate that
correctional programs adhering to PEI and officers who utilized CCPs were related to reduced reoffending. In a separate and more recent meta-analysis, Chadwick and colleagues (2015) relied on a sample 8,335 offenders across 10 total studies. Their analyses found that individuals supervised by officers trained in CCPs had a 13% lower recidivism rate compared to offenders supervised by officers who did not receive CCP training (Chadwick et al., 2015). Although Chadwick et al. (2015) study incorporated a limited number of primary studies, the collective body of meta-analytic results nonetheless suggest the importance of training officers in CCPs as a pathway to improve supervision outcomes (e.g., reduced recidivism).

The work cited above affirms the important role that POs can play as agents of behavioral change for individuals on community supervision (Bonta et al., 2008; Bourgon et al., 2010; Dowden & Andrews, 2004; Lowenkamp et al., 2014; Robinson et al., 2012). Research continually acknowledges the importance of the PO-client relationship and development of rapport and trust contributing to positive supervision outcomes (Andrews & Bonta, 2017; Andrews, Bonta, & Wormith, 2011; Dowden & Andrews, 2004; Taxman & Ainsworth, 2009). This is evident by community corrections agencies training correctional staff and practitioners on how to establish quality interpersonal relationships with their supervisees (e.g., via correctional training curriculums such as STICS and EPICS). Building on the CCPs and the RNR model, Skeem and colleagues (2007) identified that the quality of relationships between supervision officers and their clients represents the key ingredient for reducing recidivism. That is, officers who develop a quality “therapeutic alliance” by working collaboratively with their clients to develop a bond by identify goals and tasks, can serve as a conduit to probationer behavioral change and successful supervision outcomes (e.g., reduced recidivism) (Skeem et al., 2007).
Therapeutic Alliance

Initially originating from the general psychotherapy literature, the earliest conceptualization of the therapeutic alliance (TA) or alliance\(^1\) can be traced to Freud’s (1912) work on dynamic transference. Freud (1912) acknowledged the value of a therapist in maintaining a “sympathetic understanding” of their client and how “serious interest” can foster positive attachment between individuals (pp. 139-140). Despite this initial observation, Rogers (1965) provides a more recognizable conceptualization of the alliance by stressing the importance of the empathetic role conferred by the therapist. Stated simply, Rogers (1965) suggested that therapists who demonstrate an ability to be empathic and accept their clients unconditionally are essential for therapeutic progress. Greenson (1967) extended the work of Freud (1912) becoming the first to officially use the term “working alliance” to acknowledge the significance that a positive client-therapist relationship has for achieving positive therapy outcomes.

Drawing on the work of Greenson (1967), Bordin (1979) made considerable strides by advancing the conceptual framework of the working alliance. According to Bordin (1979), the working alliance consists of three processes that transpire between therapist and client: goals, tasks, and bond. The first element of Bordin’s (1979) conceptualization of the TA is goals, or the mutually agreed upon goals of treatment and therapy between therapist and client. In community supervision, goals could represent clients attempt to secure employment, find housing, or reframe from substance use. The second element, tasks, refers to the agreed upon tasks between therapist and client that are designed to achieve the goals of treatment. For clients on probation,

\(^1\) The concept of the therapeutic alliance is synonymous with working alliance, helping alliance, or alliance. These terms collectively refer to the aspects of the relationship quality between therapist-client and/or probation officer-client relationship. In this dissertation, TA will be used from here on out.
this could include working with POs to develop a plan for attending treatment programs or gaining employment. The remaining element is the bond between therapist and client. Bond refers to positive attachment and acceptance of mutual trust and confidence between client and therapist (Bordin, 1979). Applied to the PO-client alliance, bond represents the facilitator role of POs. That is, quality of the bond can be established to the extent clients believe officers are listening and actively encouraging clients to engage in the change process. All three elements are needed to establish a quality working alliance between therapist and client (Bordin, 1979).

Beyond the three elements essential for the development of a positive therapist-client alliance, Bordin (1979) proposed three additional concepts that guide the preservation and maintenance of the working alliance. First, development of the working alliance between client and therapist is not a static process, but rather entails a dynamic and ongoing process of negotiations. Negotiation happens at the onset of therapy and are continually renegotiated throughout the therapy process. Second, negotiations will change based on the various types of therapies. Regardless of the different types of therapies, all therapist-client relationships are required to develop a bond and agree upon the goals and problems. Finally, any strains must be repaired between client and their therapist vis-à-vis a renegotiating process in order to develop and maintain a positive working alliance (Bordin, 1979).

Contemporary scholarship characterizes the TA as a collaborative bond between client and therapist that develops from reciprocated trust and acceptance (Horvath & Symonds, 1991; Norcross, 2010). In the general psychotherapy literature, several studies demonstrate that a strong therapist-client TA is associated with positive therapeutic outcomes (Horvath & Symonds, 1991; Horvath et al., 2011; Martin et al., 2000). For example, research suggests that a strong TA is related to treatment plan adherence (Conoley, Padula, Payton, & Daniels, 1994) and
medication compliance (Frank & Gunderson, 1990). Additionally, Kivlighna and Shaughnessy (1995) found the TA was associated with improved interpersonal functioning and social support. A handful of other studies demonstrate the positive influence of a strong TA on a variety of individual disorders. Past studies have found that the quality therapist-client TA are associated with improvements in individuals’ depression (Raue, Goldfried, & Barkham, 1997), anxiety (Piper, Boroto, Joyce, & McCallum, 1995), post-traumatic stress disorder (PTSD) (Cloitre, Chase, Miranda, & Chemtob, 2004), and personality disorders (Strauss et al, 2006).

Given the positive impact of the TA on a variety of psychotherapy outcomes, researchers have referred to the TA as “the quintessential integrative variable” (Wolfe & Goldfried 1988, p. 449) of therapy. For example, a large body of research suggests the importance of therapist personal qualities for strengthening the TA (Ackerman & Hilsenroth, 2003; Dowden & Andrews, 2004; Hersoug et al., 2001). For example, Hersoug and colleagues (2001) found that therapists who expressed warm interpersonal skills were significantly related to stronger TA. That is, therapists who displayed a warm parental bond with their clients had a positive impact on clients’ assessment of the TA (Hersoug et al., 2001). Ackerman and Hilsenroth (2003) similarly found that therapists who were honest, respectful, trustworthy, and supportive contributive to a quality TA.

Empirical Status of the Therapeutic Alliance

A considerable body of research consistently finds a strong association between relationship quality and positive therapeutic outcomes (Horvath & Bedi, 2002; Horvath, Del Re, Fluckiger, & Symonds, 2011; Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000). Horvath and Symonds (1991) conducted the first meta-analysis of the TA in the general psychotherapy literature. Their analysis, which included a total of 24 studies, found an
association (i.e., mean effect size $r = .26, k = 26$) between TA and therapeutic outcomes including decreased substance abuse and improved psychological function. That is, when there is a strong and quality TA between therapist and client, this results in better outcomes (e.g., therapy completion, reduced drug use) for the individual. Martin and colleagues’ (2000) meta-analysis confirmed these findings demonstrating the importance of relationship quality for improved psychotherapy success. Additionally, Horvath et al. (2011) provided the most comprehensive meta-analysis to date, amassing a sample of 201 published and unpublished studies conducted over the span of 36 years (i.e., 1973-2009). Horvath and colleagues (2011) also extended and expanded upon the prior literature by examining potential moderating effects between the alliance and therapeutic outcomes. Moderators included variations in alliance measures, alliance rater (i.e., observer, therapist, client), outcome measure, the of therapeutic treatment (e.g., CBT, Substance Abuse), time of alliance assessment, and publication source. Although the authors reported an overall modest effect size of ($r = .275$), results still indicated that regardless of how the alliance was measured, or when assessments were conducted, the quality of the alliance matters for improved therapeutic outcomes.

Although prior research found the importance of the TA for improving therapeutic outcomes, less research has focused on identifying the factors associated with a higher quality alliance. Within general psychotherapy literature, some prior research has examined actors associated with an improved TA including therapist and client individual characteristics (Ackerman & Hilsenroth, 2003; Horvath & Bedi, 2002; Sass-Stanczak & Czabala, 2015). For example, Ackerman and Hilsenroth (2003) asserted that clinician skills affect the TA between therapist and client. That is, the ability of a therapist to demonstrate transparency, empathy, clear communication, and trustworthiness can facilitate the alliance. Other studies suggest that client
demographic characteristics affect the quality of the alliance, though research consistently finds that older clients are more likely to report a higher quality alliance (Barrowclough et al., 2010).

Research by Epperson and colleagues (2017) sought to extent prior research about which factors influence perceived quality of the TA within community corrections. Using a mixed method research design, findings from qualitative interviews with 98 individuals on probation with a serious mental illness on probation implicated the importance that clients placed on their PO caring and treating them fairly. Clients who felt their PO listened to them, treated them respectfully “as a human being” were more likely to accept their officers’ decisions. Wodahl and colleagues (2021) expanded on the work of Epperson et al. (2017) using data taken from the Serious Violent Offender Reentry Initiative (SVORI). Using a sample of 778 clients on parole, their study examined the extent that individual characteristics (i.e., demographics, family support, and depressive symptoms) and supervision experiences (i.e., frequency of PO-client meetings and modality of interactions) were associated with the PO-client TA. Findings revealed that clients on parole with greater family support were more likely report a more positive relationship with their PO. Results also indicated that individuals with depressive symptoms and higher levels of interpersonal violence were less likely to report a strong relationship with their supervising officer. That is, individuals who were on parole that turned to violence in their personal relationships were significantly less likely to report a high quality relationship with their PO (Wodahl et al., 2021). Although some research examined factors associated with a stronger PO-client TA, the majority of research remains grounded in the general psychotherapy literature.

The body of research examining the TA in a therapeutic setting supports the importance of interpersonal skills for maximizing the development of a strong TA in general psychotherapy settings. Although meta-analytic results demonstrate the efficacy of the TA, more research is
needed to establish the validity of these findings in criminal justice settings, namely community corrections. This is especially important given the legal mandates (e.g., treatment programs) and involuntary nature of probation supervision between officer and clients. Prior research indicated the promise of the TA within criminal justice settings. For instance, Dowden and Andrews (2004) argued that positive staff characteristics, including staff that are flexible, respectful, warm, open and committed to client change foster quality TA. Given the importance of staff interpersonal skills for strengthening the quality of the TA and psychotherapy outcomes, several criminal justice scholars have drawn on the TA to examine its influence in community-based corrections on supervision outcomes (Blasko & Taxman, 2018; Skeem et al., 2007). Skeem and colleagues (2007) proposed a re-conceptualization on the TA in the context of mandated treatment therapies namely community corrections settings. Howgego and colleagues (2003) argued that existing operational definitions of the TA neglected the legal sanctions that often characterize criminal justice settings. In other words, prior conceptualizations of the TA did not adequately capture the power dynamics that exist between probation officer and probationer. Traditional conceptualizations of the TA have collectively argued the importance of development of collaborative trust and agreed upon goals and tasks between therapist and clients, whereas the involuntary and control nature of the criminal justice system, particularly probation supervision, raises questions about the extent to which such relationship can develop.

To account for the power dynamics present in the PO-client working relationship, Skeem and colleagues (2007) offered a revised conceptualization the TA as a firm, fair, and caring client-PO relationship. Skeem and colleagues captured their revised conceptualization of the TA through the dual-role relationship inventory (DRI). The DRI represents a 30-item scale that measures the TA between POs and the clients they supervise. Skeem et al. (2007) used the DRI
to assess the extent to which the probation officer-probationer TA was firm, fair, and caring. The DRI includes an integration of Bordin’s (1979) bonds and tasks with three additional subscales: (1) caring-fairness, (2) trust, and (3) toughness. The caring and fairness subscale reflects whether officers engage in active listening and provide clear and consistent explanations in their decision-making. Trust measures whether clients have confidence in their supervising officers’ decision-making process and feel can be honest with their POs. Toughness corresponds to officers’ punitive orientations and expectations of compliance. In other words, toughness reflects whether clients believe their POs make unreasonable demands about their expectations to succeed on supervision.

To validate the internal structure of the DRI, Skeem and colleagues (2007) relied on a sample of 90 individuals on probation diagnosed with an Axis I mental health disorder (e.g., bipolar, schizophrenia, schizoaffective, or major depression). Probationers and POs were invited to complete a 58-item survey that tapped into four primary domains: probation officer-probationer TA, perceptions of their interactions, clients’ internal state (i.e., treatment motivation), and behavioral compliance (e.g., probation violations and arrest). Using item correlations and exploratory factor analysis, a three-factor solution emerged across both probation officer and probationer ratings. That is, results from self-reported client and PO survey data validated a three-dimension measure of the TA in mandated treatment settings that reflected the combination of caring, fairness, trust, and toughness (Skeem et al., 2007).

In a second study, Skeem and colleagues revised and cross-validated the DRI using a sample of 322 mental health individuals on probation (Skeem et al., 2007). Consistent with their initial study, Skeem and colleagues (2007) asked individuals on probation and their POs to complete the revised version of the DRI-R. In the revised version, Skeem and colleagues
changed negative worded items to positive given that clients with cognitive impairments in study 1 had difficulty responding to such questions. Following confirmatory factor analysis (CFA), which affirmed the DRI-R structure, the authors tested predictive validity to examine the effect of the TA on supervision compliance outcomes. Importantly, results found that relationship quality protected against supervision failure, with greater DRI-R scores associated with reduced re-arrest, revocations, and supervision violations (Skeem et al., 2007). This indicates that probation officers who established a caring and trust relationship TA that was nonauthoritative (i.e., via toughness scale) with their clients may result in improved probation supervision outcomes.

Additional research studies used the DRI-R to test the influence of the officer-probationer TA on supervision outcomes (Kennealy et al., 2012; Manchak et al., 2014). Kennealy and colleagues (2012) tested the generalizability of the DRI-R using a sample of parolees without a mental illness diagnosis to examine the degree to which the TA matters for general offenders on parole supervision. Using survival analysis, the authors found that greater DRI-R scores (i.e., a stronger parole officer-parolee TA) were associated with reduced odds of being rearrested. Furthermore, their results also demonstrated that relationship quality successfully predicted parolee compliance when controlling for risk and offender personality traits. For example, parolees who were classified as high risk (i.e., respondents with a greater propensity to recidivate) that developed a strong and quality relationship with their supervising officer was associated with reduced reoffending. In a separate investigation of specialty mental health caseloads, Manchak and researchers (2014) similarly found that higher DRI-R scores were correlated with reductions in formal violations. Their results demonstrated that a one-unit increase in a clients DRI-R score, their odds of receiving a formal violation was reduced by 18%
(Manchak et al., 2014). Taken together, these studies examining the TA in community corrections settings provide evidence that higher-quality relationships as captured by the DRI-R were associated with reduced likelihood of re-arrest, revocation, and technical violations (Kennealy et al., 2012; Manchak et al., 2014; Skeem et al., 2007).

Despite supportive studies, research also finds that risk level impacts the development of a quality TA and supervision outcomes (Blasko, Taxman & Friedmann, 2015; Blasko & Jeglic, 2016). In a study of 202 incarcerated male sexual offenders, Blasko and Jeglic (2016) examined the influence of the TA with a sample of individuals on community supervision who were participating in a sex therapy treatment program. Analyses showed that offenders classified as higher risk were less likely to develop a positive TA with their therapist. For instance, sex offenders who had a greater likelihood of sexual recidivism were more likely to report a poorer relationship with their female therapists relative to male therapists. However, it remains unclear whether these findings suggest that clients’ risk level or gender conditions the effect of the TA on recidivism outcomes among individuals on probation.

In another study, Blasko et al. (2015) randomly assigned parolees to two conditions, a collaborative parole officer-parolee intervention (n = 227) or a control group reflecting parole supervision as usual (n = 253). Participants in the collaborative intervention were supervised by officers trained in motivational interviewing (MI) compared to paroles supervised by officers not trained in behavioral management technique. Consistent with the findings from Blasko and Jeglic (2016), Blasko and colleagues (2015) found higher risk parolees were more likely to report a negative relationship with their parole officers. In line with findings from general psychotherapy literature, Blasko et al. (2015) suggested that paroles with increased symptoms (e.g., criminogenic needs) have greater difficulty in developing a positive TA. Yet, despite
higher risk parolees reporting a weaker TA with their supervising officer, results demonstrated that parolees assigned to POs trained in Motivational Interviewing (MI) were less likely to violate supervision (i.e., technical violations, arrest) relative to parolees assigned to supervision as usual (Blasko et al., 2015).

Although research examining the TA in community corrections identifies the importance of interpersonal relationship dynamics for improving supervision outcomes (Kennealy et al., 2012; Manchak et al., 2014; Skeem et al., 2007), this research remains in its infancy and does not adequately capture how the nature of interactions between clients and their supervision officer influences the quality of the TA and its effect on compliance. Prior research suggests that how clients view the interactions with their supervising officer can shape compliance outcomes including drug use (Blasko et al., 2015) and criminal behavior (Blasko & Taxman, 2018). In fact, an extant body of research demonstrated that when individuals believe they are treated with respect, fairness, and given opportunities to be included in decision-making processes, they were significantly more likely to cooperate and believe in the legitimacy of legal institutions (Mazerolle et al., 2013; Sunshine & Tyler, 2003; Tyler, 2006; Walters & Bolger, 2019). More specifically, the quality of interactions between citizens and legal actors marked by elements of procedural justice influenced people’s willingness to cooperate with the police and their compliance to the law (Sunshine & Tyler, 2003; Tyler, 2006). Taken together, these findings implicate the importance of how individuals view the quality of their interactions with legal authorities.

Despite the promise of procedural justice, research has yet to examine the relationship between clients perceived fairness of supervision procedures and interactions with their probation officers on supervision outcomes (e.g., technical violations). Given that the theoretical
underpinnings of quality relationships and the TA are based on open and warm officer-probationer interactions (Andrews & Kiessling, 1980; Dowden & Andrews, 2004)—similar elements found within the theory of procedural justice—this merits additional empirical examination. Although several scholars have alluded to the fact that the TA incorporates interpersonal forms of procedural justice (MacCoun, 2005; Skeem et al., 2007), studies have yet to fully examine the influence of specific, theoretically developed procedural justice items with the TA on supervision outcomes. Examining elements of procedural justice within the TA should contribute to a better understanding of how clients perceptions of the perceived fairness of the supervision process and their interactions with supervising officers influence supervision compliance.

**Procedural Justice**

Scholars have debated the relative salience of perceived fairness in securing individuals’ compliance with legal authorities (Tyler, 2006; Weber, 1964). Engaging in fair decision-making processes has come to be termed procedural justice (Bladder & Tyler, 2009; Lind & Tyler, 1988; Tyler, 1990, 2006). The theory of procedural justice represents citizens perceived fairness of legal processes and how actors in positions of authority wield their power during interactions with individuals (Sunshine & Tyler, 2003; Tyler, 2006). In other words, procedural justice refers to citizen’s judgements about the extent to which legal actors (e.g., police, courtroom personnel, supervision officers) treat individuals fairly, with dignity and respect during encounters. This process-based model advances a social-psychological framework for understanding why citizens obey the rules and norms of a society when interacting with legal authorities and institutions. Procedural justice represents the idea that individuals in subordinate roles will voluntarily accept
legal authorities directives to the extent they view their decision process was fair (Leventhal, 1980; Sunshine & Tyler, 2003; Thibaut & Walker, 1975; Tyler, 2006).

Thibault and Walker’s (1975) instrumental model of procedural justice laid the foundation for the study of procedural justice. These scholars promoted the theory of procedural justice by emphasizing the importance of process and decision controls. Process control represents litigants’ “control over the opportunity to present evidence”, whereas decision control corresponds to “control over the final decision” more commonly referred to as distributive justice. Their conceptual definition of procedural justice is defined as “the belief that the techniques used to resolve a dispute are fair and satisfying in themselves” (Walker, Lind, & Thibaut, 1979, p. 1402). Based on this definition, procedural justice refers to the process of how decisions are made rather than individuals’ perceived fairness of the outcome received.

According to Thibaut and Walker (1975), individuals will be more likely to perceive treatment as procedurally just when they have control over the outcome (i.e., distributive justice), and/or the process used when legal authorities arrive at a decision (i.e., process control). Therefore, when individuals perceive both elements exist (i.e., distributive justice and process control), they are more likely to view decision-making processes as being procedurally just (Thibault & Walker, 1975).

While credited with advancing the theoretical orientations of procedural justice theory, other scholars criticize Thibault and Walker’s conceptualization of procedural justice theory because it overstates the importance of the outcome of decisions (Leventhal, 1980; Lind & Tyler, 1988, 1998). For example, Leventhal (1980) provided six specific standards or rules that govern individuals’ perceptions of procedural justice that focus more on the process by which decisions are made. First, for procedures to be considered fair, authority figures must be unbiased in their
decision-making by maintaining bias suppression or not basing their decisions on self-interest. The second component is accuracy reflecting the belief that individuals will deem decisions as fair to the extent that authority figures base their decisions on credible information. Third is consistency referring to the stability of decisions-making over time and across people. Fourth is correctability or the opportunity for subordinates to appeal decisions if errors occur. Fifth is ethicality, which “dictates that allocative procedures must be compatible with the fundamental moral and ethical values accepted by that individual” (Leventhal, 1980, p. 45). The sixth and final attribute is an extension of the criteria posited from Thibaut and Walker (1975) with Leventhal (1980) arguing that individuals must be included in the decision-making process. For Leventhal (1980), procedural justice represents an adherence to the six criterions of fair processes. If legal authorities follow these rules during encounters with citizens, then people will be more likely to view the procedure by which decisions were made as just.

Despite Leventhal’s (1980) refinement of procedural justice theory, Lind and Tyler (1988) provided additional clarification. Lind and Tyler (1988) theorized a group-value model in which individuals base their procedural justice attitudes on their ability to socially identify with legal authorities. For example, if individuals can identify with authority figures based on racial or ethnic ties, they may be more likely to feel a personal sense of obligation to the law and view legal actors and institutions as procedurally fair. Tyler and Lind (1992) later refined their group-value model of procedural justice instead arguing a relational model of authority. Synonymous with their group-value model, the relational model posits three elements for assessing individuals’ perceptions of procedural justice. These scholars theorize that people will consider procedures as fair based on three components: trust, neutrality, and respect (Tyler & Lind, 1992). Trust referred to the authority’s perceived concern for citizens individual needs and the
consideration of their views. Neutrality reflected authority’s honest decision-making, basing
decisions on factual information. The remaining element of respect included aspects like dignity,
politeness, and authority figures recognition of individual rights (Tyler & Lind, 1992).

The theoretical conceptualization of procedural justice further evolved through the work
of Sunshine and Tyler (2003). To address limitations of prior conceptualizations, Sunshine and
Tyler (2003) framed procedural justice as a social value orientation. For example, Sunshine and
Tyler argued that procedural justice represented “the fairness of the processes through which the
police make decisions and exercise authority” (Sunshine & Tyler 2003, p. 513). Although
Sunshine and Tyler (2003) focused on the police, they argued that how legal actors exerted their
power in decision-making processes with those in inferior roles influence individual’s procedural
justice judgements. Sunshine and Tyler’s (2003) procedural justice theory is focused on an
individual’s perceptions of the quality of treatment and quality of decision-making to evaluate
the fairness of legal procedures and processes. Explicitly, quality of treatment focuses on the
extent to which citizens believe legal actors treat them with dignity and respect. Quality of
decision-making reflects whether citizens perceive that authorities’ legal decisions are based on
facts and not personal biases (Sunshine & Tyler, 2003).

Aligning with Sunshine and Tyler (2003), Tyler’s (2006) seminal work Why People Obey
the Law suggests that procedural justice can be defined by four distinct elements: (1) voice, (2)
neutrality, (3) respect, and (4) motive-based trust. Consistent with Thibaut and Walker’s (1975)
domain of control, voice represents the extent to which individuals are incorporated in the
decision-making process and afforded the opportunity to express their concerns. For example,
research indicates citizens will view legal authorities (e.g., the police, courtroom personnel)
fairly if during interactions they are allowed an opportunity to share their side of the story (Baker
et al., 2014; Pennington & Farrell, 2019; Tyler & Huo, 2002). Neutrality refers to authorities’ consistent and unbiased decision-making. Individuals will be more likely to defer to legal actors when the application of laws and legal rules are consistently applied across groups (Jackson et al., 2010; Tyler & Jackson, 2014). Respect involves authorities treating subordinates with dignity and courtesy during interactions. This is consistent with Sunshine and Tyler’s (2003) conceptualization of the quality of treatment of procedural justice. The final element of motive-based trust corresponds to individuals’ perceptions of authority figures’ character and intentions. For example, if citizens believe that authorities are acting with sincerity when making decisions and trust the motives by which the legal actors base their decisions, then individuals will consider such processes as procedurally fair (Tyler, 2006, Tyler & Huo, 2002). This is important because if individuals trust the authority’s motives, they will be more likely to obey legal actors orders and obey the law (Sunshine & Tyler, 2003; Tyler, 2006). This element is similar to Leventhal’s (1980) concept of representativeness.

Research examining the impact of procedural justice on criminal justice outcomes consistently implicates the importance of citizens evaluations of procedural justice in eliciting cooperation with legal authorities and their compliance to the law (Sunshine & Tyler, 2003; Tyler, 2006; Tyler & Huo, 2002). In particular, an extant body of research demonstrates the importance of procedural justice in shaping individuals’ perceptions of the police.

Perceptions of the Police

An extant number of empirical studies examined individuals’ perceptions of procedural justice across numerous criminal justice setting with different legal actors (Alward & Baker, 2019; Baker et al., 2014; Baker et al., 2019; Baker, 2018; Baker & Gau, 2018; Barkworth & Murphy, 2019; Beijersbergen et al., 2015; Brown et al., 2017; Brunton-Smith & McCarthy,
The majority of these studies focus on citizens perceptions of police procedural justice (Lee et al., 2010; Piquero et al., 2005). For instance, research aims to understand the antecedents of the consequences of individuals positive and negative encounters with the police (Frank et al., 2005; Gallagher et al., 2001; Maguire & Johnson, 2010). More specific, studies have investigated how perceived (in)justice effects citizens perceptions of the police (Augustyn, 2016; Engel, 2005; Gau & Brunson, 2010). Collectively, these studies found that disproportionate or unfair contact based on individual’s race or skin color can instill negative views towards the police (Engel, 2005; Gau & Brunson, 2010). In part, scholars have drawn on the importance of procedural justice for instilling positive perceptions of the police and increasing the public’s willingness to voluntarily cooperate with law enforcement (Johnson et al., 2014; Sunshine & Tyler 2003; Tyler, 1990).

Studies consistently found a strong and positive relationship between individuals’ perceived fairness of the police and their compliance with the law (Mazerolle et al., 2013; Sunshine & Tyler, 2003; Tyler, 2006; Walters & Bolger, 2019). This means that individuals who believe the police treat them with respect, are provided an opportunity to express their voice (e.g., share their side of the story) and view authorities are neutral in decision-making, will be more likely to defer to authority figures and obey the law. Paternoster and colleagues’ (1997) seminal work on the Milwaukee Domestic Violence Experiment found that police who acted in accordance with procedural justice when arresting suspected assailants resulted in significantly lower subsequent domestic violence rates. In a separate study of police legitimacy and cooperation, Sunshine and Tyler (2003) found that when individuals felt they were treated with respect and given an opportunity to express voice, they were more likely to comply with the police. Often regarded as cornerstone studies on police procedural justice, several other studies
collectively affirm these findings. Across this line of research, studies have demonstrated that perceptions of procedural justice are related to a variety of outcomes, including police satisfaction (Reisig & Chandek, 2001; Sunshine & Tyler, 2003), individuals legitimacy beliefs (Hinds, 2007; Sunshine & Tyler, 2003; Tankebe, 2008), and citizen’s willingness to assist police in crime prevention strategies (Reisig, 2007).

Perceptions of the Courts

Several studies have sought to examine the influence of perceived fairness within the court system. Initially, Thibaut and Walker (1975) highlighted the impact of procedural justice focusing exclusively on courtroom interactions. Their study examined two main aspects: formal dispute resolution and perceptions of fair processes. Dispute resolution reflected the perceived control an individual has over their court outcome including the process used to reach the court outcome. In contrast, fair processes represented “the belief that the techniques used to resolve a dispute are fair and satisfying in themselves” (Walker et al 1979, p. 1402). Findings revealed that individuals’ perceptions of the court are shaped more by the process of coming to a court decision rather than the favorability of the outcomes itself. In other words, it is not the specific outcome but rather the process used by court authorities that predicts perceptions of court procedural justice (Thibaut & Walker, 1975). In a study of citizens perceptions of court processes, Tyler (1984) interviewed traffic and misdemeanor court defendants finding that their perceptions of fairness had a greater impact on their view of the court than the favorability of court outcomes. Consistent with the work of Thibaut and Walker (1975), Tyler’s findings largely confirm that perceptions of procedural justice (e.g., the fairness of process) are more important for influencing defendant’s perceptions of the court than the outcomes received. Tyler (1988) extended this line of research by interviewing 652 Chicagoans about their prior experiences with
the police and courts. Using interview data of participants’ prior experiences with the police or
courts, Tyler (1988) found respondents’ perceptions of the fairness of procedures exhibited by
the police or courts shaped their perceptions of legal authorities in general. For example, results
demonstrated that participants assessments of the fairness of the procedures displayed by the
police or courts had greater impact than favorable outcomes or aspects of distributive justice.

Tyler’s (1988) results are consistent with the earlier work of Adler, Hensler, and Nelson (1983)
in their study of civil litigants that found individuals placed greater importance on the procedural
fairness of court processes than desirable case outcomes. Citizens placed greater emphasis on the
treatment received by criminal court actors and of their perceptions of fair court processes than if
they received a favorable court outcome.

Although research examining citizens or defendant’s procedural justice perceptions of
courts are empirically limited, scholars examined the degree to which prior experiences with
legal authorities influenced their views of other legal institutions. That is, other studies note how
procedural justice perceptions of one legal institution can spill-over or predict justice evaluations
of other legal actors or processes (Alward & Baker, 2019; Baker et al., 2014; Browning et al.,
2017; Casper et al., 1988; Picket et al., 2018). Casper, Tyler, and Fisher (1988) examined felony
defendants’ views of the police and whether their perceptions of procedural justice influenced
their perceptions of the courts. Their findings revealed that defendants’ perceptions of the quality
of treatment received by the police spilled over, influencing their procedural justice evaluations
of courtroom actors. In a recent study, Baker et al. (2014) expanded this literature using a sample
of known female offenders. Study findings demonstrated that justice-involved females’
perceptions of the police shaped their procedural justice perceptions of the courts. In particular,
female offenders’ perceptions of police voice and honesty were significant predictors of female
offenders procedural justice perceptions of the courts. In other words, females who perceived the police offered an opportunity to listen and hear their side of the story and were honest in their decision-making processes were significantly more likely to view the courts as acting in procedurally just manner (Baker et al., 2014). Taken together, research cited here suggested the importance that individuals place on procedural fairness within the court context.

_Procedural Justice in Corrections_

In the last ten years, procedural justice theory has gained considerable attention in the field of corrections. Scholars have tested the utility of procedural justice theory for understanding institutional misconduct (Beijersbergen et al., 2015; Maguire et al., 2019; Steiner & Wooldredge, 2018; Reisig & Mesko, 2009), prisoner reentry and desistance (McCarthy & Brunton-Smith, 2018), and law-abiding behavior more generally (Franke et al., 2010). Consistent with the large body of police and court procedural justice research, application of the process-based model within institutional corrections finds a positive relationship between inmates’ procedural justice perceptions and their compliance with institutional rules or orders (Beijersbergen et al., 2015; Maguire et al., 2019; Reisig & Mesko, 2009; Steiner & Wooldredge, 2018). In one of the first empirical applications of procedural justice within institutional corrections, Reisig and Mesko (2009) relied on self-report and official data of Slovenian inmates to explore the effect of procedural justice on rule-breaking behaviors. Analyses found that inmates perceptions of procedural justice are significant and negatively associated with institutional misconduct. That is, inmates who perceived that correctional officers treated them with respect, took the time to listen to inmates, and were neutral in decision-making were less likely to engage in misconduct (Reisig & Mesko, 2009). Other studies utilizing a procedural justice framework within correctional settings provide additional empirical support for the positive relationship between perceptions of
Beijersbergen and colleagues (2015) provided the first longitudinal assessment of procedural justice through an examination of Dutch inmates perceptions while also testing for the mediating effect of anger on institutional misconduct. In their longitudinal analysis, inmates were provided survey questionnaire approximately three weeks after arrival to the facility. Follow-up data were collected three months from arrival in pre-detention. Study results revealed inmates perceptions of procedural justice collected at wave one were statistically associated with reduced misconduct at wave two. However, results further revealed that anger fully mediated the relationship between individuals’ perceptions of procedural justice and misconduct. That is, Dutch inmates who felt correctional staff treated them unfairly resulted in feelings of anger subsequently leading to increased engagement in institutional misconduct (Beijersbergen et al., 2015).

Steiner and Wooldredge (2018) tested the effects of the process-based model using specific (i.e., confronted by correctional officer in past 6-months) measures of procedural justice on inmates rule-breaking violations. Analyses from their study showed a negative relationship between procedural justice and incarcerated individuals nonviolent rule violations. Incarcerated individuals who believed correctional officers treated them with respect were less likely to engage in nonviolent infractions which operated indirectly through perceptions of legitimacy. That is, inmates’ views of procedural justice were related to greater perceived correctional officer legitimacy resulting in reduced odds of nonviolent infractions. However, Steiner and Wooldridge’s (2018) operationalization of legitimacy included several items traditionally found in measurements of procedural justice. For example, items such as “The correctional officers are
generally fair to inmates” and “Correctional officers treat some inmates better than others,” are nearly identical to measures included in other studies measuring perceptions of procedural justice (see Alward & Baker, 2019; Baker et al., 2019). This raises questions as to whether the relationship between inmates’ procedural justice perceptions and institutional compliance are in fact mediated by perceptions of legitimacy. Despite some operational differences, their study provided additional empirical support between individuals’ perceptions of procedural justice for leading to greater correctional compliance.

Maguire, Atkin-Plunk, and Wells (2019) studied the effects of procedural justice among a sample of inmates in a work release program. Their study tested the effects of procedural justice for improving correctional compliance and cooperation with correctional authorities. Using structural equation modeling (SEM), analyses revealed a positive and significant direct effect between procedural justice and incarcerated individuals’ obligation to obey and their cooperation with correctional staff. Results also demonstrated that procedural justice was indirectly associated with compliance that operated though individuals obligation to obey. Incarcerated individuals who perceived correctional staff treated them fairly and with respect were associated with increased obligation to obey that in turn resulted in greater self-reported compliance (Maguire et al., 2019). These findings are consistent with Baker and colleagues (2019) study, which examined the effect of procedural justice with a sample of male and female offenders incarcerated in a county jail. Using a sample of 290 adult male and female inmates, results found that perceptions of procedural justice were the strongest predictor of inmates’ compliance with institutional rules (Baker et al., 2019).

Application of procedural justice theory in community corrections is limited, thus we know little regarding the effect of perceived fairness on supervision outcomes. To date, only one
study has integrated elements of procedural justice to better understand how interactions and the working relationship between POs and probationers impacts supervision outcomes (Blasko & Taxman, 2018). As a first step to understand how procedural justice operates in a community correction setting, Blasko and Taxman (2018) created and validated the procedural justice measure (PJM). Building on the work of Skeem and colleagues (2007), Blasko and Taxman (2018) integrated elements of procedural justice to examine how individual’s perceptions of supervision impact compliance outcomes (e.g., technical violations, arrest). Utilizing two longitudinal studies of individuals entering parole supervision, Blasko and Taxman (2018) conducted a two-part study on the creation and validation of the PJM for use in community corrections. The purpose of their study was threefold: to develop items to measure procedural justice perceptions of individuals on community supervision, verify the factor structure of the PJM, and test the predictive validity of the PJM on several criminal justice outcomes including rearrest, technical violations, and substance use.

In study 1, Blasko and Taxman (2018) used a sample of 480 individuals entering parole supervision to test 10 items that were designed to evaluate perceptions of procedural justice within the community supervision context. Logistic regression analyses demonstrated the predictive validity of the PJM across four criminal justice outcomes. For example, regression results found that the PJM significantly predicted parolee technical violations, substance use, and self-reported criminal offending as well as official arrest across a 9-month study period. In study 2, Blasko and Taxman (2018) provided a cross-validation of the PJM relying on 226 drug-involved clients that were sentenced to probation supervision that enrolled in a randomized clinical trial. In the cross-validation, results found that higher scores on the PJM—greater perceptions of procedurally just treatment—were significantly associated with three of four
criminal justice outcomes. Individuals who perceived their supervising officers treated them fairly and in accordance with procedural justice were less likely to self-report criminal behavior, be arrested, or receive a technical violation. Blasko and Taxman’s (2018) findings illustrate the need to consider clients’ perceptions of fairness of the supervision process given they found when individuals viewed they were treated by their supervising officer in a procedurally just manner can influence short and long-term behavioral and supervision outcomes.

At the crux of procedural justice scholarship is an emphasis on the ways in which decisions are made. The research examining procedural justice in practice consistently demonstrated that how individuals perceive they are treated by legal authorities and institutions (e.g., police, courts, and corrections) during interactions influences their attitudes and behaviors (Paternoster et al., 1997; Tyler, 1990; Tyler et al., 2007). Equally important, is the belief that legal authorities and institutions are entitled with the power to make and enforce legal decisions (Johnson et al., 2014; Paternoster et al., 1997; Tyler, 2006). In other words, individuals’ perceptions of legitimacy towards the criminal justice system and of legal authorities are of critical importance as research links legitimacy to compliant behaviors and confidence in the law (Sunshine & Tyler, 2003; Tyler, 2003, 2006; Tyler & Fagan, 2008). Therefore, the study of legitimacy has emerged as a major theme in the criminal justice system (Johnson et al., 2014; Paternoster et al., 1997; Reisig & Mesko, 2009; Tyler, 2006).

**Legitimacy**

Political theorists, sociologists, and social scientists have long been interested in understanding how social institutions function as a mechanism of formal social control (Beetham, 1991; Sunshine & Tyler, 2003; Tyler, 1990, 2006; Weber, 1964, 1978). That is, researchers are interested in understanding and identifying factors that motivate individuals to
defer to legal institutions and comply with societal norms and values. The concept of legitimacy can be traced to Weber’s (1964) treatise on legitimizing power. For Weber (1964), legitimacy represents “the basis for every system of authority, and correspondingly of every kind of willingness to obey, is a belief, a belief by virtue of which persons exercising authority are lent prestige” (p. 382). Weber’s conceptualization of legitimacy is based on a typology of legitimizing authority including: (1) traditional legal (e.g., legitimacy based on historical traditions), (2) legal rational (e.g., legitimacy as a system of rules and legal procedures), and (3) charismatic authority (e.g., legitimacy based individual faith of a specific person). Although all three elements form a basis for legitimacy, Weber argued that legality is the dominant foundation facilitating the legitimacy of modern state authority. Legality represents the idea that the modern state is in the position to promote compliance through the use of law (Weber, 1964). Thus, for Weber (1964), authorities who hold positions of power are invested in the legal rules and bound to the procedures that govern their social institution.

Weber’s (1978) assertion of legal-rational authority as a dominant basis of legitimacy received widespread criticism (Coicaud, 2002; Grafstein, 1981; Beetham, 1991). For example, Beetham (1991) disputes this conceptualization of legitimacy as it fails to consider the actions (emphasis added) of authority figures. For example, Beetham (1991) critiques Weber arguing that actions of legitimacy can occur without being based upon any “belief in legitimacy” (p. 42). In other words, “it is the actions, involving implicit or explicit commitments, that create a normative relationship and reciprocal obligations, not any prior belief in legitimacy” (p. 42). Beetham (1991) therefore maintains legitimacy represents a multi-faceted concept in which the legitimization of power occurs at a variety of levels. Legitimacy is achieved if: (1) power and authority are applied in accordance with the law, (2) the rules and law reflect a principle of
sovereign political authority, and (3) documentation of expressed consent to authority exists. Although Beetham’s (1991) reconceptualization of legitimacy of the modern state has important conceptual implications, Tyler’s (1990, 2006) work extended the conceptual clarity of legitimacy for social science.

The framework of legitimacy was first popularized through the seminal work of Tom Tyler’s (1990) *Why Do People Obey the Law*. Tyler (1990) asserts legitimacy is an “acceptance by people of the need to bring their behavior into line with the dictates of an external authority” (p. 25). In the context of the criminal justice system, legitimacy represents the belief that legal actors are entitled with the authority to enforce the rule of law and maintain public order. Tyler (2006) argues that trust in legal authorities’ ability to wield their power appropriately and the extent to which people believe legal actors adhere to societal values leads to voluntary deference and obligation to the law. Three conceptual elements collectively define the construct of legitimacy: (1) obligation to the law, (2) institutional trust, and (3) normative alignment. Obligation to the law represents individuals’ personal sense of right and wrong towards their commitment to obey the law and legal authorities. That is, people’s moral beliefs will result in their obligation to the law rather than fear of punishment. Trust in legal authorities and institutions is defined as the belief that legal actors wield their power in appropriate and proper ways. This also reflects the notion individuals will trust that legal authorities will act according to their legal institution and not overstep their authoritative powers. Lastly, normative alignment represents the extent to which legal authorities share the same values and goals as their subordinates. Despite Tyler’s (2006) contribution for advancing the theoretical concept of legitimacy the conceptual clarity of the defining elements of legitimacy remain heavily contested.
Recent work by Bottoms and Tankebe (2012) and others (Steiner & Woolridge, 2018; Tyler & Jackson, 2014; Tankebe, 2013) offer slightly different conceptual definitions of legitimacy. In part, Bottoms and Tankebe (2012) reengage with Weber (1964) on the origins of legitimizing power by calling for the distinction between “dull compulsion” and “legitimate authority.” Dull compulsion represents a de facto authority highlighting the power differential inherent in the superiors vested with the power to enforce the law and rules of American criminal justice system. For example, inmates’ obedience to prison rules and procedures may stem from a pragmatic acquiescence of the institutional setting (Carrabine, 2004) because power differential between inmates and correctional officers coerces individuals to comply or obey with the law because no alternatives exist to challenge the de facto authority. Stated more simply, it may be that justice-involved persons accept authority figures as legitimate and obey their orders because they often occupy a position of weakness and helplessness (Carrabine, 2004; Sparks & Bottoms, 1995).

Sparks and Bottoms (1995) highlight the importance of legitimacy beliefs drawing on the social order of prisons. In prison settings, correctional authorities may choose to selectively enforce certain institutional rules and policies contributing to biases or perceived illegitimacy of authorities (Cressey, 1959; Kauffman, 1988). Additional studies report that correctional officer’s abuse of their power may increase rule-breaking behavior whereby eroding the trust in correctional authorities’ legitimacy (Jurik, 1985; Marquart, 1986; Poole & Regoli, 1980; Van Voorhis et al., 1991). Sparks and Bottoms (1995) went so far to write:

“Every instance of brutality in prisons, every casual racist joke and demeaning remark, every ignored petition, every unwarranted bureaucratic delay, every inedible meal, every arbitrary decision to segregate or transfer without giving clear and well founded reasons, every petty miscarriage of justice, every futile and inactive period of time—is delegitimizing. The combination of an inherent legitimacy deficit with an unusually great
disparity of power places a peculiar onus on prison authorities to attend to the legitimacy of their actions. (p. 60).”

As the above quote illustrates, correctional authorities can directly influence inmates’ perceptions of prison legitimacy, from an institutional and individual level. Furthermore, prison characteristics including adverse conditions (e.g., institutional violence, unsafe environment, lack of privacy) (Brunton-Smith & McCarthy, 2016) and the pains of imprisonment (e.g., loss of liberty, personal autonomy) (Sykes, 1958) contribute to negative incarceration experiences that may further challenge the legitimacy of correctional institutions and staff (Brunton-Smith & McCarthy, 2016; Franke et al., 2010). Without prison or officer legitimacy, inmates may be more prone to disobey institutional rules and engage in rule-breaking behaviors. Therefore, the concept of legitimacy has significant implications across the criminal justice system for understanding why people obey the law and warrants additional investigation, especially in the context of community supervision. The next section examines the empirical status of perceived legitimacy across the criminal justice setting.

Empirical Examination of Legitimacy

Legitimacy of legal actors and institutions represents an essential function for democratic societies to uphold social control and secure citizens’ compliance with legal institutions (Sunshine & Tyler, 2003; Tyler, 1990, 2006; Tyler & Huo, 2002). The vast majority of research examining the antecedents of individuals’ perceptions of legitimacy focus on people’s interaction with the criminal justice system. Notably, several empirical studies examined citizen perceptions towards the police (Hinds & Murphy, 2007; Mastrofski et al., 1996; Skogan & Frydl, 2004).

Sunshine and Tyler’s (2003) study of New York citizens interactions with the police found that legitimacy beliefs were largely influence to the extent that people felt law
enforcement treated them fairly during their encounters. Individuals who were stopped by police and reported greater levels of procedurally just treatment were associated with increased police legitimacy (Sunshine & Tyler, 2003). Though, to a lesser extent, results also indicated that citizens’ police legitimacy were influenced by police effectiveness in controlling and fighting crime (Sunshine & Tyler, 2003). However, in a separate study of legitimacy, police effectiveness did not have as meaningful impact for influencing citizens perceptions of legitimacy (Tyler & Huo, 2002). Specifically, Tyler and Huo’s (2002) study found that fair treatment by the police and not police performance were more impactful for legitimacy evaluations among residents living in socially disorganized neighborhoods with higher crime rates. In other words, how the police treat people during interactions matters more than the effectiveness of police performance. Several additional studies provide further empirical support demonstrating the positive impact of procedural justice on citizens perceptions of police legitimacy (Gau, Corsaro, Stewart, & Brunson, 2012; Hinds & Murphy, 2007; Lind & Tyler, 1988; Mastrofski, Snipes, & Supina, 1996; McClusky, Mastrofski, & Parks, 1999; Murphy, Hinds, & Fleming, 2008).

A large body of research collectively provides support that citizens perceptions of police legitimacy are associated with greater compliance with police and obligation to the law, both in the United States (Gau et al., 2012; Lind & Tyler, 1988; Mastrofski et al., 1996) and in developing countries (Kochel, Parks, & Mastrofski, 2013; Reisig & Lloyd, 2009; Reisig, Tankebe, & Mesko, 2014). Across these studies, results demonstrated that when citizens view the police as a legitimate institution, they are more likely to comply with police officer commands, report suspicious activity, cooperate as victims, and obey the law in general. Although research largely focuses on citizens perceptions of police legitimacy, recent theoretical debates about the importance of legitimacy has resulted in application of the theory across other
criminal justice institutions and legal authorities. Scholars have started examining the importance of perceived legitimacy in correctional institutions for securing inmates compliance to institutional rules (Beijersbergen et al., 2015; Brunton-Smith & McCarthy, 2016; Franke, Berie, & Mackenzie, 2010; Maguire et al., 2019; Reisig & Mesko, 2009; Sparks & Bottoms, 1995; Steiner & Wooldredge, 2018).

This body of research indicates that inmates’ perceptions of legitimacy are shaped by treatment by correctional staff. That is, for incarcerated persons, prisons are viewed as legitimate to the extent that rules are clear and applied with consistency (Brunton-Smith & McCarthy, 2016; Maguire et al., 2019; Steiner & Wooldredge, 2018). Brunton-Smith and McCarthy’s (2016) longitudinal analysis of 3,000 incarcerated English and Welsh inmates also demonstrated the impact of prison-level characteristics on perceptions of legitimacy. Their study revealed that inmates’ perceptions of prison conditions were associated with legitimacy. For example, inmates holding more favorable views of prison conditions (e.g., inmates are provided with opportunities to practice personal hygiene) were more likely to believe in the legitimacy of the institution. Study results also found that when male and female inmates incarcerated in institutions viewed they were provided fair and respectful treatment (i.e., more procedural justice) and clear and consistent communication they were more likely to view both the prison and correction staff as legitimate (Brunton-Smith & McCarthy, 2016). Studies of prison legitimacy also recognize the impact of shared values and personal morality between inmates and correctional staff (Hulley et al., 2004; Sparks & Bottoms, 1995). Liebling and Arnold (2004) argued that correctional institutions take on a sense of “moral performance” predicated on the way in which correctional officers carry out their duties. In other words, how correctional staff embody the moral character of the prison facility can shape inmates perceptions of legitimacy.
According to Brunton-Smith and McCarthy (2016), correctional officers that abuse their prison powers (e.g., biases in allocating prisons tasks, disciplinary actions, or withholding privileges) have all been associated with lower levels of perceived legitimacy. Additional research examining prison legitimacy provides evidence that consistent application of procedural rules and fair treatment will lead to voluntary compliance with institutional rules (Beijersbergen et al., 2015; Brunton-Smith & McCarthy, 2016; Maguire et al., 2019; Reisig & Mesko, 2009; Steiner & Wooldredge, 2018). Individuals that believed the prison was a legitimate institution were less likely to engage in forms of institutional misconduct, both while incarcerated and upon release (Beijersbergen et al., 2015; Hacin & Mesko, 2018; McCarthy & Brunton-Smith, 2018; Reisig & Mesko, 2009).

Beyond studies investigating the effects of institutional legitimacy, one study examined incarcerated persons’ perceptions of legitimacy on the desistance process (McCarthy & Brunton-Smith, 2018). Using a longitudinal survey of English and Wales inmates, McCarthy and Brunton-Smith (2018) assessed whether inmates’ perceived legitimacy of correctional officers influenced desistance, including self-reported and official reoffending data. Results suggested that inmates’ who held greater perceptions of legitimacy believed they would be less likely to offend upon release from incarceration. Specifically, respondents who held greater legitimacy beliefs towards correctional staff were less likely to be reconvicted a crime one year after their release. Though study results also found that criminal history conditioned the effect of legitimacy on recidivating (McCarthy & Brunton-Smith, 2018). These findings suggest that greater involvement in the criminal justice system may instill negative attitudes towards the law and counteract the influence of perceived legitimacy on compliance behaviors. This study provided one of the first examinations of perceived legitimacy on post-incarceration outcomes.
Although significant body of prior research documented the positive relationship between procedural justice and compliance the law, distrust in the law can erode the procedural justice-legitimacy link (Kirk et al., 2012; Sampson & Bartusch, 1998; Reisig et al., 2011). That is, how people view the law and legal actors that administer justice can influence people’s willingness to obey legal orders that can attenuate compliance and cooperation (Gau, 2014; Murphy et al., 2009). This implies the importance of individuals skepticism or legal cynicism for understanding how negative attitudes affect people’s justice evaluations and ultimate compliance to the law.

**Legal Cynicism**

Generally, the concept of legal cynicism has been defined as a negative orientation to the law used to capture the “degree to which individuals feel that the law does not apply to them” (Fine & Cauffman, 2015, p. 345; see also Gifford & Reisig, 2019; Nivette et al., 2015). Expanding on the work of Srole (1956), Sampson and Bartusch (1998) posited legal cynicism as a component of anomie or normlessness of the law. According to these authors, legal cynicism reflects “the sense in which laws or rules are not considered binding” (Sampson & Bartusch 1998, p. 786). The authors posited that legal cynicism reflected a broader social-ecological structuring that manifests from neighborhood disadvantage. For example, neighborhood context fostered individuals’ cynical views or a disdain towards the law, particularly areas that could be characterized as socially disorganized (Sampson & Bartusch, 1998). Using data from the Project on Human Development in Chicago Neighborhoods (PHDCN), Sampson and Bartusch (1998) operationalized legal cynicism using five survey items tapping individuals attitudes towards the legitimacy of the law and social norms. Examples of these items include: “To make money, there are no wrong or right ways anymore, only easy ways and hard ways”, and “It’s okay to do anything you want as long as you don’t hurt anyone.”
In contrast to Sampson and Bartusch (1998), other scholars reject the neighborhood-level conceptualization of legal cynicism instead subscribing to the belief that legal cynicism reflects individuals skepticism towards the law (Gau, 2015; Jackson & Gau, 2016; Tyler & Huo, 2002). For example, Tyler and Huo (2002) proclaimed that individuals with greater legal cynicism attitudes believe the law aims to protect the interests of those in power at the cost of individual citizens. Despite variations in the conceptual definitions of legal cynicism, legal socialization scholars have generally agreed that the basic premise underlying legal cynicism reflects individuals negative orientations to the law and of legal institutions (Fagan & Tyler, 2005; Kirk & Papachristos, 2011; Tyler, 2006). Importantly, research indicates that people develop cynical attitudes of the law through a socialization process (Fagan & Tyler, 2005; Fine & Cauffman, 2015; Piquero et al., 2005; Trinkner & Cohn, 2014). Legal socialization refers to individuals’ internalization of the norms and values of the mechanism of formal social control and legal institutions (Tyler, 2006). The socialization process begins in early adolescence (ages 13-20), where individuals’ legal orientations are shaped by direct and indirect experiences with legal and non-legal authorities (e.g., parents, peers, teachers) (Cavanaugh & Cauffman, 2015; Fagan & Tyler, 2005; McLean et al., 2018; Nivette et al., 2020; Piquero et al., 2005; Trinkner & Cohn, 2014; Wolf et al., 2017).

**Empirical Status of Legal Cynicism**

Several studies have investigated the developmental processes of how individuals develop cynical views of legal authorities and whether legal attitudes are age-graded (Fagan & Piquero, 2007; Nivette et al., 2015; Nivette et al., 2020; Piquero et al., 2005). Piquero and colleagues (2005) assessed the effects of legal cynicism using a sample of 1,355 serious juvenile offenders. Using four waves of data from the Pathways to Desistance Project, Piquero et al.
(2005) reported that juveniles’ legal cynicism attitudes were relatively stable over the 18-month study period. In addition, study results indicated that Hispanic male juveniles, with greater number of prior arrests were more likely to report higher average of legal cynicism, relative to White males (Piquero et al., 2005). In a more recent study, Nivette and colleagues (2015) examined the antecedents of individuals legal cynicism beliefs using two waves of data from the Zurich Project on the Social Development of Children and Youths. The Zurich Project represents a longitudinal study of a cohort of 1,675 children from disadvantage school districts interviewed beginning at age seven through early adulthood (e.g., age 20) (see Eisner et al., 2019 for complete methodology). Several findings emerged with self-reported delinquency the strongest predictor of adolescents’ legal cynicism attitudes. Results also revealed several significant correlates with negative police experiences, societal isolation and association with criminal peers predicting legal cynicism. Nivette and colleagues (2020) expanded upon their prior working by assessing social (e.g., parental involvement, teacher-child bonds) and individual factors (e.g., low self-control, morality) that influence developmental trajectories of legal cynicism attitudes. Latent growth curve models were used to estimate changes in legal cynicism among children ages 13 through 20 using the Zurich Project Data. Results revealed no direct, significant relationship between adolescents’ school commitment and teacher bonds with legal cynicism. Individual factors displayed stronger effects in shaping legal cynicism; individuals with low self-control, low moral boundaries, and history of previous delinquent behavior were more likely to hold cynical views of the law (Nivette et al., 2020).

In addition to research studying developmental trajectories of legal cynicism, several studies have demonstrated an association between individuals cynical views of the law with criminal offending (Fagan & Piquero, 2007; Gau, 2014; Reisig et al., 2011; Trinkner & Cohn,
That is, individuals who hold more negative views of legal authorities are more likely to engage in rule violations (Reisig et al., 2011; Trinkner & Cohn, 2014). Fagan and Piquero (2007) conducted a longitudinal analysis examining the effects of legal cynicism on respondents’ self-reported offending over time. Results revealed that respondents’ legal cynicism directly predicted criminal offending (Fagan & Piquero, 2007). Consistent with Fagan and Piquero (2007), several additional studies reported similar findings of the influence of legal cynicism on offending behaviors (Fine & Cauffman, 2015; Kaiser & Reisig, 2017; Reisig et al., 2011; Trinkner & Cohn, 2014). Using cross-sectional data from a sample of 626 young adults, Reisig and colleagues (2011) found cynical attitudes exerted a direct effect on self-reported criminal offending, independent of respondents’ low self-control. More recently, however, Kaiser and Reisig (2019) used 11 waves of data from the Pathways to Desistance Project modeling the impact of legal socialization factors on juveniles self-reported offending patterns. Using mixed-effects regression, Kaiser and Reisig’s (2019) results indicated that individuals’ procedurally unjust contacts with legal authorities were significantly associated with legal cynicism, both within and between-individuals. That is, individuals who reported negative encounters with criminal justice actors reported increased levels of legal cynicism attitudes over time. Study findings also found within-individual changes in legal cynicism shaped criminal offending across the observational period (Kaiser & Reisig, 2017). These findings conform to prior research indicating that individuals’ interactions with legal authorities shape citizens’ orientations to the law (Kaiser & Reisig, 2019; Nivette et al., 2020).

Additional research also reports a strong association between individuals’ legal cynicism and the likelihood of recidivating (Alward, Caudy, & Viglione, 2020; Visher, LaVigne, & Travis, 2004). For example, Visher and colleagues (2004) examined legal cynicism orientations...
among a sample of 324 individuals that had yet to be released from the Maryland Department of Corrections. In a six-month period following release, offenders who were rearrested reported higher levels of legal cynicism compared to those who were not re-arrested. Rocque and colleagues (2013) found offenders who held more positive perceptions towards the law were less likely to reoffend and more likely to maintain desistance for longer periods of time compared to offenders with negative views towards the law. Recently, Alward and colleagues (2020) examined the effects of internal change factors, including legal cynicism, on the likelihood of reoffending and reincarceration. Using data from the Serious and Violent Offender Reentry Initiative (SVORI), the authors estimated a series of hybrid regression models that found within-individual changes in legal cynicism were related to increased reoffending rates (Alward et al., 2021). Collectively, the studies cited here provided evidence that people’s legal cynicism, skepticism of the law, and negative criminal justice experiences impact compliance to the law and reoffending.

**Current Study**

The concepts of procedural justice, legitimacy, legal cynicism and the therapeutic alliance have emerged as major themes of research throughout the criminal justice system for understanding why people comply with the law. Research supports the positive relationship between a strong TA, perceptions of procedural justice, and legitimacy with individuals compliance to the law (e.g., increased compliance, reduced re-arrest, revocations, and supervision violations) (Blasko & Taxman, 2018; Kennealy et al., 2012; Manchak et al., 2014; Skeem et al., 2007; Tyler, 1990, 2006). Evidence also indicates that cynical views of the law and negative experiences with legal actors are associated with a greater likelihood of re-arrest, self-reported delinquency and self-reported offending (Alward et al., 2021; Kaiser & Reisig, 2017;
Nivette et al., 2020; Nivette et al., 2015; Reisig et al., 2011). In the context of community corrections, the principles of effective intervention and CCPs emphasize the use of interpersonal relationship factors to promote successful offender behavior change and achieve positive supervision outcomes (Andrews, Bonta, & Wormith, 2011; Andrews & Kissling, 1980; Dowden & Andrews, 2004).

The widely supported and empirically validated RNR model specifically highlights the salience of quality relationships, characterized by warmth, openness, empathy, and respect for the client to reduce recidivism (Andrews, 2011; Andrews & Bonta, 2017). Research also recognizes the impact that legal authorities’ actions have on individual behaviors (Fagan, 2008; Tyler, 2006). For instance, individuals’ perceptions of fairness and the quality of interaction with legal authorities influence attitudinal outcomes (e.g., perceptions of legitimacy) and behavioral outcomes (i.e., compliance and obligation to the law) (Tyler, 2003, 2006). The importance of these interpersonal relationship factors is further evidenced by community corrections effort to train officers how to structure their face-to-face interactions with their clients to promote positive supervision outcomes (Bonta et al., 2011; Bourgon et al., 2010; Labrecque & Smith, 2017; Robinson et al., 2011; Taxman, 2008; Trotter, 1996, 1999). Officer training programs (e.g., EPICS, STICS) offer curriculums stressing the importance of relationship building, problem-solving, and targeting antisocial attitudes during interactions with their clients, many of the same tenets that inform procedural justice theory and legal cynicism (Labrecque et al., 2013).

Yet, despite the theoretical concepts of the TA, procedural justice, and legal cynicism that are rooted in the principles of effective supervision practices, research has yet to formally integrate and test whether the nature of client-PO interactions including perceptions of fairness (i.e., procedural justice) or distrust (i.e., legal cynicism) influences the quality of the TA and
supervision compliance outcomes. In fact, despite some early work on predicting the influence of the TA on supervision outcomes (Blasko & Taxman, 2018; Epperson et al., 2017; Kennealy et al., 2012; Skeem et al., 2007; Wodahl et al., 2017), several gaps persist. In part, research has yet to empirically test formal measures of clients procedural justice perceptions for predicting the quality of the TA. More importantly, prior research fails to consider how negative attitudes towards the supervision process and of legal authorities more generally may impact the TA. Given the importance placed on the caring nature of the PO, that is rooted in tenants of procedural justice theory, more research is needed that tests if the nature of interactions between clients and their supervision officer influences the strength of TA.

This lack of integration and research that aims to identify factors associated with a strong TA represents a critical gap in community supervision especially given high rates of probation noncompliance and failures. Examining if formal measures of procedural justice, legitimacy, and legal cynicism are associated with the TA should provide a greater understanding about how the nature of client interactions and views about legal authorities and the law affect the strength and quality of the PO-client TA and their net impact on supervision compliance outcomes. Though not directly, critics of the RNR model suggest integrating formal elements of procedural justice and legitimacy into the supervision process (Ward, 2010; Ward & Gannon, 2008; Ward et al., 2007). Ward and colleagues’ (2007) good lives model (GLM) suggests that the RNR model pays insufficient attention to an individual’s agentic role (Maruna, 2001), instead emphasizing risk and criminogenic needs. These scholars suggest that individuals should have the opportunity to participate in their own rehabilitative or case management plan (Ward et al., 2007). This argument implicates the importance of procedural justice, namely the need to allow opportunities for supervisees to be heard or express their voice within the TA context. Testing whether clients
believe their supervising officers provide opportunities to participate in decision-making processes or share their side of the story might be a key factor towards strengthening the quality of the TA. In turn, greater exploration into whether procedural justice influences TA might also provide additional opportunities for understanding mechanism to promote greater supervision compliance.

Beyond examining the direct influence of procedural justice with the TA, the RNR model also suggests the importance of targeting individuals’ change attitudes to reduce re-offending (Andrews et al., 1990; Bonta & Andrews, 2017). Change attitudes are antisocial cognitions which can include individuals’ negative orientations or cynicism towards legal institutions and actors (Andrews & Bonta, 2006). Prior research in policing and corrections finds that individuals harboring negative attitudes towards legal institutions tend to have low legitimacy perceptions, which in turn are associated with greater rates of criminal offending (Alward et al., 2021; Jackson et al., 2012; Reisig et al., 2007; Slocum et al., 2016; Tyler, 2006). Individuals’ distrust in the police may spill-over onto community supervision (Baker et al., 2014; Tartar et al., 2012) and are associated with individuals’ perceptions of legitimacy and compliance with the law (Baker et al., 2014; Richards, Austin, & Jones, 2004; Tartar, Kaasa, & Cauffman, 2012). Assessing clients perceptions of legitimacy and legal cynicism represents a critical target for understanding how a lack of confidence in probation supervision or from prior criminal justice experiences and legal interactions may impact the quality of the TA and overall probation compliance. Given that prior law enforcement experiences can influence individuals’ legitimacy attitudes (Baker et al., 2014; Tartar et al., 2012), justice-involved individuals might enter supervision with a greater levels of legal cynicism or distrust towards the system which influence their responsiveness to their supervising PO officers relative to non-justice-involved persons. In
turn, legal cynicism attitudes may influence and or prevent the development of a strong TA, regardless of whether clients perceive their PO as procedurally just thus condition the effect of the TA on compliance outcomes. Therefore, a more complete framework of the factors that influence the quality of the TA may be accomplished by integrating legitimacy and legal cynicism attitudes.

Application of procedural justice with the TA could also help illuminate the mechanisms that drive individuals compliance with the conditions of supervision. In fact, prior research suggests that probation compliance may operate indirectly through perceptions of procedural justice (MacCoun, 2005; Skeem et al., 2007). In this sense, clients’ procedural justice perceptions may mediate the relationship between the TA on supervision compliance. For example, it may be possible that as clients’ develop a strong TA with their POs and experience greater procedural justice then individuals are less likely to engage in behaviors. Therefore, it remains essential to examine whether people on probation perceptions procedural justice represents a key mechanism that underlies the effect of the TA on successful probation outcomes (e.g., technical violations and drug use).

Integrating procedural justice, legitimacy, and legal cynicism with the TA could have major policy implications for probation supervision about understanding how POs could better structure their interactions with clients. Practically, treating people on probation with dignity and respect represents tangible interpersonal skills that could be operationalized and incorporated into PO training curriculums for guiding interactions with their clients in general, and especially during interactions when a client violates a condition of their supervision. This is of critical value as community correction agencies face diminished resources and personnel cuts in which staff are tasked with doing more with less (Lutze, 2014; Petersilia, 1997). Furthermore, training
programs designed to assist agencies in their implementation of principles of effective interventions are financially costly and time intensive, making the translation of principles of effective supervision into practice challenging (Astbury, 2008; Taxman, 2002). Given the challenges of the transportability of the principles of effective intervention into practice, examining how ways in which POs can be change agents to establish better PO-client interactions offers a unique opportunity for agencies to “do more with less” and promote best practices and improve probationer compliance.
CHAPTER THREE: METHODOLOGY

Introduction

The goal of the current study is to examine the importance of interpersonal relationship factors for improving supervision success. In doing so, this study explores the extent that procedural justice, legitimacy, and legal cynicism influence the strength of the TA including the effect of the TA on clients compliance outcomes. This chapter describes the research design and methodology used to achieve these aims. The following section presents hypotheses and overview of data collection and sampling strategy for recruitment and selection of study participants. After discussing the research design, the survey instruments and measures are discussed. This chapter concludes with a discussion of the analytic strategies including use of confirmatory factor analysis (CFAs), linear and logistic regression, and moderation and mediated statistical analyses.

Hypotheses

This study considers several research questions. First, do perceptions of procedural justice, legitimacy, and legal cynicism influence the strength of the PO-client TA (RQ1)? It is hypothesized that perceptions of procedural justice and legitimacy will be positive and statistically related to a higher quality TA (H1). This hypothesis is based on an extant body of research demonstrating the positive association between perceptions of procedural fairness and individuals obedience to the law, across criminal justice settings (Kennealy et al., 2012; Liu et al., 2019; McCarthy & Brunton-Smith, 2018; Maguire et al., 2019; Manchak et al., 2014; Skeem et al., 2007; Tyler, 1990, 2006). This research indicates that when individuals are included into decision-making processes and provide fair and respectful treatment they are more likely to cooperate with legal directives and comply with the law (Blasko & Taxman, 2018; Tyler, 2006).
In addition, research within the general psychotherapy literature revealed that how clients view they are treated and incorporated into their own treatment processes impacts the overall quality of the alliance (Ackerman & Hilsenroth, 2003; Epperson et al., 2017). Although not formally operationalized as procedural justice, this body of research suggests the importance of that individuals place on the perceived fairness of their interactions with their therapist for strengthening the quality of the alliance. Taken together, the current study expected to find similar results within the community supervision context.

Second, do perceptions of the TA, procedural justice, legal cynicism, and legitimacy predict probation compliance (RQ2)? It is hypothesized that client TA scores, perceptions of procedural justice and legitimacy will be negative associated with probation rule-infractions (i.e., technical violations, positive drug tests) (H2). An emerging body of prior research indicates the importance of the PO-client TA and perceptions of procedural justice for improving supervision compliance outcomes. For example, when the TA between officers and their clients was strong, probationers were more likely to comply with supervision requirements (i.e., fewer arrests, technical violations, and revocations) (Kennealy et al., 2012; Manchak et al., 2014; Skeem et al., 2007). Similarly, when probationers view their POs as fair or acting procedurally just, they are less likely to reoffend and violate their probation (Blasko & Taxman, 2018). Several studies also suggest the importance of perceptions of legitimacy in reducing the risk of recidivism (Beijersbergen et al., 2016; Penner et al., 2014; Wallace et al., 2016). However, these bodies of research in community corrections are limited and have yet to collectively examine the influence of the TA, procedural justice, legal cynicism, and legitimacy while controlling for theoretically relevant factors such as risk levels.
Third, does legal cynicism moderate the effect of the TA on supervision compliance (RQ3)? It is hypothesized that clients perceptions of legal cynicism will moderate the effect of the TA on compliance outcomes (i.e., technical violations, drug use) (H3). A substantial body of research indicates that negative attitudes directed at legal authorities can impact both perceptions of procedural justice and individuals compliance to the law (Mastrofski et al., 2002; Paternoster et al., 1997; Tyler, 2006; Visher et al., 2004). Other empirical research demonstrates that disrespect by the hands of legal authorities can manifest greater feelings of cynicism resulting in resistance to legal directives (Mastrofski et al., 1996; Mastrofski et al., 2002). Based on this body of research, legal cynicism attitudes are expected to attenuate the TA and moderate its effect on compliance outcomes. More clearly, greater levels of cynicism may weaken a positive relationship between TA scores and greater supervision compliance.

Last, do perceptions of procedural justice mediate the relationship between the TA on supervision compliance outcomes (RQ4)? It is hypothesized that clients perceptions of procedural justice will mediate the effect of the TA on individuals compliance with conditions of supervision (H4). Several studies have posited that the TA operates indirectly through procedural justice (MacCoun, 2005; Kennealy et al., 2012; Skeem et al., 2007). Prior research found a positive association between procedural justice and supervision compliance (Blasko & Taxman, 2018) as well as the influence of the TA for improving supervision success including reduced arrests, technical violations, and revocations. (Kennealy et al., 2012; Mueller et al., 2021; Skeem et al., 2007). Based on this research, it is expected that as individuals develop a strong TA with their PO, the effect of their relationship on compliance outcomes operates through procedural justice (MacCoun, 2005; Skeem et al., 2007). The final hypothesis tests mediating or indirect effects including individual perceptions of procedural justice.
In testing these hypotheses, this study contributes to an underdeveloped area of research by exploring factors that contribute to the development of the TA within community supervision. In doing so, this study aims to gain a better understanding to help identify the extent that procedurally just PO-client interactions and legal cynicism strengthen or inhibit the development of a strong TA. Finally, this dissertation tests for if clients procedural justice perceptions mediate the relationship between the TA on probationer supervision outcomes which can help elucidate the mechanisms through which a strong therapeutic alliance may drive supervision compliance.

**Methods and Data**

**Study Site**

To test the proposed research hypotheses, this study uses self-reported survey data of POs and individuals under supervision with Solano County Probation (SCP). Located in Solano County, California, SCP is situated approximately 45 miles northeast of San Francisco. With an area covering more than 900 square miles, Solano County has a population over 434,918 people with a near equal number of males and females (i.e., 50.1% female, 49.9% male) and a median age of 37.7 years (U.S. Census Bureau, 2018). Solano county is representative of the state’s demographics, registering a racially diverse population that are 40.7% White, 14.2% Black, 15.3% Asian American, 24.0% Hispanic, and the remaining 7.0% of other or mixed race (U.S. Census Bureau, 2018).

**Gaining Access**

After identifying the goal of this dissertation and main research questions, I realized there were no existing data available that captured how clients on community supervision viewed the relationship with their PO that also incorporated elements of procedural justice, legitimacy, and legal cynicism. As a result, I decided to collect these data myself. To begin the process, my
advisor first introduced me to the SCP Chief Probation Officer via email correspondence. From there, I worked to develop a relationship with the SCP Chief beginning in January of 2020 that lasted over the next 18 months prior to start of data collection. This process began with an initial phone conversation in January of 2020 where I detailed the nature and overall purpose of my dissertation research project including how the information collected could be used to improve supervision practice. The direct correspondence with the Chief provided valuable insight into the working dynamics of the agency. For example, information gathered during this correspondence included the size of the agency, how many POs carried active caseloads of adult clients, as well as preexisting protocols including use of risk assessments (i.e., LS/CMI) and best practices. I used this information to help shape my dissertation proposal including the number of POs would be eligible and be invited to participate in the research study. More specific, while SCP has 95 total staff, only 28 POs worked within the adult supervision unit that carried active caseloads.

Following this initial correspondence and discussion of agency organization, I sent a formal research proposal to the Chief PO and two administrative supervisors for their review. The proposal included background information that underscored the importance of assessing clients’ relationship with their POs including the potential that procedural justice could enhance the quality of PO-client TA. In addition, the proposal incorporated specific research questions, methodology, and agency data needed to complete the project. Finally, at the conclusion of the proposal I included all study survey questionnaires. This served two purposes. One, it allowed the administrative team to understand the types of questions I would be asking their officers and clients. Second, it provided an opportunity to receive agency feedback on the instrument itself. I was able to incorporate their feedback to improve the clarity and alignment of the survey with SCP specifically, as well as reduce items that were not relevant to their organization. After all
revisions were incorporated, SCP approved the research project in March of 2020, and I was formally granted access to conduct this study. Originally, the planned start date was May 2020. However, the onset of the COVID-19 pandemic introduced significant challenges that required me to readjust protocols and data collection timelines.

Solano County Probation Background

In 2011, the California state legislature passed the Public Safety Realignment Act (AB 109) to comply with the U.S. Supreme Court’s decision in Brown v. Plata (563 U.S. 493, 2011) ordering California to reduce its prison population to 137.5% percent capacity or a total prison population of 110,000 individuals by year end 2013. The Supreme Court ruled that California’s prison overcrowding violated the 8th Amendment to the U.S. Constitution that prohibits cruel and unusual punishment. In effect, AB 109 authorized the transfer of individuals convicted of non-serious, non-violent, and/or non-sexual offenses to county level supervision to serve the remainder of their sentences in jail or on post-release supervision. This realignment shifted the responsibility of post-release supervision from the state to county probation. Realignment also eliminated state parole and shifted the responsibility of supervising lower-level individuals convicted of felony offenses to county-level supervision (i.e., jail and probation). Prior to AB 109, California’s county level probation population consisted largely of individuals convicted on minor and misdemeanor type offenses (Nguyen, Grattet, & Bird, 2017). In passing the prison realignment act, California county probation departments became responsible for monitoring two new categories of felony probationers: post-release community supervision (PRCS) and mandatory supervision (MS) or convicted felons serving a “split sentence” of probation supervision and jail sentence. To assist county probation in overseeing additional high-risk probationers, the state enacted the Post-Release Community Supervision Act of 2011 which
mandated the use of evidence-based practices (EBPs) to improve community supervision and reduce probation noncompliance and reoffending.

In response to California’s prison realignment and the Post-Release Community Supervision Act of 2011, SCP established two Centers of Positive Change (CPCs) in 2015. The two CPCs were established to provide treatment services assistance to individuals that would have normally been placed on state parole. One CPC was built in Fairfield, CA and the other in Vallejo, CA. Both CPCs are designed to provide moderate to high risk clients with correctional interventions including cognitive behavioral therapies and substance use treatment services. While both CPCs operate under SCP, a variety of social service workers and health professionals staff the centers and provide correctional programming there. Coinciding with the establishment of the two CPCs, SCP officers are trained in several EBPs including motivational interviewing (MI) and the Effective Practices in Community Supervision (EPICS). These two practices are supported by research that demonstrated the effectiveness of MI and EPICS for reducing reoffending (Anstiss, 2005; Labrecque & Smith, 2017; Latessa et al., 2013; McMurran, 2009), substance abuse (Hettema et al., 2005) and improving probationer treatment engagement and motivation to change (Taxman, 2002, 2008; Walters et al., 2007). Beginning in 2017, SCP implemented an agency-wide individual MI training protocol with monthly refresher and booster sessions to educate officers on how to utilize core correctional practices and case management.

In addition to implementing MI and EPICS, SCP implemented the Level of Service/Case Management Inventory (LS/CMI), a validated 4th generation risk assessment that links the importance of client assessment and case management services. Grounded in the psychology of criminal conduct (PCC), the LS/CMI provides SCP DPOs with data that helps identify individuals at the greatest risk of violating supervision and their criminogenic needs to guide the
appropriate matching of supervision and treatment (Andrews, Bonta, & Wormith, 2004, 2008; Wormith, Hogg, & Guzzo, 2015). SCP categorizes client risk into four distinct categories: (1) highest risk, (2) high risk, (3) moderate risk, and (4) low risk.

According to SCP policy, classification of client risk level follows a point-based system of individual LS/CMI scores. For instance, LS/CMI scores of 31 or greater represent highest risk, scores 24 to 30 are high risk, 18 to 23 represent moderate risk, and LS/CMI scores ranging from 0 to 17 represent low risk. Furthermore, SCP determines PO caseloads using a numeric system based on the LS/CMI risk score with caseloads capped at a maximum of 105 points. POs can supervise any combination of low (0 points), moderate (1 point), high risk (2.3 points), and highest risk (3.5 points) individuals that equates to 105 points. For example, a DPO’s caseload could include 20 highest risk, 10 high risk, 10 moderate risk, and 15 low risk probationers for a total of 105 points. However, due to added administrative responsibilities, senior POs are limited to a caseloads that equate to 85 points or 24 high risk probationers. Currently, SCP supervises 3,200 individuals within their adult probation division across four district offices (see Table 1). Of these individuals, 10% were classified as highest risk, 33% were high risk, 27% moderate, and a remaining 30% identified as low risk. At the time of data collection, SCP employed 95 total staff including 16 Supervising Deputy POs (SDPO), 20 Senior Level Deputy POs (Sr. DPOs), and 59 deputy POs (DPO) across two field offices (See Table 1). Within the agency, SDPOs do not supervise individuals directly, but are responsible for overseeing and supporting DPOs that carry active caseloads.

**COVID-19 and Data Collection Process**

Beginning in March of 2020, the emergence of the COVID-19 pandemic directly impacted how community correction agencies across the United States were able to perform their
responsibilities. In response to COVID-19, many probation departments reduced the frequency of face-to-face meetings with clients, discontinued field and home visits, and/or were forced to close their office doors altogether (Marcum, 2020; Schwalbe & Koetzle, 2021; Viglione et al, 2021). Solano Probation was no exception as their agency reduced the frequency of face-to-face PO-clients contacts and the limited the number of individuals allowed in the office. This continued until May of 2021, delaying the start of my data collection. Throughout this time, I maintained consistent contact with the SCP Chief by checking in to see how they were faring during the pandemic and if there was anything I could assist with. This served as an important process in preserving the rapport that had already developed prior to COVID-19. In September of 2020, the Chief introduced me to the supervising deputy probation Officer (SDPO) of the adult division who served as my primary agency liaison who was instrumental in supporting my study and data collection efforts. After this introduction, I worked closely with the agency liaison to brainstorm how to move forward with my research project given COVID-19 was an ongoing concern.

While I initially planned to launch the study beginning with a on-site visit to introduce myself and the project to probation staff, instead I coordinated with the SDPO to plan for virtual meetings with each adult probation unit and their supervising officers. Beginning in November of 2020, I attended agency staff zoom meetings to introduce the nature of the project and recruit POs into the study. Following these meetings, I sent all POs recruitment flyers to provide to clients on their caseloads with my contact information to aid in client recruitment. Recruitment continued for the next several months (i.e., December to February), though with limited success. During this time, only two clients reached out with interest about participating in the research study with only a single respondent completing a survey. By February of 2021, the SDPO and I
coordinated an email message which served as a reminder to all staff about the PO survey and client recruitment. While POs were returning completed organizational surveys during this period, client recruitment continued to stall. While up to this point COVID safety concerns delayed the possibility of starting in-person data collection, by April of 2021 though concerns were reduced as the pandemic eased during this period. In coordination with my gatekeeper, I was able to start client data collection in May of 2021 when the agency deemed it was safe enough to begin my data collection in-person and on site.

**Sampling and Recruitment**

Several study eligibility requirements were included for client participation. Clients were asked to complete a survey if they had met with their supervising officers a minimum two times or have been supervised on probation for at least 2 months. Remaining eligibility requirements were: (a) English speaking, (b) on active supervision, and (c) capable of providing informed consent for research. These requirements were consistent with several other studies examining the probation officer-probationer therapeutic alliance in community supervision settings (Kennealy et al., 2012; Manchak et al., 2014; Skeem et al., 2007). Using a convenience sampling strategy, clients on probation were approached to participate in the research study as they waited to meet their probation officer at the SCP office. Clients were contacted after they signed into the probation office and invited to participate in study about their experiences with the supervision process and views towards their supervision officer.

**Client Survey and Data Collection**

Those who were eligible and accepted to participate were provided an informed consent document detailing the purpose of the study and ensured that all survey responses were confidential. Following the informed consent process, clients completed a paper and pencil
The goal of this survey was to capture client perceptions towards their POs and of the supervision process. Clients were asked questions to evaluate the quality of the relationship with their PO (i.e., the TA), how fair they perceived the supervision process to be, and their attitudes towards the law (i.e., legitimacy, legal cynicism). The survey contained 107 items that covered 8 total pages, front and back, taking approximately 25 minutes to complete. Data collection occurred on a rotating basis across beginning in May of 2021 to August 2021 during all possible days and times. For instance, data collection happened every day of the week that covered all business hours to increase the representativeness of study sample. This approach was consistent with similar studies that implemented comparable sampling methods (Applegate et al., 2009; Skeem et al., 2007; Smith et al., 2009).

Client data collection involved a lengthy and challenging process that included significant travel time between the two SCP field offices (i.e., Vallejo and Fairfield) and my home residence, located in Cottonwood, California. In addition, this process included overnight stays in local Fairfield and Vallejo, CA hotels. Data collection occurred over several extended trips to the probation field offices. For instance, I would drive from my residence to one of the field offices, spend a full day distributing and collecting surveys, then spend the night in a local hotel and continue data collection the next day. At the end of each data collection trip, I would then drive back my residence in Cottonwood, CA. In total, 10 roundtrips were completed that amassed nearly 3,000 total miles. Client survey data collection lasted from May to August of 2021 with 27 total days spent across both probation offices totaling approximately 200 hours administering surveys to eligible clients.

To increase study participation, eligible respondents received a $10 monetary incentive in the form of a gift card immediately after returning a completed survey. Research supports the use
of a $10 monetary incentive for increased response rates (Dillman et al., 2014; Singer, 2002; Singer & Ye, 2013), with additional studies demonstrating the effectiveness of gift cards and vouchers to incentivize individuals on community supervision to participate in research studies (Taxman et al., 2015; Wodahl et al., 2017). To minimize the appearance of coercion, POs and all SCP staff were prohibited from distributing any incentives or collecting individual client survey responses.

Client Study Sample

In total, 235 eligible clients agreed to participate with the research study with 78 percent (n = 185) returning a completed survey questionnaire. Following listwise deletion, the final analytic sample was 172 clients. Table 2 presents the descriptive statistics for all demographic and supervision characteristics. The majority of the sample were male (78%), approximately 36 years of age (SD = 10.27, range 19 to 62 years), with nearly two-thirds of the sample identifying as Non-White (60%). Approximately 47% of the sample were employed at the time of the study with 41% reporting a high school level education. In regard to risk level, clients reported an average LS/CMI score of 23.73 (SD = 7.05) corresponding to a high risk classification. The majority of the study sample reported a little more than a year remaining on their current probation sentence or approximately 18 months (SD = 10.01). More than half of the sample reported zero prior technical violations (55%). However, close to 26% noted a history of at least 1-2 prior technical violations and 20% having 3 or more prior technical violations. Close to 18% reported a prior supervision revocation.

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2 The majority of clients that agreed to participate in the study but failed to complete a survey often had to leave the probation office before finishing a questionnaire. In these situations, clients consented to participate prior to their meeting with DPO, but upon completion of that meeting noted they did not have time to finish a survey at that time.
Probation Officer Sampling and Recruitment

In addition to collecting self-reported data from individuals on county probation, data were also separately collected from SCP DPOs. Officers were eligible to participate in the study in two ways. First, DPOs could participate by completing an organizational survey with the goal of understanding officer supervision styles and DPO perceptions on how they interacted with the clients on their caseloads. Probation officers were eligible to participate in the organizational survey if they met the following criteria: (1) had an active supervision caseload and (2) worked in the adult supervision division. Second, DPOs were provided the opportunity to participate in the research project by completing DRI-SF assessments for each client on their caseload who completed a DRI-SF from their perspective. DPOs were eligible to complete a DRI-SF assessment if they meet the above criteria and a client on their caseload completed a DRI-SF instrument on the client survey. Within the adult probation division, 28 total DPOs were eligible to participate the organizational survey and subsequent DRI-SF surveys.

Officer recruitment began with five separate Zoom meetings across each adult probation unit (N = 5) in November of 2021. The goal of these meetings was to describe the purpose of the project including the primary focus on examining the PO-client TA. During each meeting, DPOs were invited to recruit eligible clients from their caseload to participate in the client survey via Qualtrics. During the same Zoom meetings, DPOs were invited to participate in an organizational survey to measure their perceptions of supervision, their organization, and how they interacted with the clients they supervised. Explanation of research and recruitment flyers were shared with agency administrators and directly emailed to all DPO staff at the conclusion of each Zoom meeting. The recruitment flyers were displayed throughout both SCP field offices that contained summary information of overview of the study project including client and PO
eligibility criteria. Recruitment flyers also contained the researcher’s contact information and reiterated the voluntary nature of the project and that participation at any stage of the research project (i.e., DPO organization survey, DPO DRI-SF assessment) would have no impact on their employment with SCP.

Probation Officer Data Collection

At the conclusion of all five Zoom meetings, POs were sent emails that contained an electronic link to the organizational survey in Qualtrics. The organizational survey contained 52 total items that asked POs questions about how they approached supervision including supporting clients on their caseloads, self-legitimacy as supervision officers, and caseload characteristics. The survey took approximately 12 minutes to complete. Survey administration followed an the Dillman (2000) method. Following initial invitation emails sent in December of 2020, DPOs were sent follow-up reminders weekly for the next 4 weeks. After limited PO response to the organizational survey, a senior agency administrator sent all adult division POs a follow-up email that contained an anonymous link to the Qualtrics survey in February of 2021. A final reminder email was sent to DPOs that had yet to opt-out or complete an organization survey in March of 2021. At the conclusion of the study in August 2021, all DPOs who had not completed the survey were sent one more survey reminder. Of 28 eligible DPOs, 21 returned an organizational survey representing a 75% response rate. Participation in each portion of this study was voluntary and the research adhered to the University of Central Florida’s Institutional Review Board.

Probation Officer DRI-SF Instrument

After each client completed a survey that included the DRI-SF, the researcher confirmed the respondents’ supervising DPO using a self-reported measure included on all client surveys.
Once the clients’ supervising officer was confirmed, the identified DPOs were then invited to complete an individual DRI-SF assessment that asked them to report on their perceptions of their relationship with a specific client. Several modalities were implemented to increase participation rates and provide flexibility for POs to complete a DRI-SF assessment that accommodated organization workflow. Initially, DPOs were asked to complete an electronic survey via Qualtrics that contained the DRI-SF instrument immediately following their meeting with their client. POs were encouraged to complete the DRI-SF on the same day if possible. However, in response to DPOs having several of their clients complete a paper and pencil client survey on different days throughout the same week, some DPOs requested to be emailed all DRI-SF assessments at the end of the week to respond to each client DRI-SF at a single time. This continued until all POs completed a DRI-SF assessments for participating client who also completed a DRI-SF during the study period. Probation officers had five days to complete the DRI-SF but were sent follow-up email reminders one week after initial the invitation. This helped ensure that DPOs drew on their most recent interactions, and the same interaction as the client, in assessing the quality of the TA from their perspective. Of the 28 DPOs working in the adult division, 27 DPOs completed at least a single DRI-SF assessment for their corresponding client that completed a client survey. In total, all 185 clients completed a DRI-SF with DPOs returning 117 DRI-SF assessments, representing a 63% DPO response rate. Approximately half of returned PO DRI-SFs were completed on the same day they were emailed to officers (50%) with close to three-quarters completing the instrument within a 5-day period (73%). The remaining PO DRI-SF assessments (27%) were returned by the end of the study period. Given

3 While all DPOs were eligible to complete a DRI-SF, one DPO chose not to participate.
that POs were asked to complete multiple client TA assessments, officers were provided incentives in the form of gift-cards based on the number of instruments completed. For example, POs that completed 1-5 DRI-SF assessments received a $10 amount e-gift card; completion of 6-10 DRI-SF assessments $15; 11-15 assessments $20; and POs who completed 20 assessments received a $25 amount e-gift card. The distribution of all POs incentives occurred at the conclusion of the research study period.

**Measures**

*Official Compliance Data*

Official compliance data were collected from Solano probation records. Two measures of official compliance data were collected: technical violations and reporting a positive drug test. Technical violations measured all recorded client violations of supervision conditions, not including commission of a new crime. For example, agency violations include treatment noncompliance, failure to notify law enforcement contact, and failure to report to office or call PO (see Appendix A). To create the technical violations variable, data was combined into a single dichotomous measure (1 = technical violation; 0 = no technical violations) within a six-month period following survey completion. Client drug use measured all recorded positive drug tests that occurred over a six-month period and recoded into a single dichotomous variable (1 = positive drug test, 0 = no positive drug test). Given that a large amount of probation violations occur within the first three to four months of supervision (Gray et al., 2001; Piquero, 2003), this timeframe is sufficient and should capture a large proportion of official noncompliance outcomes. Of noncompliance committed during the 6-month study period, 44% of the sample had a positive drug test and 20% incurred a technical violation.
Therapeutic Alliance

To capture the PO-client TA, this study relied on the Dual Role Inventory-Short Form (DRI-SF), a validated instrument (Gochyyev & Skeem, 2019). The DRI-SF is a 9-item instrument with three distinct subscales: caring and fairness; trust; and toughness. The dimension of caring and fairness capture the extent to which individuals in mandated treatment settings (e.g., probationers) perceive practitioners/providers (e.g., probation officers) provide clear communication about the rules and roles of supervision and treat individuals in a respectful manner. Three items are used to measure the Caring/Fairness subscale: “Caring and Fairness” (n = 3, e.g., “X treats me fairly”; “X considers my views”; and “X takes my needs into account”) (α = .87). The second dimension, trust, corresponds to probationers’ sense of safety to disclose sensitive information and problems to their supervising officer. Three items were combined to form the Trust subscale: “I feel safe enough to be open and honest with X”; “I feel free to discuss the things that worry me with X”; and “X knows that he/she can trust me”) (α = .83). The final dimension, toughness, captures client’ perceptions of whether their PO uses an authoritarian working style. Toughness items included: “X talks down to me”; “I feel that X is looking to punish me”; and “X expects me to do all the work alone and doesn’t provide enough help.”) (α = .75). To calculate the three subscales, each dimension were summed together to provide a total subscale score: (1) caring/fairness, (2) trust, and (3) toughness) with higher scores indicating greater perceived PO fairness, trust, and less toughness. A total TA score was then calculated by summing together all DRI-SF subscales with greater scores indicating a stronger quality PO-client TA (α = .84).

Skeem and colleagues (2007) and others (see Kennealy et al., 2012; Manchak et al., 2014) initially created and validated a 30-item Dual-Role Relationship Inventory to assess the
quality of PO-client relationship in supervision settings, based on the original working alliance literature (Horvath & Greenberg, 1986). More recently, Gochyyev and Skeem (2019) developed and validated a short-form version of the DRI-R using multidimensional item response theory (IRT) across four different data sets. In their study, these researchers combined four data sets representing a total 815 offenders including adults and juveniles with and without mental illness and their supervising officers (N = 125) (Gochyyev & Skeem, 2019). However, the authors noted that IRT response modeling was performed with the combined juvenile and adult data set (N = 690) though analyses did not include scores from the perspective of supervision officer. Results demonstrated that DRI-SF psychometric properties were strong across a variety of different samples (i.e., juveniles, adults). Furthermore, the DRI-SF successfully predicted time to re-arrest across client groups (i.e., juveniles and adults) (Gochyyev & Skeem, 2019). An advantage of utilizing the DRI-SF to measure the PO-client TA is a substantially shorter administration time. Prior research reveals that longer paper survey questionnaires are associated with lower response rates (Gochyyev & Skeem, 2019). Prior research also reported that justice-involved individuals report significantly lower education and literacy rates compared to the general population (Gendreau, Little, & Goggin, 1996). Use of the DRI-SF reduces the total number of survey items to increase client response rates and diminish potential survey fatigue.

**Procedural Justice**

Individuals’ perceptions of procedural justice were captured using the Procedural Justice Measure (PJM), a 7-item validated instrument (Blasko & Taxman, 2018). Blasko and Taxman (2018) developed the PJM to capture clients perceptions of fairness of the community supervision process. The PJM included 7 items: “My PO listens to my side of the story when I miss an appointment, have a positive urine, or have other problems with supervision rules”; “My
PO makes decisions about how to handle problems in a fair way.”; “My PO follows clear
guidelines when he or she has to punish me for breaking rules.”; My PO works with other
agencies to get the services I need.”; I feel my PO’s sanctions and punishments are what I should
get.”, I feel that my PO treats me like others on supervisions.”; and “My PO often makes up his
or her own rules.” Each item were rated on a 7-point Likert-type scale with response options of 1
= never, 2 = rarely, 3 = occasionally, 4 = sometimes, 5 = often, 6 = very often, and 7 = always.
Items were combined into a standardized mean index, with higher scores indicating more
positive perceptions of procedural justice towards their PO (a = .73).

Legitimacy

This study used a new multidimensional scale to capture clients’ perceptions of
legitimacy. Based on prior literature, three subscales were created that measured traditional
elements of legitimacy beliefs, including obligation to obey the law, institutional trust, and
normative alignment. Obligation to obey the law reflects an individual’s internal or moral sense
of duty to defer to legal authorities irrespective of personal feelings (Tyler, 2006; Tyler &
Jackson, 2014). The obligation subscale included three items: “You should accept the decisions
of probation officers even if you think they are wrong”; “You should do what probation officers
tell you even if you do not understand the reasons”; and “You should do what probation officers
tell you to do even if you do not like how they treat you”; Institutional trust represents an
individual’s confidence in legal authorities to wield their power in appropriate ways (Jackson &
Gau, 2016; Tyler, 2006). Two items measuring probationers perceptions of institutional trust
were included: “Probation officers are generally honest” and “When dealing with people,
probation officers almost always behave according to the law/rules.” The final subscale,
normative alignment, refers to the belief that legal authorities share the same societal values and
goals as their subordinates. In other words, individuals believe that legal authorities will exercise their power in desirable and correct ways in accordance with societal values. The three items that comprised normative alignment were: “Probation officers generally have the same sense of right and wrong that you do”; “Probation officers stand up for values that are important to you”; and “Probation officers usually act in ways that match your own ideas about what is right and wrong.” All items were measured on 4-point Likert-type scale ranging from 1 = strongly disagree to 4 = strongly agree. The three subscales were combined into a standardized mean index with greater scores reflecting higher levels of perceived legitimacy (a = .87).

Legal Cynicism

To measure respondents’ perceptions of legal cynicism, this study relied on Gifford and Reisig’s (2019) measure of legal cynicism, containing 13 items measured on a 4-point Likert scale from 1 = strongly disagree to 4 = strongly agree. This measure contained three subscales: legal apathy, legal corruption, and low legal legitimacy. Six items were used to measure legal antipathy: “People who always follow the law are suckers”; “It is fun to break the law and get away with it”; “Sometimes you need to ignore the law and do what you want to”, “It’s alright to break the law if you don’t get caught”; “It is alright to get around the law if you can get away with it”; “Suckers deserve to be taken advantage of”; and “The law does not protect my interests.” Three items captured legal corruption. These items included: “Law are usually bad”; “The law is rotten to the core”; and “When you are well connected, the law doesn’t really apply to you.” The final subscale low legal legitimacy was measured using four items: “Nearly all laws

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4 Two items were dropped from the original Gifford and Reisig (2019) legal cynicism scale due to poor CFA factor loadings (i.e., below .32 recommendations). The two items dropped were: (1) “To get ahead, you have to do some things which are not right”, and “Society would be a better place if all laws were enforced”.

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deserve our respect”; “There is never an excuse for breaking the law”; “People should always obey the law even if it interferes with their personal ambition”; and “I try to obey the law, even if it goes against what I think is right.” All 13 items were combined into a standardized mean index and coded such that higher scores reflected greater levels of legal cynicism (a = .90).

Control Variables

Employment

This study controlled for a single measure of social stability, client employment. In general, prior research consistently acknowledges multiple pathways contributing to offenders’ desistance from both crime and antisocial behaviors. Established correlates of desistance include stable employment (Benda, 2005; Uggen, 2000), high quality marriage to a noncriminal spouse (Maume et al., 2005; Sampson & Laub, 2005), prosocial networks and peer associations (Andrews, 1980), and age (Laub & Sampson, 2001; Shover & Thompson, 1992). In the context of community supervision, individuals on probation with employment were more likely to successfully complete probation supervision (Morgan, 1994; Sims & Jones, 1997). This study captured employment status using a single item at the time of the survey: “Are you currently employed?” A dichotomous variable was created with 1 = employed and 0 = not employed.

Past Technical Violations

Research suggests the need to control for clients prior criminal and rule breaking behaviors. Research has consistently found prior criminal records and conviction offense (e.g., violent, drug, and property) are significant predictors of probation supervision failure (Gray et al., 2001; Morgan, 1994; Sims & Jones, 1997; Whitehead, 1991). More specifically, individuals on supervision for property and robbery offenses were more likely to violate the conditions of supervision and have their probation revoked (Bork, 1995; Morgan, 1994; Whitehead, 1991).
Research has also demonstrated that more prior convictions and a history of probation failure are correlates of probation violations (e.g., MacKenzie & Li, 2002; Morgan, 1994; Olson & Lurigio, 2000; Petersilia, 1985). To control for these factors, prior technical violations and offense type were included in the models. Prior technical violations was captured as an ordinal measure. Ordinal responses included: 1 = no prior technical violations; 2 = 1-2 prior technical violations; and 3 = 3 or more prior technical violations. Offense type was created using dummy variables of violent, property, drug, and other offense with violent serving as the reference category.

Sentence Length

Supervision success has been tied to sentence length (Morgan, 1994). From a theoretical standpoint, lengthier sentences place individuals at increased risk of being re-arrested or getting caught violating a condition of supervisory term (Gray et al., 2001). Past studies found that longer supervision sentences are associated with increased risk of individuals violating terms of their supervision (Benedict & Huff-Corzine, 1997; Morgan, 1994). For example, Olson and Lruigio (2012) found evidence that individuals on probation with longer sentences were at increased odds of having their probation revoked and receiving a technical violation. To account for individuals time at risk while on supervision, the current study included two measures: time remaining, and time spent on probation. Both measures were captured as a continuous variable by subtracting the date individuals completed a client survey with their start (time spent on probation) and end date of probation sentence (time remaining). Time remaining and time spent on probation were reported in months and truncated at 36 to account for outliers, with about half
of respondents having close to a year and a half remaining on their sentence (M = 17.81, SD = 10.01).5

**LS/CMI**

Consistent with prior research, the current study included a measure of recidivism risk level (Blasko et al., 2015; Kennealy et al., 2012; Skeem et al., 2007). Client risk levels was captured with official agency assessments that relied on the Level of Service/Case Management Inventory (LS/CMI) (Andrews et al., 2004). A fourth generation risk instrument, the LS/CMI comprises 6 domains used to predict an individual’s potential to re-offend by capturing the “central eight” criminogenic risk factors including: (1) criminal history, (2), family, (3) antisocial peers, (4) education/employment, (5) alcohol/drug use, (6) leisure/recreation activities, (7) antisocial personality/behavior patterns, and (8) procriminal attitudes/orientations). Individuals on probation responded to 43 individual items as either yes or no, with each yes equating to a single point. Total risk scores were calculated by summing points across each domain and captured as a continuous variable with higher scores indicating greater client risk levels (M = 23.73, SD = 7.06).

**Client Demographics**

This study includes controls for several demographic characteristics to obtain accurate estimates. Prior research found that personal characteristics are known predictors of procedural justice and legitimacy perceptions (Fine & Cauffman, 2015; Fine et al., 2017; Rocque, 2011; Sunshine & Tyler, 2003). It is important to control for individuals race/ethnicity given prior research consistently reports that Black and Hispanic individuals are more likely to hold negative

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5 Fewer than 4 percent of cases were recoded for client’s time remaining on their current probation sentence. Less than 7 percent of cases were recoded for client’s time spent on their current probation sentence.
attitudes towards the justice system relative to white individuals (Engel, 2005; Fine & Cauffman, 2015. Fine et al., 2017; Sunshine & Tyler, 2003; Weitzer, 2000; Weitzer & Tuch, 1999). In addition, the importance of race/ethnicity is rooted in Tyler and Lind’s (1988) group-value model of procedural justice. According to the group-value model, shared social identity (i.e., race/ethnicity) with legal authorities may influence individuals’ perceptions of authority figures. Tyler and Huo (2002) study of Oakland and Los Angeles residents found that white citizens were significantly more willing to accept white legal actors decisions compared to Black and Hispanic citizens. Though limited, these studies collectively identify the need to consider individuals race/ethnicity in shaping perceptions of procedural justice, legitimacy, and ultimately compliance with the law. Clients race/ethnicity was self-reported by respondents and operationalized by creating a dichotomous variable of White and Non-White (1 = Yes, 0 = No).

Another important demographic characteristic influencing individuals’ procedural justice, legitimacy, and offending outcomes is age. Prior research examines how individuals’ perceptions of legitimacy and criminal offending change as individuals age (Jackson et al., 2012; McLean, Wolfe, & Pratt, 2018). Using the Pathways to Desistance longitudinal dataset, McLean and colleagues (2018) posited an age-graded theory of the development of legitimacy attitudes. Their analyses found that adolescent offenders’ perceptions of legitimacy were fluid over time and reached a level of stability upon early adulthood (ages 20-26) (McLean et al., 2018). These findings suggest that legitimacy attitudes are malleable, influenced by other processes as individuals age. The age-crime curve also suggests the importance of age for understanding criminal offending. Research demonstrates that criminal offending peaks early in life though starts to weaken as people emerge into adulthood (Farrington, 1986; Piquero et al., 2003; Sweeten et al., 2013). As a result, probationers age was included in the models and measured as
a continuous variable captured in years. Respondents provided their birthdates, which were subtracted from the date of data cleaning to create the age variable.

Educational attainment was also included as a control variable. Prior research finds greater educational attainment was significant predictor of an individual’s procedural justice and legitimacy perceptions (Fine et al., 2016; Hinds & Murphy, 2007; Sunshine & Tyler, 2003). Research also suggests that people on probation with greater educational attainment are more likely to successfully complete probation supervision and less likely to violate compared to those who are less educated (e.g., Irish, 1989; Morgan, 1994; Roundtree, Edwards, & Parker, 1984; Sims & Jones, 1997). These findings collectively support the need to control for probationers education. Education was measured by asking respondents “What is the highest grade or year of education you have completed?” An ordinal level measure was used to capture client self-reported completion of their highest-grade level. Response options were: 1 = less than High School, 2 = Some High School but didn’t finish, 3 = High School diploma or G.E.D., 4 = Some College, 5 = Associates Degree, and 6 = Bachelor’s Degree or higher.

Probation Officer Sample

In total, 21 SCP officers completed an organizational survey during the study period. Of responding POs, the majority were female (71%), held at least a college Bachelor’s education (81%), and carried an average caseload size of approximately 50 clients. On average, POs were 37 years old and worked at the agency for roughly nine years. However, due to the limited number of DPOs that returned a DRI-SFs (117) relative to the total of client DRI-SFs (185), the current study did not include DPO characteristics in analyses. Prior research has demonstrated the validity of the both the DRI-R and DRI-SF from only the client perspective (Gochyyev & Skeem, 2019; Skeem et al. 2007). Given the small client sample size and the focus on examining
client perceptions of procedural justice, legitimacy, and legal cynicism, the current study focuses on the client sample to retain needed statistical power.

**Analytic Strategies**

**Summary Statistics**

First, descriptive statistics were provided to describe all dependent, independent, and control variables across the client sample. Frequencies, means, and standard deviations are reported for all study variables. Next, bivariate correlations using Pearson’s R and independent t-tests were computed to examine the relationships between the independent and dependent variables including the main dependent variables of client TA, technical violations, and positive drug tests. For categorical variables, chi-square tests and analysis of variance (ANOVA) tested for group-differences (e.g., prior technical violations and risk levels). Cohen’s d were reported to assess the effect size between mean differences with small effect values representing $d = .2$, moderate effect values for $d = .5$, and large effects of $d = .8$. (Cohen, 1988).

**Confirmatory Factor Analysis**

The latent structure of procedural justice, legitimacy, legal cynicism, and the TA were affirmed using confirmatory factor analysis (CFA). CFA represents a special kind of structural equation modeling (SEM) that advances *a priori* model specification used to confirm or reject the measurement of observed indicators and latent variables (Adcock, 2013; Brown, 2015). In this context, researchers rely on CFA to verify the number of underlying dimensions of a latent construct (Brown, 2015). For example, CFA can be used to verify when a latent structure is multidimensional (e.g., two or more factors) as well as to identify the number of subscales used to capture a single latent construct. A key advantage for the use of CFA compared to other factor analyses (i.e., principal components, exploratory factor analysis) is the ability to estimate
structural relationships among variables with the ability to adjust for measurement error. Unlike correlational and multiple regression analyses which assume perfect measurement (e.g., variables are measured without error and perfect reliability), CFA accounts for measurement error. That is, “shared variance among the factor’s indicators is operationalized as true-score variance, which is passed on to the latent variable” (Brown, 2015, p.44).

It is important to confirm the measurement model of the previously validated DRI-SF, PJM, and legal cynicism (i.e., Blasko & Taxman, 2018; Gifford & Reisig, 2019; Gochyyev & Skeem, 2019; Skeem et al., 2007) instruments to ensure construct and discriminant validity. Although measures used in this study are consistent with prior research, many of the procedural justice, TA, and legitimacy items are theoretically similar and could therefore be indistinguishable. Skeem and colleagues’ (2007) even argued the DRI-R subscale of caring/fairness reflected an interpersonal form of procedural justice. Studies relying on the DRI-R and DRI-SF (e.g., Gochyyev & Skeem, 2019; Kennealy et al., 2012; Skeem et al., 2007) have not specifically tested whether theoretically consistent procedural justice items loaded separately from measures capturing the TA. However, Blasko and Taxman’s (2018) validation of the PJM found their PJM was moderately correlated with the DRI-R but stopped short of performing specific factor analyses. While Blasko and Taxman’s (2018) study suggested the DRI-R and PJM are indeed separate constructs, research has yet to confirm the structural components underlying the DRI-SF and PJM. Additionally, researchers have questioned whether measures used to assess individuals’ procedural justice and legitimacy beliefs are in fact distinguishable (Gau, 2011, 2014; Henderson et al., 2010; Reisig et al., 2007; Tankebe, 2013). For example, several scholars raised concerns about the discriminate validity of procedural justice and legitimacy measures (Gau, 2011; Gau, 2014; Reisig et al., 2007; Tankebe, 2013). Given these concerns, CFAs were
conducted to affirm the measurement structures of procedural justice, legitimacy, legal cynicism and the TA. Next, separate CFAs were performed to test for discriminant and convergent validity of the procedural justice and legitimacy on two measurement models. The application of procedural justice, legitimacy, and legal cynicism remain empirically limited in the community supervision context. As a result, it is crucial to assess these concepts and affirm whether the items used in other justice settings generalize to samples of individuals on probation supervision.

To begin, multiple CFAs were performed in a number of steps. First, independent CFAs were estimated to confirm the measurement model of the DRI-SF, PJM, legitimacy, and legal cynicism items. A three-factor solution of DRI-SF was tested to ensure what solution best fits the data. That is, the CFA aimed to confirm the measurement structure of the DRI-SFs’ three subscales (i.e., caring/fairness, trust, and toughness) while simultaneously testing the validity of model fit. This same process was utilized to examine the PJM structural component and whether the items can be combined to from a single latent variable. Next, a CFA model estimated whether the nine items tapping into the study sample’s perceptions of legitimacy could be combined into a single latent variable. This CFA specifically tested whether a three-factor solution, comprising obligation to obey, institutional trust, and normative alignment, fits the data better than a single factor solution. Similarly, another CFA was performed to confirm if Gifford and Reisig’s (2019) 15 legal cynicism items produced a three-factor solution representing the three subscales (i.e., legal antipathy, low legal legitimacy, and legal corruption). Finally, all PJM and DRI-SF measures were included in a single CFA model to test for discriminant validity. Although prior research demonstrated that legitimacy, procedural justice and legal cynicism were unique and separate constructs, (Blasko & Taxman, 2018; Gau, 2015; Johnson, Maguire, & Kuhns, 2014; Reisig et al., 2011), many of the underlying elements are embedded within the
DRI-SF. Given that prior research mainly examines the independent effects of these concepts and this study calls for the integration of these factors, it is important to assess their structural components and ensure they are empirically distinct constructs.

All estimated CFAs were evaluated according to their goodness of fit indices including factor loadings and between-factor correlations. Goodness of fit indices included Akaike’s information criterion (AIC), Bayesian information criterion (BIC), comparative fit index (CFI), Tucker–Lewis index (TLI), and root mean squared error of approximation (RMSEA) to identify best fitting solution (Acock, 2013). The AIC and BIC are useful for comparing non-nested models that estimate the same number of variables to help identify which measurement models are more parsimonious (Acock, 2013; Hooper, Coughlan, & Mullen, 2008). The models with smaller AIC and BIC values indicate greater parsimony and are preferred (Acock, 2013). The CFI represents a widely used measure to assess model fit comparing the sample covariance matrix for the tested model against the null model (Chen, 2007). The CFI produces scores that can range from 0 to 1 with values falling between 0.90 and 0.95 with 0.95 becoming more widely used criterion (Acock, 2013). CFI operates independently of sample size with research noting that it can perform well with even small study samples (Hu & Bentler, 1998). The RMSEA examines the level of error for each degree of freedom with a recommended 0.05 cutoff value for good model fit (Chen, 2007).

RQ #1: Do perceptions of procedural justice, legitimacy, and legal cynicism influence the strength of the PO-client TA?

To answer the first research question about the influence of client supervision experiences (i.e., procedural justice, legitimacy, and legal cynicism) and demographic characteristics on the TA, several multivariate regression analyses were conducted. Ordinary
least squares (OLS) regression models allows for analysis of a single dependent variable on multiple independent variables. For the current analysis, separate OLS models were estimated that independently regressed each TA subscale (i.e., caring/fairness, trust, and toughness) on clients perceptions of procedural justice, legitimacy, legal cynicism, risk levels, and demographic characteristics (i.e., age, education, race, gender). A fourth OLS model (see Table 16) estimated the direct effect of client attitudes towards their PO (i.e., procedural justice), attitudes towards the law (i.e., legitimacy), and distrust towards the law (i.e., legal cynicism), risk scores, and individual characteristics on client total TA scores. All OLS model estimates reported unstandardized (b) and standardized (Beta) coefficients. Post-estimation tests were performed across all OLS models to ensure no issues of heteroskedasticity and multi-collinearity. When appropriate, robust standard errors were used to account for the non-normality of error distributions (Kiefer & Vogelsang, 2002).

RQ #2a/b: Do perceptions of the TA, procedural justice, legal cynicism, and legitimacy predict the odds of receiving a technical violation/use drugs?

To examine the influence of client TA, procedural justice, legitimacy and legal cynicism on supervision compliance outcomes, a series of logistic regression models were conducted. Logistic regression analysis is a commonly used technique within criminal justice and criminology often due to the binary nature of key outcome variables such as: arrest vs. no-arrest, violation vs. no violation, or rearrest vs. no-rearrest (Britt & Weisburd, 2010). Given the dichotomous nature of the two supervision compliance outcomes: technical violations (0 = No, 1 = Yes), positive drug test (0 = No, 1 = Yes), logistic regression is an appropriate statistical approach to calculate the odds or probably an individual on probation incurred a technical violation or engaged in substance use within a six-month period (Menard, 2002).
The current project employed a series of logistic regression models in a stepwise fashion to effectively screen and select important covariates (Hosmer, 2000; Hosmer et al., 2013). Although prior research examined the relationship between the TA and compliance outcomes (Blasko & Taxman, 2018; Kennealy et al., 2012; Skeem et al., 2007), limited sample size warranted use of stepwise approach to reduce irrelevant variables and retain needed degrees of freedom. This preserved statistical power that helped produce the best fitting models (Hosmer et al., 2013). In predicting the odds of technical violations and drug use, a number of separate logistic regression models were run. The first model were a baseline only model that included only the TA grouping scores (i.e., Middle TA, High TA). In the second models, clients perceptions of procedural justice, legitimacy, and legal cynicism as well as other control variables were added to the regression analyses. Overall model fit was assessed using the likelihood ratio chi-square test, the Hosmer-Lemeshow, and Omnibus Test of model coefficients (Hosmer et al., 2013).

RQ #3: Do perceptions of legal cynicism moderate the effect of the TA on receiving a technical violation or positive drug test.

Baron and Kenny (1986) initially popularized a “three” step regression method for assessing mediation and moderation effects. Using this method, a first regression model examines if the independent variable is statistically related to the dependent variable (i.e., path ‘a’). Second, a separate regression model tests if the mediating variable is statistically related to the dependent variable (i.e., path ‘b’). And third, mediation is established to the extent that the independent variable is entirely non-significant or reduced in effect when the mediator (M) is added to the regression model controlling for the independent variable. Researchers have typically performed a Sobel z-Test that calculates a test statistic or the product of path ‘a’ and
path ‘b’ to identify if the indirect effect is statistically significant (Sobel, 1982). However, both the Baron and Kenny method as well as the Sobel Test have received criticism. As one example, the Sobel test is based an assumption of a normal, standard distribution and large sample sizes that are often violated (Mackinnon et al., 2002). Limitations of this method ultimately led to the development of the PROCESS Macro SPSS extension used in the current analysis (Hayes, 2013).

RQ #4: Do perceptions of procedural justice mediate the relationship between the TA on supervision compliance outcomes

Tests of mediation and moderation effects were conducted in SPSS using the Hayes (2013) PROCESS macro method. The Hayes (2013) method offers several advantages over the traditional causal stepwise process (Baron & Kenny, 1986). First, PROCESS macro provides tests of indirect effects with a single statistic bypassing a “three” step approach that requires statistical findings across each model. This provides a more powerful approach to mediation analysis especially as research suggest that a relationship between X and Y might not be a requirement to establish mediation (Fritz & MacKinnon, 2007; MacKinnon et al., 2007; Rucker et al., 2011). Second, PROCESS does not require the assumption of normality and overcomes criticisms of the Sobel test using bootstrapping methods. Bootstrapping techniques generate 95% confidence intervals for indirect effects based on random resamples taken from the study population (Hayes, 2013). Third, and central to the current study, PROCESS supports conditional and mediation analysis with dichotomous dependent variables.

In the current analysis, several logistic regression models were performed to tests moderation and mediation effects in line with the third and fourth research hypotheses. The interaction of individual’s legal cynicism attitudes and the TA (i.e., Middle TA and High TA
groups) on the odds of technical violations were run using PROCESS (Hayes, 2013). PROCESS was repeated to test the extent that legal cynicism moderates (i.e., weakens) the effect of the TA on the odds of client drug use. Following moderation analysis, logistic regression with PROCESS macro was used to test whether individual’s TA scores influence the odds of technical violations indirectly through their perceptions of procedural justice (see Figure 1). This method was repeated to test the extent procedural justice mediates the effect of the TA on positive drug tests (see Figure 2). All PROCESS moderation and mediation analyses use 95% bootstrapping methods based upon 5,000 samples. Mediation is confirmed to the extent 95% confidence intervals fall entirely above zero (Hayes, 2013).
CHAPTER FOUR: RESULTS

The goal of this study is to examine the PO-client TA including the influence of client procedural justice, legitimacy, and legal cynicism attitudes in predicting the TA. In doing so, this dissertation also explores the effect of the TA as well as perceived fairness of the law and legal authorities on compliance outcomes including technical violations and drug use. Bivariate relationships, confirmatory factor analyses (CFAs), ordinary least square regression, and logistic regression models were used to answer the research questions. This chapter details the analytic procedures and dissertation findings.

Bivariate Analyses

Independent Sample T-Test and ANOVAs

Prior to answering the first research question about which factors predict a strong TA, bivariate analyses were run to test for significant differences across client characteristics and supervision experiences. Given the categorical measurement of client gender, employment, and history of prior technical violations and probation revocations with the continuous measurement of the dependent variable (TA), several independent sample t-tests were used (see Table 3). First, no significant differences were reported between females (M = 56.94, SD = 6.75) and males (M = 55.84, SD = 8.18) on their perceived TA, t(172) = .837, p = .405, Cohen’s d = .14. In testing for mean differences between employed clients with the TA, no statistical differences were observed between employed and unemployed clients, t(172) = -.534, p = .593, Cohen’s d = -.08. Clients race/ethnicity also revealed that no significant differences were observed among White and non-White clients regarding their perceived TA, t(172) = -.148, p = .882, Cohen’s d = -.03. Next, because prior technical violations was coded as an ordinal measure, analysis of variance (ANOVA) methods were used to test for group differences between client prior
technical violations with the TA. No significant differences were observed based on clients prior
history of technical violations with the TA \( F(2, 169) = 1.26, p = .285 \).

*Correlation Analyses*

Table 4 presents the correlation matrix for the continuously measured independent
variables with the TA. Results indicated a significant positive association between clients
procedural justice perceptions and the TA \( r = .48 \). Individuals who believed they were afforded
greater procedural justice reported a stronger TA with their PO. Similarly, clients who perceived
greater legitimacy \( r = .32 \) beliefs reported a higher quality TA with their PO. This suggests that
individuals who reported a greater obligation towards obeying the law and believed that POs
wielded their power appropriately were more likely to report a stronger TA. A significant,
negative relationship was identified between clients harboring greater legal cynicism attitudes \( r = -.29 \) and the strength of the TA with their PO. This suggests that clients who were more
skeptical towards the law and of the supervision process were more likely to report a weaker TA.
No significant correlations were found between clients age, LS/CMI risk scores or educational
levels with the TA.

*Technical Violations*

To test for differences among the dichotomous independent variables with technical
violations, crosstabulations were performed (see Table 5). Results revealed significant
differences between receiving a positive drug test and prior technical violations \( \chi^2 (2, N = 172) = 9.21, p < .05 \). In addition, results from chi-square analysis show a positive and statistical
association between a positive drug test and prior revocations. That is, individuals with prior
revocations were also significantly more likely to report a technical violation during the six-
month study period relative to those without a history of past revocations, \( \chi^2 (1, N = 172) = 8.55, \)
p < .01. However, results indicate no significant relationship across client demographics and technical violations including gender, race/ethnicity (i.e., White versus Non-White), employment or offense type (i.e., violent versus non-violent). Finally, no significant differences were identified between clients that were employed at the time if the study versus individuals not employed. Additional tests of association using Pearson’s R failed to identify any significant relationships between the main, continuous independent variables and technical violations including procedural justice, legitimacy, and legal cynicism (see Table 4).

Drug Use

Crosstabulation results testing differences between client demographics and supervision characteristics with reporting a positive drug test revealed two significant associations (see Table 6). Consistent with earlier results, findings indicated statistical association between positive drug tests with history of prior technical violations ($\chi^2 (1, N = 172) = 7.64, p < .05$) and supervision revocations ($\chi^2 (1, N = 172) = 11.51, p < .01$). Clients with a history of past technical violations and supervision revocations were significantly more likely to report receiving a positive drug test within the follow-up period compared to people without revocations, $\chi^2 (1, N = 172) = 11.51, p < .01$. No other associations were found across race/ethnicity, employment status, gender, or offense type. No significant differences were identified across procedural justice perceptions, legitimacy, and legal cynicism with positive drug test outcome. However, correlation results demonstrate a positive and statistically association between clients’ risk score and positive drug test outcome ($r = .18$). That is, higher risk clients were significantly more likely to report a positive drug test over the course of the study period.
Confirmatory Factor Analyses

**Therapeutic Alliance (TA)**

Several confirmatory factor analyses (CFAs) were performed to ensure construct and discriminate validity among the main, continuous study variables. To test the structural components that underlie the TA, the first CFA estimated an *a priori* measurement of the three subscales (i.e., caring/fairness, trust, and toughness) that were combined as a single latent factor versus a multidimensional or three-latent factor solution (see Table 7). The single and three-factor models were compared using model fit indices: (1) Akaike’s information criterion (AIC); (2) Bayesian information criterion (BIC); (3) comparative fit index (CFI); (4) Tucker–Lewis index (TLI); and (5) root mean squared error of approximation (RMSEA), along with standardized factor loadings. When comparing the single and three-factor model, results of the CFA suggest a three-factor measurement model bests fits the data. In the single-factor solution, several factor loadings are below recommended values of .32, and model fit indices exceed threshold for fit (Tabachnick & Fidell, 2001). When comparing the AIC and BIC, both values were reduced in the three-factor model suggesting better fit. Moreover, the overall goodness of fit statistics in the three-factor solution provide evidence for a better fitting model, $\chi^2 (24) = 35.25, p = .065; \text{RMSEA} = .052; \text{CFI} = .985, \text{TLI} = .978$.

**Procedural Justice (PJM)**

An extant body of research has questioned the measurement of individual’s procedural justice perceptions, across a variety of criminal justice settings (Gau, 2011, 2014; Henderson et al., 2010; Reisig et al., 2007). Only some research has explored procedural justice perceptions among individuals on probation and parole (Blasko & Taxman, 2018). In response, a separate CFA was completed to affirm convergent validity for this sample’s PJM. Results of the CFA
(presented in Table 8) estimating client procedural justice perceptions demonstrate good model fit. The chi-square test of the PJM CFA model is non-significant indicating good model fit ($\chi^2 (12) = 14.40, p = .276$). All factor loadings are adequate, and each item has a statistically significant loading on the latent factor. The CFI (.988), RMSEA (.034), and TLI (.979) provides empirical support that establishes convergent and construct validity of a single-factor PJM measurement model.

Beyond establishing convergent validity for the TA and PJM, an additional CFA model was performed to ensure discriminate validity among the two constructs. For example, some prior research has suggested that the caring/fairness DRI-SF subscale corresponds to a sense of interpersonal procedural justice (Skeem et al., 2007). Thus, it is important to ensure the TA and PJM represent two, separate latent constructs. For discriminate validity to be established, item correlations need to be greater within latent factor rather than between each latent factor (Kline, 2005). Table 9 presents results testing a two-factor and four-factor solution between the TA and PJM. In comparing the two models, the Chi-square in the four-factor model is nonsignificant demonstrating better model fit relative to the two-factor model ($\chi^2 (97) = 134.58, p = .007$). In addition, the BIC (7076.626), AIC (7250.374), RMSEA (.047) were lower and CFI (.963), TFL (.955) higher provide additional support that discriminant validity is established. In other words, the TA and PJM are two, separate latent constructs.

**Legitimacy towards PO**

CFAs were also used to test convergent validity among client perceived legitimacy towards their PO. An extant body of research questions whether individual’s perceived legitimacy represents a single operational definition or a multidimensional construct that taps into several different facets (Beetham, 2013; Tyler, 2006; Tankebe, 2013; Weber, 1947). Based
on this ongoing measurement debate about how best to conceptualize and operationalize client perceived legitimacy, two CFA model were constructed. Consistent with CFA models discussed above, the results presented in Table 10 test a single and three-factor measurement solution. Factor loadings were acceptable with exception to item number ten: “Probation officers take bribes”. As a result, this item was dropped from both CFAs. When comparing the model fit statistics, the single-factor CFA failed to achieve acceptable model fit as indicated by the significant chi-square $\chi^2 (20) = 106.94, p = .00$ and other fit indicators: AIC (2580.285), (BIC (2656.103), RMSEA (.159). Results from the three-factor model demonstrate considerably better model fit. First, the Chi-square in the three-factor model was greater ($\chi^2 (31) = 28.78, p = .580$) and achieved better overall model fit based on the CFI (.978), RMSEA (.071), and TLI (.962). Based on these results, convergent validity is established.

A separate CFA model was used to test for discriminant validity between clients procedural justice perceptions and legitimacy (see Table 11). Traditionally, scholars assumed that procedural justice and legitimacy are related though distinct latent constructs (Tankebe, 2013). However, only more recently have policing scholars tested the extent that individuals’ procedural justice and legitimacy are independent, latent constructs (Gau, 2011, 2014). In other words, empirical research implicates the importance of testing for convergence and discriminate validity to ensure that individuals’ perceptions of fair treatment (i.e., procedural justice) and their attitudes towards the law and of legal authorities that carry it out (i.e., legitimacy) hang together as separate factors. The CFA revealed that the Chi-square for the single ($\chi^2 (90) = 273.21, p = .000$) and four-factor model ($\chi^2 (83) = 115.67, p = .010$) were both significant. However, factor loadings and overall model fit was achieved in the four-factor solution. In addition, all model fit statistics achieved appropriate levels in the four-factor solution. For example, the AIC
(5130.792) and BIC (5295.063) were much lower as well as the RMSEA (.048) indicating both better fit and a more parsimonious model. These results indicate that discriminate validity was established with PJM and legitimacy representing two independent, latent constructs.

**Legal Cynicism**

A final CFA analysis was performed to affirm the measurement properties of clients perceived legal cynicism attitudes or their skepticism towards the law. One prior study has created and validated a legal cynicism scale, though their analyses relied on sample of college students (Gifford & Reisig, 2019). In response to calls advocating for an integration of legal cynicism within the current knowledge based system of evidence-based corrections, a CFA was run to establish convergent validity of the legal cynicism scale with a sample of individual on probation supervision. Table 12 presents the full CFA model that compares a single and three-factor solution. Consistent with prior CFA analyses, model fit statistics were used to evaluate and compare the best fitting factors. The Chi-square for the single ($\chi^2 (65) = 464.32, p = .000$) and three-factor model ($\chi^2 (60) = 106.73, p = .000$) are both significant. Factor loadings in the single-solution model ranged from -.447-.887, whereas loadings ranged from .658-.908 in the three-factor model. Upon closer examination of the AIC and BIC as well as the CFI (.964), RMSEA (.067), and TLI (.954) collectively indicate the three-factor model best fits the data. These results confirmed the work by Gifford and Reisig (2019) and further extend the research using samples of individuals that are justice-involved.

**RQ #1: Do perceptions of procedural justice, legitimacy, and legal cynicism influence the strength of the PO-client TA?**

To answer the first research question, this study used ordinary least squares regression (OLS) to examine the influence of clients procedural justice, legitimacy, and legal cynicism
attitudes on the quality of their TA, controlling for other relevant probation supervision factors (e.g., risk level, history of violations). Separate OLS analyses were performed to predict each TA subscale as well as individuals’ total TA scores. All OLS models reported both unstandardized ($b$) and standardized ($\beta$) beta coefficients. Post-estimation tests examining the normalcy of the TA revealed non-normally distributed data with results skewed left. To account for skewness in clients TA scores, each subscale and the total TA dependent variables were log transformed.\textsuperscript{6} The Breusch-Pagan/Cook-Weisberg test and White test were statistically significant which indicated the presence of heteroskedasticity. Robust standard errors were used to account and correct the non-constant error variance (Kiefer & Vogelsang, 2002). Results from tests examining multi-collinearity demonstrated no problematic relationships as the variance-inflation factors (VIFs) did not exceed 1.73 with an overall mean of 1.34 (Tabachnick & Fidell, 2013).

\textit{Predicting Caring/Fairness Subscale}

Estimates from the OLS model suggest the main independent variables reliably predicted the caring/fairness subscale as indicated by a significant F-statistic (see Table 13). Overall, the independent variables accounted for 30% of the variance in the dependent variable. Central to the current study hypothesis, results demonstrated that procedural justice had a positive and statistically significant effect on caring/fairness subscale ($\beta = .368$, $p < .001$). Individuals who reported greater procedurally just treatment from their POs were significantly more likely to view their PO as caring/fair. Individuals that reported higher perceptions of legitimacy reported significantly greater perceptions that their POs were caring and fair ($\beta = .236$, $p < .01$). However, individuals’ perceptions of legal cynicism were positive but not statistically related with the

\textsuperscript{6} A tobit regression model was also performed with and without log transformed dependent variables and results were substantially similar. For ease of interpretation, the OLS model results predicting the TA results are presented.
caring/fairness subscale scores ($\beta = .043, p > .10$). Individuals' risk scores as captured by the LS/CMI demonstrated a non-significant relationship with clients' perceptions about POs being caring and fair ($\beta = .071, p > .10$). Several statistical relationships were identified between clients' offence type and their perceptions of their PO as caring/fair. Individuals on probation for a property ($\beta = .212, p < .01$), drug ($\beta = .185, p < .05$), and other offense ($\beta = .202, p < .05$) reported their PO as more caring and fairer when compared to clients sentenced to probation for a violent offense.

**Predicting the Trust Subscale**

Estimates predicting clients' trust subscale explained 30% of the variation (see Table 14). Procedural justice had the strongest effect in predicting greater PO trust as indicated by the standardized beta coefficient ($\beta = .411, p < .001$). This suggests that clients who reported greater levels of procedurally just treatment (i.e., were provided voice, respect, fairness) were significantly more likely to perceive their PO as trustworthy. While only marginally significant ($p < .10$), results demonstrated a positive association between individuals' perceptions of legitimacy and greater PO trust ($\beta = .153$). Supervision characteristics including client risk levels, offense type, and time remaining on current probation sentence and individual characteristics (i.e., age, race, education, employment) were not significantly associated with PO trust.

**Predicting the Toughness Subscale**

The final OLS model regressing the toughness subscale on the main study variables revealed several important findings (Table 15). In contrast to the Caring/Fairness and Trust subscale, only 22% of the variation was accounted for in the toughness OLS model. Although less variance was accounted for in the model, results still revealed several statistically significant
effects. Procedural justice demonstrated a statistically significant, negative relationship with perceived toughness. That is, greater perceptions of procedural justice (i.e., voice, neutral decision-making, respect) were inversely associated with PO toughness (β = -0.277, p < .001). This suggests that as individuals on probation believed they were treated with respect and fairness and were provided opportunities to share their views in decision-making processes, they were less likely to view their officers as being too tough or authoritative. Individuals on probation for a property offense (β = -0.278, p < .001) were significantly less likely to view their PO as tough compared to those on probation for violent offense. Results showed a positive association between individuals with a history of prior technical violations and PO toughness (β = 0.265, p < .001). This indicates that individuals with a history of past violations were more likely to view their PO as tough or acting authoritative.

*Predicting the Total TA Scores*

Results from the OLS model predicting total TA scores are presented in Table 16. The F statistic is statistically significant indicating the variables in the model reliably predicted the dependent variable, TA. Overall, the model explained 31% of the variation in OLS model predicting total TA. Findings indicated that clients perceptions of procedural justice is statistically significant and positively related to a stronger TA. In fact, procedural justice had the largest beta coefficient (β = 0.412, p < .001) of all variables, suggesting it was the strongest predictor of clients TA accounted for in the models. Individuals that believed they were treated with greater levels of fairness and respect during interactions with their PO were significantly more likely to perceive a strong TA. Though in their expected directions, results demonstrated that perceptions of legitimacy and legal cynicism were not significantly related to the strength and quality of individuals TA. However, individuals’ perceptions of legitimacy approached a
A statistically significant effect ($\beta = .140, p < .10$). Given the large, standardized beta coefficient and marginally significant effect, this finding could have a substantive impact for enhancing the quality of the PO-client TA. Individuals who were sentenced to probation supervision for a property offense ($\beta = .168, p < .05$) reported a statistically higher quality TA relative to individuals on probation for a violent offence. Though not significant, individuals on probation in the other offense category were also more likely to indicate a stronger TA relative to individuals on supervision for a violent offense ($p = .054$). The standardized beta for individuals in the other offense category was the third-largest coefficient ($\beta = .151$) within the model. No significant relationships were reported between client demographics (i.e., age, gender, education, race/ethnicity).

RQ #2a: Do perceptions of the TA, procedural justice, legal cynicism, and legitimacy predict the odds of receiving a technical violation?

Predicting Technical Violations

The second research question of the current study examined the influence of the TA, procedural justice and attitudes towards the law and legal system in predicting the odds of having a technical violation. Table 17 presents the results of the stepwise logistic regression analyses that estimated two models predicting the probability of committing a technical violation within a 6-month period. The chi-square model fit statistic for the logistic regression model predicting technical violations was not statistically significant when using the total DRI-SF (TA) scores. This may be indicative of a ‘ceiling’ effect for the DRI-SF given that client scores were skewed towards the upper limit of the TA scale. A ceiling effect in social science research occurs when respondents provide scores near the upper limit of an observed variable or scale (Cramer & Howitt, 2004). Though speculative, clients completed the DRI-SF in the lobby of the probation
office prior to meeting with their PO. This potentially impacted clients level of honesty in reporting the true quality of the TA with their PO.

For the current study, 28% of the sample reported the highest score obtainable on the DRI-SF. This is problematic as maximum scores can lead to biased regression parameter estimates (Uttl, 2005). In fact, this was reflected given the poor model fit statistics within the logistic regression models when using the continuous TA measure. In response, the TA was recoded into a trichotomized groups of Low TA, Middle, and High TA. Trichotomizing clients’ TA scores into groups allows for the modeling of non-normal data and examine if scores at the upper end of the distribution represent a true positive effect in predicting compliance outcomes. The trichotomized measure of clients DRI-SF scores (TA) were created by categorizing clients into three groups (i.e., Low, Middle, and High TA). Groups were categorized based upon the lower 25th percentile, the middle 50%, and the upper end of the distribution. The decision to trichotomize client TA scores was consistent with prior research (Kennealy et al., 2012). Given the highly skewed total TA scores, trichotomizing the TA into three groups allowed for the retainment of data in raw form that eased interpretation, rather than using a logged independent variable in a logistic regression model. As initially suggested by Mueller (2021), categorizing DRI-SF scores into groups also permits comparisons across low, middle, and high groups that provided the opportunity to understand if dimensions of the TA influence compliance outcomes based upon different levels of perceived quality of PO-client relationship.

When re-estimating the logistic regression model with the trichotomized TA groups, analyses indicated the likelihood ratio chi-square value χ² was statistically significant at the .01 level across all model estimates (p < .01). This indicated that the model containing all estimated coefficients demonstrated a better model fit than an intercept only model. The Omnibus Test of
model coefficients and the Hosmer-Lemeshow goodness of fit test were statistically significant demonstrating that inclusion of all model predictors produce better effect relative to an intercept-only model. Estimates from found in Model 1 revealed a statistically significant association between the quality of clients TA with supervision noncompliance. With the Low TA group serving as the reference category, individuals in the Middle TA group were associated with significant decreased odds of having a technical violation. While there were no significant differences between individuals in the High TA and Low TA group, being in the Middle group was associated with 85% decreased odds of engaging in a technical violation (OR = .15, p < .01).

In Model 2, clients perceptions of procedural justice, legitimacy, legal cynicism and theoretically relevant control variables were added to the analyses. In contrast to the baseline only model (Model 1), results showed a negative and statistically significant association between the TA and odds of committing a technical violation. Though no statistically significant differences were reported between clients in the High versus Low TA group, individuals in the Middle TA group were significantly less likely to have a technical violation relative to the Low TA group. For instance, individuals in the Middle TA group had an approximate 90% reduced odds of receiving a technical violation during the study follow-up period (OR = .10, p < .01). While not statistically significant, results were in the expected direction indicating that individuals in the High TA group were negatively related to odds of having technical violation (OR = .50, p > .10). Unexpectedly, clients perceived procedural justice was unrelated to the odds of having a technical violation during the 6-month follow-up period (OR = 1.62, p > .10). In addition, legitimacy and legal cynicism were also not significantly associated with client odds of acquiring a technical violation. However, supervision risk scores were positively associated with the odds of receiving a technical violation. As shown in Table 17, individuals with higher
risk scores were significantly more likely to report receiving a technical violation. Individuals with greater LS/CMI scores were associated with an 8% increase in their odds of receiving a technical violation (OR = 1.08, p < .05). In addition, there was a positive relationship between clients education and technical violations. Individuals with more educational attainment were significantly more likely to receive a technical violation, with an approximate 57% increase in odds (OR = 1.57, p < .05). Though not statistically significant, results indicated that a history of prior technical violations was positively associated with technical violations (OR = 1.75, p < .10).

Moderation

Separate logistic regression analyses were performed that tested for moderation to answer the third research question (see Table 18). More specific, Hayes (2013) PROCESS macro was used to test whether individual’s legal cynicism attitudes conditioned the effect of the TA on the odds of incurring a technical violation. All study variables were included as covariates, a common technique used with the PROCESS method (Hayes et al., 2013). Table 18 presents the full model that incorporated all study variables and interaction terms. Model 1 demonstrated the coefficient for the Middle TA group retained statistical significance (p < .01). Individuals in the Middle TA group were significantly less likely to receive a technical violation relative to clients in the Low TA group (b = -2.39, p < .01. No significant associations were reported for individuals in the High TA group compared to Low TA group. Interestingly, individuals’ perceptions of procedural justice, legitimacy, and legitimacy had no impact on clients’ odds of receiving a technical violation. However, individuals risk scores remained statistically significant with higher risk individuals at increased odds of receiving a technical violation (b = .73, p < .05). The coefficient for clients educational attainment remained significant and no changes in
magnitude were identified (p < .05). In addition, no changes were reported across client demographics including age, race, gender as all variables demonstrated no significant effects once interaction terms were added to model. In testing for an interaction using the trichotomized TA groups, the Low TA served as the reference category (Hayes, 2013). The interaction coefficients represent the multiplicative effect of legal cynicism and the Middle and High TA groups on client odds of receiving a technical violation. That is, client odds of receiving a technical violation would be different across the TA groups based on clients’ level of legal cynicism. Results showed that the interaction terms (i.e., Middle TA x Legal Cynicism; High TA x Legal Cynicism) exerted a non-significant effect on the odds of technical violations. Clients with greater perceived distrust towards the law and of legal authorities (i.e., legal cynicism) did not weaken the effect of the TA on the odds of receiving a technical violation. That is, even when clients were cynical toward the law, if they were in the Middle and High TA group, legal cynicism did not make it more likely for a client to receive a technical violation when compared to the Low TA group. However, these findings are not surprising given no significant relationship was found between legal cynicism with the odds of technical violations in logistic regression model without tests of interaction effects.

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7 In addition to testing moderation with the trichotomized TA group interaction terms, separate Hayes (2013) PROCESS analyses were performed using the continuous TA measure. Results were substantially similar as there were no changes in the main effect findings as neither the TA nor legal cynicism were statistically significant. In addition, results demonstrated no significant interaction effects (i.e., Middle TA x Legal Cynicism, High TA x Legal Cynicism for both dependent variables: technical violations or positive drug test. However, due to poor model fit with the continuous TA measure, only the trichotomized TA moderation analyses are presented.
RQ #2b: Do perceptions of the TA, procedural justice, legal cynicism, and legitimacy predict the odds of receiving a positive drug test?

Predicting Positive Drug Tests

The third research objective for this dissertation examined the influence of client TA scores and perceptions of the law (i.e., legitimacy and legal cynicism) and of legal authorities (i.e., procedural justice) on additional supervision compliance outcomes. Regression analyses were performed to assess the impact of the main study variables on clients’ odds of having a positive drugs test over a six-month period. Consistent with prior models, logistic regression analyses were conducted in a stepwise fashion.8 First, clients’ TA scores are included in a baseline only model (Model 1). In Model 2, clients perceptions of procedural justice, legitimacy, legal cynicism, and other control variables were added to the regression analysis.

Examination of the initial logistic regression model revealed the likelihood ratio chi-square value $\chi^2$ was statistically significant at the .05 level across all model estimates ($p < .05$). Model fits estimates also demonstrated the Omnibus Tests of coefficients were statistically significant indicating that model estimates are better compared to an intercept-only model. Results from the baseline only model (presented in Table 19, Model 1) demonstrated a non-significant effect between individual TA scores and the odds of a positive drug test. Although in the expected directions, estimates from the baseline only model indicated that individuals in the Middle (OR = .64, $p > .10$) and High TA (OR = .80, $p > .10$) groups were not associated with

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8 Initially, a three-block logistic regression model was performed with only the TA included at baseline. Next, a second model added all main independent variables. The third and final model incorporated interaction terms. However, model fit statistics were poor with a two-block approach providing better fit and valid model estimates.
any statistically significant reductions in their odds of reporting positive drug tests compared to Low TA group.

After adding client perceptions of procedural justice, legitimacy, legal cynicism as well as risk levels and demographic characteristics to the regression model, clients in the Middle TA (OR = .63, p > .10) and High TA (OR = .89, p > .10) groups had no impact on odds of having a positive drug test. Moreover, procedural justice, legitimacy, and legal cynicism were non-significant. However, a significant and positive association was reported between risk level and substance use. Clients with higher LS/CMI scores were associated with a 7% increase in their odds of predicting a positive drug test during the study period (OR = 1.07, p < .05). No statistically significant associations were observed between clients with a history of prior technical violations and their odds of receiving a positive drug test. Interestingly, individuals with more educational attainment were 1.54 times more likely to report a positive drug test (p < .05). Though in the expected direction, length of time remaining on probation sentence was not significant associated with drug use (OR = 1.03, p < .10). No statistical relationships were found across client race, gender, age, or employment with the odds of substance use.

RQ #3: Does legal cynicism attitudes reduce or moderate the effect of the TA on supervision compliance?

Moderation

Hayes PROCESS was used to test if legal cynicism moderates the effect of the TA on clients’ odds of having a positive drug test (see Table 20). All study variables including in the initial logistic regression model predicting positive drug tests were added to the PROCESS model as covariates (Hayes et al., 2013). Results show that higher risk individuals (b = .73, p < .05) retained a positive and statistically significance association with odds of positive drug tests.
However, education attainment was reduced to marginally significant \( (b = 0.36, p = 0.062) \). In addition, client risk remained significantly significant with higher LS/CMI scores associated with increased odds of receiving a positive drug test \( (b = 0.06, p < 0.05) \). However, no interaction effects between legal cynicism and TA groups on positive drug tests were reported. Given that individual TA scores and legal cynicism were not related to odds of having a positive drug test, it may not be unsurprising no moderation was detected.

**RQ #4: Do perceptions of procedural justice mediate the relationship between the TA on supervision compliance outcomes?**

**Mediation**

In testing for mediation, no statistical associations were found between paths \( b' \) (procedural justice) and \( c' \) (technical violations and substance use) therefore not fulfilling the criteria of mediation analysis (Baron & Kenny, 1986; Hayes et al., 2013). As a result, no mediation analyses are presented.
CHAPTER FIVE: DISCUSSION

This study provides an exploratory investigation into how the quality of PO-client interactions influence relationship quality (i.e., TA). This work advances prior literature using primary data that incorporated formal measures to assess the influence of procedural justice and legitimacy theory as well as legal cynicism with the TA and supervision compliance outcomes. Though not a central aim, the current study also extends prior literature by examining the measurement properties of the TA and procedural justice to establish construct and discriminant validity. Another goal of this study was to consider the extent legal cynicism moderates the effect of the TA on compliance outcomes. Finally, mediation analyses were performed testing whether the relationship between the TA and supervision compliance operates indirectly through procedure justice. Results from this study have several implications for practice and theory discussed throughout this chapter.

Summary Findings RQ #1: Do perceptions of procedural justice, legitimacy, and legal cynicism influence the strength of the PO-client TA?

Several substantive findings emerged from the OLS models predicting the PO-client TA. First, results demonstrated a statistically significant association between client perceptions of procedural justice and the TA. In fact, all linear regression models including each TA subscale (i.e., caring/fairness, trust, and toughness), found that procedural justice was statistically associated with higher TA. Individuals with higher levels of procedural justice were more likely to view their PO as caring and fair, developed greater trust with their supervision officer, and were less likely to perceive their PO as tough. The positive influence of client perceptions of procedural justice was also observed in the model predicting total PO-client TA scores. Collectively, these findings indicated that as clients perceived they were treated with respect,
were provided voice (i.e., an opportunity to share their side of the story) and believed their supervising officer made unbiased and neutral decisions, individuals were significantly more likely to report a stronger TA with their PO.

These findings suggest a key avenue for how correctional agencies could develop new guidelines on how POs could incorporate tenets of procedural justice during interactions with their clients. Within community supervision, an extant body of research has observed the importance of interpersonal relationship factors for improving supervision outcomes (Andrews & Bonta, 2010; Andrews & Kiessling, 1980; Dowden & Andrews, 2004). Notably, research found that PO-client relationships characterized by warmth, fairness, respect, and trustworthiness are associated with improved supervision outcomes (Dowden & Andrews, 2004; Kennealy et al., 2012). Though Skeem and colleagues (2012) suggested POs “blend care with control”, research has largely overlooked how POs can translate this “firm but fair” approach into practice. Data provided from the current study suggests the opportunity to formally integrate traditional elements of procedural justice theory within the existing framework of interpersonal relationship factors (Williams & Schaefer, 2022).

Additionally, analyses showed that offense type was associated with all TA domains, with exception to the trust subscale. For instance, individuals that were sentenced to probation for a property offense, drug offense, and other offense were significantly more likely to perceive their PO as caring and fair compared to violent individuals. A statistically significant association between offense type was also observed with the toughness subscale. Property offenders were significantly less likely to view their PO as acting tough or authoritative compared to clients on probation for a violent offense. These results were also observed in the OLS model predicting the total TA (see Table 15) as those on probation for a property offense reported a stronger TA.
compared to individuals on probation for a violent offense. Research within the general psychotherapy literature offers plausible explanations about differences across offense type in predicting a quality TA (Blasko & Jeglic, 2016; Ross et al., 2008).

Blasko and Jeglic’s (2016) analysis of individuals on parole for sexual offenses noted the challenge that POs experience in supervising clients with several underlying personality traits. Their study observed that individuals on supervision for sexual offense held greater cognitive distortions, denial, and minimalize regarding PO supervision efforts. This appears to be supported by other research that revealed an association between psychopathic traits and individual’s perception of the alliance. For example, some research reported that individuals who scored higher on the Psychopathy Checklist-Revised (PCL-R; Hare, 2003) reported weaker TA as measured by the WAI (Daly et al., 2020; Taft et al., 2004). For the current study, individuals on probation for property, drug, and other offenses may be less likely to harbor personality traits that potentially hinder the development of a strong TA.

In addition to offense type, analyses demonstrated that individuals with a history of prior technical violations were significantly more likely to view their PO as tough or more authoritative. This could indicate that individuals with greater number of past violations had already experienced increased punitive responses from their supervision officers. In fact, some recent evidence suggested that sanctions applied by POs were associated with lower perceived PO-client relationship quality (Wodahl et al., 2021). This may also reflect a sense of distributive injustice if individuals viewed the outcomes they received (i.e., technical violation) were unfair. In this context, if clients believed may believe their POs were too strict in monitoring and sanctioning for supervision noncompliance (i.e., technical violations), this could lead clients to perceive their PO as overly tough. As a result, clients with a greater history of past violations...
may be more likely to view PO enforcement of technical violations as excessively authoritarian, resulting in greater perceived toughness.

Unexpected and contrary to prior research, analyses found no significant association between client risk scores in predicting the PO-client TA (Kennealy et al., 2012; Skeem et al., 2007. The null relationship observed between risk and TA scores could reflect the use of a convenience sampling strategy that was used to elicit client survey responses. Although approximately 56 percent of individuals (n = 96) could be classified into high risk and highest risk categories based on the LS/CMI; the study sample could have held more positive attitudes towards their POs compared to other high risk clients that did not participate in the study. While significant differences were identified at the bivariate level with highest risk reporting slightly less positive TA than low risk clients, the overall mean of client TA were towards the upper echelon of maximum scores. In fact, the majority of respondents included in the analytic sample reported a strong TA with their PO. However, results of the current study indicate POs in SCP were able to develop quality relationships with participating clients, regardless of risk level. Though only speculative, this may reflect SCPs use of evidence-based practices and training in the use of MI and EPICS.

Summary Findings RQ #2a: Do perceptions of the TA, procedural justice, legal cynicism, and legitimacy predict the odds of receiving a technical violation?

Results from logistic regression revealed that clients in the Middle TA group were significantly less likely to receive a technical violation relative to individuals in the Low TA group. Interestingly, no significant relationships were observed among individuals in the High TA group and their odds of receiving a technical violation when compared to clients in the Low TA group. The results presented here indicate a potential threshold or ceiling effect regarding the
DRI-SF as clients scores were quite high and largely skewed (Gochyyev & Skeem, 2019). In fact, several studies have observed ceiling effects across measures used to capture the TA, including the Working Alliance Inventory (WAI) (Falkenström et al., 2015; Hatcher & Gillaspy, 2006). While results from CFA analyses confirmed the measurement properties of the three subscales of the DRI-SF, the potential ceiling limited client variation in their TA scores. This may suggest that clients in the Middle TA group experienced a threshold whereby reaching the maximum effect of the TA for reducing technical violations.

Although no statistical relationship was identified between individuals in the High TA group compared to Low TA group, findings are similar to prior studies examining the effect of PO-client relationship quality on supervision compliance outcomes (Blasko & Taxman, 2018; Kennealy et al., 2012; Mueller et al., 2021; Skeem et al., 2007). In fact, results presented here loosely affirm the work by Kennealy and colleagues (2012) that demonstrated the value in trichotomizing client TA score into three distinct groups for understanding how levels of TA differentially impact compliance outcomes. In this dissertation, findings suggest that clients who developed a moderately strong TA with their PO were at reduced odds of receiving a technical violation. It may be possible that clients in the High TA group overestimated the quality of their relationship with their PO, casting some caution about the predictive validity of the DRI-SF. Gochyyev and Skeem (2019) developed the short-form DRI (i.e., DRI-SF) scale using pre-existing surveys that relied on the original 30-item DRI-R. The current study represents the first known attempt to measure the TA using the DRI-SF that included only the 9-item scale on a paper survey. While Kennealy and colleagues (2012) trichotomized individual TA scores into low, middle, and high grouping, their analysis used the 30-item DRI-R measure and assessed time to rearrest. It may be possible that in the current study, the use of a shorter follow-up period
combined with potential ceiling effects of the DRI-SF and convenient sample of individuals on probation, help explain the null findings across the High TA groups.

Results also revealed that individuals with higher LS/CMI scores were significantly more likely to receive a technical violation. This is not surprising as a significant body of research including several meta-analyses found high risk individual are at the greatest propensity to reoffend (Andrews et al., 1990; Bonta & Andrews 2017; Lipsey et al., 2007). These results connect to a broader literature surrounding PO discretion and violation processes (Lipsky, 1980; Olsen et al., 2012; Rudes, 2012; Viglione et al., 2015). For example, studies found that POs responded more punitively to moderate and high risk clients when clients breached conditions of supervision (Nikartas et al., 2021; Steiner et al., 2011). Previous research has also indicated that POs made decision about filing technical violations as a mechanism to ensure risky individuals who show early signs of rule breaking behaviors had their supervision revoked and were reincarcerated (Rudes, 2012). That is, POs who believed their clients posed a significant threat to the community safety were more likely to file a revocation report for technical violations. The findings observed in the current study may indicate POs embraced a risk management approach for deciding which clients were to receive a technical violation, namely higher risk individuals (Feeley & Simon, 1992; Rudes, 2012). POs’ decision to violate riskier clients may stem from a perceived liability about being blamed if a client engages in serious offending or from being sued if crime were to hurt someone in the community (Drapela & Lutze, 2009).

Beyond PO decisions to file violations, prolonged criminal history with greater number of criminogenic needs such as peer criminal associates or antisocial beliefs are significant predictors of recidivism, including probation violations (Andrews et al., 2006; Taxman et al., 2006). Therefore, it is possible that high risk individuals simply engaged in more violation
behaviors (Hyatt & Barnes, 2017; Langan & Levin, 2002). This supports the push for community correction agencies to adhere to the principles of the RNR model to better connect high risk clients to correctional services that address criminogenic needs (Bonta & Andrews, 2017; Bourgon & Armstrong, 2005). Prioritizing rehabilitative efforts should not only help improve clients behavioral outcomes (e.g., recidivism, self-efficacy) but also help move supervision from risk management towards a model of risk reduction (Phelps, 2018). This could reorient probation and parole agencies to focus less on client violations and rule infractions that can exacerbate mass probation and more on promoting PO-client relationships and effective treatment services (Phelps, 2018; Rengifo et al., 2017).

Findings also showed that client education levels were positively related with increased odds of receiving a technical violation. This stands in contrast to some prior studies which found education levels protected against supervision violations including new criminal behaviors and supervision failures, though research remains mixed (Albonetti & Hepburn, 1997; Gray et al., 2001; Sims & Jones, 1997). However, the majority of studies that examined the influence of client education on recidivism and largely overlooked technical violations. That is, studies found those with more education were less likely to be rearrested or have their supervision revoked (Albonetti & Hepburn, 1997; Olson & Lurigio, 2000; Ulmer, 2001). Hamilton and Campbell (2013) argued that this lack of empirical attention toward predictors of technical violations represented the “dark figure in corrections” (p. 181). While variation exists across different state and local jurisdictions, technical violations are inherently distinct from traditional forms of recidivism including re-arrests or commissions of a new crime (Campbell, 2016). The majority of technical violations are minor rule violations stemming from curfew orders, maintaining employment, meeting with supervision officer, refraining from contact with criminal associates
(Kerbs et al., 2009). It may be that people with more education are more likely to be employed or engaged in other prosocial behaviors that make it difficult to abide to the many demands of probation. For example, clients may be more willing to miss a meeting with their PO if it interfered with their employment or other prosocial activities. On the other hand, these findings could also suggest that POs might respond differently to clients who they believe should comprehend or know the consequences associated with noncompliant behavior. In this sense, POs may be more willing to file technical violations if they perceive more educated clients should know better.

Also unexpected and contrary to existing research, (Blasko & Taxman, 2018), findings demonstrated that clients perceptions of procedural justice had no impact on their odds of receiving a technical violation. Results showed that clients who viewed their POs treated them with respect, provided voice, and were unbiased in decision-making had no impact on whether individuals received a technical violation. In addition to the null effect, the observed relationship was in the opposite direction, as results demonstrated a positive association between clients procedural justice perceptions and odds of receiving a technical violation. There are several potential explanations for these unexpected findings. First, procedural justice may have a limited effect especially in the context of technical violations. While considerable research demonstrated the value of procedural justice for enhancing individuals’ perceptions of legitimacy and compliance to the law across numerous criminal justice settings (Bolger & Walters, 2019; Mazerolle et al., 2013; Walters & Bolger, 2019), technical violations in community supervision represent noncriminal infractions (Gray et al., 2001; Hamilton & Campbell, 2013). In this context, POs have great discretion in deciding whether formal technical violations should be filed and processed (Steen et al., 2013). Thus, it may be that while clients perceived their POs
acted in accordance with the tenets of procedural justice, it had no bearing on POs’ decision-making processes to file a technical violation. Regardless of clients viewing that their POs treated them fairly and with respect, POs nonetheless could make decisions about technical violations irrespective of how they interact with the clients on their caseload.

Second, the findings presented in this study suggest that while clients perceived POs treated them in a procedurally just manner, these perceptions did not impact technical violations. This could reflect POs decision-making processes about which behaviors and circumstances they decide to file a technical violation for. A number of empirical studies explored POs discretion regarding decision-making processes for violating and revoking clients (Krebs et al., 2009; Nikartas et al., 2021; Rudes, 2012). Across this body of research, studies identified that PO demographics (e.g., age and gender), organizational attributes (e.g., caseload sizes), and orientation styles (e.g., law enforcer, social worker) were significant predictors of POs’ decision to file criminal or violation charges (Ricks & Eno Louden, 2015; Jones & Kerbs, 2007; Kerbs et al., 2009). In addition, research found that POs’ decisions were often a reaction to behaviors including whether officers perceived their clients put a “good faith effort” towards succeeding with the supervision process (McCleary, 1978; Steen et al., 2013). In this context, such individual and organizational factors are likely an important piece of the puzzle for predicting technical violations, in addition to perceptions of procedural justice. Current findings suggest the need for future research to unpack the effect of PO characteristics and discretion to better understand how officer behaviors impacts the relationship between clients perceptions of procedural justice and compliance outcomes.

Beyond PO decision making processes, it is also possible that the perceptions surrounding the fairness of supervision outcomes received (i.e., distributive justice) may matter
more. (Reisig et al., 2007; Tyler & Huo, 2002; Tyler, 1990). That is, while procedurally just treatment likely still matters, it could matter less if clients believe they received unfair outcomes (Sunshine & Tyler, 2003; Tyler, 1990; Wolfe et al., 2016). A cornerstone of distributive justice theory rests on the assumption that individuals base their evaluations of fair outcomes to the comparisons of other people (Adams, 1965). In other words, people base the favorability of the outcomes they received to the extent they assume people in similarly situated circumstance would receive the same outcome (Markovsky, 1985). While undoubtably an extant body of prior research implied the importance of procedural justice for eliciting people’s legitimacy beliefs (i.e., obligation to obey, normative alignment) and compliance to the law, distributive justice is also likely meaningful within criminal justice settings (Engel, 2005; Reisig et al., 2007).

Several studies identified the value of distributive justice for influencing citizen judgments about police legitimacy and police effectiveness (Sunshine & Tyler, 2003; Tankebe, 2013; Wolfe et al., 2016). For community supervision, it would seem critical from an empirical standpoint to understand whether the application and distribution of supervision services (treatment programs, sanctions, rewards) influence how clients perceived the favorability of their supervision process. Further, it is important to examine whether perceptions of fair outcomes elicit greater supervision compliance. The current findings suggest a theoretical need for future inquiry into elements of procedural and distributive justice for identifying potential pathways to client satisfaction and legal compliance. In part, research should focus on POs’ decision-making processes regarding the distribution of client services and sanctions. How POs approach supervision including their style of monitoring compliance and determining which clients receive violations and access to treatment services could directly shape their relationship with clients as well as client behavioral outcomes.
On a more fundamental level, results from this dissertation raise several interesting considerations regarding the use of technical violations as a measure of supervision success. Recently, the National Academies of Sciences, Engineering, and Medicine (2022) published a report highlighting the limits of traditional recidivism measures used to evaluate individuals success on probation and parole. As previously noted, technical violations largely represent minor rule infractions rather than official measures of new criminal behavior, though variations across state and local jurisdictions exist (Gray et al., 2001; Hamilton & Campbell, 2013). Still, the continued use of technical violations (or other measures of recidivism) as a primary indicator of client success diminishes the incremental changes that can represent client progress. This suggests the need for community corrections to incorporate additional markers of client success. As suggested by the NASEM (2022) report, increased access to stable housing, food security, individual change in attitudes including self-efficacy, or even increased time between noncompliant behavior represent essential change factors that may be more reliable indicators of client success. And while the current study found interpersonal relationship factors were unrelated to technical violations, this does mean that PO-client relationships and elements of procedural justice are not important for other client change processes. Before dismissing the potential of interpersonal relationships including procedural justice within community corrections, much more research is first needed to explore their influence on other, potentially more meaningful indicators of successful behavioral change. This is especially crucial for the field of community corrections in the context of compliance. The process-based model of procedural justice posits that fair and equitable treatment will result in increased legitimacy and ultimately compliance to the law. However, within community supervision it may be that procedural justice helps improve or enhance client perceptions regarding other markers of
success including satisfaction and feelings of self-worth or personal identity. Thus, for community supervision, it may be able POs using procedural justice as ways to improve client attitudes to push clients towards more successfully behavior change that ideally results in greater compliance.

Summary Findings RQ #2b: Do perceptions of the TA, procedural justice, legal cynicism, and legitimacy predict the odds of receiving a positive drug test?

Results from the logistic regression models predicting positive drug tests revealed several notable findings. In contrast to previous studies that examined the influence of the PO-client TA on substance abuse outcomes (Blasko & Taxman, 2018; Blasko et al., 2015; Walters, 2015), the current study found no significant relationship between trichotomized measures of the TA (i.e., Low, Middle, and High) and the odds of having a positive drug test. In addition, no significant relationships were identified between clients perceptions of procedural justice, legitimacy, and legal cynicism with positive drug tests. However, significant increases in positive drug tests were observed with higher risk scores and education levels. Consistent with research on predictors of technical violations, individuals with higher LS/CMI score were at increased odds of reporting a positive drug test within the six-month follow-up period and those with higher education (Andrews et al., 1990; Lowenkamp & Latessa, 2004).

These findings suggest that higher risk clients were significantly more likely to engage in drug use than individuals with lower LS/CMI scores. These findings align with existing research demonstrating that risk levels are associated with increased drug use and failed drug tests, including individuals on probation and parole (Evans et al., 2012; Kerbs et al., 2009). Such findings are indicative of a large body of past research that demonstrated the efficacy of implementing the RNR model for improving supervision outcomes, including prioritizing higher
risk populations for reducing substance use (Andrews et al., 1990; Lowenkamp & Latessa, 2004; Skeem et al., 2007). For example, agencies that adopted the principle from RNR model and targeted individuals with greatest risk to recidivate by addressing substance abuse history were able to reduce re-offending rates and drug and alcohol use (Drake, 2011; Krebs et al., 2009; Evans & Longshore, 2004; Evans et al., 2012).

Interestingly, greater educational attainment was also related to increased positive drug tests. Previous research examining the influence of education on client substance abuse are largely mixed (Olson & Lruigio, 2000). For example, while some studies found individuals with more education are less likely to use substances (Albonetti & Hepburn, 1997; Vaughn et al., 2012), others reported no relationship between education and specific types of drug use including marijuana/hashish (Fearn et al., 2016; Olson & Lruigio, 2000). For the current study findings, this could indicate a ceiling effect where client educational levels no longer influenced individual’s drug and substance use. In addition, most individuals on community supervision engage in high rates of drug and substance use that could operate independently of clients educational levels (Fearn et al., 2016; Golder et al., 2014; Vaughn et al., 2012). Therefore, the relationship between client education and drug use could also reflect PO decision-making or access to treatment. For example, if there are no appropriate treatment services to refer clients to or if POs do not match clients to appropriate services, this could impact continued engagement in antisocial behaviors, including drug use (Taxman et al., 2007).

Although unexpected, prior research may offer several possible explanations regarding the non-significant effect of client TA scores and their odds of having a positive drug test. Prior studies found the importance readiness to change for shaping how individuals viewed the quality of their alliance (Henry & Strupp, 1994). Though readiness to change encompasses an umbrella
term capturing several conceptualizations (e.g., motivation to change, treatment readiness) (Day et al., 2010; Ward et al., 2004), scholars generally agree the concept can be defined as an individual’s willingness to actively engage in the treatment process (Serin & Kennedy, 1997; Ward et al., 2004). Within the general psychotherapy literature, several studies have identified a positive relationship between individual’s readiness to change and the quality of their perceived TA (Joe et al., 1998; Taft et al., 2004). For example, studies have found that greater readiness to change are associated with more positive client-therapist relationship (Ross et al., 2008). Individuals that were aware of their problematic past behaviors and made a concentrated effort to make behavioral changes reported stronger TA towards their therapist (Hiller et al., 2002; Taft et al., 2004).

Based on this research, it is possible that while the majority of the current participants identified a strong TA with their PO, unobserved treatment readiness could help explain the null effect. That is, although clients perceived their POs as caring/fair, trustworthy, and non-authoritative (i.e., less tough), underling readiness for change factors could influence the overall effectiveness of the TA on substance use. Current findings suggest the TA alone may be insufficient for addressing substance use outcomes. Though research has yet to determine a relationship between clients change perceptions (i.e., motivation to change, readiness to change) and the TA in community supervision, this may be a missing link for understanding the true effect of relationship quality with substance use outcomes. It is plausible that clients may report a strong TA with their PO, but if they are unmotivated or not ready to accept their substance abuse as problematic behavior, development of a strong PO-client relationship may have little affect for reducing client drug use. Taken together, the current findings potentially suggest the PO-client TA is likely insufficient to address client drug patterns alone. Rather, research is needed that
focuses on the internal (e.g., agency, readiness for change) and external (e.g., correctional interventions, interpersonal supports) factors that elicit the change process (Serin et al., 2013; Ward et al., 2004).

Analyses also showed that procedural justice, legitimacy, and legal cynicism had no significant effect in predicting drug use among the study population. Within community supervision, clients are required to undergo frequent, random drug testing protocols that often serve as punishment for other minor infractions, with little to no opportunity to be involved such decision matters. And despite some research indicating that greater perceived fairness was associated with reduced substance use for individuals on probation and parole (Blasko & Taxman, 2018), drug and substance abuse denotes an often complicated personal health issue (Fern et al., 2016). Substance abuse represents a unique challenge for correctional agencies given the frequency of client substance use disorders among justice-involved individuals (Hser et al., 2015; Galvin et al., 2021; Owens, Rogers, & Whitesell, 2011). In addition, research consistently identified that recovery from substance use disorders entails a lengthy process of frequent relapse than can be compounded for individuals on supervision as agencies are expected to do more with often less resources (Van Deinse et al., 2018). While research has found substance use treatments that incorporated practices consistent with the PEI helped reduce negative outcomes (Holloway et al., 2006; Morash et al., 2019), supervision agencies are limited in their access to treatment services as client placements are exceedingly rare (Taxman et al., 2007). Taken together, the ability of clients to develop a quality TA with their PO may by itself have little impact for overcoming the serious challenge of substance use disorders and access to and participation in effective treatment. Agency barriers regarding access of quality treatment services indicate the need to incorporate additional client measures such as prior substance use history, access to
treatment services, and treatment engagement that could provide a clearer understanding about the complex relationship between fairness of the supervision process with client substance use.

**Theoretical Implications**

The results from this study are important for theory within community supervision. Findings from this dissertation suggest potential elements of a risk management approach that connect to Simon and Feeley’s (1992) *New Penology*. That is, results demonstrated that clients convicted of a violent offense reported a lower TA compared to drug, property, and other offenses. In addition, high risk clients were significantly more likely to engage in noncompliance including technical violations and drug use. The *New Penology* posited that POs prioritize a risk management approach that focuses on minimizing threats to public safety by prioritizing high risk populations (Simon & Feeley, 1992). Several empirical studies found that POs employing a risk management approach are more likely to use their discretion and draw on pre-conceived notions of risk when clients show any signs of misbehaving including minor violations (Rudes, 2012). For example, research has found that POs made decisions regarding technical violations to the extent they feared clients posed a significant threat to public safety (Rudes, 2012; Taxman, Shepardson & Byrne, 2004; Viglione et al., 2015). When POs focus on the surveillance of higher risk individuals perceived as more dangerous, this could in turn impact how those same clients view the quality of their TA. For example, POs who prioritize risk management may place less emphasis on addressing clients criminogenic needs and may resist the use of rehabilitative approaches (Viglione et al., 2015), both of which may jeopardize the quality of the PO-client TA.

In addition, study findings demonstrating the influence of client risk level and conviction offense with technical violations, drug use, and TA scores indicate elements of the pains of
supervision (Durnescu, 2011). An emerging body of research identified how individuals experience the supervision process including the burdensome obligations clients are required to complete (Durnescu, 2019; Hayes, 2015, 2018; Phelps & Ruhland, 2021). Research has found that individuals placed on probation viewed the litany of supervision requirements and court-mandated conditions as a system that deprived personal autonomy, placed great financial strains, and manifested a constant fear of the possibility of having supervision revoked (Durnescu, 2011). Other research indicated that individuals on parole viewed the terms of their supervision—random drug testing, notification for travel—challenged their ability to successfully navigate their own parole sentence and in turn success (Werth, 2012). Given that violent and high risk individuals generally experience a greater number of supervision requirements and conditions (Andrews et al., 1990), theoretically it is likely higher risk and more violent clients viewed increased surveillance as a pain of probation that could impact their view of the TA (Durnescu, 2011). In this context, higher risk clients may identify and associate the conditions of their supervision and close monitoring by PO as a punishment, potentially weakening the strength of the TA. In fact, the quality of the PO-client TA could further be weakened if clients view the conditions of their supervision as inherently unfair or unequally distributed. This could indicate that for higher risk populations, elements of distributive justice could matter more for both shaping how they view their PO and impacting supervision outcomes.

As probation and parole officers assume the responsibility of supervising individuals in the community, they are often tasked with competing goals of surveillance and rehabilitation (Klockars, 1972; Miller, 2015; Skeem & Manchalk, 2008). Many of these responsibilities require POs be agents of change whereby encouraging desistance, connecting clients to case
management and treatment services, and monitoring and responding to client noncompliance or supervision violations (Gayman & Bradley, 2013; Pitts, 2007). Though considerable research provided a framework to guide probation and parole services based on the PEI (Andrews & Bonta, 2010; Andrews & Kiessling, 1980; Gendreau et al., 2006), continued rates of technical violations and supervision failures have driven researchers toward a renewed interest in understanding why people comply with the law or in this case supervision conditions (McNeil, 2019; Schafer & Williams, 2021). Within community corrections, individuals must comply with court-ordered mandates that often dictate the terms of their supervision. Given that procedural justice theory posits individuals will voluntarily accept directives from legal authorities if perceived as fair; the null effect of procedural justice on client technical violations and drug use raises several interesting theoretical implications regarding the application of procedural justice in community supervision.

Despite an extant body of research demonstrating the positive relationship between procedural justice for enhancing individual perceptions of legitimacy and ultimately compliance to the law (Tyler, 2006), the coercive nature of community supervision potentially impacts the universality of the application of procedural justice. Clients on probation and parole are required to adhere to a myriad number of court-ordered conditions that generally stipulate reporting to probation/parole office, meeting with PO, drug/alcohol testing, engaging in treatment and program services, and paying fines and restitution (Gray et al., 2001; Kerbs et al., 2009). POs bear the responsibility for monitoring clients compliance to conditions and are afforded great discretion in responding to noncompliance behaviors (Lipsky, 1980; Steen et al., 2013; Viglione, 2017, 2019). In this context, the process of supervision is dynamic and represent an ongoing process of communication and PO-client interactions (Gibbons & Rosecrance, 2005).
While procedural justice argues a process-based model of regulation, the underlying theory largely ignores negative experiences and interactions (Tyler & Huo, 2002). More specifically, many of the functions and responses to probation supervision involved the use of deterrence-based measures (Kleiman, Kilmer, & Fisher, 2014; Lowenkamp et al., 2010). This is significant from a theoretical standpoint as POs are responsible for sanctioning and reprimanding individuals engaging in noncompliant behaviors. The effectiveness of procedural justice in community supervision could be contingent upon the specific type of PO-client interactions as well as the frequency or number of client contacts. Research has found that the type of contact citizens have with police shaped how they viewed the quality of their interaction (Tyler & Folger, 1980; Wells, 2007). As one example, Murphy (2009) found procedural justice appeared to matter more during police-initiated contacts for determine levels of police satisfaction compared to police performance for citizen driven police contacts.

In probation, the type of contact clients have with their supervision officer could impact their views of procedural justice or reveal the extent perceived fairness matters at all. For example, the nature and quality of PO-client interactions could vary to the extent that PO-clients interactions were officer-initiated that revolved around conversations of missed clients appointments, failure to pay restitution, or attend treatment programs. How POs approach their interactions with clients and the extent to which such contacts are PO or client driven may differentially shape clients perceptions of procedural justice, satisfaction with the supervision process, or compliance to conditions overall. These questions merit additional research to uncover the antecedents of procedural justice among people serving probation and parole terms as well as if the nature of supervision context (e.g., court-mandated) and PO contacts (e.g., frequency) affect the generality of the process-based model of regulation (Tyler, 1990).
Tyler’s process-based model of self-regulation proposed the effect of procedural justice on citizens legitimacy beliefs operates in the same manner regardless of individual circumstance (Tyler, 2006). Considered the invariance thesis, people’s judgments about the fairness of legal processes and treatment afforded by authority figures shape perceptions of legitimacy irrespective of individual, cultural, and situational difference (Tyler & Huo, 2002). While research largely supports the cultural invariance given the majority of empirical studies demonstrating the generality of procedural justice outside the United States (Jackson et al., 2012; Mazerolle et al., 2013; Reisig et al., 2014), considerably less research has tested procedural justice across situational contexts (Wolfe et al., 2016). Theoretically, procedural justice could still matter and operate in the expected direction for individuals on probation. Though probation and parole operate as a system of punishment, it remains unclear if procedural justice, legitimacy, and legal compliance apply to this setting. For instance, individuals sentenced to probation are legally mandated to comply with a litany of supervision conditions. These conditions often include meeting requirements, random drug tests, required treatment programming, and payment of fines/restitution (Klingele, 2013). The very nature of how clients view such requirements and the equity of their distribution to access services could fundamentally alter traditional elements of perceived fairness, outcome favorability, and overall legitimacy of the system (Sunshine & Tyler, 2003; Tyler, 2006; Wolfe et al., 2016). This raises questions about whether procedural justice itself matters or other competing frameworks that elicit compliance matter more. For example, how clients perceive they are treated could be irrelevant or less important to the extent individuals believe they are denied assistance (e.g., access to treatment programming or employment services). This could suggest that the traditional procedural justice to legitimacy link may not operate in the same way when applied to
probation and parole supervision, which often requires a blend of supervision and rehabilitation. Taken together, it could be that elements of distributive justice—including how POs make decisions during interactions with their clients—are more effective for solidifying individuals obligation to the law and compliance. Research would benefit from a full test of the process-based model that included traditional procedural and distributive justice measures with legitimacy beliefs as well as other supervision outcomes including satisfaction to understand the application of procedural justice within community supervision.

**Policy Considerations**

Study findings also highlight a number of relevant policy implications as well as areas warranting additional research. Results from this dissertation underscore high risk individuals’ propensity for engaging in supervision noncompliance, including technical violations and drug use. Though unsurprising, these findings provide support for community correction agencies to continue adopting core correctional practices (CCPs) to prioritize individuals criminogenic needs as solutions to reduce violating behaviors (Bonta & Andrews, 2017; Dowden & Andrews, 2004). An extant body of primary studies and several meta-analyses identified that individuals classified as high risk with greater number of criminogenic risk factors including antisocial attitudes, criminal associates, and substance use are strongest predictors of recidivism (Andrews & Bonta, 2003; Gendreau et al., 1996; Lowenkamp et al., 2007). Agencies could incorporate more effective approaches when responding to instances of noncompliance. Research found that traditional jail and deterrence-based sanctions are largely ineffective for holding clients accountable and can result in greater recidivism compared to graduated sanctions and incentives and rewards (Taxman et al., 1999; Wodahl et al., 2015). For example, positive reinforcement, officer praise, and a 4:1 incentive to sanction ratio are critical for reducing substance use and
maximizing the effectiveness of correctional interventions for promoting client behavioral change (Andrews & Bonta, 1998; Gendreau, 1996; Lester et al., 2004). Such practices could also help agencies reduce not only the frequency individuals receive technical violations but also elements that net-widen the system of community supervision (Phelps, 2018).

Although actuarial risk/need instruments guide correctional practitioners decision-making in determine which clients require more intensive treatment services (Bonta & Andres, 2017; Lowenkamp & Latessa, 2005), the current study findings underscore additional factors that merit research. As research generally observed, clients are often evaluated having several co-occurring criminogenic needs regardless of static risk factors (Taxman & Caudy, 2015). As a result, it is feasible that clients sentenced to community supervision participate in multiple treatment programming services designed to addresses the multitude of their risk factors. While speculative, the findings observed in the current study suggest the need to incorporate additional measures to better assess how agencies can structure client services with the goal of reducing technical violations and client drug use. Though a limitation of the current study, future research should incorporate additional covariates associated with individual substance abuse such as history of prior substance use, number of treatment services clients are engaged in, and indicators of mental illness.

While the current study found perceptions of procedural justice had no significant effect for improving supervision compliance, results demonstrated the potential of procedural justice for increasing the strength of the TA. As police agencies recognized the importance of training their officers in the tenets of procedural justice (Mazerolle et al., 2013; Skogan et al., 2015; Weisburd et al., 2022), recent efforts have been undertaken to apply such training programs within community corrections (Jannetta et al. 2021). Given the results of the current study and
the considerable research about how past experiences can shape individuals justice evaluations towards legal authorities and spill-over to other justice systems (Alward & Baker, 2021; Baker et al., 2014; Sahin et al., 2017), more research should examine the application of procedural justice within community supervision that capture past supervision experiences and the extent it improves clients experiences with the supervision process (Schaffer et al., 2022). That is, perhaps procedural justice may have important impacts on outcomes other than technical violations and drug use, such as client satisfaction.

Some preliminary research suggested that individuals supervised by POs training in procedural justice reported increased levels of satisfaction with the supervision process (Jannetta, 2021). Based on early research, continued exploration of procedural justice should help agencies understand how clients view the supervision process. This represents an especially critical component for ensuring clients are satisfied with the quality of the services they receive and that agencies delivered programs as intended (Latessa et al., 2002). Correctional agencies can use data gleaned from client satisfaction surveys to make improvements to treatment intervention and increase its effectiveness for improving supervision outcomes (Gendreau et al., 1996; Matthews et al., 2001; Latessa et al., 2001). Research should provide additional tests of the process-based model in probation as it would provide an opportunity for agencies and POs to understand if clients enter the supervision process with pre-existing negative attitudes towards authority figures or legal institutions more holistically.

**Limitations and Future Research**

Like all research, this study is not without limitations that warrant acknowledgement and greater discussion. First, this study utilized a convenience sample of adult individuals on probation supervision who self-selected into the study. Individuals were approached and asked to
complete measures assessing the quality of the TA while sitting in the lobby of the probation office, prior to meeting their supervising PO. It is therefore possible that as a result of self-selecting into the study and evaluating the quality of the TA in the agency office, clients who participate held more favorable views of the supervision process and towards their PO relative to clients who declined to participate. Though consistent with the research methods other researchers use to assess the PO-client TA (Skeem et al., 2007), future work could stive to recruit POs to randomly select from officer caseloads as ways to reduce potential selection biases. Given potential ceiling effects of the DRI-R (Gochyyev & Skeem, 2019), additional research designs should look to solicit client responses in different locations relative to probation or parole departments, this may prove beneficial to mitigating overinflated estimates of the quality PO-client relationship.

Another limitation of the current study represents the use of a cross-sectional research design thus limiting the ability to make causal inferences about client attitudes and supervision outcomes. This represents an especially fruitful avenue that future research should address by incorporating longitudinal design that assesses the PO-client TA at multiple time points. Research by Strum and colleagues (2021) noted the value and importance of including several time periods to best capture client views towards their POs that can diminish overtime. This further highlights the inherently dynamic process of community supervision where PO-client interactions represent an ongoing process. Moreover, research has found that clients frequently change and transfer to different PO caseloads that can influence recidivism outcomes (Miller et al., 2011). For the current sample it is therefore possible that clients relied only on their most recent encounters with their PO thus their TA and view of fairness and trust. Still, research implies that although procedural justice and legitimacy beliefs change earlier in life, they are
nonetheless largely stable over the life course (McClean et al., 2018). Regardless, future research is needed that accounts for the dynamic process of community supervision that considers multiple time periods to capture change over time.

A third limitation corresponds to the short follow-up period to assess client noncompliance outcomes. The use of a six-month follow-up period potentially limits the total number of official probation violations including technical and substance use compared to longer study timeframes. Moreover, the current analysis coincided with the emergence of the COVID-19 pandemic. This is an important consideration as courts and community corrections experience widespread change in response to the pandemic, impacting the use of supervision strategies and violations filed to courts (Martin & Zettler, 2021; Schwalbe & Koetzle, 2021; Viglione et al., 2020). Thus, it is possible that the emergence of COVID-19 within community supervision influenced the total number of clients’ technical violations and drug use outcomes being reported. For example, the majority of sample were compliant with their conditions of supervision as few individuals received a technical violation over the study period (i.e., 20%). Low frequency of client technical violations prevented additional analyses to parse out the effect of the TA on different types of technical violations and could also explain the current study null effects. Taken together, the emergence of the COVID-19 pandemic impacted the data available to be collected. The short time-frame of the study period coinciding with overall reductions in agency violations filed to the courts likely resulted in underreported client sanctions. That is, as the pandemic progressed, several studies revealed significant adaptations in supervision practices and court proceedings specifically resulting in fewer formal filing of probation violations and processing of violations in the courts (Schwalbe & Koetzle, 2021; Viglione et al., 2021). For example, Martin and Zettler (2022) found that motions to file revocations were reduced to a
case-by-case basis for only high risk individuals. Other studies also found agency directors reported filing fewer violations for all measures of noncompliance (e.g., failing a drug test, failure pay fines, and failing attending treatment) with exception for new criminal offense (Viglione et al., 2021). Taken together, even if clients were engaging in violation behaviors, most of these behaviors would go unreported, especially minor infractions.

Future research can address this shortcoming by incorporating longer follow-up periods to include more measures of recidivism including additional makers of client success to both allow for greater variation in outcome variables and provide better representation of the true effect of the TA on noncompliant behaviors. This represent an especially fruitful endeavor for future research to address given the limitations surrounding official measures of recidivism (NASEM, 2022). In this context, future research could both provide additional tests regarding the application of procedural justice in community supervision while considering alternative measures of client success. Altering the definition of client success, including items such as self-efficacy and worth, may help further understand the role of procedural justice for improving alternative markers of behavioral change including personal identity. In fact, prior research found that when individuals believe they are treated fairly and with respect by authority figures, it conjures a greater sense of personal and social identity by reaffirming people’s value as members of society (Tyler & Lind, 1998; Tyler & Huo, 2002). While procedural justice may have limited role for eliciting client compliance on technical violations, it could exert a greater influence for strengthening clients social identity (Tyler & Bladder, 2003). More research is needed to explore the link between procedural justice with other elements of supervision outcomes especially social-psychological processes. In addition, more research should strive to incorporate a larger
study sample of individuals on community supervision. The current study sample was small and prevented inclusion of additional client covariates to preserve statistical power.

Another limitation for the current study is the inability to account for other relevant client measures that might affect the PO-client relationship quality and compliance outcomes. Future research should examine addition individual factors as well as supervision characteristics. Drawing on studies that have examined the TA (as measured by the WAI), more research is needed that includes clients’ mental health status, depressive symptoms, and other psychopathic tendencies or personality traits (e.g., anxiety, apprehension) (Sass-Stanczak & Czabala, 2015; Strum et al., 2022; Wodahl et al., 2021). In terms of supervision characteristics, research should examine if the frequency or modality of PO-client interaction affect the strength of the TA. As community supervision embraces a system of techno-supervision in response to the pandemic, research needs to evaluate the extent that clients can develop a TA via remote supervision using Zoom or forms of video technology (Viglione et al., 2020; Strum et al., 2022). Closely related to the modality of PO-client interactions, additional research should account for the frequency of PO-client interactions as well as the type of contact. The number of times clients are required to report to the office, length of PO-client meeting time, and the location of meetings could influence how clients view the TA with their supervision officer (Wodahl et al., 2021). Client with increased number of contacts that take more personal time could result in a weaker PO-client TA.

A final limitation of the current study corresponds to the use of the DRI-SF in measuring the PO-client TA. Although the current study captures the TA from both the PO and client perspective, the current study did not incorporate an independent observational rating of the PO-client relationship quality. While this would have reduced an already small sample size, research
does demonstrate that PO-client total DRI-SF scores are predictive of supervision noncompliance from both perspective (Skeem et al., 2007). While several studies have captured the TA from only the probationer and probation officer perspectives (Kennealy et al., 2012; Manchak et al., 2014), future research could draw on more comprehensive assessments of the TA (e.g., systematic social observation, audio recordings) to improve measurement.

**Conclusions**

The ability of POs to develop high quality relationships and support individuals through the supervision process represents an essential function towards achieving desirable probation and parole outcomes (Dowden & Andrews, 2004; Gleicher et al., 2013; Taxman & Ainsworth, 2009). This dissertation contributed to an emerging body of research by integrating concepts of procedural justice, legitimacy, and legal cynicism with the TA for improving compliance outcomes. While results demonstrated that perceptions of procedural justice were associated with clients perceived TA, no support was found regarding the effect procedural justice, legitimacy, or the TA for eliciting supervision compliance. Despite limited support for the study hypotheses, this dissertation provides an initial step forward towards acknowledging the potential of procedural justice and legitimacy within community supervision that provides a roadmap for continued inquiry. Community supervision is a dynamic process that entails frequent PO-client interactions and a litany of mandated supervision requirement. The complexity of this process and relationship dynamics suggests the need to consider additional factors to provide a more holistic understanding of what motivates supervision compliance. Though how clients view they are treated by their POs can influence the quality of the TA, this alone is not strong enough to motivate individuals to comply with the conditions of supervision. However, it may be an important driver of other important outcomes, such as client satisfaction and distributive justice,
which should be explored in future research. Continued research into the applicability of procedural justice and the quality of the PO-client TA should help promote a greater understanding of how individuals view the supervision process that agencies can use to promote successful supervision outcomes.
Figure 1. Conceptual model examining the direct effects of the TA mediated by perceptions of procedural justice on clients’ technical violations.
Figure 2. Conceptual model examining the direct effects of the TA mediated by perceptions of procedural justice on clients’ positive drug tests
APPENDIX B: RESULTS TABLES
<table>
<thead>
<tr>
<th></th>
<th>Vallejo Probation</th>
<th>Vallejo CPC</th>
<th>YAC</th>
<th>Fairfield Office*</th>
<th>Total FTEs</th>
</tr>
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<td></td>
</tr>
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<td>1</td>
<td>15</td>
<td>20</td>
</tr>
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<td>DPOs</td>
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<td>2</td>
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<td>Total</td>
<td>17</td>
<td>5</td>
<td>4</td>
<td>69</td>
<td>95</td>
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</table>

Note: DPO = deputy probation officer; YAC = Youth Achievement Facility; *Includes CPC staff in the Fairfield Probation Facility
Table 2. Sample Characteristics (N = 172)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean or %</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
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<tr>
<td>Technical Violations</td>
<td>20.00%</td>
<td>—</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Positive Drug Tests</td>
<td>44.00%</td>
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<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Relationship Quality (Total TA)</td>
<td>56.08</td>
<td>7.89</td>
<td>26</td>
<td>63</td>
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<tr>
<td>Procedural Justice (PJM)</td>
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<td>.638</td>
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<td>Legitimacy towards PO</td>
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<td>.667</td>
<td>-2.26</td>
<td>1.19</td>
</tr>
<tr>
<td>Legal Cynicism</td>
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<td>.674</td>
<td>-1.13</td>
<td>1.51</td>
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<tr>
<td>LS/CMI Risk Scores</td>
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<td>7.05</td>
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<td>Prior Technical Violations</td>
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<tr>
<td>Time Remaining</td>
<td>17.81</td>
<td>10.01</td>
<td>0</td>
<td>36</td>
</tr>
<tr>
<td>Time Spent</td>
<td>15.89</td>
<td>10.03</td>
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<td>Age</td>
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<td>10.27</td>
<td>19</td>
<td>62</td>
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<td>Education Level</td>
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<tr>
<td>Female</td>
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<tr>
<td>White</td>
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<tr>
<td>Employed</td>
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<td>Violent</td>
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</tr>
<tr>
<td>Property</td>
<td>22.00%</td>
<td>—</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Drug</td>
<td>16.00%</td>
<td>—</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Other Offense</td>
<td>30.00%</td>
<td>—</td>
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<td>1</td>
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Table 3. Mean Differences between Therapeutic Alliance and Client Characteristics.

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<td></td>
<td>Mean</td>
<td>SD</td>
<td>t-statistic</td>
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<td><strong>Gender</strong></td>
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<td></td>
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<tr>
<td>Male</td>
<td>55.84</td>
<td>8.18</td>
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</tr>
<tr>
<td>Female</td>
<td>56.94</td>
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<tr>
<td>Employed</td>
<td>56.43</td>
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</tr>
<tr>
<td>Unemployed</td>
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<tr>
<td><strong>Ethnicity</strong></td>
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<td></td>
</tr>
<tr>
<td>White</td>
<td>56.21</td>
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<tr>
<td>Non-White</td>
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<td>8.15</td>
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<tr>
<td><strong>Probation Offense</strong></td>
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<td></td>
</tr>
<tr>
<td>Violent</td>
<td>54.80</td>
<td>8.96</td>
<td>1.36†</td>
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<td>Non-Violent</td>
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<td></td>
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<tr>
<td>Property</td>
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<td>Non-Property</td>
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<td>Drug</td>
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<td>Non-Drug</td>
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<td>Non-Other Offense</td>
<td>55.66</td>
<td>8.31</td>
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†p<.10, *p<.05, **p<.01, ***p<.001.
Table 4. Correlation Coefficients (N = 172)

<table>
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<tr>
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<tr>
<td>1.0</td>
<td>1.0</td>
<td>-0.12</td>
<td>-0.02</td>
<td>0.48*</td>
<td>-0.29*</td>
<td>-0.10</td>
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<td>1.0</td>
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<td>0.24*</td>
<td>0.03</td>
<td>0.03</td>
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<td>0.18*</td>
<td>0.02</td>
<td>0.11</td>
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<td>0.50*</td>
<td>0.01</td>
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<td>0.01</td>
<td>0.02</td>
<td>0.16*</td>
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<td></td>
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<td></td>
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Table 5. Chi-Square Distribution Comparing Client Characteristics and Technical Violations

<table>
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<tr>
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<th>No Technical Violation (%)</th>
<th>Technical Violation (%)</th>
<th>df</th>
<th>x²</th>
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<tr>
<td><strong>Gender</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Male</td>
<td>108 (78.0%)</td>
<td>30 (22.0%)</td>
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<td>2.39</td>
</tr>
<tr>
<td>Female</td>
<td>33  (89.0%)</td>
<td>4  (11.0%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
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<tr>
<td>White</td>
<td>41  (78.5%)</td>
<td>11 (21.2%)</td>
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<td>0.09</td>
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<tr>
<td>Non-White</td>
<td>97  (80.8%)</td>
<td>23 (19.2%)</td>
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<td>Total</td>
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<td>100%</td>
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<tr>
<td>Employed</td>
<td>66  (82.5%)</td>
<td>14 (17.5%)</td>
<td>1</td>
<td>0.48</td>
</tr>
<tr>
<td>Unemployed</td>
<td>72  (78.2%)</td>
<td>20 (21.7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Probation Offense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent</td>
<td>43  (78.2%)</td>
<td>12 (21.8%)</td>
<td>1</td>
<td>0.21</td>
</tr>
<tr>
<td>Non-Violent</td>
<td>95  (81.2%)</td>
<td>22 (18.8%)</td>
<td></td>
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</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Violation History</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 or more Past Technical Violations</td>
<td>24 (17.4%)</td>
<td>9 (26.5%)</td>
<td>2</td>
<td>9.21*</td>
</tr>
<tr>
<td>1-2 Past Technical Violations</td>
<td>30 (21.7%)</td>
<td>14 (41.2%)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No Past Technical Violations</td>
<td>84 (60.9%)</td>
<td>11 (32.3%)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Revocation History</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past Revocations</td>
<td>19  (61.3%)</td>
<td>12 (38.7%)</td>
<td>1</td>
<td>8.55**</td>
</tr>
<tr>
<td>No Past Revocations</td>
<td>119 (80.4%)</td>
<td>22 (15.6%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
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*p<.05, **p<.01, ***p<.001.
<table>
<thead>
<tr>
<th></th>
<th>No Positive Drug Test (%)</th>
<th>Positive Drug Test (%)</th>
<th>df</th>
<th>x²</th>
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<td><strong>Gender</strong></td>
<td></td>
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<td></td>
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<tr>
<td>Male</td>
<td>80 (59.3%)</td>
<td>55 (40.7%)</td>
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<tr>
<td>Female</td>
<td>17 (45.9%)</td>
<td>20 (54.1%)</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>27 (51.9%)</td>
<td>25 (48.1%)</td>
<td>1</td>
<td>0.62</td>
</tr>
<tr>
<td>Non-White</td>
<td>88 (58.3%)</td>
<td>53 (41.7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Occupational status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>49 (61.3%)</td>
<td>31 (38.7%)</td>
<td>1</td>
<td>1.43</td>
</tr>
<tr>
<td>Unemployed</td>
<td>48 (52.2%)</td>
<td>44 (47.8%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Probation Offense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent</td>
<td>29 (52.7%)</td>
<td>26 (47.3%)</td>
<td>1</td>
<td>0.44</td>
</tr>
<tr>
<td>Non-Violent</td>
<td>68 (58.1%)</td>
<td>49 (41.9%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Violation History</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 or more Past Technical Violations</td>
<td>13 (13.4%)</td>
<td>20 (44.0%)</td>
<td>2</td>
<td>7.64*</td>
</tr>
<tr>
<td>1-2 Past Technical Violations</td>
<td>22 (22.7%)</td>
<td>22 (29.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Past Technical Violations</td>
<td>62 (63.9%)</td>
<td>33 (26.7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Revocation History</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past Technical Violations</td>
<td>9 (29.03%)</td>
<td>22 (70.97%)</td>
<td>1</td>
<td>11.51**</td>
</tr>
<tr>
<td>No Past Technical Violations</td>
<td>88 (62.4%)</td>
<td>53 (37.6%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001.
Table 7. Confirmatory Factor Analysis of Probationers’ Quality Relationship of Supervising Officer

<table>
<thead>
<tr>
<th>DRI-SF</th>
<th>λ</th>
<th>SE</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1: Caring/Fairness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRI-SF 1</td>
<td>.771**</td>
<td>.035</td>
<td>21.99</td>
</tr>
<tr>
<td>DRI-SF 2</td>
<td>.832***</td>
<td>.028</td>
<td>28.95</td>
</tr>
<tr>
<td>DRI-SF 3</td>
<td>.924***</td>
<td>.021</td>
<td>43.47</td>
</tr>
<tr>
<td><strong>Factor 2: Trust</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRI-SF 4</td>
<td>.886***</td>
<td>.025</td>
<td>34.52</td>
</tr>
<tr>
<td>DRI-SF 5</td>
<td>.879***</td>
<td>.026</td>
<td>33.52</td>
</tr>
<tr>
<td>DRI-SF 6</td>
<td>.627***</td>
<td>.051</td>
<td>12.30</td>
</tr>
<tr>
<td><strong>Factor 3: Tough</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRI-SF 7</td>
<td>.735***</td>
<td>.060</td>
<td>12.24</td>
</tr>
<tr>
<td>DRI-SF 8</td>
<td>.702***</td>
<td>.060</td>
<td>11.55</td>
</tr>
<tr>
<td>DRI-SF 9</td>
<td>.662***</td>
<td>.061</td>
<td>10.84</td>
</tr>
</tbody>
</table>

**Goodness of Fit Statistics**

<table>
<thead>
<tr>
<th></th>
<th>AIC</th>
<th>BIC</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4435.211</td>
<td>4529.983</td>
<td>.985</td>
<td>.978</td>
<td>.053</td>
</tr>
</tbody>
</table>

Note. λ = standardized factor loading; SE = Standard error; AIC = Akaike’s information criterion; BIC = Bayesian information criterion; CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean squared error of approximation; DRI-SF = Dual Role Inventory, Short Form; PJM = Procedural Justice Measure.

*p < .05. **p < .01. ***p < .001.
Table 8. Confirmatory Factor Analysis of Probationers’ Perceptions of Procedural Justice

<table>
<thead>
<tr>
<th>PJM</th>
<th>( \lambda )</th>
<th>SE</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>PJM 1</td>
<td>.475***</td>
<td>.075</td>
<td>6.26</td>
</tr>
<tr>
<td>PJM 2</td>
<td>.531***</td>
<td>.074</td>
<td>7.17</td>
</tr>
<tr>
<td>PJM 3</td>
<td>.636***</td>
<td>.067</td>
<td>8.00</td>
</tr>
<tr>
<td>PJM 4</td>
<td>.471***</td>
<td>.079</td>
<td>5.37</td>
</tr>
<tr>
<td>PJM 5</td>
<td>.517***</td>
<td>.072</td>
<td>7.65</td>
</tr>
<tr>
<td>PJM 6</td>
<td>.579***</td>
<td>.067</td>
<td>6.99</td>
</tr>
<tr>
<td>PJM 7</td>
<td>.552***</td>
<td>.070</td>
<td>6.52</td>
</tr>
</tbody>
</table>

Goodness of Fit Statistics

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AIC</td>
<td>2677.745</td>
</tr>
<tr>
<td>BIC</td>
<td>2750.403</td>
</tr>
<tr>
<td>CFI</td>
<td>.988</td>
</tr>
<tr>
<td>TLI</td>
<td>.979</td>
</tr>
<tr>
<td>RMSEA</td>
<td>.034</td>
</tr>
</tbody>
</table>

Note. \( \lambda \) = standardized factor loading; SE = Standard error; AIC = Akaike’s information criterion; BIC = Bayesian information criterion; CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean squared error of approximation; PJM = Procedural Justice Measure.

*p < .05. **p < .01. ***p < .001.
Table 9. Confirmatory Factor Analysis of Probationers’ Perceptions of TA and Procedural Justice: Comparing the Single-Factor Solution with the Two-Factor Solution

<table>
<thead>
<tr>
<th>Variables</th>
<th>Single-factor solution</th>
<th></th>
<th></th>
<th>Two-factor solution</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Latent Factor 1</td>
<td></td>
<td>Latent Factor 1</td>
<td></td>
<td>Latent Factor 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>λ</td>
<td></td>
<td>λ</td>
<td></td>
<td>λ</td>
<td></td>
</tr>
<tr>
<td>DRI-SF 1</td>
<td>.727***</td>
<td></td>
<td>.766***</td>
<td></td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>DRI-SF 2</td>
<td>.817***</td>
<td></td>
<td>.824***</td>
<td></td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>DRI-SF 3</td>
<td>.846***</td>
<td></td>
<td>.926***</td>
<td></td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>DRI-SF 4</td>
<td>.802***</td>
<td></td>
<td>.882***</td>
<td></td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>DRI-SF 5</td>
<td>.806***</td>
<td></td>
<td>.881***</td>
<td></td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>DRI-SF 6</td>
<td>.621***</td>
<td></td>
<td>.631***</td>
<td></td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>DRI-SF 7</td>
<td>−.266***</td>
<td></td>
<td>.735***</td>
<td></td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>DRI-SF 8</td>
<td>−.234***</td>
<td></td>
<td>.703***</td>
<td></td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>DRI-SF 9</td>
<td>−.173**</td>
<td></td>
<td>.661***</td>
<td></td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>PJM 1</td>
<td>.467***</td>
<td></td>
<td>—</td>
<td></td>
<td>.508***</td>
<td></td>
</tr>
<tr>
<td>PJM 2</td>
<td>.421***</td>
<td></td>
<td>—</td>
<td></td>
<td>.558***</td>
<td></td>
</tr>
<tr>
<td>PJM 3</td>
<td>.266***</td>
<td></td>
<td>—</td>
<td></td>
<td>.581***</td>
<td></td>
</tr>
<tr>
<td>PJM 4</td>
<td>.307***</td>
<td></td>
<td>—</td>
<td></td>
<td>.402***</td>
<td></td>
</tr>
<tr>
<td>PJM 5</td>
<td>.364***</td>
<td></td>
<td>—</td>
<td></td>
<td>.523***</td>
<td></td>
</tr>
<tr>
<td>PJM 6</td>
<td>.339***</td>
<td></td>
<td>—</td>
<td></td>
<td>.539***</td>
<td></td>
</tr>
<tr>
<td>PJM 7</td>
<td>.476***</td>
<td></td>
<td>—</td>
<td></td>
<td>.614***</td>
<td></td>
</tr>
</tbody>
</table>

AIC | 7320.022 | AIC | 7076.626 |
BIC | 7471.656 | BIC | 7250.374 |
CFI | .721 | CFI | .963 |
TLI | .678 | TLI | .955 |
RMSEA | .127 | RMSEA | .047 |

Note. λ = standardized factor loading; AIC = Akaike’s information criterion; BIC = Bayesian information criterion; CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean squared error of approximation; DRI-SF = Dual Role Inventory-Short Form; PJM = Procedural Justice Measure

*p < .05. **p < .01. ***p < .001.
Table 10. Confirmatory Factor Analysis of Probationers Perceptions of Legitimacy Towards their Probation Officer (PO)

<table>
<thead>
<tr>
<th>Legitimacy</th>
<th>λ</th>
<th>SE</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1: Obligation to Obey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obey 1</td>
<td>.919**</td>
<td>.058</td>
<td>15.76</td>
</tr>
<tr>
<td>Obey 2</td>
<td>.682***</td>
<td>.055</td>
<td>12.27</td>
</tr>
<tr>
<td>Obey 3</td>
<td>.878***</td>
<td>.058</td>
<td>15.00</td>
</tr>
<tr>
<td>Factor 2: Trust</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust 1</td>
<td>.689***</td>
<td>.049</td>
<td>13.98</td>
</tr>
<tr>
<td>Trust 2</td>
<td>.897***</td>
<td>.037</td>
<td>23.68</td>
</tr>
<tr>
<td>Factor 3: Alignment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alignment 1</td>
<td>.752***</td>
<td>.040</td>
<td>18.67</td>
</tr>
<tr>
<td>Alignment 2</td>
<td>.787***</td>
<td>.036</td>
<td>21.29</td>
</tr>
<tr>
<td>Alignment 3</td>
<td>.759***</td>
<td>.039</td>
<td>19.01</td>
</tr>
</tbody>
</table>

Goodness of Fit Statistics

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AIC</td>
</tr>
<tr>
<td>BIC</td>
</tr>
<tr>
<td>CFI</td>
</tr>
<tr>
<td>TLI</td>
</tr>
<tr>
<td>RMSEA</td>
</tr>
</tbody>
</table>

Note. \( \lambda \) = standardized factor loading; SE = Standard error; AIC = Akaike’s information criterion; BIC = Bayesian information criterion; CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean squared error of approximation; DRI-SF = Dual Role Inventory, Short Form; PJM = Procedural Justice Measure.

*\( p < .05 \). **\( p < .01 \). ***\( p < .001 \).
Table 11. Confirmatory Factor Analysis of Probationers’ Perceptions of Procedural Justice and Legitimacy: Comparing the Single-Factor Solution with the Two-Factor Solution

<table>
<thead>
<tr>
<th>Variables</th>
<th>Latent Factor 1</th>
<th>Latent Factor 1</th>
<th>Latent Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\lambda$</td>
<td>$\lambda$</td>
<td>$\lambda$</td>
</tr>
<tr>
<td>Legitimacy 1</td>
<td>.723***</td>
<td>.927***</td>
<td>—</td>
</tr>
<tr>
<td>Legitimacy 2</td>
<td>.519***</td>
<td>.597***</td>
<td>—</td>
</tr>
<tr>
<td>Legitimacy 3</td>
<td>.544***</td>
<td>.622***</td>
<td>—</td>
</tr>
<tr>
<td>Legitimacy 4</td>
<td>.713***</td>
<td>.748***</td>
<td>—</td>
</tr>
<tr>
<td>Legitimacy 5</td>
<td>.767***</td>
<td>.788***</td>
<td>—</td>
</tr>
<tr>
<td>Legitimacy 6</td>
<td>.733***</td>
<td>.761***</td>
<td>—</td>
</tr>
<tr>
<td>Legitimacy 7</td>
<td>.668***</td>
<td>.716***</td>
<td>—</td>
</tr>
<tr>
<td>Legitimacy 8</td>
<td>.795***</td>
<td>.863***</td>
<td>—</td>
</tr>
<tr>
<td>PJM 1</td>
<td>.251**</td>
<td>—</td>
<td>.357***</td>
</tr>
<tr>
<td>PJM 2</td>
<td>.595***</td>
<td>—</td>
<td>.713***</td>
</tr>
<tr>
<td>PJM 3</td>
<td>.378***</td>
<td>—</td>
<td>.509***</td>
</tr>
<tr>
<td>PJM 4</td>
<td>.463***</td>
<td>—</td>
<td>.550***</td>
</tr>
<tr>
<td>PJM 5</td>
<td>.348***</td>
<td>—</td>
<td>.468***</td>
</tr>
<tr>
<td>PJM 6</td>
<td>.329***</td>
<td>—</td>
<td>.479***</td>
</tr>
<tr>
<td>PJM 7</td>
<td>.492***</td>
<td>—</td>
<td>.595***</td>
</tr>
</tbody>
</table>

AIC: 5274.328
BIC: 5416.485
CFI: .800
TLI: .766
RMSEA: .108

AIC: 5130.792
BIC: 5295.063
CFI: .964
TLI: .955
RMSEA: .048

Note. $\lambda$ = standardized factor loading; AIC = Akaike’s information criterion; BIC = Bayesian information criterion; CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean squared error of approximation; DRI-SF = Dual Role Inventory-Short Form; PJM = Procedural Justice Measure

*p < .05. **p < .01. ***p < .001.
Table 12. Confirmatory Factor Analysis of Perceptions of Legal Cynicism: Comparing the Single-Factor Solution with the Three-Factor Solution

<table>
<thead>
<tr>
<th>Variables</th>
<th>Single-factor solution</th>
<th>Three-factor solution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Latent Factor 1</td>
<td>Latent Factor 1</td>
</tr>
<tr>
<td>Factor 1: Antipathy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 1</td>
<td>.747***</td>
<td>.747***</td>
</tr>
<tr>
<td>Item 2</td>
<td>.751***</td>
<td>.770***</td>
</tr>
<tr>
<td>Item 3</td>
<td>.775***</td>
<td>.908***</td>
</tr>
<tr>
<td>Item 4</td>
<td>.888***</td>
<td>.853***</td>
</tr>
<tr>
<td>Item 5</td>
<td>.828***</td>
<td>.727***</td>
</tr>
<tr>
<td>Item 6</td>
<td>.720***</td>
<td>.783***</td>
</tr>
<tr>
<td>Factor 2: Corruption</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 1</td>
<td>.473***</td>
<td></td>
</tr>
<tr>
<td>Item 2</td>
<td>.499***</td>
<td></td>
</tr>
<tr>
<td>Item 3</td>
<td>.526***</td>
<td></td>
</tr>
<tr>
<td>Factor 3: Low Legitimacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 1</td>
<td>-.434***</td>
<td>-</td>
</tr>
<tr>
<td>Item 2</td>
<td>-.457***</td>
<td>-</td>
</tr>
<tr>
<td>Item 3</td>
<td>-.440***</td>
<td>-</td>
</tr>
<tr>
<td>Item 4</td>
<td>-.566***</td>
<td>-</td>
</tr>
</tbody>
</table>

| AIC            | 4199.121 | AIC            | 3896.367 |
| BIC            | 4321.874 | BIC            | 4035.365 |
| CFI            | .691     | CFI            | .964     |
| TLI            | .629     | TLI            | .954     |
| RMSEA          | .189     | RMSEA          | .067     |

Note. $\lambda =$ standardized factor loading; AIC = Akaike’s information criterion; BIC = Bayesian information criterion; CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean squared error of approximation; DRI-SF = Dual Role Inventory-Short Form; PJM = Procedural Justice Measure

*p < .05. **p < .01. ***p < .001.
Table 13. OLS Model Predicting Caring/Fairness Subscale

<table>
<thead>
<tr>
<th>Variables</th>
<th>b</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedural Justice (PJM)</td>
<td>.122</td>
<td>.028</td>
<td>.368</td>
</tr>
<tr>
<td>Legitimacy towards PO</td>
<td>.077</td>
<td>.028</td>
<td>.236</td>
</tr>
<tr>
<td>Legal Cynicism</td>
<td>.014</td>
<td>.028</td>
<td>.043</td>
</tr>
<tr>
<td>Prior Technical Violations</td>
<td>−.015</td>
<td>.020</td>
<td>−.061</td>
</tr>
<tr>
<td>LS/CMI Risk Scores</td>
<td>.002</td>
<td>.002</td>
<td>.071</td>
</tr>
<tr>
<td>Time Remaining Sentence</td>
<td>−.002</td>
<td>.002</td>
<td>−.105</td>
</tr>
<tr>
<td>Time Spent on Sentence</td>
<td>−.001</td>
<td>.002</td>
<td>−.041</td>
</tr>
<tr>
<td>Property Offense</td>
<td>.110</td>
<td>.041</td>
<td>.212</td>
</tr>
<tr>
<td>Drug Offense</td>
<td>.091</td>
<td>.046</td>
<td>.185</td>
</tr>
<tr>
<td>Other Offense</td>
<td>.086</td>
<td>.039</td>
<td>.202</td>
</tr>
<tr>
<td>Age</td>
<td>.001</td>
<td>.001</td>
<td>.055</td>
</tr>
<tr>
<td>Female</td>
<td>.020</td>
<td>.037</td>
<td>.036</td>
</tr>
<tr>
<td>White</td>
<td>.010</td>
<td>.033</td>
<td>.023</td>
</tr>
<tr>
<td>Employed</td>
<td>.007</td>
<td>.030</td>
<td>.035</td>
</tr>
<tr>
<td>Education</td>
<td>.017</td>
<td>.041</td>
<td>.035</td>
</tr>
</tbody>
</table>

R² = 0.30

NOTES: n = 172. b = unstandardized coefficients; SE = robust standard errors; β = standardized coefficient.
*p < .05; **p < .01; ***p < .001 (two-tailed test).
Table 14. OLS Model Predicting Trust Subscale

<table>
<thead>
<tr>
<th>Variables</th>
<th>b</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedural Justice (PJM)</td>
<td>0.212***</td>
<td>0.043</td>
<td>0.411</td>
</tr>
<tr>
<td>Legitimacy towards PO</td>
<td>0.078¶</td>
<td>0.043</td>
<td>0.153</td>
</tr>
<tr>
<td>Legal Cynicism</td>
<td>-0.026</td>
<td>0.043</td>
<td>-0.052</td>
</tr>
<tr>
<td>Prior Technical Violations</td>
<td>-0.020</td>
<td>0.031</td>
<td>-0.048</td>
</tr>
<tr>
<td>LS/CMI Risk Scores</td>
<td>-0.003</td>
<td>0.004</td>
<td>-0.054</td>
</tr>
<tr>
<td>Time Remaining Sentence</td>
<td>-0.003</td>
<td>0.002</td>
<td>-0.093</td>
</tr>
<tr>
<td>Time Spent on Sentence</td>
<td>-0.001</td>
<td>0.003</td>
<td>-0.020</td>
</tr>
<tr>
<td>Property Offense</td>
<td>0.051</td>
<td>0.063</td>
<td>0.067</td>
</tr>
<tr>
<td>Drug Offense</td>
<td>-0.002</td>
<td>0.071</td>
<td>-0.002</td>
</tr>
<tr>
<td>Other Offense</td>
<td>0.070</td>
<td>0.059</td>
<td>0.090</td>
</tr>
<tr>
<td>Age</td>
<td>-0.001</td>
<td>0.002</td>
<td>-0.030</td>
</tr>
<tr>
<td>Female</td>
<td>-0.027</td>
<td>0.058</td>
<td>-0.033</td>
</tr>
<tr>
<td>White</td>
<td>0.030</td>
<td>0.050</td>
<td>0.038</td>
</tr>
<tr>
<td>Employed</td>
<td>-0.063</td>
<td>0.047</td>
<td>-0.096</td>
</tr>
<tr>
<td>Education</td>
<td>0.017</td>
<td>0.021</td>
<td>0.056</td>
</tr>
</tbody>
</table>

\[ R^2 = 0.30 \]

NOTES: n = 172. b = unstandardized coefficients; SE = robust standard errors; β = standardized coefficient.

¶p < .10; *p < .05; **p < .01; ***p < .001 (two-tailed test).
### Table 15. OLS Model Predicting Toughness Subscale

<table>
<thead>
<tr>
<th>Variables</th>
<th>b</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedural Justice (PJM)</td>
<td>-0.201***</td>
<td>0.064</td>
<td>-0.277</td>
</tr>
<tr>
<td>Legitimacy towards PO</td>
<td>-0.021</td>
<td>0.064</td>
<td>-0.030</td>
</tr>
<tr>
<td>Legal Cynicism</td>
<td>-0.033</td>
<td>0.064</td>
<td>-0.050</td>
</tr>
<tr>
<td>Prior Technical Violations</td>
<td>0.157***</td>
<td>0.046</td>
<td>0.265</td>
</tr>
<tr>
<td>LS/CMI Risk Scores</td>
<td>-0.004</td>
<td>0.005</td>
<td>-0.064</td>
</tr>
<tr>
<td>Time Remaining Sentence</td>
<td>0.001</td>
<td>0.003</td>
<td>0.025</td>
</tr>
<tr>
<td>Time Spent on Sentence</td>
<td>0.003</td>
<td>0.004</td>
<td>0.074</td>
</tr>
<tr>
<td>Property Offense</td>
<td>-0.300**</td>
<td>0.094</td>
<td>-0.278</td>
</tr>
<tr>
<td>Drug Offense</td>
<td>-0.100</td>
<td>0.104</td>
<td>-0.080</td>
</tr>
<tr>
<td>Other Offense</td>
<td>-0.137</td>
<td>0.088</td>
<td>-0.135</td>
</tr>
<tr>
<td>Age</td>
<td>0.001</td>
<td>0.003</td>
<td>0.040</td>
</tr>
<tr>
<td>Female</td>
<td>-0.125</td>
<td>0.086</td>
<td>-0.120</td>
</tr>
<tr>
<td>White</td>
<td>-0.100</td>
<td>0.075</td>
<td>-0.100</td>
</tr>
<tr>
<td>Employed</td>
<td>0.051</td>
<td>0.070</td>
<td>0.054</td>
</tr>
<tr>
<td>Education</td>
<td>0.010</td>
<td>0.031</td>
<td>0.020</td>
</tr>
</tbody>
</table>

R² = 0.22

NOTES: n = 172. b = unstandardized coefficients; SE = robust standard errors; β = standardized coefficient.

*p < .05; **p < .01; ***p < .001 (two-tailed test).
Table 16. OLS Model Predicting Clients Relationship Quality (TA)

<table>
<thead>
<tr>
<th>Variables</th>
<th>b</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedural Justice (PJM)</td>
<td>.110***</td>
<td>.021</td>
<td>.412</td>
</tr>
<tr>
<td>Legitimacy towards PO</td>
<td>.035†</td>
<td>.022</td>
<td>.142</td>
</tr>
<tr>
<td>Legal Cynicism</td>
<td>-.010</td>
<td>.022</td>
<td>-.052</td>
</tr>
<tr>
<td>Prior Technical Violations</td>
<td>-.030</td>
<td>.016</td>
<td>-.123</td>
</tr>
<tr>
<td>LS/CMI Risk Scores</td>
<td>-.001</td>
<td>.002</td>
<td>-.030</td>
</tr>
<tr>
<td>Time Remaining Sentence</td>
<td>-.001</td>
<td>.001</td>
<td>-.049</td>
</tr>
<tr>
<td>Time Spent on Sentence</td>
<td>.000</td>
<td>.001</td>
<td>-.012</td>
</tr>
<tr>
<td>Property Offense</td>
<td>.067*</td>
<td>.031</td>
<td>.168</td>
</tr>
<tr>
<td>Drug Offense</td>
<td>.028</td>
<td>.035</td>
<td>.062</td>
</tr>
<tr>
<td>Other Offense</td>
<td>.054†</td>
<td>.029</td>
<td>.151</td>
</tr>
<tr>
<td>Age</td>
<td>-.001</td>
<td>.001</td>
<td>-.040</td>
</tr>
<tr>
<td>Female</td>
<td>-.004</td>
<td>.028</td>
<td>-.010</td>
</tr>
<tr>
<td>White</td>
<td>.023</td>
<td>.025</td>
<td>.063</td>
</tr>
<tr>
<td>Employed</td>
<td>-.014</td>
<td>.023</td>
<td>-.044</td>
</tr>
<tr>
<td>Education</td>
<td>.007</td>
<td>.010</td>
<td>.048</td>
</tr>
</tbody>
</table>

R² = 0.31

NOTES: n = 172. b = unstandardized coefficients; SE = robust standard errors; β = standardized coefficient. 
†p < .10; *p < .05; **p < .01; ***p < .001 (two-tailed test).
Table 17. Logistic Regression Results for Predictors of Technical Violations

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th></th>
<th></th>
<th>Model 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>b</td>
<td>SE</td>
<td>Exp (B)</td>
<td>b</td>
<td>SE</td>
</tr>
<tr>
<td>Middle TA Group</td>
<td>−1.84**</td>
<td>0.67</td>
<td>0.15</td>
<td>−2.23**</td>
<td>0.77</td>
<td>0.10</td>
</tr>
<tr>
<td>High TA Group</td>
<td>−0.56</td>
<td>0.42</td>
<td>0.57</td>
<td>−0.69</td>
<td>0.54</td>
<td>0.50</td>
</tr>
<tr>
<td>Procedural Justice (PJM)</td>
<td>−</td>
<td>—</td>
<td>—</td>
<td>0.49</td>
<td>0.45</td>
<td>1.62</td>
</tr>
<tr>
<td>Legitimacy towards PO</td>
<td>−</td>
<td>—</td>
<td>—</td>
<td>−0.07</td>
<td>0.40</td>
<td>0.93</td>
</tr>
<tr>
<td>Legal Cynicism</td>
<td>−</td>
<td>—</td>
<td>—</td>
<td>0.07</td>
<td>0.39</td>
<td>0.94</td>
</tr>
<tr>
<td>Prior Technical Violations</td>
<td>−</td>
<td>—</td>
<td>—</td>
<td>0.56†</td>
<td>0.27</td>
<td>1.75</td>
</tr>
<tr>
<td>LS/CMI Risk Scores</td>
<td>−</td>
<td>—</td>
<td>—</td>
<td>0.73*</td>
<td>0.03</td>
<td>1.08</td>
</tr>
<tr>
<td>Time Remaining Sentence</td>
<td>−</td>
<td>—</td>
<td>—</td>
<td>0.03</td>
<td>0.02</td>
<td>1.04</td>
</tr>
<tr>
<td>Time Spent on Sentence</td>
<td>−0.03</td>
<td>0.02</td>
<td>0.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent Offense</td>
<td>−</td>
<td>—</td>
<td>—</td>
<td>0.16</td>
<td>0.49</td>
<td>1.17</td>
</tr>
<tr>
<td>Age</td>
<td>−</td>
<td>—</td>
<td>—</td>
<td>−0.20</td>
<td>0.02</td>
<td>0.98</td>
</tr>
<tr>
<td>Female</td>
<td>−</td>
<td>—</td>
<td>—</td>
<td>−0.85</td>
<td>0.66</td>
<td>0.42</td>
</tr>
<tr>
<td>White</td>
<td>−</td>
<td>—</td>
<td>—</td>
<td>0.28</td>
<td>0.47</td>
<td>1.32</td>
</tr>
<tr>
<td>Employed</td>
<td>−</td>
<td>—</td>
<td>—</td>
<td>−0.37</td>
<td>0.45</td>
<td>0.69</td>
</tr>
<tr>
<td>Education</td>
<td>−</td>
<td>—</td>
<td>—</td>
<td>0.45*</td>
<td>0.22</td>
<td>1.57</td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>0.09</td>
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<td></td>
<td>0.26</td>
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</tbody>
</table>

NOTES: n = 172. b = unstandardized coefficient; SE = standard errors; Exp(B) = odds ratio; Clients in the Low TA group served as the reference category †p < .10; *p < .05; **p < .01; ***p < .001
Table 18. Logistic Regression Results for Testing Moderation of Legal Cynicism on Technical Violation

<table>
<thead>
<tr>
<th>Variables</th>
<th>b</th>
<th>SE</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle TA Group</td>
<td>-2.39**</td>
<td>.85</td>
<td>.005</td>
</tr>
<tr>
<td>High TA Group</td>
<td>-0.77</td>
<td>.56</td>
<td>.175</td>
</tr>
<tr>
<td>Middle TA*Legal Cynicism</td>
<td>1.16</td>
<td>1.41</td>
<td>.401</td>
</tr>
<tr>
<td>High TA*Legal Cynicism</td>
<td>-0.32</td>
<td>.71</td>
<td>.816</td>
</tr>
<tr>
<td>Procedural Justice (PJM)</td>
<td>0.47</td>
<td>.46</td>
<td>.280</td>
</tr>
<tr>
<td>Legitimacy towards PO</td>
<td>0.05</td>
<td>.42</td>
<td>.843</td>
</tr>
<tr>
<td>Legal Cynicism</td>
<td>0.11</td>
<td>.65</td>
<td>.883</td>
</tr>
<tr>
<td>Prior Technical Violations</td>
<td>0.44†</td>
<td>.30</td>
<td>.098</td>
</tr>
<tr>
<td>LS/CMI Risk Scores</td>
<td>0.73*</td>
<td>.03</td>
<td>.025</td>
</tr>
<tr>
<td>Time Remaining Sentence</td>
<td>0.03</td>
<td>.02</td>
<td>.119</td>
</tr>
<tr>
<td>Time Spent on Sentence</td>
<td>-0.02</td>
<td>.02</td>
<td>.106</td>
</tr>
<tr>
<td>Violent Offense</td>
<td>-0.11</td>
<td>.52</td>
<td>.254</td>
</tr>
<tr>
<td>Age</td>
<td>-0.01</td>
<td>.02</td>
<td>.632</td>
</tr>
<tr>
<td>Female</td>
<td>-0.77</td>
<td>.68</td>
<td>.260</td>
</tr>
<tr>
<td>White</td>
<td>0.28</td>
<td>.49</td>
<td>.483</td>
</tr>
<tr>
<td>Employed</td>
<td>-0.37</td>
<td>.46</td>
<td>.384</td>
</tr>
<tr>
<td>Education</td>
<td>0.39*</td>
<td>.22</td>
<td>.050</td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>0.27</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTES: n = 172. b = unstandardized coefficient; SE = standard errors; Clients in the Low TA group served as the reference category

†p < .10; *p < .05; **p < .01; ***p < .001
Table 19. Logistic Regression Results for Predictors of Drug Use

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>SE</td>
</tr>
<tr>
<td>Middle TA Group</td>
<td>–0.46</td>
<td>.42</td>
</tr>
<tr>
<td>High TA Group</td>
<td>–0.22</td>
<td>.37</td>
</tr>
<tr>
<td>Procedural Justice (PJM)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Legitimacy towards PO</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Legal Cynicism</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Prior Technical Violations</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>LS/CMI Risk Scores</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Time Remaining Sentence</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Time Spent on Sentence</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Violent Offense</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Age</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Female</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>White</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Employed</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Education</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>0.01</td>
<td></td>
</tr>
</tbody>
</table>

NOTES: n = 172. b = unstandardized coefficient; SE = standard errors; Exp(B) = odds ratio; Clients in the Low TA group served as the reference category.
†p < .10; *p < .05; **p < .01; ***p < .001
Table 20. Logistic Regression Results for Testing Moderation of Legal Cynicism on Drug Use

<table>
<thead>
<tr>
<th>Variables</th>
<th>b</th>
<th>SE</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle TA Group</td>
<td>-0.64</td>
<td>.54</td>
<td>.230</td>
</tr>
<tr>
<td>High TA Group</td>
<td>-0.28</td>
<td>.48</td>
<td>.567</td>
</tr>
<tr>
<td>Middle TA*Legal Cynicism</td>
<td>1.24</td>
<td>1.41</td>
<td>.143</td>
</tr>
<tr>
<td>High TA*Legal Cynicism</td>
<td>0.72</td>
<td>.71</td>
<td>.285</td>
</tr>
<tr>
<td>Procedural Justice (PJM)</td>
<td>0.29</td>
<td>.46</td>
<td>.428</td>
</tr>
<tr>
<td>Legitimacy towards PO</td>
<td>-0.06</td>
<td>.42</td>
<td>.856</td>
</tr>
<tr>
<td>Legal Cynicism</td>
<td>-0.58</td>
<td>.65</td>
<td>.332</td>
</tr>
<tr>
<td>Prior Technical Violations</td>
<td>0.47†</td>
<td>.30</td>
<td>.061</td>
</tr>
<tr>
<td>LS/CMI Risk Scores</td>
<td>0.06*</td>
<td>.03</td>
<td>.017</td>
</tr>
<tr>
<td>Time Remaining Sentence</td>
<td>0.03</td>
<td>.02</td>
<td>.108</td>
</tr>
<tr>
<td>Time Spent on Sentence</td>
<td>-0.01</td>
<td>.02</td>
<td>.665</td>
</tr>
<tr>
<td>Violent Offense</td>
<td>0.25</td>
<td>.52</td>
<td>.542</td>
</tr>
<tr>
<td>Age</td>
<td>0.01</td>
<td>.02</td>
<td>.688</td>
</tr>
<tr>
<td>Female</td>
<td>0.97†</td>
<td>.68</td>
<td>.067</td>
</tr>
<tr>
<td>White</td>
<td>0.27</td>
<td>.49</td>
<td>.493</td>
</tr>
<tr>
<td>Employed</td>
<td>-0.42</td>
<td>.46</td>
<td>.250</td>
</tr>
<tr>
<td>Education</td>
<td>0.36†</td>
<td>.22</td>
<td>.062</td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>0.23</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTES: n = 172. b = unstandardized coefficient; SE = standard errors; Clients in the Low TA group served as the reference category

†p < .10; *p < .05; **p < .01; ***p < .001
APPENDIX C: TECHNICAL VIOLATION BEHAVIORS
<table>
<thead>
<tr>
<th>(LOW)</th>
<th>(MEDIUM)</th>
<th>(HIGH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Providing false information</td>
<td>• Failure to comply with Low Sanctions</td>
<td>• Failure to comply with Medium Sanctions</td>
</tr>
<tr>
<td>• Failure to report to office</td>
<td>• Failure to comply with Low Sanctions</td>
<td>• Multiple medium level violation behaviors occurring within a 3 month</td>
</tr>
<tr>
<td>• Failure to monthly call in (Level 1 client)</td>
<td>• Three or more low level violation behaviors occurring within a 3 month period of time</td>
<td>period of time</td>
</tr>
<tr>
<td>• Failure to notify probation officer about police contact (no citation or arrest)</td>
<td>• Arrest/cite for new misdemeanor crime*</td>
<td>• Failure to report to probation from CDCR as instructed</td>
</tr>
<tr>
<td>• Failure to sign additional terms and conditions (PRCS only)</td>
<td>• Failure to report change of address/provide false address</td>
<td>• Absconding (60 days or less)</td>
</tr>
<tr>
<td>• Willful failure to pay fines and victim restitution</td>
<td>• Failure to notify probation officer about arrest within required time period</td>
<td>• Failure to complete inpatient or outpatient treatment program</td>
</tr>
<tr>
<td>• Failure to seek employment/maintain employment/ provide employment verification</td>
<td>• Possession of non-firearm weapon or other prohibited items</td>
<td>• Failure to comply/complete domestic violence program – including removal from treatment*</td>
</tr>
<tr>
<td>• Failure to comply/complete community service program</td>
<td>• Failure to comply with non-association order including co-defendant and stay away order violation</td>
<td>• Violation of travel restrictions</td>
</tr>
<tr>
<td>• Missed treatment/program group (except on 52 Week DV Program)</td>
<td>• Falsifying of urinalysis</td>
<td>• Violations of no contact order, no harassing order, or restraining order w/victim or other protected person *</td>
</tr>
<tr>
<td>• Positive urinalysis for alcohol and drugs including admission, 1st positive drug test, and 1st failure to test</td>
<td>• Failure to take required medications as ordered by court</td>
<td>• Failure to comply with electronic monitoring rules</td>
</tr>
<tr>
<td>• Failure to follow a probation officer directive</td>
<td>• Failure to refrain from gang activity including gang association and wearing gang related attire</td>
<td>• Tampering with EMP, GPS, or SCRAM device</td>
</tr>
<tr>
<td></td>
<td>• Violation of special conditions (re: internet access; bank account access)</td>
<td>• District Attorney Deferral (PRCS only)</td>
</tr>
<tr>
<td></td>
<td>• Possession of court prohibited items or devices (e.g., cell phone, computers, electronic devices, marijuana, alcohol etc.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 2nd Positive Drug/Alcohol Test or 2nd failure to test</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Misdemeanor conduct observed by probation officer but not arrested or charged (example driving without a license, driving after revocation, etc.)</td>
<td></td>
</tr>
</tbody>
</table>
1. To begin the survey, we start with questions that pertain to your interactions with your supervising officer. There are sentences that describe some of the different ways a person might think or feel about his or her probation officer (PO). If the statement describes the way you always think or feel circle the number 7; if it never applies to you circle the number 1. Use the numbers in between to describe the variations between these extremes. As you read the sentences, mentally insert the name of your PO in the blank, or “__________.”

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>_________ treats me fairly</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>_________ considers my views</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>_________ takes my needs into account</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I feel free to discuss the things that worry me with _________</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I feel safe enough to be open and honest with _________</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>_________ knows that he/she can trust me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>_________ talks down to me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I feel that _________ is looking to punish me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>_________ expects me to do all the work alone and doesn’t provide enough help</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

2. We would like you to think about the likelihood that you would do each of the following. Please circle the number which corresponds with your response. How likely would you be to:

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Somewhat Likely</th>
<th>Likely</th>
<th>Very Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call the police to report a crime in your neighborhood</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Help the police with information on a suspected criminal</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Report suspicious activity in your neighborhood to the police</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Help the police with information to solve a crime</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Directions: The following next set of questions ask you to report engagement in the following behaviors. All information will be confidential and therefore your answers cannot be linked to you. Please circle the option that best indicates your response. Please do not indicate multiple responses for a single item.

3. In the twelve months since starting probation supervision, how many times did you:

<table>
<thead>
<tr>
<th>Behavior</th>
<th>None</th>
<th>1-2 times</th>
<th>3-5 times</th>
<th>6-10 times</th>
<th>11-25 times</th>
<th>More than 25 times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use illegal drugs like marijuana or hashish</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Take money or property worth $50 or less from others</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Hit someone in an angry outburst</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Take money or property worth more than $50 from others</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Receive stolen property</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Use any drugs other than marijuana</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

4. Please indicate by circling the appropriate number how much you disagree or agree with each of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My PO listens to my side of the story when I miss an appointment, have a positive urine, or have other problems with supervision rules</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>People often receive fair outcomes from probation staff</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My PO follows clear guidelines when he or she has to punish me for breaking rules</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>People usually receive the outcomes they deserve under the law</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My PO works with other agencies to get the services I need</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel my PO’s sanctions and punishments are what I should get</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Probation officers provide the same quality of services to all people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My PO makes decisions about how to handle problems in a fair way</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel like my PO treats me like others on supervision</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My PO often makes up his or her own rules</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
5. People have different opinions about how important it is to obey probation officers and the law. The following questions are concerned with your own feelings about obeying the law. Please tell me how much you disagree or agree with each these statements: indicate by **circling** how much you agree or disagree with the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probation rules are made to be broken</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Sometimes doing the right thing means breaking the law</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel that some laws are made to be broken</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The law represents the values of people in power rather than the values of people like yourself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The law protects your interests</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The law represents the moral values of people like yourself</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Obeying the law ultimately benefits everyone in the community</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Laws are generally consistent with the views of the people in your community</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>People in power use the law to try and control people like you</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Laws usually match your own feelings about what is right and just</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

6. Please indicate by **circling** the appropriate number how much you disagree or agree with each of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The police treat people with respect</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The police treat people fairly</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The police respect people’s rights</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The police consider the views of people involved before making their decisions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The police make decisions based upon facts</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

7. When was the last time you met either in-person, virtually, or over the telephone with your supervising probation officer? Please **circle** the option that best indicates your response.

1. Today
2. Within the last 7 days
3. Within the last 14 days
4. 30 or more days ago
8. What is the name of your current, supervising probation officer _______________?

9. Please indicate by **circling** the appropriate number how much you disagree or agree with each of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>People like you have no choice but to obey the orders of probation officers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Probation officers are generally honest</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>You should do what probation officers tell you even if you do not understand the reasons</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Probation officers generally have the same sense of right and wrong that you do</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>You should accept the decisions of probation officers even if you think they are wrong</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>When dealing with people, probation officers almost always behave according to the law/rules</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Probation officers stand up for values that are important to you</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>You should do what probation officers tell you to do even if you do not like how they treat you</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Probation officers usually act in ways that match your own ideas about what is right and wrong</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Probation officers take bribes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

10. We are interested in your perceptions of how likely or unlikely your probation officer would be to revoke probation based on the hypotheticals presented below. For each violation listed below, indicate by circling how **likely or unlikely** that your probation officer would violate if an individual was caught for each of the following scenarios:

<table>
<thead>
<tr>
<th>Violation</th>
<th>Not at all</th>
<th>Somewhat Likely</th>
<th>Likely</th>
<th>Very Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failing a drug or alcohol test</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Failure to appear in court</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Missing a probation office meeting</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Failing to attend treatment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Possession of a firearm</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Failing to pay fines or restitution</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
11. Please indicate by circling the appropriate number how much you disagree or agree with each of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nearly all laws deserve our respect</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>There is never an excuse for breaking the law</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I try to obey the law, even if it goes against what I think is right</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>People should always obey the law even if it interferes with their personal ambition</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Society would be a better place if all laws were enforced</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The law is rotten to the core</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Laws are usually bad</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The law does not protect my interests</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

12. Please indicate by circling the appropriate number how much you disagree or agree with each of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>People who always follow the law are suckers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>It is fun to break the law and get away with it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Sometimes you need to ignore the law and do what you want to</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>It’s alright to break the law if you don’t get caught</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>To get ahead, you have to do some things which are not right</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>It is alright to get around the law if you can get away with it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Suckers deserve to be taken advantage of.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Probation officers give some probationers less help than they give others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Probation officers do not treat all probationers equally</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

13. How fearful would you be of punishment if you violated the rules that probation staff set?
   1. Not at all
   2. Somewhat fearful
   3. Extremely fearful
14. Have you ever been in a gang?
   1. Yes, I’m currently in a gang
   2. Yes, but I’m not in one anymore
   3. No, I’ve never been in a gang

15. Have you ever used any drugs?
   1. Yes
   2. No

16. Have you used any drugs in the past 30 days?
   1. Yes
   2. No

17. Have you used any drugs other than marijuana in the past 30 days?
   1. Yes
   2. No

18. How old were you the first time you were arrested? ____________ (in years)

19. How many times in your life have you been convicted of a crime? ____________ (please indicate a number).

20. How much time do you have left on your current probation term? ____________ (please indicate a number in months).

21. What type of criminal offense led to your current probation supervision term?
   1. Violent
   2. Property
   3. Drug
   4. Sex Offense
   5. Other, please specific ____________

22. What is your current probation supervision level?
   1. Low
   2. Moderate
   3. High
   4. Highest

23. Are you currently participating in any treatment programs as a condition of your probation term?
   1. Yes
   2. No
25. Which of the following best describes your current relationship status?
   1. Single never married
   2. Single previously married
   3. In a relationship but not married
   4. Married
   5. Widowed
   6. Other ___________

25. Thinking about your interactions with criminal justice personnel prior to your current probation experience, please indicate how dissatisfied or satisfied you are with each of these statements:

<table>
<thead>
<tr>
<th></th>
<th>Very Dissatisfied</th>
<th>Dissatisfied</th>
<th>Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>The fairness of the way the police treated you?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The fairness of the decisions made by the courts?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The fairness of the way the courts treated you?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The fairness of the decisions made by police?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Directions:** The following next set of questions ask you to report engagement in the following behaviors. All information will be confidential and therefore your answers cannot be linked to you. Please circle the option that best indicates your response. Please do not indicate multiple responses for a single item.

26. In the twelve months since starting probation supervision, how many times have you:

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>1-2 times</th>
<th>3-5 times</th>
<th>6-10 times</th>
<th>11-25 times</th>
<th>More than 25 times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failed a drug or alcohol test</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Failed to appear in court</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Missed a probation office meeting</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Failed to attend treatment program</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Failed to pay fines or restitution</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Directions:** Please circle or check the option that best indicates your response. Please do not indicate multiple responses for a single item.

We would like to end by collecting some demographic information about you. This helps us to make sure people from all different backgrounds are represented in the survey.

26. What is your current age? ___________ (in years)
27. Are you currently employed?
   1. Yes
   2. No

28. Do you have any children?
   1. Yes
   2. No

29. What race or ethnicity do you consider yourself?
   1. Black
   2. White
   3. Hispanic, Latino, Mexican American (of any race)
   4. Asian
   5. American Indian, Eskimo, Aleut
   6. Other __________ (please indicate)

30. What is your preferred gender identity?
   1. Male
   2. Female
   3. Transgender male
   4. Transgender female
   5. Gender variant/non-conforming
   6. Other __________

31. What is your highest level of education?
   1. Less than High School
   2. Some High School but didn’t finish
   3. High school diploma or G.E.D.
   4. Some College
   5. Associates Degree
   6. Bachelor’s Degree or Higher

32. Do you have any final comments you would like to share about the relationship with your supervision officer or of the supervision process? Please write below:
APPENDIX E: PROBATION OFFICER SURVEY
1. How many probationers do you have on your caseload? ___________

2. Do you have a specialized caseload?
   a. No
   b. Yes ___________ (please be specific).

3. How likely is it that you will be at this job in a year from now?
   a. Very Likely
   b. Likely
   c. Very Unlikely
   d. Unlikely

4. The next set of questions ask your perceptions about how probationers you supervise view you as an officer. Please indicate by selecting the appropriate number how much you disagree or agree with each of the following statements. Probationers:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognize your authority as a case manager to tell them what to do</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Believe you have the right to tell them what to do</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Know you have the authority, considering your position, to expect your requests will be obeyed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Think about the good things they will miss out on by disobeying you</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Know there are good rewards you can give out when clients do what you want</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Understand you can give special help and benefits to those who cooperate with you</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Believe you know more than they do</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Think you know a lot about doing your job</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

5. What level of risk are the individuals that you supervise? ___________ (please specify if low, moderate, or high risk).
6. This next set of questions ask you to think about how well your colleagues uphold the qualities of impartial, justice-oriented supervision. Please indicate by selecting the appropriate number how much you disagree or agree with each of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers in my department are often rude or discourteous to citizens</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Officers in my department treat citizens with respect</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Officers in my department treat citizens fairly</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Officers in my department take the time to listen to citizens</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Officers in my department make decisions based on facts and law, not on their personal opinions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Officers in my department explain their decisions to people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Officers in my department protect citizens’ basic rights</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Officers in my department are honest</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

7. Please indicate by selecting the appropriate number how much you disagree or agree with each of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>In general, probation officers are more moral and ethical than other people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>It takes a special kind of person to be a probation officer</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>In general, probation officers are less likely to break the law than other people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
8. In your routine supervision of probationers how much do you rely on the following strategies?  
Please select the appropriate number:

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remind probationer of the legal consequences of their behaviors</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Emphasize the authority of the probation officer</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Ensure the probationer understand that they risk detention or incarceration for behavioral transgressions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Closely monitor behaviors (e.g. compliance with conditions, substance use, etc.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Fully enforce rules when any transgressions occur</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Work to establish trust and rapport with probationer</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Work with probationers to establish rehabilitative goals and strategies</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Connect probationers with appropriate therapeutic services (e.g. substance use, mental health)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Connect probationers with appropriate skillbuilding programs (e.g. vocational, academic, problem-)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Connect probationers with family-based services to improve the quality of home life</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

*Directions: Please select the option that best indicates your response. Please do not indicate multiple responses for a single item.*

9. What is your current age in years ________.

10. What race or ethnicity do you consider yourself?  
1. Black  
2. White  
3. Hispanic, Latino, Mexican American  
4. Asian  
5. American Indian, Eskimo, Aleut  
6. Other__________ (please indicate
11. This final set of questions ask you to think about your perceptions of how citizens view probation supervision. Please indicate by selecting the appropriate number how much you disagree or agree with each of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>When probation officers issue formal orders directly to citizens, those citizens comply</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Citizens believe that complying with probation officers is the right thing to do</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Citizens show deference to the authority of probation officers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Citizens accept probation officers’ decisions even if they don’t like the outcomes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Citizens treat probation officers with respect</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Citizens trust that probation officers act in the best interest of the community</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

12. What is your highest level of education?
   1. G.E.D.
   2. High school diploma
   3. Some College
   4. Associates Degree
   5. Bachelor’s Degree
   6. Some Graduate work
   7. Master’s Degree or greater

13. What is your preferred gender identity?
   1. Male
   2. Female
   3. Transgender male
   4. Transgender female
   5. Gender variant/non-conforming
   6. Other ____________
14. Do you have any children?
   1. Yes
   2. No

15. How would you describe yourself politically?
   1. Very liberal
   2. Liberal
   3. Middle of the road
   4. Conservative
   5. Very conservative

16. Which of the following best describes your relationship status?
   1. Single never married
   2. Single previously married
   3. In a relationship but not married
   4. Married
   5. Divorced
   6. Other

17. How many years have you been employed as a probation officer? ___________

18. How many years have you been employed at this probation office? ___________

Thank you very much for your participation!
In the next set of questions there are sentences that describe some of the different ways a person might think or feel about his or her probationer. If the statement describes the way you always think or feel about the individual you supervise circle the number 7; if it never applies to you circle the number 1. Use the numbers in between to describe the variations between these extremes. As you read the sentences, mentally insert the name of your probationers in the blank, or “__________.”

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>I treat ___________ fairly</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I consider ___________’s views</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I take ___________’s needs into account</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>___________ feels free to discuss the things that worry him/her with me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>___________ feel safe enough to be open and honest with my probationer</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>___________ seems to feel I am someone he/she can trust</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I talk down to ___________</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>________ seems worried I look to Punish him/her</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I expect ___________ to do things independently, and don’t help him/her much</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
April 8, 2020

Dear Lucas Alward:

On 4/8/2020, the IRB reviewed the following submission:

<table>
<thead>
<tr>
<th>Type of Review</th>
<th>Initial Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Is Fairness Enough: Assessing the Influence of Procedural Justice, Legitimacy, and Relationship Quality on Probationer Rule Compliance</td>
</tr>
<tr>
<td>Investigator</td>
<td>Lucas Alward</td>
</tr>
<tr>
<td>IRB ID</td>
<td>STUDY000011558</td>
</tr>
<tr>
<td>Funding</td>
<td>None</td>
</tr>
<tr>
<td>Grant ID</td>
<td>None</td>
</tr>
<tr>
<td>IND, IDE, or HDE</td>
<td>None</td>
</tr>
</tbody>
</table>

Documents Reviewed:
- Faculty Advisor Review of Student Research Form.pdf, Category: Faculty Research Approval;
- Individual Under Probation Supervision Perception Survey.docx, Category: Survey / Questionnaire;
- LA HRP 503 UPDATE IRB Protocol.docx, Category: IRB Protocol;
- Probation Officers _ Organizational Perceptions Survey.docx, Category: Survey / Questionnaire;
- Solano Probation Letter of Support.pdf, Category: Letters of Support;
- UPDATE Probation _Officers_ DRI-SF Instrument.docx, Category: Survey / Questionnaire;

The IRB approved the protocol on 4/8/2020.

In conducting this protocol, you are required to follow the requirements listed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. Guidance on submitting Modifications and a Continuing Review or Administrative Check-in are detailed in the manual. When
you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

[Signature]

Racine Jacques, Ph.D.
Designated Reviewer
**Informed Consent Statement**

As an individual on active probation supervision in Solano County, California, you are invited to take part in a research study because we are interested about the perceptions of people on probation and how interactions with your probation officer can influence supervision outcomes.

You are invited to take part in a survey to share your views on your relationship with your probation officer. You will also be asked to share how fair you feel the supervision process is. The survey should take around 25-30 minutes to complete. You may opt to complete the survey electronically or over the telephone. Your responses will be confidential and will not be shared with anyone in the probation office.

Your perceptions are important for understanding how we can better understand the probation experience and create a fairer system. This is an opportunity to share your opinion and have your voice heard. Incentives will be provided to compensate you for your participation. All participants who complete a survey will receive a $10 amount Target gift card.

All information will be confidential; all records of this study will be kept private. In any sort of report or article that might be published, no information will be included that would make it possible to identify a subject or facility. Research records will be stored securely and only the researchers will have access to the records. Individual completed surveys will not be shared with the California Department of Corrections.

Taking part in this research study will in no way have any bearing on impacting the length of probation supervision/sentence or result in any repercussions from supervising office. Participation in this research study is completely voluntary. You can decide to participate or not to participate; probationers are in no way obliged to participate in the study and may choose to withdraw from the survey at any point.

**Study contact for questions about the study or to report a problem:** If you have questions, concerns, or complaints please contact the project lead, Lucas Alward at 407-590-4436 or by email to Lucas.Alward@ucf.edu.

Your signature below documents your permission to take part in this research.

Please print and sign your first and last name consenting to participate in this study.

Print First and Last Name ____________________

Signature ____________________
REFERENCES


