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An Exploration of Family and Juvenile Justice Systems to Reduce Youth HIV/STI Risk

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Abstract

Using in-depth interviews with 20 probation youth (60% female; 35% white; 30% Hispanic; mean age 15years, range=13–17), their caregivers (100% female; mean age 44years, range=34–71) and 12 female probation officers (100% white; mean age 46years, range=34–57), we explored how family and probation systems exacerbate or mitigate sexual risk. We conducted thematic analyses of interviews, comparing narratives of families of sexually risky ($n=9$) versus non-sexually risky ($n=11$) youth. Family functioning differed by youth sexual risk behavior around quality of relationships, communication, and limit-setting and monitoring. The involvement of families of sexually risky youth in probation positively influenced family functioning. Data suggest these families are amenable to intervention and may benefit from family-based HIV/STI interventions delivered in tandem with probation.

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Each year in the US, over half a million youth are placed on probation. These youth present with multiple problems including substance abuse, mental illness (Wasserman, McReynolds, Ko, Katz, & Carpenter, 2005), and significant histories of trauma (Brosky & Lally, 2004), all of which increase their risk for contracting HIV (Brown et al., 2010; Bryan, Rocheleau, Robbins, & Hutchinson, 2005; Donenberg & Pao, 2005). Indeed, youth in the juvenile justice system (JJS) engage in more HIV risk behaviors (Bryan et al., 2005; Teplin, Mericle, McClelland, & Abram, 2003; Udell, Donenberg, & Emerson, et al., 2011) and report higher rates of STIs (e.g., Chlamydia, gonorrhea) (Joesoef, Kahn, & Weinstock, 2006; Dembo, Belenko, Childs, Greenbaum, & Wareham, 2010) compared to youth in the general population.

It has been challenging to develop effective interventions to address this well-documented risk. A recent review of HIV/STI interventions for juvenile justice-involved (JJ) youth, all of which were individual-level interventions, found over 50% of the interventions failed to reduce sexually risky behavior compared to control conditions (Tolou-Shams, Stewart, Fasciano, & Brown, 2009). These interventions primarily focused on reducing unprotected sex and delaying sexual debut via addressing youth information, attitudes, motivation, and behavioral skills. The data to date on these interventions suggest that targeting risk behaviors through individual-level interventions alone may not be sufficient to achieve sustained behavior change in this population. Interventions that target recidivism and substance use in JJ youth have found that including other proximal systems that support youth, such as the family and juvenile justice system, is necessary to achieve lasting positive outcomes (Baldwin, Christian, Berkelson & Shadish, 2012). Unfortunately, little is known about how these two critical systems together influence sexual risk behavior among JJ youth. The current study, via use of in-depth interviews, examines the influence of the family and juvenile justice systems on sexual risk behavior in a sample of youth on probation.

An Ecological Theoretical Framework for Understanding Sexual Risk

Ecodevelopmental Theory (ET; Coatsworth, Pantin, McBride, et al., 2002; Szapocznik & Coatsworth, 1999) posits that in order to understand adolescent risk behaviors, it is necessary to understand risk and promotive factors within the interacting social systems in which they occur. In particular, ET emphasizes the crucial role of the family microsystem in the socialization of youth and the family's ability to influence and be influenced by other proximal social systems such as the youth's peer group (microsystem); this interaction of microsystems is known as the mesosystem (e.g. JJS-family mesosystem). ET also acknowledges the indirect role that more distal systems, such as family social support (exosystem) or culture (macrosystem), have on youth behavior. The current study uses ET to guide the exploration of the role of two key proximal microsystems of influence, the family and the JJS, on adolescent sexual risk behavior (see Figure 1).

The Family System and Youth Sexual Risk

A substantial literature has identified the family as critical to reducing HIV sexual risk behavior in youth. Parental monitoring and supervision of their teen's activities, frequent and effective communication between parents and teens, particularly about sex, and supportive parent-teen relationships characterized by warmth have been shown to reduce youth sexual risk (Borawski, Ieverslandis, Lovegreen, & Trapl, 2003; Buhi & Goodson, 2007; Donenberg, Paikoff, & Pequegnat, 2006; Elkington, Bauermeister, & Zimmerman, 2011; Hutchinson & Montgomery, 2007; Repetti, Shelley, & Seeman, 2002). Family-based HIV/STI interventions that target these family processes have been successful in reducing sexual risk in other high risk adolescent populations (DiIorio et al., 2006; Guillermo Prado et al., 2007; Stanton et al., 2004). However, there have been few studies examining family processes and sexual risk in families of JJ youth, and there are no efficacious family-based interventions for these youth.

Although there are well-established associations between family functioning and *delinquency* in JJ populations (Hoeve et al., 2009; Hoeve et al., 2012), findings from the few studies of family functioning and sexual risk behavior in JJ youth have been mixed. For example, some studies have found no evidence that family factors were related to sexual risk behavior (Khurana, Cooksey, & Gavazzi, 2011; St Lawrence, Snodgrass, Robertson, & Baird-Thomas, 2008). Others have found that parental monitoring, involvement and support, and communication are protective against adolescent sexual risk behavior or STI acquisition (Crosby et al., 2006; Mosack, Gore-Felton, Chartier, & McGarvey, 2007; Robertson, Thomas, St. Lawrence, & Pack, 2005; Udell et al., 2011; Voisin, DiClemente, Salazar, Crosby, & Yarber, 2006; Voisin, Tan, Tack, Wade, & DiClemente, 2012). The findings from these studies vary possibly as a function of whether the youth was incarcerated, detained, or on probation. Youth on probation reside in the community *with* their families, and therefore, the family may be a particularly effective platform for HIV/STI intervention. Yet, to our knowledge, there has been only one study of youth on probation (Udell et al., 2011), and this study only examined the youth's perspective. Additional studies examining family processes and sexual risk in youth on probation that explore both youth and parent perspectives of these processes are needed to guide the development of efficacious, family-based HIV prevention programs for these youth.

The Juvenile Justice System and Youth Sexual Risk Behavior

Family-based program developers acknowledge the importance of considering the influence of other key systems on the family ecology as well as the youth's behavior (Coatsworth, Pantin, & Szapocznik, 2002; Diamond & Josephson, 2005; Henggeler & Sheidow, 2012). For youth on probation, the JJS may have significant influence on risk behavior via interaction with both the youth and the family. For example, studies have shown that involvement of youth in the JJS places strain on their family relationships (Dembo et al., 2000), which may place youth at greater risk for engaging in HIV/STI risk behaviors by weakening parent-child relationships and further limiting communication in families already struggling to function effectively. Alternatively, given probation's mandate of rehabilitating youth to reduce recidivism, probation may serve as a critical system to support the family

and promote positive outcomes in JJ youth. However, to our knowledge, there have been no studies of the influence of probation in either offsetting or promoting HIV/STI risk in youth in its care.

Given the dearth of research looking specifically at the role of the family and probation system on JJ youth sexual risk outcomes, a qualitative study exploring individual experiences as well as the complexity of relationships between individuals, families, and probation was considered an important first step. This insight into the social and structural mechanisms that might lead to risky sexual behavior from the perspectives of youth, parents, and probation officers may inform the development of a comprehensive HIV/STI prevention intervention for youth on probation that capitalizes on the potential strengths of two key systems -- the family and JJS -- to reduce youth sexual risk behavior. Thus, the current study sought to understand 1) how the family and probation systems influence youth sexual risk behavior (i.e. via exacerbating or mitigating risk) and 2) the processes through which the family and probation systems might influence sexual risk behavior.

Method

Participants and Sampling

Participants were recruited from two county probation departments in New York State between March and July 2011. Youth and caregivers were recruited as dyads ($N=20$ dyads). Youth on probation were eligible if they were between 13–17 years of age, fluent in English and had a caregiver willing to participate in the study. Caregiver participants were eligible if they were fluent in English, had a youth willing to participate in the study, and were the legal guardian of the youth. All probation officers (POs) employed within each of the two study probation departments were eligible to participate and received 1 hour of training credit for their participation. We purposively sampled youth-caregiver dyads based on youth's age (50% 13–14yrs, 50% 15–17) and gender (50% male; 50% female) given the well documented influence of age and gender on sexual activity. (Brooks-Gunn & Paikoff, 1997; Centers for Disease Control & Prevention [CDC], 2012; Teplin et al., 2003) All study procedures were approved by the New York State Psychiatric Institute Institutional Review Board.

Procedures

POs were informed of the study by the research team and were asked to describe the study to all youth on their caseloads. POs then directed interested families to study research assistants for further information; families were also invited to contact the study team directly about participation. All those screened for eligibility and selected for the final sample consented to participate. Youth and caregivers were interviewed simultaneously to reduce burden on the families (i.e. they only had to come in for one visit), but separately in sound proof spaces; both youth and caregiver were assured confidentiality. All interviews were audio recorded to facilitate transcription, lasting approximately 1 hour; monetary reimbursement for time and travel was provided.

Assessments

Demographic information—Assessed for youth and caregiver using a 12-item questionnaire that elicits demographic (age, gender, race and ethnicity, number in household, family income) and juvenile justice involvement information, including length of time on current probation, number of prior JJS contacts. Demographic information for POs was assessed using a 9-item questionnaire that elicits demographic (e.g. age, gender, race and ethnicity) and job information, including length of time in current position, current role, and responsibilities.

Qualitative interview guides—Interview guides were informed by Ecodevelopmental Theory. The interview for *youth and caregiver* covered their respective perspectives on 1) youth sexual behavior and sexual risk, including norms and beliefs about adolescent sexual behavior and perception of youth HIV risk; 2) the peer microsystem, including beliefs about peer sexual behavior and peer pressure to be sexually active; 3) the family microsystem, prior to and following probation involvement, including relationship quality and description, family interactions, and monitoring of youth behavior; and 4) the JJS-family mesosystem, focusing on family experiences of probation and any influence of probation on youth (sexual risk) behavior. *Probation staff* interviews explored 1) the probation-JJS microsystem exploring probation officers' perceptions of their role and purpose of probation and 2) the JJS-family mesosystem, focusing on experience working with families of youth on probation, family engagement, and facilitators and barriers to working with families. See Table 1 for examples of questions from interview guides.

Data Coding and Analysis

Using ET to guide our analysis, our goal was to understand how the family and probation systems influenced youth sexual risk behavior, exploring not just whether family and probation systems exacerbate or mitigate risk, but also seeking to understand the processes through which they might do so. Our thematic analysis of the interview texts employed inductive and deductive approaches. The initial coding scheme focused on exploring two microsystems (the family and the probation system) and their interactions (i.e. JJS-family meso-system). We examined the role of the family microsystem across three theoretically informed domains known from the literature to influence sexual risk in youth: 1) relationship quality, 2) communication, and 3) monitoring and limit-setting, developing codes for primary and secondary themes. After clarifying and reaching consensus about the coding scheme, coders then applied this final code list to the remaining transcripts individually and then met to discuss each interview and compare codes for all interviews. Whenever any discrepancies arose the coders discussed until a consensus was reached; initial independent codings were compared and indicated high consistency among raters (>85%). This coding process is standard in qualitative methods and known as focused and intensive coding for primary and secondary themes (Lofland & Lofland, 1995; Straus & Corbin, 1998). Sample size, $N=20$ dyads, was determined based on saturation of the data; interviews were conducted until the coders determined that themes were being repeated and that no new themes, categories, or subcategories were emerging (Power, 2002).

The move from coding to interpretation involved conducting 1) descriptive domain analysis to explore full range and variability of information within given domains, 2) within-case (child-caregiver dyad) analysis on primary and secondary codes (e.g. differences in perceptions of communication about sexual topics) within each of the major domains, and 3) cross-case analysis comparing sexually risky ($n=9$) versus sexually non-risky ($n=11$) dyads (Miles, Huberman, & Saldana, 2013). Sexual risk was defined based on prior literature focused on behaviors that place youth at risk for pregnancy, STIs and HIV, including in juvenile justice populations (Teplin et al., 2003; Udel et al., 2011). Youth with high sexual risk ($n=9$) were defined as those who reported engaging in unprotected sexual intercourse or drinking or using drugs during sex, behaviors that place the youth at risk for pregnancy or acquisition of STIs, including HIV. Youth with no or low sexual risk were those youth who report no sexual activity ($n=2$) or no sexual risk as defined above ($n=9$). We sought to identify any systematic differences between the two groups in terms of main domains and themes (Dey, 1993).

Results

Sample characteristics

Table 2 presents the participant characteristics for the whole sample as well as by sexual risk group. The total sample comprised $N=20$ youth and $n=19$ caregivers; one caregiver had two children in the study. Just over half of the youth were female, just over one-third were Hispanic or non-Hispanic white, and mean age was 15.4 years ($SD = 0.99$ years, range=13–17). The sample largely reflects the regional demographic breakdown of the probation departments where the study took place in New York State. All caregivers were female, the majority were mothers (1 grandmother) with a mean age of 43.58 years ($SD = 9.15$; range=34–71 years). The mean number of household members was 4.5 ($SD = 1.1$), just over half of all caregivers were married or living with partner and were employed. The average household income was between \$25,001 and \$50,000; based on income and household size, 61.5% of the families lived below the poverty line (\$23,850 for family of 4; (Families USA, 2014)). Most youth reported to probation weekly, and for the majority this was their first contact with probation. All POs were female; almost all were non-Hispanic white with a mean age of 44.9yrs ($SD = 7.8$; range=34–57 years). Nine youth reported engaging in sexual risk (no condom use, sex while drunk or high), 7 (78%) of which were female.

We first present the family functioning of youth on probation from the perspective of probation officers (POs); these narratives provide a more in-depth description of “typical” families on probation upon which to build a better understanding of family functioning from the perspective of the youth and caregivers by sexual risk group. We then present experiences of family functioning from the perspective of the youth and the caregivers across three broad domains: relationships, communication (including about sex), and limit-setting and monitoring. We present differences in major themes by youth sexual risk behavior (sexually risky versus non-sexually risky). We then discuss the experiences of being on probation and the role of probation in youth sexual risk. Quotes are identified by participant (PO, youth, or caregiver), gender, age, and sexual risk group. Given the influence of gender on sexual activity, we also examined differences in themes within each sexual risk

group by gender. We found no differences in experiences by gender and so do not report further on this analysis here. However, the gender analysis was likely limited due to the uneven gender breakdown of youth in the sexual risk group: 7 females to 2 males.

Family Functioning from the Perspective of Probation Officers

As indicated by the descriptive information on family formation (Table 2), regardless of the youth's sexual risk behavior, most families were financially impoverished and approximately half the children had experienced some family upheaval such as parental divorce or separation and thus, resided with single mothers. One PO described the struggles faced by the majority of children in her caseload:

[A] typical probation kid, I find, [comes from] a lot of divorce, a lot of poverty, a lot of parents with drug abuse issues, criminal histories, mental health issues. It's very, very atypical to have a kid on probation that has a two-parent household with both parents working, with both parents educated. (PO, female, age 36)

In the context of familial as well as structural stressors or risk factors (e.g. poverty, unemployment, and limited social support), POs repeatedly voiced the idea that achieving youth positive outcomes and behavior change was impossible without parent or family involvement in the probation process.

In the juvenile system, it's a critical piece to what we do. And I don't think we can ask a young person to make change without at least their parental figures involved. It's not going to be a successful effort unless it's a family based effort. (PO, female, age 45)

Probation officers identified specific elements of family functioning that were linked with successful youth outcomes while on probation. The importance of family communication in contributing to positive youth outcomes while on probation and beyond consistently emerged across PO narratives. One PO explained how poor communication can quickly lead to breakdowns in basic family functioning, noting, *"They can't even discuss who's going to take out the garbage without it resulting in police intervention"* (PO, female, age 45). However, POs were careful to explain that communication breakdown is often related to a lack of skill, rather than a lack of caring.

My experience is that many parents are usually very concerned about their kids. They often don't know how to show it. They often get stuck in patterns of communication which are really poor, and they get in pissing matches with their kids. (PO, female, age 53)

Several POs also suggested that youth-caregiver relationship difficulties were strongly associated with youth behavioral and probation outcomes.

If they [parents and teens] all get on the same page, then they can pretty much work miracles with us. Lots of times, you just see the parents at odds with the kids...it kind of affects each other [youth and caregiver] being successful. (PO, female, age 43).

Probation officers commented that the youth-caregiver relationships were often strained by, not only youth negative behavior, but also external family stressors related to employment and finances, compounded by limited parental social support and in some cases, parental psychiatric problems.

Parental difficulty with limit-setting and monitoring was also an area that POs noted as characteristic of many families of youth on probation. Probation officers again recognized there were structural hindrances to parents' monitoring of teens; in many instances parents were doing what they could but "*parents are working two or three jobs and are not there to supervise*" and after school programs were "*few and far between*" or simply not available.

Understanding Differences in Family Functioning by Youth Sexual Risk Behavior

Against this backdrop of overall risk within the family system, not surprisingly, all families in the study reported difficulties or problems with relationships, communication, or monitoring and limit setting. Nonetheless, we found some overarching differences between families of youth engaging in sexual risk behavior versus families of non-sexually risky youth. We present these themes by the three domains below.

Relationships—Although many caregivers and teens, regardless of youth sexual risk behavior, struggled to navigate relationships with each other, several key distinctions emerged with respect to the quality of relationships and roles of each person within these relationships.

Emotional quality of relationships: Families of youth who reported sexual risk behaviors often described relationships that were characterized by tension and detachment. These caregivers and teens often described the other party as the driving force behind the detachment. Many caregivers (6/9) of sexually risky teens described the difficulty of balancing their teen's need for autonomy with protecting the teen from poor decisions around school, drug use, negative peer influences, etc. Trying to correct these trajectories strained the relationships, increasing tension and feelings of detachment in both parties, which in turn prompted caregivers to withdraw. For youth in these families, caregiver disengagement was frequently experienced as abandonment or rejection. One youth summed up her emotionally distant relationship with her mother and step-father:

I haven't gotten along with them in years. They just kind of ignored me and let me do whatever I wanted they said I was getting to the point where they couldn't stand me. (Youth, female, age 17, risky)

Conversely, among families of youth not engaged in sexual risk behaviors, many relationships (8/11) were characterized by greater warmth and support, feelings of closeness, and less family tension. For example, one teen boy talked about a typical night in his home this way:

It's good. No tension in the house. I don't have to hide things from them. I don't have to, like, be afraid of them, not being able to talk to them. (Youth, male, age 15, no-risk).

The importance of time together: Both sexually risky and non-sexually risky dyads reported factors that interfered with spending time together, such as busy work or school schedules and poor physical health. As one caregiver noted:

We were close at one time; it's just a lot of things have interfered my mother has gotten a little bit more sick And I'm the sole provider of my household, so that's why I'm hardly ever home. My kids basically now have to sit there and try to fend for themselves. (Caregiver, female, age 36, risky)

Yet despite external constraints, families of non-sexually risky youth (5/11) in contrast to families of sexually risky youth (1/9) reported prioritizing time for family activities; often mealtimes were singled out as a time of togetherness based on family tradition. For example, one mother describes how, despite a busy family schedule, time-together occurred in the form of a recurring weekend family-dinner attended by all family members:

One of the things we do is every weekend, one of the boys get to pick out what they want to make for dinner. So they go through a recipe book, And we get these crazy, exotic dinners and sometimes it's this wonderful meal where they pick three different dishes. (Caregiver, female, age 46, no-risk)

General Communication—The importance of communication as a basis for successful family relationships consistently emerged across youth and caregiver narratives. While all families struggled to communicate effectively, we found poor patterns of communication were described more often by families of sexually risky youth compared to families of non-sexually risky youth. Of note, the following communication patterns or themes are not mutually exclusive; for example, even families that did well in some arenas of communication (e.g., caregiver's ability to listen to youth) sometimes had difficulty with other facets of communication (e.g., conflict resolution).

Communication styles and conflict resolution: Many families of sexually risky youth (6/9) described acrimonious communication styles marked by negative emotions, raised voices, and physical displays of anger by both youth and caregiver. One sexually risky youth described a conversation about moving in with her boyfriend that demonstrated these antagonistic and aggressive communication styles:

They [her parents] said I'm going to fail and I'm going to drop out of school and I'm going to get pregnant, and.... And, we kind of didn't resolve it. Her [mother] resolve was, "You're going to fail." And I was like, "I'll show you. You just wait" They said they don't care about when I leave (Youth, female, age 17, risky)

The above conversation is illustrative of several PO's descriptions of "pissing matches" between youth and caregivers, in which disagreements become defensive, competitive, and conflictual. In this case, both the youth and her mother described the conflict as left unresolved. Similarly, a caregiver of a sexually risky teen described an incident that revealed the caregiver's reliance on physical displays of anger and limited ability to resolve disputes:

She came home ... at 3:25 in the morning, and I grabbed her by her shoulders, and I shook her, and I said, "what the eff is wrong with you?" you know? Yeah, she swung at me. And I threw her on the floor, and that's when I said, you got to go

with your father.... I am not going to jail for you, you have to go. You have to go.
(Caregiver, female, age 43, risky)

The consequence of these poor communication skills was the rapid escalation of conflicts and a limited ability to achieve any resolution of negative interactions.

Conversely, non-sexually risky families (8/11) more often described healthier patterns of communication marked by engagement, active listening, discussion of the other person's point of view, and greater conflict resolution. There was an overall sense that despite the disagreements and communication struggles that occurred in these families, individual family members in the non-sexually risky group united in "working through" their difficulties. The greater capacity of these families to resolve conflict seemed, in part, to be linked to caregivers' more reflective and realistic evaluation about the difficulties of communication; most caregivers in this group recognized that talking to youth was difficult and communication was a "work in progress."

Trust and understanding: Trust emerged as a key factor related to communication, especially with respect to caregiver reactions to sensitive information shared by their teens. Many sexually risky teens (5/9) felt they could not trust their caregivers' to listen and respond with support or understanding rather than anger. Consequently these youth chose to keep quiet about "sensitive" topics like drugs and sex.

I: When you talk to your mom about things, do you feel like she listens to you?

R: Nope. She just gets mad.

I: She gets mad? Like what sort of things does she get mad about?

R: *Boys and drugs and school.* (Youth, female, age 17, risky)

In contrast, almost all youth in the non-sexually risky group (10/11) described trusting their caregivers to listen and understand, resulting in a willingness to share sensitive information. This may be due to the fact that these caregivers promoted the message that their teen could approach them about anything without fear of being punished. As one mother stated, "*I want to know the bad stuff too.*" The effectiveness of this type of communication style was noted by youth, who were more likely to report being able to talk to their parent(s) about "anything," including sex.

Discomfort with talking about sex: Conversations about sex were difficult for all families; both youth and caregivers expressed discomfort talking about sex. Often parents and teens disagreed about whether sex had even been discussed. Perhaps accounting for this discrepancy is the possibility that youth may define "talking" about sex as having a conversation with their caregiver, whereas caregivers may consider a lecture or interrogation to be an adequate discussion about sex. The dyad below illustrates this point:

MOM

I: Do you ever talk about dating or sex with your son?

R: *I've talked to all my sons about that, from the beginning... "Make sure, if you're out there, you're using protection," you know.* (Caregiver, female, age 38, risky)

SON

I: And have you talked to your mom about dating or sex?

R: Nah... Like, she'll just be like, you better not get no girls pregnant or whatever.

(Youth, male, age 16, risky)

Youth in both groups described a desire to talk with their parents about sex but none described feeling comfortable initiating the conversation, leaving the responsibility squarely on the shoulders of their parents. Notably, caregivers of non-sexually risky youth (6/11) demonstrated a willingness to have conversations about sex despite their discomfort, an approach similar to their overall styles of general communication. Rather than having a single talk about sex, communication about sex was ongoing in these families. The frequent nature of these conversations seemed to have their desired effect, increasing teens' level of comfort in discussing sex with their parents as exemplified by one youth who described increased comfort over time, "... the more I talked to my mom about sex and I saw she was, like, cool with things, I just kind of, like, "Oh, OK." (Youth, female, age 15, no-risk).

Many caregivers of youth in the sexually risky group (5/9) engaged in mostly surface communication, shying away from sensitive topics, particularly sex. Communication about sex was often characterized by a single talk, vague messages about sexual risk, or lecturing youth rather than engaging them. This propensity to engage only in surface communication might be one reason why a few parents of sexually risky youth were unaware of major events in their children's lives. For example, one parent was unaware of her daughter's pregnancy for five months. Reflective of this surface approach to discussion is the fact that condoms were often passively made available (i.e. leaving a box in a teen's room) to youth in the sexually risky-group, without any discussion of how, when, or why they should be used.

Monitoring and limit setting—As noted in the PO narratives, parents often faced numerous structural or broader contextual barriers to monitoring their teens. For example, parents worked long hours in order to provide financial stability for their families, resulting in their absence from the home and limited teen monitoring; a process that was compounded by limited social support for some families and availability of few supervised programs to send their teens after school. Yet, even in the context of potential structural barriers that were present for all families, there were differences by sexual risk category in the style and self-efficacy of the caregivers to monitor and set limits with their teens.

Styles of monitoring: Most caregivers of sexually risky teens (6/9) were unsuccessful at monitoring due to less involvement in their teen's life, resonating with themes of detachment described earlier. This expressed itself through the caregiver's minimal knowledge of the teen's peer group or whereabouts when not at home or a lack of expectation that a caregiver should know this information. This passive monitoring style was echoed by their teens who described minimal monitoring by parents, noting that even if parents inquired about their whereabouts or the peers with whom they were spending time, the teen simply did not provide the information or omitted critical information without any fear of consequences.

In contrast, most caregivers of non-sexually risky youth (8/11) described more attempts (not always successful) to actively monitor their teens' behavior and whereabouts. In particular, these caregivers endeavored to get to know their teen's friends as a way of learning about their teen's life and to minimize bad influences.

She has some good friends. She had some bad ones that we had to keep her away from, you know, but she's come a long way, really growing up and she's picking the right friends now. (Caregiver, female, age 50, no-risk)

Indeed, one parent of a non-sexually risky teen went to extreme lengths to monitor and control her son's behavior. She reported not only randomly drug-testing her son but also his friends in an attempt to monitor her son's activity and limit contact with friends she deemed "bad influences."

And I've drug tested my kids at home, and I've drug tested his best friends..... 'You got anything to hide, pee in the cup?' [It happens] every, I don't know, three or four months, depending -- like if he's hung out, or stayed over a friend's house. Like 'Mom, can I stay at Andy's house?', sure but the next day, drug test. And I tell [son's friends], if they're new kids, 'oh who are you? and where do you live? And what do you do? Do you do drugs?' If I sense that they're bad kids, or they're a bad influence, you're not going to come into my house. (Caregiver, female, age 38, no-risk)

Caregivers of non-sexually risky youth also describe monitoring dating behavior, including meeting the parents of a daughter's boyfriend, "before they went on a date, I had to meet his parents," ensuring that the bedroom door remains open when boy or girlfriend is over ("The rule is, the door has to stay open"), or placing age limits on when a youth could date. Caregivers of sexually risky youth, in contrast, did not describe monitoring practices around their teens dating or sexual behavior.

Reflecting these monitoring efforts by their parents, youth in the non-sexually risky group also described the expectation that they must inform their parents where and with whom they would be going. Some youth described the successful tactics used by their parents to monitor their behavior. One particular strategy used by parents of non-sexually risky youth was "community monitoring."

Can't get away with nothing, 'cause she knows everybody around the neighborhood, I know everybody around the neighborhood, and they know us, so if I do something.... Lots of eyes. (Youth, female, age 16, no-risk)

Success or resignation in limit setting: For some parents in both groups, difficulties in monitoring and limit setting resulted from the teen refusing to adhere to their caregivers' requests or demands to change their behavior, rather than from a lack of effort on the part of the caregiver. However, most caregivers' of sexually risky youth (6/9) described an overall sense of resignation about setting limits with their teen. For these parents, this resignation appeared to have developed over time as a result of repeated unsuccessful attempts to manage problematic behavior within the context of conflictual relationships. Exasperated, worn down, or at wits' end, these parents gave up setting limits.

You know, she'd just lay in bed, she'd be running with her friends, and then hanging out all night, and then come home, and then she'd just say 'I'm not going to school.' And rather than stand there and argue with her -- like she'd always argue with me and call me all kinds of names -- I just let her go and say OK, stay there. You're the one that's going to pay. (Caregiver, female, age 71, risk)

This lack of self-efficacy to set limits was echoed by the youth in the sexually risky group when describing their parents' attempts to enforce rules (e.g., curfews) or monitor youth behavior. These youth described minimal punishments or limit setting, referring to consequences of breaking rules as “*no big deal*.”

I: Are there rules that you have to follow at home?

R: I do, but I always break them.

I: OK. And what happens when you break them?

R: Nothing. Nothing happens, so I keep breaking them (Youth, female, age 15, risk)

Caregivers of youth in the non-sexually risky group also articulated difficulties in monitoring and controlling their teen, particularly when the teens were out of the house. However, in contrast to caregivers of sexually risky youth, many of these caregivers (6/11) described continued efforts to monitor and greater self-efficacy, despite the difficulty of these tasks. For example, when asked, caregivers still had expectations and hope that their teens would follow the rules they delineated:

Yeah. I know where she is. You know, 'You can't go to your friend's house unless there's a parent there, supervised. No getting into trouble with things that you shouldn't be getting into trouble with.' She knows the rules (Caregiver, female, age 50, no-risk).

Importantly, these rules and meaningful consequences were similarly described by their teens. The teen of the above caregiver told the interviewer that if she breaks a rule her mother followed through with specific consequences “.... *you can't use the computer, or cell phone, like take away things that you like. It sucks!*” (Youth, female, age 16, no-risk)

In sum, patterns of family functioning differed for sexually versus non-sexually risky youth with contrasting themes around quality of relationships, communication styles, and effective limit setting and monitoring of teens. Interestingly, involvement in probation appeared to alter some of these negative interpersonal interactions.

Probation Involvement and Youth Sexual Risk Behavior

Probation appeared to provide a supportive presence to the family system as both youth and caregivers reported benefits from the youth's probation in the form of improved family functioning and positive youth behavior change.

Probation and youth-caregiver relationships and communication—As positive side effects of probation involvement, several families of youth characterized by sexual risk behavior (5/9) reported increased communication and time spent together, both of which were seen as responsible for increasing overall parent-child relationship quality. For

example, one youth noted that as he struggled to stay out of trouble while on probation, his mother was more willing to talk and listen to him, which he in turn experienced as strengthening their relationship.

It [probation] actually made it stronger Because, like...you get closer about stuff like that. Like if I get in trouble, say, and then we got to have a talk about something, and then we just feel -- since we had the talk, we feel closer now.
(Youth, male, age 16, risk)

The youth's mother credited her son's PO for encouraging her to spend time with and talk to her son despite how mad she felt at times and suggested strategies that she could use to begin to have conversations with him.

It helped us get closer together. She [PO] helps what he and I should talk about..... and even if you mad at him and he did something wrong, to talk about it..... and she [PO] shows the way, how to talk to your son. (Caregiver, female, age 44, risk)

In contrast, most non-sexually risky youth and their caregivers (8/11) were less likely to describe their relationship quality and communication as changed post-probation involvement, noting more neutrality when queried about the broader effects of youth being placed on probation. In fact, dyads characterized by less risk and more positive relationships tended to report their relationships as remaining positive *despite* probation involvement.

Probation and parental monitoring and limit setting—Although some caregivers described difficult relationships with their teen's PO, often feeling blamed or unfairly punished for their child's delinquency, caregivers in both groups successfully leveraged their teen's probation involvement to more effectively monitor and set limits: "*She gets a little way out of line, I'll just tell her, I'm calling [PO].*" Caregivers of youth in both groups described an ability to successfully navigate and access other service systems such as school, substance use, or mental health systems due to support and referrals from probation.

Probation and behavior change in youth—Based on caregiver report, the threat of probation or legal ramifications was sufficient to make a few youth, but not all, comply with probation or caregiver rules. However, only youth in the sexually risky group described positive behavior change as a result of probation, recognizing a need to alter what they did and with whom they were friends. When asked about his experience on probation, one youth noted:

I used to get arrested, get in trouble with the law, the cops, and school, and stuff like that, but now I'm like, doing better in the community and school.....I just got tired of going to court, and stuff like that, I just wanted to change. (Youth, male, age 16, risk)

Discussion

The current study extends the literature on family involvement in JJ youth sexual risk behavior by qualitatively contrasting the narratives of families of sexually risky and non-

sexually risky youth on probation across three domains of family functioning (relationships, communication, monitoring and limit-setting) and by also examining the influence of the juvenile probation system in either promoting or offsetting sexual risk in youth. Our results offer three primary conclusions. First, families of youth on probation who are not engaging in sexual risk behavior function in ways that may serve to reduce or prevent youth sexual risk behavior as compared to families of youth who are engaging in risk. Second, the broader structural context (exo- and macrosystems; e.g. parent social support, parental over or under employment; parental economic stressors) likely shapes family functioning and youth risk behavior and cannot be ignored as we further understand and intervene with sexual risk behaviors (Szapocznik & Coatsworth, 1999; Prado et al., 2010). Finally, youth and family involvement in probation serves to buffer or offset risk by influencing the youth's behavior directly or indirectly by improving family functioning, particularly for those families at risk. We first discuss findings in context of the extant literature and then provide recommendations for intervention.

Many families in the current study, regardless of the child's risk behavior, experienced difficulties within each of the domains of family functioning that were examined. However, thematic differences did emerge, and, as is true in other adolescent populations (Borawski et al., 2003; Buhi & Goodson, 2007; Donenberg et al., 2006; Elkington et al., 2011; Hutchinson & Montgomery, 2007; Repetti et al., 2002), we found differences in relationship quality, communication, and monitoring and limit setting between the families of youth engaged in risky sexual practices when compared with families of youth not engaged in risky sexual practices. Among families in our sample, relationships between caregivers and youth who were sexually risky tended to be characterized as emotionally distant and tense, traits reinforced by dyads spending a limited amount of time with each other. In the context of such detached and difficult relationships, youth and caregivers demonstrated unhealthy communication styles, characterized by difficulties resolving conflict and engaging in open, "listening" dialogue, including discussions of sexual topics. Caregivers also described difficulties with monitoring and setting limits, often hampered by low self-efficacy in these areas. Sexually risky teens were reluctant to engage, communicate with, or listen to their caregivers, making it easier for the teen to be dishonest or evasive with their caregivers about their behaviors. Caregivers were then left in the dark about where and with whom their teens were spending time -- a recipe for increased youth risk behavior. Indeed, researchers have noted that parental monitoring of teen behavior is essential to reducing youth risk behavior of any kind in JJ youth (Voisin et al., 2012). While it is impossible to discern from our findings whether youth risky behavior leads to impoverished parent-child relationships, communication and monitoring over time, or vice versa, these elements are interrelated and co-occur. Thus, interventions that target sexual risk in JJ youth that include a family component may be critical to prevention efforts.

Although the current study focused on the effects of proximal systems (i.e. family and JJS) on youth behavior, aspects of the broader context (i.e. exo- and macrosystems), such as parental financial stress, resource availability and parental social support, emerged in several of the caregiver and PO narratives and appeared to shape family functioning and youth sexual risk behavior. The influence of these distal systems has been shown to 'trickle down' to more proximal systems and shape and increase risk behaviors in other adolescent

populations (Prado et al., 2010). However, this process remains poorly understood in JJ youth, particularly with respect to sexual risk. Closer examination of these more distal risk factors in JJ youth is warranted in order to understand more fully their direct and indirect influences on family functioning and youth sexual risk outcomes. Such information can inform the development of multi-level interventions that attend to the role of the broader context as well as the family as they work to reduce sexual risk behavior in youth.

A novel finding from this study is that probation may influence youth behavior either indirectly via the family system or directly through the youth. For many of the families, regardless of the teen's risk behavior, the probation officer was described as a source of support. In particular, involvement in the probation system appeared to have a positive influence on multiple domains of family functioning as the POs worked to improve communication between the parent and the teen as well as improve parental leverage to more successfully monitor or set limits with their teens. This finding differs from prior studies that have highlighted a culture of blame, conflict, and mistrust between juvenile probation officers and parents (Varma, 2007; Mulford & Redding, 2008). The positive influences of probation were more salient for families of teens who engaged in sexual risk, suggesting that the probation system is particularly effective in working with high risk or high need families. This also reflects the system's "risk-need-responsivity" approach which directs more intensive intervention efforts to higher risk juveniles (Andrews & Dowden, 2006; Schwalbe & Maschi, 2009). Relatedly, more youth in the sexually risky group described a desire to change their behavior as a result of their probation involvement. These youth appeared to recognize the negative trajectory of further juvenile justice involvement and wanted to change this direction. Given the cross-sectional nature of this study, we were unable to determine if probation involvement altered subsequent recidivism or sexual risk behaviors for these youth. We were also unable to examine the long-term influence of probation on domains of family functioning. Future research that prospectively examines the intersection of the probation system, the family system, and the youth in determining youth recidivism and other key behavioral health outcomes is warranted.

Interestingly, we found almost no differences by gender with respect to themes within each of the domains or by sexual risk group. However, the majority of the youth in the sexually-risky group were girls ($n=7$ girls vs. $n=2$ boys), which likely limited our ability to effectively examine gender differences within sexual risk groups. Nonetheless the finding that there were more girls in the sexually risky group is an interesting one and is consistent with prior studies of youth on probation that found less condom use and a greater likelihood of pregnancy or an STI in females (Bryan, Schmiede, & Magnan, 2012). The difference in sexual risk by gender in the current study may have been attributable to sampling such that caregivers of sexually risky girls were more apt to enroll in a study discussing sexual risk in their teens. However, it is also important to consider that family functioning may have a greater influence on girls' sexual risk behavior. Larger studies should more carefully examine the intersection between family functioning, gender, and sexual risk in JJ youth, identifying if specific domains of family functioning (e.g. relationships, communication) are more or less salient for sexual risk and if family-based programming is more likely to be efficacious for females than males.

Limitations

This study has several limitations. This analysis relies on data collected from a sample of youth on probation and their caregivers in medium-sized towns in New York State and may not be representative of youth of differing socio-economic statuses, ethnic and racial groups, in other types of juvenile justice facilities, or in other parts of the country. These data are cross-sectional and as such we cannot determine causality between family functioning, probation involvement, and sexual risk in youth. Engagement of families in research studies is difficult (McKay, Pinto, Bannon, & Guilamo-Ramos, 2007). This sample may be biased towards families who were engaged in the probation process (i.e. attending probation supervisory visits that would allow them to be recruited from the probation department) and thus, they may have been more willing to talk about their positive experiences in probation without fear of negative consequences. Given the sample size, our ability to analyze data to discern patterns related to other characteristics such as race and ethnicity was limited, and may warrant replication in a larger sample. Our study relied on self-report. Due to reasons of confidentiality about study participation, we did not seek corroborating evidence from the youth's probation officers (probation officers were asked to talk about their caseload in aggregate), nor did we seek corroborating reports from other sources such as teachers or peers. Almost all caregivers interviewed were mothers, limiting our perspectives. We did not collect any information on specific charge (youth on probation for a sexual offense were excluded from this study). However, the specific charge is not always a reflection of the youth's behavior and can be made at the discretion of the arresting officer. As such, charge may not matter as much to actual sexual risk behavior. Finally, we did not measure youth substance use or psychiatric illness – common among JJ youth (Teplin, Welty, Abram, Dulcan, & Washburn, 2012; Wasserman et al., 2005) and shown to be associated with both sexual risk (Elkington et al., 2008) and family functioning (Repetti et al., 2002).

Despite these limitations, findings from the current study have important implications for policy and HIV prevention interventions.

Probation is a key point of intervention—Despite difficulties in family functioning across several domains, families reported benefiting from probation involvement described by improvements in communication, relationships, and monitoring and limit setting. This suggests that for JJ youth and their families, involvement with the probation system is by itself an intervention for the family and provides substantive opportunity for other family-level interventions. Local probation departments are uniquely positioned to coordinate needed services to youth in their care and many departments do offer on-site skills groups (e.g. life skills, anger management) and co-located behavioral health services, or work with community-based organizations and behavioral health systems to provide these services. Although structural or organizational factors (e.g. staffing, perceived relevance to probation's mission) may hamper the delivery of onsite services, the positive effects of probation involvement on the family could be leveraged to enable families to access and benefit from involvement in more targeted HIV/STI intervention programs implemented either within the probation department or through community partnerships.

Develop family-based HIV/STI prevention programs for probation youth—The differences in family functioning between youth who were sexually risky and youth who were not suggests that family-based interventions, efficacious in other adolescent populations (DiIorio et al., 2006; Guillermo Prado et al., 2007; Stanton et al., 2004), may be a particularly useful tool in reducing sexual risk in these youth. Themes that emerged from the families suggest that such interventions should work on re-engaging parents and youth by, in part, encouraging an increase in time spent with each other. In addition, interventions that target general communication styles, fostering positive exchanges, improved conflict resolution, and listening skills will likely be successful in improving specific communication about sex. Finally, these interventions should also include clear behavioral management techniques to enable parents to successfully monitor and set limits with their teens. Clearly, as with any family-based intervention, youth safety in the family context and conversely parent safety issues must always be assessed and addressed. In some cases, youth may need to be removed from family contexts and more intensive family-focused work must be done before HIV/STI risk behaviors can be addressed.

Conclusions

Previous literature has indicated that JJ youth are at considerable risk for HIV and STIs compared to youth in the general population. While families of youth on probation are often managing multiple stressors, findings from the current study suggest these families are amenable to intervention and may benefit from family-based HIV/STI prevention programming. As an initial point of contact for over 50% of youth entering the JJS following arrest, probation is uniquely positioned to coordinate services for a large amount of youth and their families who may otherwise miss school-based HIV/STI interventions. Family-based HIV/STI interventions delivered in tandem with probation may represent one of the few opportunities to reduce sexual risk behavior in this hard-to-reach population.

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Figure 1.
Modified Ecodevelopmental Model (Sczapocznik & Coastworth, 1999)

Table 1

Interview Protocols

Youth and Caregiver interview		
Domain/Topic	YOUTH Example	CAREGIVER EXAMPLE
Adolescent Sexual Behavior, Norms and Beliefs		
Youth Sexual Behavior	Thinking about the last time you had sex...Did you use a condom? Did you use alcohol or drugs before/during sex?	What do you think your teen is doing sexually? [If active] do you think your teen is using condoms?
Perceived HIV/STI Risk	Is getting HIV something you worry about? Why/why not?	I'm also interested in hearing about your thoughts and feelings about your teenager having sex?
Peer Microsystem		
Perceived peer sex norms	What do you think your friends or other people your age are doing sexually?	What do you think your teenager's friends think about using drugs or having sex?
Peer pressure	What do your friends think about boys who are having sex? What about girls?	What are the pressures that teenagers deal with now?
Family Microsystem		
Family Relationships	Tell me about a time when you spent some time with your family; who was there, what were you all doing? Who do you go to in your family when you need help with something?	How would you describe the relationships in your family? Who does your teenager go to when s/he needs help?
Family Communication	Do you feel that your parents listen to you? How do you know?	Do you feel that your teenager believes s/he can talk to you and confide in you? How do you know?
Sex Communication	What's it like to talk about dating or sex with your caregiver/parent?	Have you had "the talk" with your teenager yet? What was that like?
Limit setting and monitoring	Are there clear rules you follow at home? What about when you are out of the house?	How well do you know what your teen does when she is not in the home?
Family-JJS Mesosystem		
JJS involvement	Did some of the things we just talk about with your family change when you were arrested / put on probation?	Did some of the things we just talk about you're your family change when your teenager was arrested / put on probation?
Experiences and Perceptions of JJS	What's it like coming to the probation office? What it's like for you to be on probation?	How has your experience been coming here (probation office) with your teenager?

Probation Staff Interview	
Topic	Example
JJS Microsystem	
Description of professional role and professional identity	What attracted you to this position? How would you define your role as a PO? Is it important to work with the families of youth on probation?
Family-JJS Mesosystem	

Probation Staff Interview	
Topic	Example
Working with families of youth on probation	<i>Can you describe your typical experience working with the families of youth on probation? Are there certain instances when family involvement is a help or a hindrance?</i>
Family engagement in probation activities	<i>When and how do you involve families in the youth's probation activities? What do you think makes it difficult/easy for the youth's family to get involved?</i>

Table 2

Sample Characteristics by Youth Sexual Risk Status

	Total N=20			Sexually risky n=9			Non-sexually risky n=11		
	N	%		N	%		N	%	
YOUTH									
Female	12	60.0		7	77.8		5	45.5	
Hispanic	7	35.0		5	55.5		2	18.2	
African American	3	15.0		0	0		3	27.3	
White	7	35.0		2	22.2		5	45.5	
Other	3	15		2	22.2		1	9.1	
Age ^a	15.4 (1.0)			15.8 (0.83)			15.1 (0.1)		
School									
Fulltime enrollment	16	80.0		7	77.8		9	81.8	
Parttime enrollment	3	15.0		2	22.2		1	9.1	
Dropped out	1	5.0		0	0		1	9.1	
Caregiver/family									
Female	19	100		9	100		10	90.9	
Age ^a	43.6 (9.2)			44.8 (10.8)			42.5 (7.8)		
Hispanic	6	31.6		5	55.6		1	9.1	
African American	3	15.8		0	0		3	27.3	
White	8	42.1		2	22.2		6	54.5	
Other	2	10.5		2	22.2		0	0	
HS graduate/GED	9	47.4		4	44.4		5	45.5	
Some college	5	26.3		2	22.2		3	27.3	
Employed	9	47.4		4	44.4		5	45.5	
Household income ^{a,b}	3 (1.5)			2.9 (2.0)			3.2 (0.8)		
Number in household ^c	4.5 (1.1)			4.8 (1.1)			4.3 (1.2)		
Married/living with partner	10	52.6		4	44.4		6	54.5	
Probation Officers									

	Total N=20		Sexually risky n=9		Non-sexually risky n=11	
	N	%	N	%	N	%
Female	12	100.0				
Age		44.9 (7.8)				
White	11	91.7				
African American	1	8.3				
Years a PO		9.4 (8.6)				
Master's degree	9	75.0				
Youth Probation						
Probation reporting						
Weekly	8	40.0	5	55.6	3	27.3
Bi-weekly	5	25.0	4	44.4	1	9.1
Monthly	5	25.0	0	0	5	45.5
As requested by PO	1	5.0	0	0	1	9.1
Other ^d	1	5.0	0	0	1	9.1
Prior probation contacts						
1	18	90.0	8	88.9	10	90.9
2	2	10.0	1	11.1	1	9.1
Current probation length ^{a,e}	0.67 (0.7) (range 0.1–3)		0.9 (0.9) (range 0.1–3)		0.4(0.4) (range 0.1–1)	
Youth Sexual activity/risk						
Sexually active	13	65.0	9	100.0	4	36.4
Condom non-use	5	25.0	5	55.6	0	0.0
Substance use or sex while drunk or high	4	20.0	4	44.4	0	0.0

N=20 youth-caregiver dyads

^a Mean (SD);^b Income was assessed using a categorical variable: 1= <\$15,000; 2=\$15,001–\$25,000; 3=\$25,001–\$50,000; 4=\$50,001–\$75,000; 5=>\$75,000^c Includes data only on 13 participant dyads^d Other = attends probation mandated program only^e Length given in years

PO = Probation officer

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