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Youth's Perceptions of Parental Support and Parental Knowledge as Moderators of the Association between Youth-Probation Officer Relationship and Probation Non-Compliance

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Abstract

As a community-based sanction, juvenile probation exemplifies the potential of both communities and families to make significant contributions in promoting positive changes among offending youth. Yet, surprisingly little research has explored the nature of these relationships and its association with offending. This study (1) examined the associations between youth-officer relationships, youth perceptions of parental support and knowledge, and probation non-compliance and (2) explored the role of parental support and knowledge as moderators of the association between youth-officer relationships and probation non-compliance among 110 youth supervised on probation (23% females; 60% African American). The findings showed that tough or punitive youth-officer relationships were associated with greater counts of technical violations, but fewer counts of delinquent offenses. Parental support was associated with fewer counts of delinquent offenses and parental knowledge was associated with fewer counts of both delinquent offenses and technical violations. These findings provide evidence to the important role of both parents and probation officers and underscore the potential benefits of parent-officer collaboration in facilitating successful interventions among offending youth.

Keywords

parental support; parental monitoring; delinquency; juvenile probation

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Conflicts of Interests

The authors report no conflict of interests.

Author's Contributions

SV conceptualized and designed the study, collected and analyzed data, and drafted the manuscript. JW helped design and implement the study and provided critical revisions to the manuscript. All authors read and approved the final manuscript.

Introduction

There is strong empirical support that positive and supportive relationships in different contexts, including family, peers, and the community are helpful in fostering healthy development and prosocial behaviors among at-risk youth (Brooks, 2006; DuBois & Silverthorn, 2005; Wright, Cullen, & Miller, 2001). For example, parents are among the primary sources of support for most youth, providing both tangible (e.g., housing) and intangible (e.g., emotional and moral encouragement) resources. Parents also exert different forms of supervision practices toward youth to prevent them from engaging in antisocial or delinquent behaviors. However, building or maintaining positive and supportive relationships with parents can be a significant challenge among offending youth. Many offending youth have negative familial relationships characterized by instability, conflict, or lack of adequate support or supervision (Martinez & Abrams, 2011; Cottle, Lee, & Heilbrun, 2001). Thus, the relationships that offending youth have outside their families may serve as critical sources of support and act as a buffer against negative familial relationships.

Among adjudicated offending youth, a majority of whom is supervised on probation, relationships with juvenile probation officers may help promote compliance with court-ordered mandates and protect against further delinquency (Andrews & Kiessling, 1980). In addition to law enforcement practices such as monitoring and surveillance, juvenile probation officers must also engage in case planning and management, practices consistent with the principles of rehabilitation. These varied roles provide them with the opportunities to establish meaningful relationships with youth clients. Such relationships may provide prosocial and legitimate opportunities for youth to become productive members of the community. Yet, surprisingly little research has explored the nature of these relationships and its association with offending. In this article, we examined the nature of youth's relationships with parents and probation officers and how these relationships might be linked to probation violations and delinquency.

Juvenile Probation: Theory and Practice

More than 70% of delinquency dispositions place offending youth on probation making it the most common court disposition (Sickmund, Sladky, & Kang, 2015); thus, probation has the potential to reduce offending among a significant number of youth. Central to the goals of juvenile probation is promoting public safety through accountability and rehabilitation of youth in a supervised community-based setting. Yet, the process by which probation curtails offending and promotes positive outcomes remains understudied.

Schwalbe (2012) began to address this limitation in his work with juvenile probation officers. He conducted qualitative interviews with 31 probation officers to learn about their perceptions on objectives of probation, supervision approaches, and case management efforts. Responses from officers yielded an integrative theoretical framework, the *participation process model*, for juvenile probation practice (see Figure 1). According to this framework, juvenile probation officers utilize different strategies, including *casework* (e.g., assessing problems, establishing case goals, planning interventions), *communication* (e.g., use of praise/encouragement, persuasion, confrontation, clarifying roles, listening), and *leverage* (e.g., monitoring, use of sanctions including detention and incarceration) in their

supervision of offending youth. These supervision strategies can be linked to short term objectives of promoting compliance on probation and long term objectives of promoting public safety, rehabilitation, and reduction of risks and needs through four proximal mechanisms of change.

The first change mechanism that juvenile probation officers consider, *youth participation*, or active involvement of youth in probation programs and services, is central to promoting accountability and compliance. Second, *youth motivational process*, which describes the ability of youth to “think twice” and consider the future implications of their actions, is key in reducing risks among offending youth. Third, juvenile probation officers also acknowledge the importance of promoting positive *youth-officer relationships*, characterized as trusting and respectful, in order to facilitate probation compliance. Finally, *parental support* is regarded by juvenile probation officers as a vital element in promoting youth participation and compliance on probation.

Schwalbe’s *participation process model* of probation practice provides a helpful framework in advancing the needed literature in understanding the theories of change that underlie juvenile probation. Notably, it highlights several elements that are unique to and which implications could be more salient among offending youth. For example, use of casework practices (strategies) that are consistent with the goals of rehabilitation should facilitate better youth-officer relationships. Further, parental support and involvement (mechanism of change) in probation are vital resources that could promote youth participation and success in probation. This framework, however, focuses on probation theory and practices in the eyes of juvenile probation officers. As the primary recipients of probation services, it is also critical to examine whether offending youth share similar views of probation. This study utilizes and builds upon the *participation process model* by (1) testing the associations between two of the change mechanisms, *youth-officer relationships* and *parental support*, and the short term objective of youth compliance with probation conditions and (2) examining these associations from the youth’s perspective rather than probation officers, who were the data source for Schwalbe’s model.

The Nature of Youth-Probation Officer Relationships

Probation officers have a challenging job with a dual purpose—to encourage youth’s compliance with probation conditions *and* report youth’s violations that could result in probation revocation and incarceration. As law enforcement authorities, juvenile probation officers employ leverage or surveillance and monitoring strategies that in theory keep close watch on youth to protect the community against further misbehavior and/or offending. Juvenile probation officers also assume the role of caseworkers by employing casework and communication practices such as counseling, problem-solving, and service brokerage that in theory facilitate rehabilitation among offending youth. Officers must somehow integrate the two competing and sometimes contradictory responsibilities into a complex relationship with their clients, a relationship that is key to promoting rehabilitation and reducing recidivism (Andrews & Bonta, 2010; Bonta, Rugge, Scott, Bourgon, & Yessine, 2008; Andrews & Kiessling, 1980).

However, the link between youth-officer relationships as change mechanism and probation outcomes is less understood relative to offending adults (see Skeem, Eno Loudon, Manchak, Vidal, & Haddad, 2009; Johnson, Friedmann, Green, Harrington, & Taxman, 2011; Kennealy, Skeem, Manchak, & Eno Loudon, 2012). Research on offending adults suggests that three models of adult probation supervision and decision making differentially emphasize the two components of client-officer relationships (Klockars, 1972; Skeem & Manchak, 2008). These models highlight officers' primary role and supervision approaches to their clients. The first model, *law enforcement*, emphasizes probation officers' role as law enforcement authorities, primarily endorsing control-oriented approaches (e.g., surveillance and monitoring such as frequent meetings and home visits) in order to uphold community protection. The authority of probation officers to make violation decisions or adhere to confrontational tactics can explicitly or implicitly influence their relationships with their clients. The extent to which probation officers exercise their authority to implement court mandates may be perceived as coercive demands by clients and elicit relationships characterized by toughness and punitiveness (Skeem et al., 2009). The *working alliance* model highlights probation officers' role as case workers and underscores supervision practices such as counseling, problem solving, and modeling. Such practices may facilitate trusting and caring client-officer relationships, which are helpful in promoting treatment and rehabilitation efforts (Martin, Garske, & Davis 2000; Matthews & Hubbard, 2008). Finally, the *synthetic* model blends both control and care practices and describes probation officers as agents who equally value surveillance and rehabilitation approaches.

There is preliminary evidence that these adult probation supervision models are consistent with juvenile probation officers' supervision practices. In a survey of 308 juvenile probation officers, Schwalbe and Maschi (2009) examined and described probation strategies employed by juvenile probation officers. Their findings suggest that officers employ client-oriented approaches or practices that promote youth rehabilitation, including the use of problem-solving, counseling, and incentives. Officers also adhere to control-oriented approaches or practices that emphasize accountability, including the use of confrontational tactics, monitoring and surveillance, and promoting restorative justice. What is less known, however, is how youth perceive their experiences in probation, including the nature of their relationship with juvenile probation officers and how youth-officer relationships might be linked to probation outcomes. Youth perceptions based on their experiences in the juvenile justice system have been linked to subsequent behaviors and outcomes (Schubert, Mulvey, Loughran, & Losoya, 2012). As the primary clients and recipients of services, it is critical to understand how experiences in the juvenile justice system are perceived by youth in order to design and implement sanctions that better respond to their needs.

Although outside the U.S., Chui and Chan (2014) examined 113 Hong Kong youth's perceptions of their juvenile probation officers. Similar to their American counterparts, juvenile probation officers in Hong Kong assume dual roles of promoting rehabilitation and accountability. Working under the Department of Social Welfare, they also have the discretion to impose probation violations when a youth disobeys the conditions of probation. Their findings suggest that, in general, youth view their probation officers as law enforcers (i.e., authoritarian or punitive) rather than case workers. However, it is not clear how such perceptions might relate to youth's compliance on probation. The extent to which youth

perceive their relationships with juvenile justice actors as helpful, supportive, or punitive may influence compliance and case outcomes.

For example, among 384 youth incarcerated in long-term secure facilities, those who characterized their relationships with staff as trusting, engaging, and helpful reported better forecasts about their future, including avoiding delinquency and engaging in prosocial activities upon release (Marsh & Evans, 2009). However, perceptions of one's likelihood to succeed upon release may not align with one's actual behavior in the community. To our knowledge, only one study has directly demonstrated a link between the change mechanism youth-officer relationship and behavioral reductions in recidivism among community-supervised youth.

Vidal, Oudekerk, Reppucci, and Woolard (2015) examined the link between youth-officer relationship and self-reported offending among 140 offending girls on parole supervision.¹ Girls who described their relationships with parole officers as trusting, supporting, and encouraging demonstrated lower rates of violent offending approximately three years after they were placed on parole. This effect was particularly strong for youth who did not receive parental assistance in acquiring jobs and resources after release from incarceration. These findings held true even after accounting for history of delinquent and violent behaviors and length of time on parole supervision. Even though probation is inherently coercive, it appears that a positive youth-officer relationship that facilitates trust, fairness, and participatory decision-making is beneficial in promoting a balanced approach (both in the interest of community protection and youth rehabilitation) in correctional supervision and may help promote compliance with the law and desistance from antisocial behaviors.

The Nature of Parental Support in Probation

Schwalbe (2012) hypothesizes that the parental support change mechanism in probation may manifest in two types of active parental involvement. First, parents may work directly with probation officers in promoting youth's compliance on probation. For example, parents work with probation officers in identifying solutions to problem behaviors and are responsive and supportive to probation officers. In such cases, parents and juvenile probation officers build and maintain a working and collaborative partnership to ensure that the youth meets the terms and conditions of probation. Second, parents can promote probation compliance themselves through the use of reminders and participation in court-mandated programs and services. For example, parental reminders and encouragement for youth to attend probation appointments or treatment programs are considered helpful by probation officers. Parents' direct involvement with treatment programs such as participation in counseling sessions is also considered a critical component of parental support in probation (Burke, Mulvey, Schubert, & Garbin, 2014).

A wealth of research suggests that parental support can help facilitate prosocial behaviors, which, in turn, may help promote probation compliance. Ample research has shown that

¹Similar to probation, parole is a community-based supervision of offending youth. However, unlike probation, which is a court-imposed sanction, parole is considered a transitional service that aims to provide support and assistance to youth upon their release from confinement and during their reintegration into the community (Vidal, 2015).

parenting styles and practices such as support and monitoring relate to antisocial (e.g., substance use and delinquency, Bogenschneider, Wu, Raffaelli, & Tsya, 1998; McMaster, & Wintre, 1996) and prosocial (e.g., academic achievement and performance, Fan & Chen, 2001; Simons-Morton & Chen, 2009) youth behaviors. Generally, parents who are able to balance demands from and responsiveness to their children are able to have better relationships with them (Baumrind, 1991). Parental support and encouragement can be a source of motivation to change and desist from crime (Martinez & Abrams, 2011; Panuccio, Christian, Martinez, & Sullivan, 2012). For example, research with community-supervised offending adults and youth have shown that encouragement from parents (or family members) to participate in treatment and comply with rules of court mandates increases the youth's chances of success (Gavazzi, Yarcheck, Rhine, & Partridge, 2003; also see, Skeem et al., 2009). Among formerly incarcerated youth, those who maintained positive ties with family members fare better during their reintegration into the community than those who did not (Abrams, 2007). Essentially, parents can act as an informal source of social control by providing adequate time, care, and guidance to their children; this positive parent-youth relationship can help facilitate a successful probation experience.

Parental monitoring also relates to the quality of parent-child relationships and involvement of youth in delinquent behaviors. Dishion and McMahon (1998) defined parental monitoring as "a set of correlated parenting behaviors involving attending to and tracking of the child's whereabouts, activities, and adaptations" (p. 61). Children of involved parents (e.g., parent provides supervision, spends more time with and talk to their children) are less likely to use illegal substances (Dorius, Bahr, Hoffman, & Harmon, 2004) and engage in aggressive and delinquent behaviors (Steinberg, Blatt-Eisengard, & Cauffman, 2006). In a meta-analysis examining the relationship between parenting and delinquency, Hoeve and colleagues (2009) found that parental monitoring, defined as parental knowledge of child's whereabouts or activities or child disclosure, was strongly associated with reductions in delinquency. Parental monitoring, thus, may serve as a form of behavioral control, allowing parents to employ practices that may help prevent antisocial or delinquent behaviors (Barber, Maughan, & Olsen, 2005; Kerr & Stattin, 2000).

Compensatory Patterns of Youth-Officer and Youth-Parent Relationships

Adolescence is a critical period of development characterized by various developmental changes and maturation, and also a time wherein meaningful relationships are developed and forged (Steinberg, Chung, & Little, 2004). Essentially, interpersonal relationships become critical components of character development, sense of self, and well-being among youth (Davis, Matthews, Twamley, 1999; Maccoby, 1990; Rosenberg & Simmons, 1975). Youth on probation likely have at least two key adults in their lives – parents and probation officers – who can affect their success. These effects do not happen in isolation, however, raising the possibility that they could have additive or compensatory effects. If a youth has positive relationships with a parent *and* a probation officer, the chances of probation success may increase. However, youth who view their relationship with a probation officer as primarily coercive and demanding may be less likely to comply with probation's structured rules and regulations. Likewise, a youth-parent relationship characterized as unsupportive or even permissive might also face reduced chances of success. Thus, it is critical to understand the

extent to which positive relationships from probation officers or parents might compensate for poor relationships and how this might relate to probation compliance.

In this compensatory framework, the youth-officer relationship could serve as a safeguard to stressful and troublesome relationships that youth may have with their parents. Juvenile probation officers, for example, can serve as mentors and role models to youth probationers. This possibility comports with research demonstrating that relationships with non-kin adults can mitigate the higher risk of antisocial behavior, particularly when parental relationships are negative or harmful (Beam, Chen, & Greenberger, 2002; Hurd, Zimmerman, & Zue, 2009; DuBois, Holloway, Valentine, & Cooper, 2002). It could then be the case that youth-officer relationships have greater impact on youth's delinquent behaviors when they have poor relationships with their parents. Likewise, a positive parental relationship could protect against antisocial and delinquent behaviors when a youth has a poor relationship with their probation officer (Vidal et al., 2015).

The Present Study

This study addressed gaps in current literature by integrating and extending findings about youth-probation officer relationship quality, parental support and monitoring, and probation non-compliance by examining them in light of youth's own reports on the quality of their relationship with their probation officer and their perceptions of parental support and monitoring. Specifically, our aims are to (1) examine the link between youth-officer relationships, youth perceptions of parental support and monitoring, and probation non-compliance and (2) explore the role of parental support and monitoring as moderators of the association between youth-officer relationships and probation non-compliance or youth-officer relationships as moderators of the association between parental support and monitoring and probation non-compliance.

Consistent with Schwalbe's (2012) participation process model of juvenile probation and findings from past studies (Marsh & Evans, 2009; Vidal et al., 2015), we hypothesized that positive relationships of youth with probation officers, characterized as trusting, caring, and fair, would be associated with fewer violations of probation or new delinquent offenses. In line with literature suggesting that parental support and monitoring protect against antisocial and delinquent behaviors (Panuccio et al., 2012; Hoeve et al., 2009; Dishion & McMahon, 1998), we hypothesized that youth with supportive relationships with their parents and youth who perceived high levels of monitoring from their parents would have better compliance on probation. Finally, in line with findings suggesting that positive relationships may compensate or protect against poor relationships (Beam et al., 2002; Hurd et al., 2009; DuBois et al., 2002), we hypothesized that youth's positive relationships with their parents or probation officers would be more important to promoting better probation compliance among youth with poor relationships with either their parents or probation officers.

Method

Participants

Participants were 110 adjudicated youth supervised on probation in four counties in two eastern states. A majority of youth (77%) were males with an average age of 16.4 years ($SD = 1.4$). More than one-half (60%) of youth identified as Black, 17% White, 17% Hispanic, or 6% other. Seventy seven percent of the youth were currently in school with an average grade level of 10.3 ($SD = 1.4$) and 42% of them reported that they had been expelled from school during their lifetime. With regard to delinquency and probation involvement, 51% of the youth had been arrested and/or referred to the juvenile justice system three or more times in their lifetime. Fifty two percent of the youth were placed on probation for a person offense, 28% for a property offense, and 19% for a drug-related or a minor offense. Their average length of supervision by their current probation officer was 36.3 weeks ($SD = 32.2$, $MDN = 23.0$). On average, the youth and their probation officer met face-to-face and talked on phone 4.9 times ($SD = 4.9$) and met with their probation officer face-to-face for an average of 35.5 minutes ($SD = 20.2$, $MDN = 30.0$) in the month prior to their participation in the study. Table 1 describes youth background and probation characteristics.

Procedures

Recruitment flyers were posted in probation offices and made available to parents and youth on the probation sign-in desk. The administrative assistants and juvenile probation officers in the participating offices were also asked to distribute invitation letters to youth and their parents. A youth was eligible to participate if he/she met the following criteria: (a) English-speaking, (b) had been adjudicated and placed on formal probation (to ascertain that the youth had a supervising PO) and (c) had at least two face to face contacts with the supervising PO; this allowed youth to adequately complete assessment of relationship quality with their probation officer (see Schwalbe & Maschi, 2009). Youth were screened for eligibility when they or their parents contact the researchers about the study. Parental consent and assent from youth were obtained prior to conducting interviews. Interviews with youth took approximately 1–1.5 hours and were conducted at-home or in community settings. Youth participants received monetary compensation for their participation.

This study was approved by the university and state agencies' Institutional Review Boards. In addition, a Certificate of Confidentiality from the National Institutes of Health was obtained to further protect participant confidentiality.

Measures

Youth-Probation officer relationship quality—The *Dual-Role Relationship Inventory-Revised* (DRI-R, Skeem, Louden, Polaschek, & Camp, 2007) is a 30-item questionnaire rated on a 7-point Likert scale (1-never, 4-sometimes, 7-always) that describes the different ways a client might feel or think about his/her probation officer over the past six months.² Example items include: My probation officer (PO) cares about me as a person; My PO

²If youth had worked with their current probation officer for less than six months, they were asked to report on that length of time. Throughout this paper, "in the past six months" will include youth who had not yet completed six months of supervision with their current probation officer.

encourages me to work together with him/her; I feel that my PO is looking to punish me; My PO puts me down when I've done something wrong.³

Developed and validated on a sample of adult probationers with mental illness, the DRI-R has been shown to have a three-factor structure—Trust (mutual trust and openness between the officer and the client; 20 items), Care/Fairness (understanding, warmth, and support of the officer toward the client; 5 items) and Toughness (unreasonableness, unhelpfulness, and punitiveness of the officer toward the client; 5 items) (CFI = 0.90, RMSEA = 0.09; Skeem et al., 2007). Given the lack of a standardized valid and reliable measure of youth-officer relationships, we conducted principal axis factoring with varimax rotation in SPSS 21 on the 30 DRI-R items. As shown in Table 2, three factors were extracted, which explained 60.2% of the variance. Factor 1 consisted of 14 items with factor loadings of greater than .47 and described the youth's trust toward probation officers and the warmth, care, and helpfulness of probation officers toward the youth; thus, Factor 1 was labeled the *warmth/care* aspect of youth-officer relationship. Factor 2 included 12 items with factor loadings greater than .41 and described the fairness, respect, voice, and trust of probation officer toward the youth; thus, Factor 2 was labeled the *fairness/respect* aspect of youth-officer relationship. Finally, Factor 3 consisted of 4 items with factor loadings greater than .36 and described probation officers' *limited* reliance on toughness and punitiveness; thus, Factor 3 was labeled the *toughness* aspect of youth-officer relationship. These three characteristics of youth-officer relationships were analyzed as factor scores herein. On average, youth provided favorable ratings on their relationships with their probation officer with 5.6 (SD = 1.2), 6.1 (SD = 1.0), and 1.9 (SD = 1.1) for the warmth/care, fairness/respect, and toughness aspects of youth-officer relationship, respectively.

Parental support—The *Social Support and Social Undermining* questionnaire developed by Vinokur and van Ryn (1993) was used to measure the quality of youth relationship with their parents. Using a 5-point Likert scale (1-not at all to 5-a great deal), youth were asked to rate their response to 13 questions that capture the warmth and support and undermining behaviors of their parents toward them. Previous studies have shown high internal consistency among the items in the two subscales with Cronbach's alpha ranging from .89 to .92 and .84 to .86 for the social support and undermining subscales, respectively (Vinokur & van Ryn, 1993). These subscales also showed high internal consistency in the current study - Social Support, $\alpha = .92$ and Undermining, $\alpha = .83$. A composite score for parent-youth relationship quality was created by obtaining the average of items in the support and undermining subscales ($\alpha = .92$; Mean = 4.10, SD = .75). Items in the undermining subscale were recoded such that all items in the questionnaire are interpreted in the same direction (i.e., higher scores are interpreted as supportive and less undermining youth-parent relationships). Example items include: How much does your [parent]... provide you with encouragement; listen to you when you need to talk; act in unpleasant or angry manner toward you?

³Some of the phrases in the questionnaire were modified for the current study to make it more comprehensible for youth.

Parental knowledge—We defined parental monitoring as parents' knowledge of their child's whereabouts, activities, and associations. We modified and used *the parental knowledge* questionnaire developed by Kerr and Stattin (2000) for this study. Using a 5-point Likert scale (1-never to 5-almost always), youth were asked to rate 6 items, including how often their parents know which friends they hang out with during their free time; what they do during free time; what they spend their money on; where they go and what they do after school or after work; where they go when they are out with friends at night; and what happens in school or their school performance. Consistent with previous studies ($\alpha = .85$; Kerr & Stattin, 2000) the 6-item questionnaire in the current study showed high internal consistency ($\alpha = .87$; Mean = 3.60, SD = .99) and a total score for parental knowledge was calculated by taking the average of the 6 items.

Probation non-compliance—Probation non-compliance was defined as the variety of new delinquent offenses and technical violations of probation conditions in the past 6 months. First, youth reported the frequency (0 = none to 4 = more than once a week) in which they engaged in technical violations of probation or new delinquent offenses. Questions included seven items on *technical violations* (e.g., missing probation appointments, missing mental health and/or substance abuse treatments, skipping school, association with delinquent peers) and six items on *delinquency* (e.g., using/selling drugs, fighting, theft). Next, a variety score, or a count of how many different types of offenses the youth reported committing in the last six months, was calculated separately for new delinquent offenses and technical violations of probation conditions. Relative to a binary variable that describes the presence or absence of violations or delinquent offenses, variety scores may offer more salient practical implications for probation decision-making. To an extent, the variety or counts of probation non-compliance reflects severity of non-compliance, which may have critical implications for probation officers' decision to file probation violations as well as juvenile court judges' decision to revoke probation. Further, relative to the widely used frequency or incidence scores, variety scores are less prone to recall error and represent a more normally distributed range of responses. Variety scores have also shown good predictive strength in offending, more particularly in non-violent offending (Oudekerk, Erbacher, & Reppucci, 2012) and are increasingly preferred over frequency scores by researchers (Odgers et al., 2007; Osgood, 2000).

Control variables—Youth were asked to report their *demographic characteristics* including age, gender, race/ethnicity, and whether they had been ever expelled from school. Youth also reported on lifetime arrest and/or referral to the juvenile justice system, probation offense, length of supervision by probation officer (measured in weeks and calculated as start of supervision date subtracted from date of interview), frequency of contact with probation officer in the past month, and average length of meeting with probation officer (measured in minutes).

A youth's age was calculated by subtracting the youth date of birth from the date of youth interview. The frequency of meeting with probation officer was defined as the sum of youth's face-to-face meetings and phone calls with probation officer. The rest of the demographic and probation variables were either dummy coded or categorized as follow

with the reference category listed first: gender (male, female); race/ethnicity (White, non-White); school expulsion (no, yes); lifetime youth arrest and/or referral to the juvenile justice system (fewer, more – defined as 3 or more); probation offense (person offense, property/drugs/minor offense); length of supervision by probation officer (short, long – defined as 23 weeks or more); and length of average meeting with current probation officer (short, long – defined as 30 minutes or more).

Youth were also asked to complete the Massachusetts Youth Screening Instrument-Second Version (MAYSI-II; Grisso & Barnum, 2006). The MAYSI-II is a 52-item, yes/no *mental health screening inventory* that includes 6 indices of clinical scales (alcohol/drug use, angry-irritable, depressed-anxious, somatic complaints, suicide ideation, thought disturbance). It is a widely used and validated screening instrument for court-involved youth (Grisso, Barnum, Fletcher, Cauffman, & Peuschold, 2001). Based on the criteria suggested by Grisso & Barnum (2006), a caution cut-off score was used to identify youth with high levels of mental health and/or substance use needs. Youth scoring above the caution cut-off score in two or more of the six subscales were categorized as a group with high MAYSI-II scores and those scoring below two were categorized as a group with low MAYSI-II scores (low scoring was the reference category).

Analytical Strategy

We conducted two sets of preliminary analyses. First, we tested for any site-specific differences on youth demographic and probation characteristics. Second, we conducted two sets of Poisson regressions – one for variety of delinquent offenses and another for technical violations – to examine youth and probation characteristics as predictors of probation compliance. Research suggests that certain demographic and background characteristics place youth at greater risk for offending. For example, boys, youth who had been suspended or expelled from school, youth with mental health and substance use needs, youth with previous juvenile justice involvement, and those who committed more serious offenses are at higher risk for reoffending than youth with fewer or without such risks (Monahan, Vanderhei, Bechtold, & Cauffman, 2014; Fagan, Lee Van Horn, Hawkins, & Arthur, 2007; Cottle et al., 2001). Thus, it is important to account for these characteristics in order to better understand that associations between youth-officer relationships, parental support, parental knowledge, and probation non-compliance. Only significant variables from these analyses were included in subsequent analyses.

Poisson regression was chosen because the dependent variables, variety of delinquent offenses and technical violations, are count variables (see Elhai, Calhoun, & Ford, 2008; Atkins & Gallop, 2007; Gardner, Mulvey, & Shaw, 1995). To aid the interpretation of results, we also reported in-text the Incidence Rate Ratio (IRR) for significant findings. The IRR quantifies the direction and strength of relationship between the independent variables and the dependent variable in terms of a percentage increase or decrease in the outcome variable (Hilbe, 2008). After preliminary analyses were completed, we tested our hypotheses.

Hypothesis 1—We conducted separate Poisson regressions for variety of delinquent offenses and variety of technical violations of probation to examine our hypotheses that positive relationships of youth with probation officers, characterized as trusting, caring, and fair, would be associated with fewer violations of probation or new delinquent offenses and that youth with supportive relationships with their parents and youth who perceived high levels of parental knowledge would have better compliance on probation. Included in our model are control variables from previous analyses, the three aspects of youth-officer relationship, parental support, and parental knowledge as independent variables.

Hypothesis 2—To examine our hypothesis that positive relationships with parents or probation officers would matter more in promoting probation compliance among youth with poor relationships with either their parents or probation officers, we followed the same analytical procedures in Hypothesis 1 and added the interaction terms between parental support or parental knowledge and aspects of youth-officer relationship in our regression models. The interaction terms were derived as the products of the centered youth-officer relationships and parental support or parental knowledge. Because we did not have the adequate power to include all interaction terms in a single model, we created separate models for parental support and parental knowledge.

We also accounted for the clustering effects of probation officers in our regression models. Participating youth were supervised by 60 probation officers; thus, there was a possibility that data from youth with the same probation officer were non-independent. Intraclass correlation coefficients computed for youth perceptions of relationship with their probation officer indicated that 14%, 13%, and 13% of the variance in the warmth/care, fairness/respect, and toughness aspects of youth-officer relationship, respectively, were attributable to probation officers. To account for non-independence of data, we used the “cluster” command in Stata and controlled for clustering effects of probation officer. All analyses were conducted in Stata 14.0.

Results

Comparison between the Research Sites

Chi-square and t-test analyses were conducted to compare the two research sites (site A and B) on several youth and probation characteristics. Youth in the two sites did not differ significantly in gender, school expulsion, MAYSI-II scores, lifetime youth arrest and/or referral, probation offense, length of supervision by current probation officer, or frequency of meeting with probation officer. However, three differences emerged. Site B youth were significantly older ($M = 16.9$, $SD = 1.4$) than site A youth ($M = 16.2$, $SD = 1.4$), $t(108) = -2.65$, $p = .009$. There were more African American youth in site B (87%) than in site A (47%), $X^2 = 17.92$, $p = .001$. A smaller percentage of site B youth (24%) had long meetings with their probation officer than site A youth (49%), $X^2 = 6.34$, $p = .012$. Because we did not have the adequate power to conduct separate analyses for the two research sites, we utilized a combined sample of youth in all subsequent analyses. A dummy coded variable, Site (0 = site A, 1 = site B), however, was included in all analyses to account for potential differences between the two research sites.

Youth and Probation Characteristics as Predictors of Variety of Probation Non-compliance

Youth on average committed about one type of delinquent offenses (Mean = 1.2, SD = 1.3, range = 0–5) and two types of technical violations (Mean = 1.8, SD = 1.5, range = 0–6). Forty two percent of youth did not commit any delinquent offenses, 28% of youth committed one type of delinquent offense, 13% committed two types of delinquent offenses, and 17% of youth committed three or more types of delinquent offenses. Twenty three percent of youth did not commit any technical violations, 26% committed one type of technical violations, 22% committed two types of technical violations, 15% committed three types of technical violations, and 14% committed four or more types of technical violations.

Research suggests that certain youth background and case characteristics are related to offending (Monahan et al., 2014; Fagan et al., 2007; Cottle et al., 2001). To account for the effects of these characteristics in our model, we examined youth and probation characteristics as predictors of variety of probation non-compliance. Included in our model as predictors are age, gender, race/ethnicity, school expulsion, MAYSI-II scores, arrest history, probation offense, length of supervision by probation officer, average frequency of contact with probation officer in the past month, average length of meeting time with probation officer in the past month, and study site. We ran separate regression models for variety of delinquent offenses and technical violations of probation. The results indicated that school expulsion and high MAYSI II scores were significantly associated with increased counts in technical violations of probation and delinquent offenses. Among youth who had been expelled from school, variety of technical violations of probation increased by approximately 41% (IRR = 1.41, 95% CI: 1.01 to 1.99) and variety of delinquent offenses increased by 73% (IRR = 1.73, 95% CI: 1.07 to 2.80). Among youth with high MAYSI II scores, variety of technical violations of probation increased by approximately 44% (IRR = 1.44, 95% CI: 1.09 to 1.91) and variety of delinquent offenses increased by 55% (IRR = 1.55, 95% CI: 1.02 to 2.36). Although the effect is small, for every one unit of increase in youth's frequency of meeting with probation officer, variety of technical violations increased by 3% (IRR = 1.03, 95% CI: 1.00 to 1.05). Finally, among youth with lifetime arrests of 3 or more, variety of delinquent offenses increased by 65% (IRR = 1.65, 95% CI: 1.09 to 2.48). Only significant results from these analyses were included in subsequent models.

The Associations among Youth-Officer Relationships, Parental Support, and Parental Knowledge and Probation Non-compliance

We hypothesized that positive relationships of youth with probation officers characterized as warm, caring, and fair would be associated with fewer counts, or number of different types, of technical violations of probation and delinquent offenses. Similarly, we hypothesized that youth perceptions of supportive relationship with parents and greater level of parental knowledge would be associated with fewer counts of technical violations of probation and delinquent offenses. Table 3 presents the results from the two sets of Poisson regression with the first column showing results for the variety of technical violations of probation model and the second column showing the results for the variety of delinquent offenses model. In both models, parental knowledge was significantly associated with variety of probation non-compliance. For every one unit of increase in perceptions of parental knowledge, the

technical violations of probation counts decreased by 19% (IRR = .81, 95% CI: .69 to .94) and the delinquent offenses counts decreased by 31% (IRR = .69, 95% CI: .54 to .88).

In addition, the toughness aspect of youth-officer relationship was significantly associated with variety of technical violations of probation. Recall that the toughness aspect of youth-officer relationship describes youth's perceptions of their probation officers' *limited* reliance on toughness or punitiveness; that is, a higher rating for this item indicates that youth perceive their relationship with probation officers as *less* tough or punitive. Thus, an IRR of .82 (95% CI: .73 to 1.15) indicates that perceptions of *less* tough or punitive youth-officer relationship are associated with an 18% decrease in counts of technical violations of probation. Finally, of the control variables included in the models, only history of arrest in the variety of delinquent offenses model was significantly associated with probation non-compliance. Among youth with 3 or more arrests, variety of delinquent offenses increased by 93% (IRR = 1.93, 95% CI 1.14 to 3.28).

The Compensatory Effects of Parental Support and Youth-Officer Relationships on Probation Non-compliance

We hypothesized that youth's positive relationships with their parents (characterized as supportive) or probation officers (characterized as warm, caring, and fair) would matter more in promoting better compliance on probation among youth with poor relationships with either their parents or probation officers. Table 4 illustrates the results of the moderation analysis for the variety of technical violations of probation and delinquent offenses. First, there were significant main effects of the fairness/respect and toughness aspects of youth-officer relationship and school expulsion on variety of technical violations of probation. Contrary to our hypothesis, a one unit of increase in youth's perceptions of fairness/respect from their probation officer was associated with a 30% increase (IRR = 1.30, 95% CI: 1.10 to 1.52) in technical violations of probation counts. On the other hand, youth perceptions of *less* tough or punitive relationships with probation officers were associated with a 19% decrease (IRR = .81, 95% CI: .73 to .90) in technical violations of probation counts. Consistent with our previous model, school expulsion was associated with a 45% increase (IRR = 1.45, 95% CI: 1.10 to 1.92) in variety of technical violations.

The results also indicated that there was a significant interaction between youth-officer relationship toughness and parental support on technical violations of probation counts. Simple slopes analyses (Aiken & West, 1991) were conducted to test whether toughness was related to variety of technical violations of probation for both low and high levels of parental support. As shown in Figure 2, the association between the toughness aspect of youth-officer relationship and technical violation counts was strong and significant for youth with high parental support, $t = 23.6$, $p = .000$, but nonsignificant for those with low parental support, $t = .623$, $p = .535$. Among youth who perceived high parental support, perceptions of *less* tough relationships with probation officers were associated with up to a 37% decrease in variety of technical violations of probation, but perceptions of *more* tough relationships with probation officers were associated with approximately 81% increase in variety of technical violations of probation. On the other hand, youth with low parental support had high counts

of technical violations of probation (with IRR ranging from 1.31 to 1.53) regardless of the degree of perceived toughness from their probation officer.

Next, in the variety of delinquent offenses model, the results showed that there were significant main effects of the fairness/respect aspect of youth-officer relationship, parental support, and arrest on variety of delinquent offenses. Contrary to our hypothesis, a one unit of increase in youth's perceptions of fairness/respect from their probation officer was associated with a 47% increase (IRR = 1.47, 95% CI: 1.13 to 1.90) in variety of delinquent offenses. However, for every one unit of increase in parental support, variety of delinquent offenses decreased by 30% (IRR = .70, 95% CI: .50 to .98). Consistent with our previous findings, youth with lifetime arrests of three or more had 1.92 (95% CI: 1.18 to 3.12) times greater counts of delinquent offenses than youth with fewer lifetime arrests. Finally, our hypothesis that youth's positive relationships with their parents (characterized as supportive) or probation officers (characterized as warm/caring, fair/respectful, and less tough or punitive) would matter more in promoting better compliance on probation among youth with poor relationships with either their parents or probation officers was not supported.

The Compensatory Effects of Parental Knowledge and Youth-Officer Relationships on Probation Non-compliance

We hypothesized that greater parental knowledge of youth whereabouts would more strongly relate to non-compliance when youth's relationship with their probation officer was poor, and vice versa. Table 5 illustrates the results of the moderation analysis for the variety of technical violations of probation and delinquent offenses. First, there were significant main effects of the toughness aspect of youth-officer relationship, parental knowledge, and MAYSI II scores on variety of technical violations. Consistent with findings from the variety of technical violations in the parental support model, a one unit of increase in the *limited* toughness aspect of youth-officer relationship was associated with a 23% decrease (IRR = .87, 95% CI: .76 to .99) in variety of technical violations. In addition, for every one unit of increase in parental knowledge, variety of technical violations decreased by 21% (IRR = .79, 95% CI: .66 to .94). Finally, high MAYSI II scores were associated with a 39% increase (IRR = 1.39, 95% 1.04 to 1.86) in variety of technical violations.

The results also indicated that there was a significant interaction effect of the toughness aspect of youth-officer relationship and parental knowledge on technical violations of probation counts. Simple slopes analyses (Aiken & West, 1991) were conducted to test whether toughness was related to variety of technical violations for both low and high levels of parental knowledge. As shown in Figure 3, the association between the toughness aspect of youth-officer relationship and technical violations counts was strong and significant for youth with high parental knowledge, $t = -3.2$, $p = .002$, but nonsignificant for those with low parental knowledge, $t = .287$, $p = .775$. Among youth who reported high parental knowledge, perceptions of *limited* tough relationship with probation officer were associated with up to a 20% decrease in variety of technical violations, but perceptions of *high* tough youth-officer relationship were associated with approximately 50% increase in variety of technical violations. On the other hand, youth who perceived low levels of parental knowledge had

high counts of technical violations of probation (with IRR ranging from 1.69 to 1.81) regardless of the degree of perceived toughness from their probation officer.

Next, in the variety of delinquent offenses model, the results showed that there were significant main effects of the warmth/care and toughness aspects of youth-officer relationship, parental knowledge, and arrest on variety of delinquent offenses. Contrary to our hypothesis, a one unit of increase in youth's perceptions of warm/caring relationships with their probation officer was associated with a 32% increase (IRR = 1.32, 95% CI: 1.01 to 1.74) in variety of delinquent offenses. In addition, a one unit of increase in youth's perceptions of *limited* tough relationship with probation officer was associated with a 29% increase (IRR = 1.29, 95% CI: 1.01 to 1.65) in variety of delinquent offenses. However, consistent with our previous findings, for every one unit of increase in parental knowledge, variety of delinquent offenses decreased by 35% (IRR = .65, 95% CI: .50 to .84). In addition, youth with lifetime arrests of three or more had 1.76 (95% CI: 1.18 to 3.12) times greater counts of delinquent offenses than youth with fewer lifetime arrests. Finally, our hypothesis that youth's relationships with their parents characterized with high parental knowledge or relationships with probation officers characterized as high in warmth/care and fairness/respect would matter more in promoting better compliance on probation among youth with poor relationships with either their parents or probation officers was not supported.

Discussion

The establishment of the juvenile justice system in 1899 was inspired by the reevaluation of the role of families and communities in creating the most optimal environment for youth's well-being and desistance from delinquency (Tanenhaus, 2002). Probation, as a community-based sanction, exemplifies the potential of both communities and families to make significant contributions in promoting positive changes among offending youth. The dynamic and reciprocal context of probation allows for development of positive youth-officer and youth-parent relationships that can help facilitate successful intervention among offending youth. Yet, we know little about how these relationships relate to probation compliance. In this study, we addressed these critical gaps in the literature by examining (1) youth characterization of their relationships with their probation officer and the association of these relationships with probation non-compliance, (2) the protective role of parental support and knowledge against probation non-compliance, and (3) the compensatory effects of positive youth-officer or youth-parent relationships on probation non-compliance among youth with poor relationships with their probation officer or parents. Two chief findings emerged. First, tough or punitive youth-officer relationships were associated with greater variety in technical violations, but fewer counts of delinquent offenses. Second, parental support was associated with fewer counts of delinquent offenses and parental knowledge was associated with fewer counts of both delinquent offenses and technical violations. Further, the additive effects of tough or punitive youth-officer relationships and high level of parental knowledge were associated with greater counts of technical violations. However, high level of parental support combined with *limited* tough or punitive youth-officer relationships was associated with fewer counts of technical violations.

The Associations between Youth-Officer Relationships and Probation Non-Compliance

Youth characterized their relationships with probation officers as warm, caring, and helpful – characteristics that are consistent with the case work and communication practices of juvenile probation officers (Schwalbe, 2012; Schwalbe & Maschi, 2009). This characterization of youth-officer relationships is also consistent with the working alliance model of adult supervision, wherein building trust and employing problem-solving practices are central to fostering provider and client relationships (Martin et al., 2000). Youth also characterized their relationship with probation officers as fair and respectful. In these relationships, probation officers provide voice and communicate to youth decisions about their case. Finally, youth also characterized their relationship with probation officers as tough, consistent with the leverage practices (monitoring, use of sanctions) of juvenile probation officers (Schwalbe, 2012) and the law enforcement model of adult probation supervision (Klockars, 1972; Skeem & Manchak, 2008). Generally, these findings are consistent with how adults on probation characterized their relationships with their probation officer (Kennealy et al., 2012; Skeem et al., 2009; Skeem et al., 2007). However, our findings also suggest that youth's perceptions of relationship characteristics with probation officers are associated with probation non-compliance in ways that one would not typically expect.

First, youth-officer relationships characterized as tough were associated with greater counts of technical violations of probation. Technical violations reflect non-compliance to the specific conditions of probation and may include missed probation appointments, missed treatment appointments, school absences, and association with deviant peers. When youth perceived their relationships with their probation officer as unreasonable, unhelpful, or punitive (i.e., high in toughness), they reported more variety in technical violations. This remained true even after accounting for youth's perceptions of parental support and knowledge. Although it is not clear how or why youth-officer relationships that are higher in toughness relate to greater counts of technical violations, some research suggests that tough relationships with supervising officers characterized as punitive have particularly detrimental effects for low risk offending (Morash, Kashy, Smith, & Cobbina, 2014). The principles of risk-need-responsivity may help provide some insight to these findings. It suggests that the intensity and frequency of program intervention should match the risk level of offenders (Andrews & Bonta, 2010). Indeed, among youth who reported high levels of parental knowledge, those who perceived their relationship with probation officer as high in toughness had greater counts of technical violations of probation than youth who perceived their relationship with probation officer as low in toughness. Both toughness in youth-officer relationships and parental knowledge may serve as forms of behavioral control, and thus, may be helpful in preventing antisocial or delinquent behaviors (Hoeve et al., 2009). However, such amount of control may be helpful in preventing more serious offenses than less serious ones. For example, in all of our models, *limited* toughness was positively associated with variety of delinquent offenses, suggesting that youth who perceived their probation officer as less punitive, reported greater counts of delinquent offenses. In particular, this effect was significant after accounting for the compensatory effects of parental knowledge and low in toughness youth-officer relationship. Additionally, even when youth perceived high parental support, tough and punitive relationships with probation

officers were significantly associated with greater counts in technical violations. Altogether, these findings suggest that tough and punitive relationships may not be as helpful in curtailing technical violations of probation, but may be more helpful in preventing more serious offenses such as delinquent offending.

Contrary to our hypotheses, however, warm/caring youth-officer relationships were positively associated with variety of delinquent offenses after accounting for the compensatory effects of parental knowledge and youth-officer relationships. Further, after accounting for the compensatory effects of parental support and youth-officer relationships, we found that there was a positive association between fair/respectful youth-officer relationships and variety of probation non-compliance. There are several explanations for these counterintuitive findings. First, recall that warm/caring youth-officer relationships are characterized by warmth, care, and helpfulness of probation officers toward youth and youth's trust toward the probation officers. Drawing parallels with literature on parenting styles (Baumrind, 1991), relationships of youth with prominent adults (e.g., probation officers and parents) characterized by high levels of warmth, care, and support may align with permissive or indulgent practices, which are linked to antisocial behaviors, including substance use and delinquency (Hoeve et al., 2009; Lamborn, Mounts, Steinberg, & Dornbusch, 1991). For at-risk populations of youth, such practices may offer too much leniency, which may be more harmful than helpful in preventing antisocial and delinquent behaviors. However, a balance between firm and caring/fair relationships, akin to an authoritative parenting, may yield better outcomes (Wright & Cullen, 2001; Baumrind, 1991). Notably, the positive association between warm/caring youth-officer relationship and probation non-compliance was only significant for variety of delinquent offenses, but not for variety of technical violations of probation.

Second, consistent with principles of risk-need-responsivity, intensive supervision practices may be more helpful in curtailing serious offending, including delinquent offending, than less intensive supervision practices (Andrews & Bonta, 2010). As noted earlier, we found that youth who perceived their probation officer as *less* tough or punitive reported greater counts of delinquent offenses. Relatedly, warm/caring youth-officer relationships are linked to practices such as counseling and problem-solving (Martin et al., 2000; Matthews & Hubbard, 2008), which may not be sufficient in preventing more serious offending if not combined with leverage practices (e.g., monitoring, use of sanctions). Although we are not able to examine the combined effects of warm/caring and tough youth-officer relationships, it is possible that the positive association between warm/caring youth-officer relationship and delinquent offending may be attenuated when probation officers also exercise firmness and toughness in their supervision of youth clients. Indeed, research suggests that firm, but caring relationships may have potential benefits for the rehabilitation of offenders. Theories on effective correctional practices posit that effective use of authority or effective implementation of rules and sanctions is an important element in successful supervision of community offenders (Andrews & Kiessling, 1980).

Finally, we draw upon the cross-sectional nature of the study, which limits us from delineating the pathways of relationships among variables. Evidence suggests that positive youth-officer relationships influence subsequent youth behaviors (Vidal et al., 2015);

however, it is also possible that officers develop and establish relationships with youth depending on the risks and needs of the youth they supervise. For example, youth's characterization of fair/respectful relationships align with theories of procedural justice, which suggest that perceived trust and fairness toward the legal system, including its actors, relate to positive case outcomes (Fagan & Tyler, 2005; Tyler 1990). Arguably, probation officers may promote fair and respectful relationships among youth to build trust and foster legitimacy of the authority, which have been linked to cooperation and compliance with the law (Tyler, 2003). Thus, it is possible that probation officers foster fair and respectful relationships, particularly among youth who are at greater risk for probation non-compliance, in order to prevent them from further reoffending.

The Protective Role of Parental Support and Knowledge against Probation Non-compliance

We found that parental support protected against variety of delinquent offending after accounting for its compensatory effects with youth-officer relationships. Literature is replete with evidence that parental support fosters positive youth outcomes, including decreased involvement in antisocial and delinquent behaviors (Wright & Cullen, 2001; Wright et al., 2001). In line with research on protective factors against antisocial behaviors and delinquent offending, youth's positive relationships with their parents may serve a protective role against antisocial and delinquent behaviors (Bogenschneider et al. 1998, Steinberg et al., 2006). For offending youth in particular, social support stemming from positive relationships may provide them with the social capital to change and desist from crime. Social support may offer both tangible and intangible resources and serve as a buffer to criminogenic strains and risk factors by creating meaningful social and personal relationships and providing an avenue for prosocial and legitimate opportunities (Cullen, 1994). Likewise, better relationships with parents may also serve as an informal source of social control by providing the guidance and motivation to facilitate positive behavioral changes (Martinez & Abrams, 2011; Panuccio et al., 2012).

Our findings also extended findings from past research by exploring the context in which parental support may be more beneficial for an at-risk population of youth. For example, the association between parental support and variety of technical violations was explained by the additive effects of parental support and the *limited* toughness aspect of youth-officer relationship. Youth who perceived high levels of parental support and low levels of toughness in relationships with their probation officer reported the fewest counts of technical violations. However, technical violations counts remained high among youth with low parental support regardless of the toughness aspect of youth-officer relationships. These findings are particularly noteworthy given that technical violations can have potentially serious consequences for the youth, including revocation of probation (termination of probation due to severe violations) and placement in detention. In a national survey of youth residing in residential placements, 58% were in custody for violating probation or parole for a status offense and of these youth, 53% were in custody for technical violations (SYRP, 2003; also see Nemoyer et al., 2014). Our findings suggest the potential benefits of collaboration between parents and probation officers to facilitate compliance with the specific mandates of probation. For example, programs and practices that incorporate

parental involvement in officer trainings, include family conferences at the beginning and throughout the duration of probation, and provide helpful resources for parents may encourage collaboration, increase interaction, and promote communication between parents and probation officers, which may aid in identifying appropriate supervision practices, supports, and services for the youth.

We also found that parental monitoring through knowledge of youth's activities and whereabouts was associated with fewer counts of delinquent offenses and technical violations. The role of parental knowledge in promoting positive adjustment and preventing antisocial and delinquent behaviors among youth is well-supported in the literature (Hoeve et al., 2009; Dishion & McMahon, 1998). Research suggests that parental knowledge acts as a form of behavioral control such that it promotes practices that can help prevent antisocial and delinquent behaviors (Barber et al., 2005). Through monitoring and surveillance, parents are able to employ preventive efforts that may be helpful in averting delinquent behaviors of youth. For example, parental knowledge has been linked to better supervision practices and decreased involvement of youth in antisocial behaviors (Barber et al., 2005; Kerr & Stattin, 2000). Another mechanism by which parental knowledge may help curtail antisocial and delinquent behaviors is through parent-youth communication. Although primarily viewed as a form of behavioral control, parental knowledge is intertwined with other parenting practices that encourage open communication between the parent and the child. Such communication practices may help facilitate child disclosure of their activities and associations. Indeed, Kerr & Stattin (2000) found that child disclosure of their whereabouts, activities, and associations to their parents help explain the relationship between parental monitoring and positive child outcomes. In turn, parental monitoring may help build positive parent-child relationships, which are important safeguards against antisocial and delinquent behaviors (Dishion & McMahon, 1998).

Limitations

There are several limitations to keep in mind when interpreting these findings. This study utilized a non-probability sample and a relatively small sample size; thus, generalizability of findings should be approached with caution. Due to participating agencies' protocols and the limits of conducting research with a vulnerable population such as offending youth, random sampling from all youth on probation was not possible. Our recruitment method was also prone to selection bias. In our reliance to recruitment flyers and letters, it is possible that we recruited a sample of youth who might be different in important demographic and background characteristics from those who did not chose to contact us and participate in the study. While we are unable to compare participating youth from those who did not participate in important characteristics, our sample's demographic characteristics appear to be consistent with the characteristics of adjudicated youth in the participating state and local agencies.

In addition, our assessments of youth-officer relationship quality and probation compliance were administered at a single point in time. Research suggests that relationship quality is often dynamic (Wood, 1999) and may change overtime. The cross-sectional nature of the study only provided a snapshot of youth's perceptions of relationship quality and probation

non-compliance; thus, it may not have provided sufficient time to detect the plausible strength and effect of relationships between and among these variables. Further, all analyses were correlational in nature; thus, causal conclusions cannot be inferred from the observed findings. As noted earlier, the cross-sectional nature of the study limits us from delineating the pathways of relationships among variables. For example, building trusting and caring/fair relationships may take time particularly in a context of a court-mandated sanction; and, thus, it may help explain our counterintuitive findings regarding these youth-officer relationship qualities and probation non-compliance. On the other hand, given the law enforcement nature of probation, tough relationships may seem to be a more common expectation and characterization of relationships between youth and their probation officer; thus, the effect of this relationship quality is more pervasive than warm/caring and fair/respectful relationships. Future research should employ longitudinal designs in order to capture the changes in relationship qualities and assess whether and how these changes are associated with offending patterns overtime.

Finally, we only focused on two aspects of Schwalbe's (2012) *participation process model* for probation practice – relationship between youth and probation officer and parental support – in exploring the process by which probation may curtail offending. Future research should examine the other aspects of the model or the full model in investigating the different mechanisms underlying juvenile probation's theory of change. For instance, characteristics unique to youth such as their motivational processes, including future orientation and self-esteem, or personality traits and temperament, may influence how they respond to various combinations of support and monitoring from probation officers and parents, which can also have differential effects on probation non-compliance. Research utilizing and building upon existing theories of juvenile probation is needed to better inform probation practice and services.

Conclusion

As suggested by Bronfenbrenner (1986), a youth's development is largely influenced by many interrelated environmental systems including the family and community; thus, intervention must occur within and between these multiple systems. A common disposition for offending youth, juvenile probation has the potential to improve well-being and reduce recidivism for a large number of youth. The underlying tenet in the establishment of juvenile probation posits that offending youth may, through community-based intervention, become prosocial and productive members of the community. Our findings provide evidence to the important role of both probation officers and parents in facilitating successful interventions among offending youth. In their ongoing efforts to monitor, supervise, and rehabilitate, probation officers have the capacity to develop meaningful relationships with youth that may help promote community safety, rehabilitation, and accountability. Accordingly, youth-officer relationship is a key component and a critical context of probation. Relationships characterized as tough and punitive are associated with greater counts of technical violations of probation, but fewer counts of delinquent offenses. Surprisingly, however, youth-officer relationships characterized as warm, caring, fair, and respectful are positively associated with probation non-compliance. Although these findings must be interpreted in light of the

study's limitations, these findings also suggest the complexity and dynamic process of youth-officer relationships.

Our findings also underscore the potential benefits of collaboration between probation officers and parents. Supportive youth-parent relationships and *limited* toughness in youth-officer relationships are associated with fewer counts of technical violations of probation. On the other hand, it appears that *limited* toughness in youth-officer relationship protects against variety of technical violations among youth with high levels of parental knowledge. Further, high levels of parental knowledge and tough and punitive youth-officer relationships are associated with greater counts of technical violations. These findings support the notion that probation officers can be an important resource for parents just as parents can be helpful partners of probation officers in facilitating positive behavioral changes among offending youth (Schwalbe, 2012; Burke et al., 2014). While we recognize that in many jurisdictions the reality is that probation officers may spend a very limited amount of time with the youth under their supervision, these findings suggest that spending more time with youth and engaging parents to become involved in the probation process may be a good investment on the part of the officer and the system that funds probation services. A collaborative partnership between parents and probation officers may provide opportunities for improving and strengthening interpersonal relationships with offending youth and help facilitate the full potential of probation to effect positive changes among offending youth.

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Figure 1. Schwalbe's Participation Process Model of Probation (reprinted from Schwalbe, C. S. (2012). Toward an integrated theory of probation. *Criminal Justice and behavior*, 39, 185–201).

Figure 2.

Interaction between youth-officer relationship quality and parental support on probation non-compliance. Variables are presented in standardized form: High/Low youth-officer relationship and High/Low parental support refer to -1 SD and 1 SD from the mean. IRR = Incidence Rate Ratio.

Figure 3.

Interaction between youth-officer relationship quality and parental knowledge on probation non-compliance. Variables are presented in standardized form: High/Low youth-officer relationship and High/Low parental knowledge refer to -1 SD and 1 SD from the mean. IRR = Incidence Rate Ratio.

Table 1**Youth Background and Demographic Characteristics**

	%	Mean (SD)
Age		16.4 (1.4)
Gender		
Male	77	
Female	23	
Race/Ethnicity		
White	17	
African American	60	
Hispanic	17	
Other	6	
Expelled from School	42	
High MAYSI-II Score	47	
Lifetime Youth Arrest or Referrals (3 or more)	51	
Delinquency Charge		
Person	52	
Property	28	
Drugs and Minor offenses	19	
Length of Supervision by JPO (weeks)		36.3 (32.2)
Average Frequency of Contact with JPO		4.9 (4.9)
Average Length of Meeting with JPO (minutes)		35.5 (20.2)
Variety of Technical Violations of Probation (range: 0–6)		1.8 (1.5)
0	23	
1	26	
2	22	
3	15	
4	7	
5	5	
6	2	
Variety of Delinquent Offenses (range: 0–5)		1.2 (1.3)
0	42	
1	28	
2	13	
3	9	
4	6	
5	2	

Table 2

Summary of Exploratory Factor Analysis Results for Dual-Role Relationship Inventory-Revised (DRI-R)

	Factor Loadings		
	Warmth/Care	Fairness/Respect	Toughness
I feel free to discuss the things that worry me with my PO.	.734	.173	.009
I feel safe enough to be open and honest with my PO.	.571	.460	.182
My PO is someone that I trust.	.565	.533	.255
My PO cares about me as a person.	.613	.346	.258
My PO really cares about my concerns.	.682	.447	.261
I know that my PO truly wants to help me.	.580	.527	.322
My PO considers my views.	.670	.444	.342
My PO takes enough time to understand me.	.749	.435	.161
My PO takes my needs into account.	.703	.394	.252
My PO encourages me to work together with him/her.	.590	.444	.152
My PO is enthusiastic and optimistic with me.	.668	.303	.233
My PO praises me for the good things I do.	.487	.452	.161
My PO is warm and friendly with me.	.473	.363	.302
When I have trouble doing what I am supposed to do, my PO talks with me and listens to what I have to say.	.541	.376	.167
My PO trusts me to be honest with him/her.	.264	.855	.159
My PO knows that he/she can trust me.	.345	.724	.179
My PO tries very hard to do the right thing by me.	.489	.544	.289
My PO seems devoted to helping me overcome my problems.	.553	.590	.216
My PO explains what I am supposed to do and why it would benefit me to do it.	.379	.678	.051
My PO really considers my situation when deciding what I'm supposed to do.	.493	.625	.272
If I'm going in a bad direction, my PO will talk with me before doing anything drastic.	.533	.639	.122
My PO gives me enough of a chance to say what I want to say.	.420	.558	.291
If I break the rules, my PO calmly explains what has to be done and why.	.433	.543	.085
My PO treats me fairly.	.441	.729	.159
My PO shows me respect in absolutely all of his/her dealings with Me.	.351	.672	.353
My PO expects me to do all the work alone and doesn't provide Enough help.	-.258	-.411	-.347
My PO makes unreasonable demands of me.	-.126	.042	-.361
My PO puts me down when I've done something wrong.	-.141	-.252	-.580
My PO talks down to me.	.000	-.176	-.777
I feel that my PO is looking to punish me.	-.347	-.408	-.505
Eigenvalues (pre-rotation)	16.36	1.66	1.26
% of variance	25.73	25.36	9.11

Using Principal Axis Factoring With Varimax Rotation.

Note. PO = probation officers. Items included in each factor appear in boldface.

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Summary of Poisson Regressions for Youth-JPO Relationship Qualities, Parental Support, and Parental Knowledge Predicting Probation Non-compliance

Table 3

	Variety of Technical Violations of Probation			Variety of Delinquent Offenses		
	B	SE	Z	B	SE	Z
Intercept	1.35	.59	2.29*	1.49	.74	2.02
School expulsion (Never)	.21	.15	1.40	.11	.28	.38
High MAYSI-II scores (Low)	.24	.15	1.67	.35	.23	1.51
Frequency of meeting with probation officer	.01	.01	1.10	---	---	---
History of arrest (2 or less)	---	---	---	.66	.27	2.42*
Warmth/Care	.11	.09	1.30	.21	.11	1.93
Fairness/Respect	.16	.10	1.66	.20	.13	1.52
Limited Toughness	-.20	.06	-3.07**	.23	.14	1.69
Parental Support	-.06	.10	-.59	-.19	.11	-1.75
Parental Knowledge	-.22	.08	-2.82**	-.38	.13	-3.00**
Site (Site A)	-.43	.17	-2.54*	1.49	.24	-1.61

Note. Reference categories are shown in the parentheses.

* $p < .05$,

** $p < .01$,

*** $p < .001$

Summary of Poisson Regressions for Parental Support as a Moderator of the Association between Youth-JPO Relationship Qualities and Probation Non-compliance

Table 4

	Variety of Technical Violations of Probation				Variety of Delinquent Offenses			
	B	SE B	Z		B	SE B	Z	
Intercept	.22	.15	1.50		-.74	.27	-2.77	**
School expulsion (Never)	.37	.14	2.59	**	.46	.27		1.66
High MAYSI-II scores (Low)	.28	.15	1.88		.35	.27		1.32
Frequency of meeting with probation officer	.02	.01	1.35		---	---	---	---
History of arrest (2 or less)	---	---	---		.65	.25		2.63
Warmth/Care	.15	.11	1.37		.16	.16		.97
Fairness/Respect	.26	.08	3.17	**	.38	.13		2.90
Limited Toughness	-.21	.05	-4.02	***	.21	.14		1.46
Parental Support	-.13	.11	-1.17		-.35	.17		-2.07
Warmth/Care × Parental support	.03	.10	.29		-.10	.15		-.62
Fairness/Respect × Parental support	.17	.11	1.62		.21	.13		1.60
Limited Toughness × Parental support	-.29	.10	-2.94	**	-.12	.20		-.61
Site (Site A)	-.51	.19	-2.65	**	-.39	.26		-1.49

Note. Reference categories are shown in the parentheses.

* $p < .05$,

** $p < .01$,

*** $p < .001$

Summary of Poisson Regressions for Parental Knowledge as a Moderator of the Association between Youth-JPO Relationship Qualities and Probation Non-compliance

Table 5

	Variety of Technical Violations of Probation			Variety of Delinquent Offenses		
	B	SE B	Z	B	SE B	Z
Intercept	.33	.17	1.91	-.66	.28	-2.28*
School expulsion (Never)	.12	.18	.65	.18	.32	.56
High MAYSI-II scores (Low)	.33	.15	2.22*	.40	.21	1.90
Frequency of meeting with probation officer	.01	.01	.96	---	---	---
History of arrest (2 or less)	---	---	---	.57	.26	2.16*
Warmth/Care	.09	.10	.97	.28	.14	2.00*
Fairness/Respect	.07	.11	.59	.10	.14	.69
Limited Toughness	-.14	.07	-2.05*	.26	.12	2.05*
Parental Knowledge	-.23	.09	-2.60**	-.43	.14	-3.22***
Warmth/Care × Parental knowledge	.01	.08	.16	.09	.11	.80
Fairness/Respect × Parental knowledge	-.06	.12	-.55	-.07	.13	-.55
Limited Toughness × Parental knowledge	-.17	.08	-2.08*	.10	.14	.73
Site (Site A)	-.43	.17	-2.53**	-.43	.22	-1.90

Note. Reference categories are shown in the parentheses.

* $p < .05$,

** $p < .01$,

*** $p < .001$