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Promoting the Well-Being of Youth Involved in the Juvenile Justice System: An Ecological Perspective

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Promoting the well-being of youth involved in the juvenile justice system: An ecological
perspective

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Candidacy for the Degree of
Master of Science

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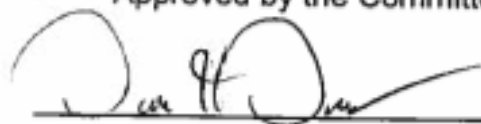
APPROVAL PAGE


This Thesis is submitted in partial fulfillment of
the requirements for the degree of


Master of Science


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ABSTRACT

Adolescents involved in the juvenile justice system often express hope for their future. However, most research on this population centers on negative outcomes, such as being re-arrested or developing mental health problems. The purpose of the current study was to better understand factors that promote positive development of youth involved in the juvenile justice system. Guided by Bronfenbrenner's Ecological Systems Theory (1979), we examined whether the following variables were associated with well-being: maternal warmth, peer warmth, school bonding, neighborhood conditions, or procedural justice.

The current study used data from the Crossroads Study. Participants included 1,216 adolescent male first-time offenders who were arrested in California, Louisiana, or Pennsylvania. Baseline measurements were taken after the participants deposition in court, and follow-up measures were taken 1-year, 2-years, 3-years, 4-years, and 5-years after baseline. Linear curve models with structured residuals were used to assess between- and within- person relations between our ecological predictor variables and well-being. In the current study, well-being was operationalized using Seligman's PERMA framework, with a measure that adapted this framework for adolescents (Kern et al., 2016).

Results indicated that maternal and peer warmth had significant between and within-person effects on well-being. The relation between these constructs and well-being was reciprocal. School bonding had significant between and within-person associations with well-being, but the relation between constructs was unidirectional. Neighborhood conditions and procedural justice were not significantly associated with well-being on a between or within-person level. These results suggest that increasing maternal warmth, peer warmth, and school bonding is associated with increased well-being of youth involved in the juvenile justice system. Incorporating well-being components into interventions for youth involved in the juvenile justice system is a promising area for future research.

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Promoting the well-being of youth involved in the juvenile justice system: An ecological perspective

Over the past decade, state and federal governments have become increasingly interested in researching and reforming the juvenile justice system (JJS; Durnan et al., 2018). The rate of arrest for youth under 18 has been steadily decreasing, yet nearly 700,000 adolescents were arrested in 2019 (Puzzanchera, 2021). The majority of youth involved with the JJS are male (70%), and minority groups are disproportionately impacted. For example, 34% of adolescents arrested in 2019 were Black, whereas only 13.4% of the overall adolescent population identified as Black. These youth are also more likely to come from backgrounds marked by poverty and adverse life experiences (ACEs; Baglivio et al., 2014), and to have mental health problems (Gottesman & Schwarz, 2011, Shufelt & Coccozza, 2006; Teplin et al., 2002). Despite these challenges to development, many individuals who are involved in the JJS as adolescents desist from crime as adults (Sampson & Laub, 2005). Other than rearrest status, little is known about the developmental outcomes of these youth.

In the late 1900s, JJS policies were made increasingly punitive as a response to a spike in crime. It became more common to try youth under 18 as adults and to inflict harsh sentences, such as life without parole, on adolescents. In recent years, lawmakers have turned to developmental psychology and neuroscience to make developmentally appropriate reforms to the system (Steinberg, 2013), resulting in a general acceptance that adolescents are less culpable for their crimes than adults because of their developmental stage in life (e.g., *Graham v. Florida*, *Roper v. Simmons*). Some of these developmentally appropriate reforms include diverting low-risk youth from the system, investing in prevention programs, and considering

community-based alternatives to incarceration (Brown, 2015). Although there is still progress to be made, the JJS is moving towards an approach that can be described as restorative justice, which emphasizes the dignity of the individual that committed a criminal act (Brown, 2015).

Recent trends in juvenile justice have centered on reform and rehabilitation, but research on youth in the JJS has been largely limited to negative outcomes (i.e., future delinquency and mental health problems). This line of research has established several factors that prevent recidivism or delinquency including low levels of maternal hostility (Thomas et al., 2018), functional familial or peer relationships (Smith et al., 2016), high levels of school engagement (Li et al., 2011), and low levels of neighborhood disorder (Murray & Farrington, 2010). In many cases, researchers define lack of delinquency or mental health problems as indicators of positive development. However, experts argue that a lack of negative outcomes does not necessarily indicate the presence of positive outcomes (Fougere et al., 2015; Ryff & Singer, 2003). To promote positive development in youth involved in the JJS, it is necessary to study positive functioning in various biopsychosocial domains. For instance, positive development in youth with experience in the JJS can include developing satisfying relationships, working towards new goals, being actively engaged in extracurricular activities, and being hopeful for the future (Kern et al., 2016).

The current study has three overarching goals. First, to challenge the deficit narrative that is traditionally used when examining outcomes of youth involved in the JJS. Second, to determine whether ecological factors (e.g., maternal warmth, peer warmth, school bonding, neighborhood conditions, and procedural justice) are associated with positive development in youth involved in the JJS. Third, to disentangle the between- and within-person effects of

ecological factors on positive development. Understanding predictors of positive development for youth involved in the JJS can improve current JJS policies and interventions. Policies and interventions can become more holistic, and possibly more effective, by promoting positive outcomes in addition to preventing negative outcomes. The following review of the literature will summarize current knowledge on developmental outcomes of JJS involvement and will introduce an ecological perspective that will guide our examination of positive development for youth in the JJS.

Developmental Trends for youth involved in the JJS

Age-Crime Curve

Among the most consistent findings in the literature on delinquency is the association between age and crime, often referred to as the age-crime curve. This curve displays an increase in delinquent behavior in late childhood/early adolescence, a peak in mid-adolescence, and a steady decline beginning in late adolescence and into adulthood (Sampson & Laub, 2005). Ultimately, the age-crime curve suggests that the majority of youth who are involved in the JJS as adolescents can be categorized as “adolescent-limited,” referring to the fact that their delinquent behavior decreases over time. However, there are some individuals who engage in delinquent behavior consistently throughout their life, and these individuals can be categorized as “life-course-persistent.”

Although the age-crime curve has been consistently replicated in criminology (Hirschi & Gottfredson, 1983), the mechanisms underlying the curve are not well understood (Loeber, 2012). Some scholars propose that this trend is due to individual characteristics such as a shrinking maturity gap (i.e., the difference between biological maturity and sociocultural

agency; Motiff, 1993) or the development of higher-stage moral reasoning throughout adolescence (Jurkovic & Prentice, 1977; Lee & Prentice, 1988; Taylor & Walker, 1997). Other theories emphasize the influence of relationships. For instance, Social Mimicry Theory suggests that adolescents desire the power and privilege that their antisocial peers are seen to have, thus they engage in antisocial behavior themselves (Motiff, 1993). Patterson's social-interactional theory asserts that poor parenting leads to failure to conform to societal values, which in turn leads to delinquency (Patterson et al., 1990). Still, others focus on the events throughout life that serve as pivotal developmental milestones such as getting married or losing touch with deviant peers as an explanation for the age-crime curve (Laub & Sampson, 2001). The vast array of factors that predict the desistance of crime has encouraged experts in the field to use an ecological perspective when studying youth involved in the JJS.

Positive Developmental Outcomes and the JJS

Positive development is a relatively new domain of psychology. For the past 20 years, the burgeoning literature on positive development has been marked by attempts to operationalize terms such as “resilience”, “adaptive development”, “flourishing”, and “well-being”. A popular framework that can be used to define well-being was introduced by Seligman and colleagues in 2011 and is referred to as “PERMA”, which stands for Positive emotion, Engagement, Relationships, Meaning, and Accomplishments (Forgeard et al., 2011). When combined, these five dimensions give rise to a higher-order construct of well-being that predicts factors such as life satisfaction, vitality, and physical health (Kern et al., 2016). Therefore, the five dimensions outlined in PERMA are often referred to as building blocks of well-being. In the years since this framework was introduced, there has been considerable

debate regarding the utility of PERMA (Goodman et al., 2018). Ultimately, scholars agree that the PERMA framework could be improved, but is useful for conceptualizing well-being in adults (Donaldson et al., 2020; Seligman, 2018).

The literature on positive development in youth involved in the JJS has been limited in two major ways. First, there is a tendency to presume that youth who do not get rearrested after some duration of time are exhibiting positive development (e.g., Born et al., 1997; Todis et al., 2001). Although avoiding re-arrest is certainly an element of positive development in this population, it is also necessary to consider the dimensions outlined in Seligman's PERMA theory. Secondly, when appropriate measures of positive development are used, they are typically considered as a predictor of re-arrest rather than as a developmental outcome (Fougere et al., 2015). As a result, there are many studies that find associations between characteristics of positive development and lack of re-offending (e.g., Anderson et al., 2015; Benda et al., 2002; Gendreau et al., 1979). However, there is a noticeable dearth of studies that examine predictors of positive development in this population.

Adolescents involved in the JJS often express hope that their futures will be defined by high-quality relationships, academic engagement, and positivity (Maschi et al., 2011). To help these youth achieve their goals, academics must avoid treating youth involved in the juvenile justice system only as “criminals,” “delinquents,” or “problems” that need to be addressed. Rather, researchers must take a holistic approach that involves acknowledging the risks of youth involved in the JJS while simultaneously examining and enhancing the strengths and agency of these youth. To begin advancing this research agenda, researchers should examine

the full scope of outcomes that are of importance to youth in the juvenile justice system (i.e., positive developmental outcomes).

Ecological Systems Theory

Ecological Systems Theory was introduced in 1979 by Dr. Urie Bronfenbrenner and has been embraced by scholars studying juvenile justice. This framework accounts for the various systems that influence a child's development and the relations between systems. In particular, Bronfenbrenner (1979) conceptualized five systems that influence individual characteristics, spanning from systems defined by frequent and direct interactions (i.e., the microsystem) to systems defined by large events that change the trajectory of an individual's life (i.e., the chronosystem). Based on prior research that uses ecological factors to predict juvenile arrest, we will be using this framework in our examination of the well-being of adolescents with JJS involvement.

Microsystem

The microsystem encompasses direct interactions between individuals and those in their immediate environment, such as parents and peers (Bronfenbrenner, 1979). The relationships between individuals and people in their microsystem are reciprocal; parents/peers influence an individual, and that individual simultaneously influences their parents/peers. Former interactions with those in an individual's microsystem inform the overall quality of their interpersonal relationships. Adolescence is a period marked by major development and change, and the nature of relationships will change depending on how family and peers adapt to new characteristics that emerge during this time (Collins & Laursen, 2013).

As adolescents begin to take on more adult-like roles and responsibilities, the nature of the parent-child relationship changes. Although adolescents are focused on defining and asserting their individuality, they still rely on their parents for support and guidance (Maccoby & Martin, 1983; McGrellis et al., 2000). Dekovic and colleagues (2003) demonstrated that characteristics of parent-child relationships, such as poor attachment quality, are associated with antisocial behavior in adolescence. In addition to directly influencing the adolescent, parent-child relationships may moderate the impact of other environmental factors. For instance, Garber and Little (1999) found that adolescents with higher quality familial relationships demonstrated fewer symptoms of psychopathology when experiencing high levels of school stress. Taken together, these findings suggest that higher-quality parent-child relationships can facilitate higher levels of well-being in adolescents.

Parental incarceration (PI) poses a significant risk to developing high-quality parent-child relationships. Nearly two-thirds of youth involved in the JJS report that a family member was incarcerated during their childhood, and often this family member is their parent (Perez et al., 2018). Consequences of PI include the physical removal of a parent, reduced household income (Nesmith & Ruhland, 2008), and increased stress on the non-incarcerated caregiver (Mackintosh et al., 2006). Thus, PI has the potential to harm the relationships between the child and *both* parents, not just the parent who was incarcerated. Further, children who experience PI are more likely to experience other ACEs, especially ACEs related to household dysfunction, abuse, and neglect (Scott et al., 2013).

As a child reaches adolescence, they begin to spend more and more time with their peers (Lam et al., 2014). Peer relationships during this stage of development are extremely

dynamic (Connolly et al., 2000; Ennet & Bauman, 1996; Ryan, 2001) and exist within a broader social network that has the potential to influence the dyadic relationship. High-quality, positive peer relationships are associated with higher levels of school satisfaction and psychological well-being (Bukowski et al., 2009). However, the influence of high-quality friends is not always beneficial. In some cases, high-quality friendships can lead to co-rumination, which is associated with anxiety and depression (Rose et al., 2007), or to antisocial behaviors such as substance abuse (Mrug et al., 2011).

The influence of peers can take many forms. In some cases, it is direct and purposeful (e.g., “peer pressure”), but in many cases influence is less obvious and is based on the reinforcement of group norms (e.g., normative regulation). Group norms are regulated through everyday interactions, especially in conversations marked by gossiping and teasing (Paxton et al., 1999). Peer influence can be beneficial. For instance, van Hoorn and colleagues (2016) found that prosocial peer feedback was associated with more prosocial behavior in adolescents. Conversely, peers also have the potential to encourage risky behavior such as smoking and drinking (Simmons-Morton, 2002). Engaging with delinquent peers is a strong predictor of becoming involved in the JJS (e.g., Agnew, 2003; Perez et al., 2018; Patterson, 1990), which may reflect that delinquent peers influence each other to continue behaving antisocially.

Although reducing engagement with delinquent peers is associated with declines in self-reported criminal behavior (Copp et al., 2020), this reduced contact may have negative impacts on other domains of an adolescent’s life. Feeling connected to peers, regardless of whether peers are delinquent, is essential for the well-being of adolescents (McGraw et al., 2008). With this in mind, adolescents who reduce interactions with delinquent peers should attempt to

increase interactions with non-delinquent peers. Changing peer groups allows an individual to continue experiencing connection while simultaneously changing their social identity so that it no longer hinges on antisocial behavior (Copp et al., 2020).

Mesosystem

The microsystems in which an individual participates are often linked. There are several ways that microsystems can interact: parents interact with friends, friends interact with siblings, siblings interact with parents, etc. The interactions between microsystems are encompassed by the mesosystem. An adolescent may experience more stress when microsystems are in conflict. Indeed, a study conducted by Barber and Delfabbro (2000) found that parents' dispositions toward their child's friends predicted adolescent psychological adjustment. When parents reported that they knew their child's friends well and got along with them, their child was more likely to report positive psychological adjustment (Barber & Delfabbro, 2000). Adolescents who are more connected to the community are more likely to have parents and friends who have positive relationships with each other (Smith et al., 2016). Many youths involved in the JJS have delinquent friends. The effect of delinquency on parent-friend relationships is unclear. Parents typically disapprove of delinquency, and thus it is expected that peers who engage in delinquency would have worse relationships with parents than peers who do not engage in delinquency (Warr, 1993).

Exosystem

The exosystem is composed of societal structures that function independently of the individual but influence the context in which a child develops (e.g., school, neighborhood, juvenile justice system). Adolescents have limited control over their exosystem. For the most

part, adolescents cannot decide what neighborhood to live in, what school to attend, or the policies of the local JJS. The effects of the exosystem are often indirect. For example, supportive school climates improve a student's academic achievement by making that student feel more engaged at school (Wang & Holcombe, 2010). Exosystem-level factors can provide contexts that promote or hinder an adolescent's positive development.

Adolescents spend more time at school than any other location outside of the home. Experiences at both the classroom and school levels have the potential to impact adolescent development. In the classroom, high-quality student-teacher relationships can promote self-esteem, academic achievement, and overall well-being (Deci & Ryan, 1985; Roeser et al., 1996). However, when adolescents enter high school there is less opportunity to engage with teachers and form positive relationships (Bryk et al., 1989). At the school level, adolescents are influenced by policies and climate. For instance, Figueira-McDonough (1986) compared the outcomes of students in two high schools that served the same community and had similar student demographics. One school solely emphasized the goal of academic achievement, and the other emphasized multiple goals, such as learning motivation, maturation, and vocational training. The school with a broader conception of success had lower levels of delinquency (Figueira-McDonough, 1986).

Outside of school, adolescents rely on their neighborhood to provide social interactions due to their limited mobility. Adolescents from neighborhoods marked by low socioeconomic status (SES) are less likely to graduate high school (Leventhal & Brooks-Gunn, 2000), more likely to experience psychological distress (Conger et al., 1994), and more likely to engage in delinquency (Ludwig et al., 2001; Sampson & Groves, 1989). Neighborhood characteristics have

also been linked to relationship quality. Adolescents who live in neighborhoods with high violence and disorder are more likely to have parent-child relationships characterized by high levels of aggression and low levels of warmth (Earls, 1994). As mentioned previously, this style of parenting may have negative consequences for adolescent developmental outcomes.

The JJS is not a part of every adolescent's exosystem, but those who are involved in the JJS are strongly influenced by its policies and culture, which differ across states and jurisdictions. Cauffman and colleagues (2021) demonstrated that formal processing (i.e., sentenced before a judge) of adolescents results in worse developmental outcomes, such as being less likely to graduate high school and more likely to engage in violence, than informal processing (i.e., diverted to community service). Procedural justice, a term that refers to an individual's perception of fairness of the legal system, can also influence those in the JJS. In a study of 94 girls in the JJS, Tatar and colleagues (2012) found that participants who had higher perceptions of procedural *injustice* were more likely to report higher levels of depressive symptomatology and substance use. Justice systems can promote procedural justice by giving adolescents the chance to participate in the process, providing transparent reasoning for decisions, treating all individuals with dignity, and ensuring that the motives of decision-makers are trustworthy (Procedural Justice, n.d.).

Macrosystem

The macrosystem contains the cultural context that an adolescent lives in (Bronfenbrenner, 1979). This includes factors such as socio-economic status (SES), systemic racism, and laws, which each influence the financial, social, and political contexts in which an individual develops (Newman & Newman, 2020). Macrosystem-level variables can inform the

interpretation of effects at the exosystem or microsystem levels. For example, associations between school climate and delinquency should be interpreted with the knowledge that Black students who engage in delinquency are more likely to face formal punishment than White students who engage in delinquency (Riddle & Sinclair, 2019). Therefore, it is essential to recognize that measurements of delinquency in schools are intertwined with systemic racism.

Low SES has been shown to negatively influence mental health, physical health, educational achievement, and general family functioning (American Psychological Association, 2010). Additionally, low SES predicts involvement in delinquency during adolescence (Bjerk, 2007). Racism has similar influences on development. The stress of everyday discrimination and systemic racism is detrimental to the physical and mental health of minorities (Trent et al., 2019). Further, minorities are more likely to experience poverty, potentially compounding the effects of low SES and racism (APA, 2017). As mentioned previously, youth involved in the JJS are more likely to come from low-SES backgrounds and to identify as minorities, which puts them at a higher risk for negative outcomes. Some of the deleterious impacts of racism can be attenuated if the youth's community is composed of a high number of other individuals who share their racial identity (Astell-Burt et al., 2012). Social resources are also essential to limiting the negative effects of low-SES status on adolescents (Cicognani et al., 2008; Sweeting & Hunt, 2014). Despite risks to positive development, many adolescents who experience systemic racism or come from low-SES backgrounds display high levels of resilience.

Chronosystem

The chronosystem refers to life transitions and historical events that influence the development of an individual over the course of their life (Bronfenbrenner, 1979). This can

include normative life transitions (e.g., learning how to drive, starting college) or non-normative life transitions (e.g., death of a parent, COVID-19 pandemic). There is a broad range of transitions that adolescents may experience and each can influence an adolescent in unique ways. Generally, major life changes cause some level of stress, and adolescents who are well-equipped to handle this stress may avoid the decreased well-being that is often observed during transitions (Brown, 2006).

Youth involved in the JJS experience unique life events, such as arrest, sentencing, and disruptions to their education. This may result in a myriad of stressors including financial implications, harm to intimate relationships, and falling further behind their peers at school. Relations between an adolescent and other systems outlined by Bronfenbrenner (1979) should be interpreted in light of events occurring in the chronosystem. For instance, an adolescent who is arrested may experience salient racial discrimination in the legal system (macrosystem), less support from their school (exosystem), or more approval from delinquent peers (microsystem).

Between and Within Person Analyses

Currently, the literature on youth involved in the JJS primarily examines between-person rather than within-person effects. Between-person effects demonstrate general differences between people. For example, adolescents who come from homes with high levels of family conflict are more likely to engage in delinquency than adolescents who come from homes with low levels of family conflict (Haas, 2004). Within-person effects examine changes within an individual. For example, an adolescent could have a baseline level of family conflict in their

home. A researcher might be interested in examining how increased family conflict, relative to an individual's baseline, affects that individual's likelihood to engage in delinquency.

One reason for the focus on between-person effects in the literature is the reliance on cross-sectional data, which is not well-suited for examining within-person effects (Molenaar, 2004). There are several methodological challenges in obtaining longitudinal data for adolescents, including the fact that adolescents are highly mobile and experience a large number of transitions as they enter young adulthood (Faden et al., 2004). The importance of within-person processes is becoming increasingly recognized across psychology (Curran & Bauer, 2011). For youth involved in the JJS, within-person processes may be particularly relevant for interventions aimed at reducing delinquency or increasing well-being within individuals. Therefore, the present study will attempt to disentangle between- and within-person effects of our predictors on well-being.

The Present Study

The review of the current literature emphasizes that significant strides have been made toward understanding how the environment a child grows up in influences their delinquent tendencies. However, less progress has been made towards understanding how these environmental factors influence positive development in youth involved in the JJS. The current study will examine the well-being of adolescents involved in the juvenile justice system over five years using an ecological perspective. We will assess between- and within-participant changes in well-being across the study period, and whether these changes in well-being are related to changes in parental warmth, peer warmth, school bonding, neighborhood disorder, or procedural justice.

To address our study aims, we will be using data from the Crossroads Study, a longitudinal, multi-site study of adolescent male first-time offenders (see <https://sites.uci.edu/crossroadsinfo/> for more detail). The Crossroads study has two primary aims; to examine how the JJS influences developmental outcomes and to identify individual characteristics that impact how involvement in the JJS affects an individual. There have been several publications from this dataset that assess factors that predict offending behavior (e.g., Beardslee et al., 2019; Cauffman et al., 2021; Cavanaugh & Cauffman, 2017; Matlasz et al., 2019; Robertson et al., 2021) and are associated with the mental health of youth involved with the JJS (e.g., Shulman et al., 2021; Thomas et al., 2017a; Thomas et al., 2017b). The current study will complement these studies and help meet the Crossroad study aims by examining positive developmental outcomes (i.e., well-being using the PERMA framework). Our hypotheses are pre-registered with the Center for Open Science (see: osf.io/gb2rz).

Hypotheses

(H1a) At baseline, higher levels of maternal warmth will be associated with higher levels of well-being.

(H1b) When individuals have higher maternal warmth than would be expected from the maternal warmth trajectory they follow, they will experience a subsequent increase in well-being.

(H2a) At baseline, higher levels of peer warmth will be associated with higher levels of well-being.

(H2b) When individuals have higher peer warmth than would be expected from the peer warmth trajectory they follow, they will experience a subsequent increase in well-being.

(H3a) At baseline, higher levels of school bonding will be associated with higher levels of well-being.

(H3b) When individuals have higher school bonding than would be expected from the school bonding trajectory they follow, they will experience a subsequent increase in well-being.

(H4a) At baseline, higher levels of neighborhood disorder will be associated with lower levels of well-being.

(H4b) When individuals have higher neighborhood disorder than would be expected from the neighborhood disorder trajectory they follow, they will experience a subsequent decrease in well-being.

(H5a) At baseline, higher levels of procedural justice will be associated with higher levels of well-being.

(H5b) When individuals have higher procedural justice than would be expected from the procedural justice trajectory they follow, they will experience a subsequent decrease in well-being.

Method

Participants

Participants were 1,216 male first-time offenders aged 13-17 at baseline. The largest proportion of participants were 16 years of age at baseline (25.5%), followed by 15 years of age (24.7%), 17 years of age (21.3%), and 14 years of age (17.3%), and 13 years of age (11.2%). At the last measurement, participants ranged in age from 18 to 22. Participants were arrested for the first time in Orange County, California (CA, $n = 532$), Philadelphia, Pennsylvania (PA, $n = 533$) or Jefferson Parish (New Orleans), Louisiana (LA, $n = 151$). The majority of participants arrested

in CA were Hispanic (78.4%). In PA and LA, the majority of those arrested were Black (65.3% in PA, 63.6% in LA). Overall, the largest proportion of participants was Hispanic (45.8%), followed by Black (36.9%), White (14.8), Other Race/Ethnicity or non-disclosed (2.1%), and Native American (0.3%). Most offenses were non-violent (81.8%), with nearly half being arrested for property crimes (48.4%) and nearly a quarter being arrested for drug crimes (22.5%).

Recruitment A research associate was notified about adolescents with pending intake hearings via court personnel at each site and determined whether they were eligible to participate. Males aged 13-17 with no prior offenses and current charges with a .35 to .65 probability of formal versus informal processing fit the inclusion criteria. After the disposition had been imposed, eligible adolescents were asked to participate, and informed consent was obtained from a parent/guardian for the adolescents' participation.

Attrition

On average, 96.73% of participants remained in the study from one time point to the next, with the lowest retention rate being 93.97% between Time 4 and Time 5. Overall, 84.62% of participants remained in the study over the five-year study period. Chi-square Tests of Independence were used to determine whether attrition was associated with race, study site, age at baseline, or offense category. All chi-square results were non-significant, indicating that attrition was not related to any of the previously mentioned variables. Full information maximum likelihood was used to address missing data, so the analytic sample remained at 1,216 participants.

Procedure

Interview Training All interviewers participated in a web-based training curriculum that included protocols for interviewing participants, information about recruitment and participant retention, obtaining consent, and maintaining confidentiality.

Interviews Baseline interviews were conducted after the disposition. Follow-up interviews were conducted 6 months, 12 months, 18 months, 24 months, 30 months, 36 months, 48 months, and 60 months after baseline. For the purposes of the current study, we used data obtained at baseline, 12 months, 24 months, 36 months, 48 months, and 60 months. At the baseline interview, participants were compensated \$50. For each successive interview, compensation increased by \$15. Each interview was conducted in a secure community location (e.g., at participants' homes) or in secure residences. Laptops were used for data entry, which allowed for anonymous keypad data entry during sensitive sections of the interview. During each interview, participants were asked to complete measures regarding a variety of factors including antisocial outcomes, cognitive factors, contextual factors, demographic factors, educational factors, experience with legal entities, individual characteristics, legal factors, physical and mental health, social media, social relationships, and young adult factors. The full codebook for the Crossroads Study can be found at:

<https://sites.uci.edu/crossroadsinfo/codebook/constructs/>.

Measures

Well-being Well-being was measured using the 20-item EPOCH questionnaire (Kern et al., 2016). The EPOCH questionnaire utilizes the PERMA framework of well-being but is adjusted to be appropriate for adolescent participants. This measure consists of five subscales of well-being: Engagement (e.g., "When I do an activity, I enjoy it so much I lose track of time"),

Perseverance (e.g., "I finish whatever I begin"), Optimism (e.g., "I am optimistic about my future"), Connectedness (e.g., "There are people in my life who really care about me"), and Happiness (e.g., "I feel happy"). Participants use a Likert scale to indicate how much each statement describes them, ranging from (1) "Almost Never" to (5) "Almost Always." To compose an overall positive development score, the scores for each subscale are averaged. Higher scores indicate a higher level of well-being. In the current study, McDonald's omega for well-being and all following measures was calculated using the OMEGA macro in SPSS (Hayes & Coutts, 2020). The smallest McDonald's omega was .91 (baseline) and the largest was .94 (48-month follow-up). McDonald's omega for well-being and every other measure at each time point is displayed in Table 3. The EPOCH measure of well-being is included in Appendix A.

Relationship Warmth Relationship warmth and hostility between the youth and their mother, father, and peers were measured using a 21-item questionnaire, adapted from Conger et al. (1994), that assesses the affective tones of the participants' relationships (see Appendix B). Of these, 10-items assess relationship warmth (e.g., "How often do they help you do something that was important to you?") and 11-items assess relationship hostility (e.g., "How often do they threaten to hurt you physically?"). Responses range from (1) "Always" to (4) "Never." Higher scores on the relationship warmth subscale indicate lower levels of warmth, and higher scores on the relationship hostility subscale indicate lower levels of hostility. Relationship warmth variables were reverse coded so that in the current study, higher scores on the relationship warmth subscale indicate higher levels of warmth. The smallest McDonald's omega was .90 (baseline) and the largest was .93(48-month follow-up) across time points. The smallest

McDonald's omega for peer warmth was .87 (baseline) and the largest was .91 (60-month follow-up) across time points.

School Bonding School bonding was measured using a 10-item self-report questionnaire, adapted from Eccles and colleagues (1998). The measure for school bonding is included in Appendix C. This questionnaire measures the participants' opinions of teachers and school (e.g., "Most of my teachers treat me fairly," "I wish I could drop out of school"). Participants indicate how much they agree with each statement, with choices ranging from (1) "Strongly Disagree" to (5) "Strongly Agree." For the purposes of the current study, we used the overall school bonding score. Higher scores indicate more positive feelings about teachers and school. The smallest McDonald's omega was .79 (60-month follow-up) and the largest was .83 (25-month follow-up).

Neighborhood Conditions Neighborhood conditions were assessed using a 21-item questionnaire adapted from Elliot et al., (1996). The measure is included in Appendix D. Adolescents were asked about the presence of physical (e.g., "empty beer bottles on the streets or sidewalks") and social (e.g., "adults fighting or arguing loudly") disorganization or disorder that is present in their neighborhood. Participants indicate how often these items are present in their neighborhood, ranging from (1) "Never" to (4) "Often." Higher scores indicate higher levels of neighborhood disorder. The smallest McDonald's omega for neighborhood conditions was .94 (baseline) and the largest was .97 (60-month follow-up).

Procedural Justice Procedural justice was measured using a 55-item questionnaire adapted from Casper et al. (1998), which can be broken down into 4 subscales: Police (e.g., "The police were honest in the way they handled this case"), Judge (e.g., "The judge made up his/her mind

prior to receiving any information about the case"), Legitimacy (e.g., "I feel people should support the police"), and Legal Cynicism (e.g., "Laws are meant to be broken"). This measure is included in Appendix E. Participants indicated how much they agreed with each statement, ranging from (1) "Strongly Disagree" to (5) "Strongly Agree." For the purposes of our study, we will use a composite Procedural Justice score, with higher scores indicating a greater feeling of procedural justice. The smallest McDonald's omega for procedural justice was .76 (24-month follow-up) and the largest was .81 (60-month follow-up).

Plan of Analyses

To test our hypotheses, we used multivariate latent curve models with structured residuals (LCM-SR; Curran et al., 2014), which allowed us to disentangle between- and within-person change over time. The LCM-SR model is an extension of the Random-Intercept Cross-Lagged Panel Model (RI-CLPM), which also allows for the disentanglement of between- and within-person effects (Hamaker et al., 2015). The LCM-SR and RI-CLPM differ in that the LCM-SR includes a random slope and a random intercept to model between-person effects, whereas the RI-CLPM only includes a random intercept. The inclusion of a random slope is advantageous when the growth trajectory of the process that is being modeled is expected to vary amongst individuals. We expected the growth trajectories for each of our variables to vary among individuals. For example, some individuals may increase in their levels of well-being over the duration of the study, while other individuals' well-being may decrease or remain stable. Therefore, we opted to use LCM-SR rather than RI-CLPM.

Within each model that was fit, we created latent growth factors (i.e., random intercept and random slope) for each variable (e.g., maternal warmth and well-being). Factor loadings for

the random slope were constrained to be linear (i.e., 0, 1, 2, 3, 4). The latent factors were allowed to covary to account for between-person effects. Age at baseline was loaded onto to each latent factor to control for age related differences. The within-person effects were measured by using “structured residuals” which were created by transferring residual variance of observed variables to latent factors. Autoregressive stability was modeled by allowing a residual of variable X at time T to be regressed on variable X at time T-1. Cross-lagged paths were included in which variable Y at time T was regressed on variable X at time T-1. Taken together, these paths allow us to model an individual’s trajectory of X, how they deviate from that trajectory at a given time-point, and whether that deviation results in a deviation from their trajectory on Y.

Figure 1 displays a conceptual diagram of the LCM-SRs that will be fit for each hypothesis. All analyses were conducted in *MPlus 8.3* (Muthén & Muthén, 1998-2018). Parameters were estimated using maximum likelihood. A change in comparative fit index (CFI) equal to or greater than .01 was used to indicate a significant change in model fit, as suggested by Cheung & Rensvold (2002).

Missing Data

Overall, 81.4% of the data was complete. Patterns of missing data were analyzed for all study variables. The study site was associated with missing data for baseline measurements of well-being. Further evaluation determined that during the baseline interviews, participants at the Pennsylvania site were more likely to be given an interview version that did not include the well-being measure. Additionally, missing data for school orientation during each time point (except baseline) was significantly associated with age. As participants who were older at

baseline graduated from or dropped out of high school over the study period, they were no longer asked about their school orientation. All other missing data appeared to be missing at random. Missing data was be handled using FIML.

Results

Descriptive Statistics & Bivariate Correlations

Table 1 displays the means and standard deviations of each study variable at each time point. Table 2 displays the bivariate correlations of each study variable. Longitudinal measurement invariance was tested for each measure using confirmatory factor analysis. The following measures displayed metric invariance, suggesting that the same construct was measured across time: well-being (CFI = .95), maternal warmth (CFI = .95), peer warmth (CFI = .94), and procedural justice (CFI = .98). Neighborhood conditions and school bonding did not display metric invariance, thus the results from Models 3 and 4 should be interpreted with caution.

Latent growth models were fit to determine whether measure values changed over time. The following variables gradually increased over time (i.e., had significant and positive latent slopes): well-being ($b = .07, p < .001$), maternal warmth ($b = .03, p < .001$), peer warmth ($b = .04, p < .000$), and school bonding ($b = .03, p = .002$). Neighborhood disorder gradually decreased over time ($b = -.02, p < .001$). Procedural justice remained relatively constant over time ($b = -.00, p = .24$).

Model 1: The Relation Between Maternal Warmth & Well-Being

Model Building First, an unconstrained model was built in which all paths were allowed to vary. This model had a good fit, CFI = .99 Next, autoregressive and cross-lagged paths were

constrained to be invariant across time. The fit of the constrained model was not significantly worse than the unconstrained model ($\Delta\text{CFI} = .006$), therefore we retained the constrained model. Model fit indices for each model are displayed in Table 4. The effects are reported in standardized terms, and therefore may differ even when paths are constrained.

Unstandardized parameter estimates and standard errors are reported in Table 5.

Between-Person Effects

The means and variances of the random slope were significant for both maternal warmth ($\beta = -2.52, p < .001; s^2 = .942, p < .001$) and well-being, ($\beta = 1.59, p = .01; s^2 = .99, p < .001$), indicating that maternal warmth decreased linearly over time, well-being increased linearly, and there was significant individual variability in rate of change for both constructs. The mean and variances for the random intercept were also significant for both maternal warmth ($\beta = 7.84, p < .001; s^2 = .99, p < .001$) and well-being ($\beta = 8.15, p < .001; s^2 = .98, p < .001$), indicating that there were significant individual variability in baseline levels of these constructs. The covariance between the intercept and slope for maternal warmth was significant ($\beta = -.23, 95\% \text{ CI } [-.41, -.04], p = .01$) indicating that higher initial levels of maternal warmth were associated with a smaller decline in warmth over time. Higher initial levels of well-being were associated with a smaller increase in well-being over time, $\beta = -.21, 95\% \text{ CI } [-.41, -.004], p = .04$. Participants who reported higher baseline levels of maternal warmth were more likely to report higher baseline levels of well-being, $\beta = .49, 95\% \text{ CI } [.40, .57], p < .001$. However, changes in maternal warmth over time were not significantly associated with changes in well-being, $\beta = .09, p = .43$.

Participants who were older at baseline were more likely to have lower baseline maternal warmth scores ($\beta = -.12$, 95% CI $[-.19, -.05]$, $p < .001$), but higher well-being scores ($\beta = .13$, 95% CI $[.05, .21]$, $p < .001$) than younger participants. Older participants were also more likely to have a greater maternal warmth slope ($\beta = .32$, 95% CI $[.17, .46]$, $p < .001$), suggesting that participants who were older at baseline reported a steeper increase in maternal warmth.

Within-Person Effects

Autoregressive Effects. Across all lags, maternal warmth was significantly predicted by prior maternal warmth at the .001 level of significance. Standardized coefficients for maternal warmth autoregressive effects ranged from .169 (Baseline to 1-year follow-up) to .197 (1-year follow-up to 2-year follow-up). Additionally, across all lags, well-being was significantly predicted by prior well-being scores at the .001 level of significance. Standardized coefficients for well-being autoregressive effects ranged from .158 (Baseline to 1-year follow-up) to .185 (4-year follow-up to 5-year follow-up).

Cross-lagged Effects. Across all lags, well-being was predicted by prior maternal warmth at the .001 level of significance. Standardized cross-lagged coefficients for maternal warmth predicting well-being ranged from .078 (Baseline to 1-year follow-up) to .091 (4-year to 5-year follow-up). Additionally, across all lags, maternal warmth was predicted by the prior well-being at the .01 level of significance. Standardized cross-lagged coefficients for well-being predicting maternal warmth ranged from .059 (Baseline to 1-year follow-up) to .068 (2-year to 3-year follow-up and 4-year to 5-year follow-up).

Model 2: The Relation Between Peer Warmth & Well-Being

Model Building The unconstrained model fit well, CFI = .987. The constrained model, in which autoregressive and cross-lagged effects were invariant across time, was not significantly worse than the unconstrained model ($\Delta\text{CFI} = .005$, see Table 4), therefore we retained the constrained model. Unstandardized parameter estimates are reported in Table 6.

Between-Person Effects

The means and variances of the random slope were significant for both peer warmth ($\beta = 2.03, p = .008; s^2 = .99, p < .001$) and well-being, ($\beta = 2.41, p = .005; s^2 = .99, p < .001$), indicating that peer warmth and well-being both increased linearly over time and significant individual variability in rate of change for both constructs. The means and variances of the random intercept were also significant for both peer warmth, ($\beta = 5.43, p < .001; s^2 = .98, p < .001$) and well-being ($\beta = 8.15, p < .001; s^2 = .99, p < .001$), indicating significant individual variability in baseline levels of both constructs. Initial levels of peer warmth were not associated with peer warmth slope, $\beta = -.09, p = .38$. Initial levels of well-being were not associated with well-being slope, $\beta = -.15, p = .28$. Baseline levels of well-being were significantly associated with baseline levels of peer warmth, $\beta = .52, 95\% \text{ CI } [.44, .60], p < .001$. However, the slopes of peer warmth and well-being were not significantly related, $\beta = -.06, p = .78$. Higher well-being at baseline was significantly associated with a greater peer warmth slope ($\beta = .22, 95\% \text{ CI } [.04, .40], p = .02$), suggesting that participants who had higher well-being at baseline were more likely to report a steeper increase in peer warmth. Older participants were more likely to report higher levels of both peer warmth ($\beta = .10, 95\% \text{ CI } [.02, .18], p = .01$) and well-being ($\beta = .12, 95\% \text{ CI } [.04, .20], p = .003$), and have a smaller peer-warmth slope, $\beta = -.13, 95\% \text{ CI } [-.25, -.00], p = .043$.

Within-Person Effects

Autoregressive Effects. Across all lags, peer warmth was significantly predicted by prior peer warmth at the .001 level of significance. Standardized coefficients ranged from .15 (Baseline to 1-year follow-up) to .16 (4-year to 5-year follow-up). Additionally, across all lags, well-being scores were predicted by prior well-being at the .001 level of significance. Standardized coefficients for well-being autoregressive effects ranged from .16 (Baseline to 1-year follow-up) to .19 (1-year to 2-year follow-up and 4-year to 5-year follow-up).

Cross-lagged Effects. Across all lags, well-being was predicted by prior peer warmth at the .01 level of significance. Standardized cross-lagged coefficients for peer warmth predicting well-being ranged from .06 (Baseline to 1-year follow-up) to .07 (4-year to 5-year follow-up). Additionally, across all time points (except baseline), peer warmth was predicted by the previous time point well-being score at the .001 level of significance. Standardized cross-lagged coefficients for well-being predicting peer warmth ranged from .11 (3-year to 4-year follow-up) to .12 (1-year to 2-year follow-up).

Model 3: The Relation between School Bonding & Well-Being

Model Building Because of the large amount of missing data on school bonding, the minimum covariance coverage had to be reduced from the default (.10) to .09 to converge. Muthén and colleagues (2016) suggest that FIML is an appropriate method to handle missing data when covariance coverage is greater than .06, therefore we did not change our method of handling missing data for this model. The constrained model did not fit significantly worse than the unconstrained model ($\Delta\text{CFI} = .005$, see Table 4), so we retained the constrained model.

Between-Person Effects

The means and variances of the random slope were significant for well-being, ($\beta = 1.81$, $p = .04$; $s^2 = .99$, $p < .001$), indicating that levels of well-being increased linearly over time and there was individual variability in the rate of change. The parameter estimates and variances of the random slope were not significant for school bonding ($\beta = -7.70$, $p = .43$; $s^2 = .28$, $p = .87$), likely because the amount of missing data resulted in high standard errors. The means and variances of the random intercept were significant for both school bonding ($\beta = 10.40$, $p < .001$; $s^2 = .99$, $p < .001$) and well-being ($\beta = 7.55$, $p < .001$; $s^2 = .99$, $p < .001$), indicating significant individual variability in baseline levels of both constructs. Initial levels of school bonding were not associated with school bonding slope, $\beta = -.06$, 95% CI [-1.77, 1.65], $p = .94$. Initial levels of well-being were significantly associated with well-being slope ($\beta = -.34$, 95% CI [-.50, -.17], $p < .001$), such that participants who reported higher levels of initial well-being had a smaller well-being slope. Participants who reported higher levels of baseline school bonding were more likely to report higher initial levels of well-being, $\beta = .58$, 95% CI [.43, .69], $p < .001$. However, the slopes of school bonding and well-being were not significantly related, $\beta = .77$, 95% CI [-5.59, 7.13], $p = .81$. Older participants reported higher levels of well-being at baseline, $\beta = .115$, 95% CI [.04, .19], $p = .003$. Other between-person effects were non-significant (see Table 7).

Within-Person Effects

Autoregressive Effects. Across all lags, school bonding was significantly predicted by prior school bonding at the .001 level of significance, with standardized coefficients ranging from .216 to .253. Well-being was also significantly predicted by prior well-being across all lags at the .001 level of significance, with standardized coefficients ranging from .149 to .185, see Table 7.

Cross-lagged Effects. Across all lags, well-being was predicted by prior school bonding at the .05 level, with coefficients ranging from .05 to .06. School bonding was not significantly predicted by prior well-being.

Model 4: The Relation between Neighborhood Disorder & Well-Being

Model Building The unconstrained model fit well, CFI = .99. The constrained model, in which autoregressive and cross-lagged paths were set to be invariant across time, was not significantly worse than the unconstrained model ($\Delta\text{CFI} = .002$, see Table 4), therefore we retained the constrained model. Unstandardized parameter estimates are reported in Table 8.

Between-Person Effects

The means and variances of the random slope were significant for both neighborhood conditions ($\beta = 1.85, p = .003; s^2 = .97, p < .001$) and well-being, ($\beta = 7.75, p < .001; s^2 = .99, p < .001$), indicating that levels of disorder in the neighborhood and well-being both increased linearly over time and there was significant individual variability in rates of change. The means and variances of the random intercept were significant for both neighborhood conditions ($\beta = 3.72, p < .001; s^2 = .99, p < .001$) and well-being ($\beta = 7.75, p < .001; s^2 = .99, p < .001$), indicating significant individual variability in baseline levels of both constructs. Initial levels of neighborhood conditions were not associated with neighborhood conditions slope, $\beta = -.11$, 95% CI $[-.27, -.05]$, $p = .18$. Initial levels of well-being were significantly associated with well-being slope ($\beta = -.30$, 95% CI $[-.49, -.12]$, $p = .001$), such that participants who reported higher levels of initial well-being had a smaller well-being slope. Baseline levels of well-being were not significantly associated with baseline levels of neighborhood conditions, $\beta = .01$, 95% CI $[-.10,$

.12], $p = .91$. Additionally, the slopes of neighborhood conditions and well-being were not significantly related, $\beta = -.06$, 95% CI $[-.27, .40]$, $p = .72$.

Older participants had significantly higher levels of well-being at baseline ($\beta = .11$, 95% CI $[.03, .19]$, $p = .006$) and a smaller neighborhood disorder slope, $\beta = -.17$, 95% CI $[-.28, -.07]$, $p = .001$, suggesting that neighborhood disorder increased more slowly over time for older participants. Higher initial well-being scores were associated with smaller neighborhood disorder slopes ($\beta = -.17$, 95% CI $[-.33, -.00]$, $p = .049$), suggesting that participants who reported higher well-being at baseline had slower increases in neighborhood disorder.

Within-Person Effects

Autoregressive Effects. Across all lags, neighborhood disorder scores were significantly predicted by previous time point neighborhood disorder scores at the .001 level of significance. Standardized coefficients ranged from .20 (1-year to 2-year follow-up) to .23 (4-year to 5-year follow-up). Additionally, across all lags, well-being scores were significantly predicted by prior well-being scores at the .001 level of significance. Standardized coefficients for well-being autoregressive effects ranged from .16 (Baseline to 1-year follow-up) to .20 (4-year to 5-year follow-up, see Table 8).

Cross-lagged Effects. There were no significant cross-lagged effects of neighborhood disorder predicting well-being or well-being predicting neighborhood disorder.

Model 5: The Relation between Procedural Justice & Well-being

Model Building The unconstrained model fit well, CFI = .99. The constrained model was not significantly worse than the unconstrained model ($\Delta\text{CFI} = .005$, see Table 4), therefore we retained the constrained model. Unstandardized parameter estimates are reported in Table 9.

Between-Person Effects

The means and variances of the latent slope were significant for both procedural justice ($\beta = -2.17, p = .002; s^2 = .98, p < .001$) and well-being, ($\beta = 1.87, p = .03; s^2 = .99, p < .001$), indicating procedural justice decreased linearly over time, well-being increased, and there was significant individual variability in rates of change. The means and variances of the random intercept were significant for both procedural justice ($\beta = 13.91, p < .001; s^2 = .98, p < .001$) and well-being ($\beta = 7.75, p < .001; s^2 = .99, p < .001$), indicating significant individual variability in baseline levels of each construct. Initial levels of procedural justice were not associated with procedural justice slope, $\beta = -.16, 95\% \text{ CI } [-.34, .02], p = .07$. Initial levels of well-being were significantly associated with well-being slope ($\beta = -.30, 95\% \text{ CI } [-.49, -.11], p = .002$), such that participants who reported higher levels of initial well-being had a smaller well-being slope. Baseline levels of well-being were not significantly associated with baseline levels of procedural justice, $\beta = .05, 95\% \text{ CI } [-.08, .19], p = .44$. Additionally, the slopes of procedural justice and well-being were not significantly related, $\beta = .02, 95\% \text{ CI } [-.33, .38], p = .89$.

Older participants were more likely to report lower initial scores of procedural justices ($\beta = -.13, 95\% \text{ CI } [-.22, -.05], p = .002$) and higher initial scores of well-being, $\beta = .11, 95\% \text{ CI } [.03, .19], p = .005$. Older participants were also more likely to have a larger procedural justice slope, $\beta = .16, 95\% \text{ CI } [.04, .27], p = .007$, suggesting that individuals who were older at baseline reported larger increases in procedural justice.

Within-Person Effects

Autoregressive Effects. Across all time points, procedural justice was not predicted by the prior procedural justice. Participants' well-being score at each time point was significantly

predicted by their previous well-being score at the .001 level of significance. Standardized autoregressive coefficients ranged from .16 (Baseline to 1-year follow-up) to .20 (4-year to 5-year follow-up, see Table 9).

Cross-lagged Effects. There were no significant cross-lagged effects of procedural justice predicting well-being or well-being predicting procedural justice.

Discussion

Guided by Ecological Systems Theory (Bronfenbrenner, 1979), the present study examined the between- and within-person effects of proximal and distal factors on the well-being of youth involved in the JJS using LCM-SR models. Proximal experiences with maternal and peer warmth at the level of the microsystem had significant between and within-person effects on well-being. The relation between these constructs and well-being was reciprocal. School bonding, a more distal, exosystem level variable, had significant between and within-person associations with well-being, but the relation between constructs was unidirectional. Neighborhood conditions and procedural justice, two additional exosystem level constructs, were not significantly associated with well-being on a between or within-person level. This pattern of results generally aligns with Bronfenbrenner's Ecological Systems Theory (1979). As each ecological system gets broader, the effects are expected to become less direct. Prior research has found that mother-child relationships (Church et al., 2012), peer relationships (Walters, 2020), and school bonding (Liljeberg et al., 2011; Sprott et al., 2005) can prevent some negative outcomes for youth involved in the JJS. Our study extends this research by demonstrating that similar factors can promote well-being in these youth.

As predicted, individuals with higher initial levels of maternal warmth were more likely to have higher initial levels of well-being. Additionally, when an individual's maternal warmth was higher than predicted given their maternal warmth trajectory, their subsequent well-being was higher than expected given their well-being trajectory. This finding aligns with previous studies in which maternal warmth was predictive of positive outcomes including less anxiety and depressive symptoms (Butterfield et al., 2021), more prosocial behavior (Beckmeyer et al., 2020), and more problem-focused coping (Moran et al., 2018). Additionally, we found a bidirectional association between maternal warmth and well-being, such that earlier maternal warmth predicted subsequent well-being and vice versa. Although Bronfenbrenner's theory asserts that relationships between parents and children are reciprocal, few studies have been able to demonstrate this assertion due to small sample sizes or confounding of between and within-person effects. The reciprocal nature of maternal warmth and well-being suggests that increases in maternal warmth at one time could have cascading effects on the well-being of youth involved in the juvenile justice system.

Similarly, peer warmth had both between- and within-person effects on well-being. Individuals with higher initial levels of peer warmth were more likely to report higher initial levels of well-being. When peer warmth was higher than expected given an individual's peer warmth trajectory, their subsequent well-being was also higher than expected. The within-person association was bidirectional such that earlier peer warmth predicted subsequent well-being and vice versa. These results emphasize the concerns of scholars such as Ed Diener and Martin Seligman, who stress the importance of examining the bidirectional aspect of peer relationships (Diener & Seligman, 2004). Social support can provide comfort and resources to

an individual during times of stress, motivate an individual to reach their goals, and increase self-esteem, culminating in increased well-being (Lucas & Dyrenforth, 2006). Simultaneously, individuals who exhibit aspects of well-being (e.g., engagement, connectedness, happiness) are more likely to maintain healthy social relationships (Kansky & Diener, 2017). Traditionally, peers are viewed as risk factors for adolescents involved in the JJS, but these results suggest that certain peer characteristics may serve a protective function.

Our third hypothesis was partially supported. Adolescents with higher initial levels of school bonding were more likely to report higher initial well-being levels. However, the within-person relation between school bonding and well-being was unidirectional. Higher than expected school bonding predicted higher than expected well-being at the next time point, but well-being did not predict subsequent school bonding. This finding may reflect that adolescents have limited ability or motivation to influence their relationships with their teachers or school. Indeed, the majority of interventions aimed at improving student-teacher relationships focus solely on training teachers (e.g., Allen et al., 2011; Duong et al., 2019; Pianta et al., 2008). Further, adolescents usually are assigned to new teachers every year which may make improving or maintaining student-teacher relationships more difficult. Youth involved in the JJS may face additional barriers to forming positive student-teacher relationships, such as suspension or expulsion due to contact with the JJS (Villalobos & Bohannon, 2017).

Our results did not show a relation between other distal factors and youth well-being, as neighborhood disorder and procedural justice were not associated with well-being either between- or within-persons. There are several possible explanations for our lack of significant results. We may need a sample with more variation in levels of neighborhood disorder and

procedural justice to see the effects. Alternatively, it is possible that neighborhood disorder and procedural justice affect well-being indirectly or that the relationship is non-linear. For instance, previous research has found neighborhood disorder is related to parent-child relationship quality (Earls et al., 1994), and the present study found that maternal warmth is associated with well-being. Therefore, neighborhood disorder may indirectly influence well-being by impacting levels of maternal warmth. Future studies can examine potential mediators of the between-person relationship between neighborhood disorder or procedural justice and well-being.

Across all models, age was consistently associated with well-being such that participants who were older at baseline had higher well-being scores. Prior research has demonstrated that becoming involved in the JJS at an earlier age is associated with being engaged in crime for a longer period of time (Farrington, 1997). Further, early-onset offenders report more mental health and substance abuse issues than those who begin engaging in crime later in life (Assink et al., 2015). These studies focus on the prevalence of negative outcomes for youth who become involved in the JJS earlier. The present study extends these findings by suggesting that youth who become involved in the JJS earlier also experience a lack of positive outcomes (i.e., well-being).

Among the strengths of the current study is the large sample with multiple assessment points. The nature of this sample gave us the ability to disentangle between and within-person effects. Most research questions about at-risk youth aim to establish within-person effects; scholars hope to identify factors that will increase well-being or prevent delinquency for an individual. However, most of the models used in the literature are only able to assess between-person differences or compound variance due to between-person differences and variance due

to within-person differences. Multiple assessment points allowed us to model the temporal aspect of the data. Specifically, we were able to establish temporal precedence, which is one necessary indicator of causation (Hill, 1965). Additionally, the present study contributes a novel perspective to the literature on developmental outcomes of youth in the JJS. Rather than adopting the traditional approach of preventing the development of negative outcomes in youth involved with the JJS, the present study emphasizes the importance of promoting positive outcomes in these youth.

Despite the strengths of the current study, there are several limitations that can be addressed in future studies. Only self-report data for each variable were collected. It is valuable to understand participant self-reports but reports from parents, peers, and teachers may provide important context for interpretation. The data used for this study was observational rather than experimental, which prevents us from making causal inferences. Studies of youth involved with the JJS will never be purely experimental, but future studies may benefit from a quasi-experimental design that includes a control group of youth with similar demographic characteristics who are not involved in the JJS. Additionally, future studies should attempt to obtain data *before* the individual becomes involved in the JJS.

Another limitation of the present study is the generalizability of the sample. Although recruiting participants from three sites is an improvement from single-site studies, JJS policies and practices vary significantly across the U.S. Therefore, the current sample may not generalize to the broader population of youth involved in the JJS. The participants in the study all identified as male; future research is needed to generalize to other genders involved in the JJS. Some studies have found that the strength of predictors of delinquency may differ between

males and females (Daigle et al., 2007). Further, research suggests that females experience poorer outcomes following JJS involvement than males (Lancotot et al., 2007). The current sample ranged from 13 to 17 years old at baseline, which resulted in an increasingly large amount of missing data on the school bonding variable over time. Missing data were addressed with FIML, but results from Model 3 should be interpreted with caution.

Implications and Conclusions

Adolescents involved in the JJS are at risk for a host of negative outcomes including recidivism (Katsiyannis & Archwamety, 1999), poor mental health (Corneau & Lanctôt, 2004), poor physical health (Vazsonyi et al., 2001), and poor academic achievement (Patterson et al., 1990). The primary goal of most interventions for youth involved in the JJS is to prevent further delinquency and antisocial behavior (Office of Juvenile Justice and Delinquency Prevention, 2018). This aim is important but does not necessarily address other negative outcomes of JJS involvement. Well-being is a construct that could lessen the risk of several negative outcomes. Higher levels of well-being are associated with better mental health (Wood & Joseph, 2010), better physical health (Hernandez et al., 2018), and higher academic achievement (Bücker et al., 2018).

The results of the present study suggest that maternal warmth and peer warmth provide promising targets for interventions for youth in the JJS. Well-being had a reciprocal association with maternal warmth and peer warmth. Interventions that promote maternal or peer warmth may have cascading effects on well-being: increased maternal/peer warmth may lead to increased well-being, which in turn may lead to increased maternal/peer warmth. When parents are involved in JJS interventions, they typically are taught appropriate ways to

discipline their children and strategies to identify warning signs of delinquent behavior (OJJDP, 2018). Intervention programs also focus on preventing individuals from interacting with delinquent peers and/or teaching individual social skills to be used with non-delinquent peers (OJJDP, 2018). Future research should examine whether interventions can be improved by adding components aimed at increasing the warmth of parents and peers.

Interventions should also aim to directly promote well-being in adolescents involved in the JJS. Some school-based interventions for promoting well-being have been effective. For example, Ruini and colleagues (2009) developed a successful intervention that adolescent students participated in over five class periods. These sessions involved teaching students how to identify emotions, reflect on daily interactions, recognize positive characteristics of themselves and their peers, set goals, and share positive experiences. By teaching similar skills to adolescents involved in the juvenile justice system, it may be possible to help these youth improve their relationships with parents and peers.

The results of the present study focus on microsystem and exosystem level factors but should be interpreted within the context of the macrosystem and chronosystem. Youth in the juvenile justice system are likely to be members of minority communities and experience poverty (Baglivio et al., 2014; Puzzanchera, 2021). Interventions may be most effective if they address microsystem level factors to promote well-being while simultaneously taking steps to address racism and financial hardship in the community. Further, the experience of being arrested and appearing in court may result in disrupted schedules. Adolescents in the JJS need interventions that are accessible to them even if they miss school or have other scheduling conflicts.

The present study improves our understanding of the developmental outcomes of adolescents involved in the JJS. Specifically, the results highlight the importance of microsystem level variables (i.e., maternal warmth, peer warmth) and exosystem level variables (i.e., school bonding) in promoting well-being in these adolescents. By examining an indicator of positive development, we hope to encourage researchers to continue to examine youth involved in the JJS from a holistic perspective. Namely, research on developmental outcomes of youth in the JJS should continue to extend beyond studies that aim to prevent recidivism and poor mental health by including studies aimed at promoting positive health and well-being in this population.

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Table 1*Descriptive Statistics*

	Baseline <i>N</i> =1,216	Year 1 Follow-Up <i>N</i> =1,171	Year 2 Follow-Up <i>N</i> = 1,154	Year 3 Follow-Up <i>N</i> = 1,124	Year 4 Follow-Up <i>N</i> = 1,095	Year 5 Follow-Up <i>N</i> = 1,029
Maternal Warmth <i>M(SD)</i>	3.166(.661)	3.111(.716)	3.155(.695)	3.209(.674)	3.285(.678)	3.280(.671)
Peer Warmth <i>M(SD)</i>	2.779(.614)	2.759(.647)	2.806(.670)	2.857(.668)	2.957(.662)	2.957(.668)
School Bonding <i>M(SD)</i>	3.680(.612)	3.778(.601)	3.847(.570)	3.882(.564)	3.988(.546)	4.038(.496)
Procedural Justice <i>M(SD)</i>	2.638(.329)	2.643(.322)	2.639(.318)	2.640(.338)	2.610(.337)	2.638(.346)
Neighborhood Disorder <i>M(SD)</i>	2.068(.681)	2.010(.704)	1.951(.723)	1.983(.748)	1.978(.765)	1.960(.780)
Well-Being <i>M(SD)</i>	3.904(.582)	4.040(.628)	4.111(.611)	4.184(.602)	4.248(.600)	4.285(.567)

Table 2
Correlation Ranges

	1.	2.	3.	4.	5.	6.	7.	8.
Demographic Variables								
1. Age	-							
2. Study Site		-						
Predictor Variables								
3. Maternal Warmth	-.12 - .01	.10 - .17	-					
4. Peer Warmth	-.01 - .08	.14 - .20	.22 - .52	-				
5. School Orientation	.09-.19	-.21 - (-.03)	-.15 - .48	-.22 - .50	-			
6. Neighborhood Disorder	-.00 - .02	.06-.16	-.19-.00	-.07 - .00	-.30 - .01	-		
7. Procedural Justice	-.02 - .02	-.12 - (-.01)	-.01 - .31	.10 - .17	-.31 - .63	-.30 - (-.11)	-	
Outcome Variable								
8. Well-being	-.02 - .00	-.10 - .04	.01 - .45	.00- .43	-.01 - .60	-.13 - .00	.00-.24	-

Table 3*McDonald's Omega Reliability Estimates*

	Baseline	Year 1 Follow-Up	Year 2 Follow-Up	Year 3 Follow-Up	Year 4 Follow-Up	Year 5 Follow-Up
Maternal Warmth	.898	.923	.923	.920	.929	.926
Peer Warmth	.865	.884	.897	.900	.902	.907
School Bonding	.805	.824	.828	.821	.817	.791
Neighborhood Conditions	.939	.950	.957	.961	.963	.966
Procedural Justice	.771	.776	.757	.782	.775	.811
Well-Being	.908	.936	.937	.939	.942	.935

Table 4*Fit of LCM-SR models of the relation between ecological variables and well-being*

	$\chi^2(df)$	AIC	BIC	CFI	RMSEA	SRMR
Model 1						
Constrained	162.94(67)	18367.04	18545.071	.984	.035	.065
Unconstrained	109.42(50)	18347.51	18612.02	.990	.032	.038
Model 2						
Constrained	159.62(67)	17789.08	17967.11	.982	.034	.073
Unconstrained	111.94(50)	17781.39	18061.16	.987	.034	.034
Model 3						
Constrained	157.43(67)	14091.09	14269.01	.977	.034	.115
Unconstrained	122.98(50)	14088.64	14347.89	.982	.034	.079
Model 4						
Constrained	106.80(67)	19367.45	19550.57	.993	.023	.051
Unconstrained	103.68(50)	19394.33	19653.75	.991	.029	.034
Model 5						
Constrained	128.30(67)	9281.621	9459.57	.985	.028	.067
Unconstrained	91.91(50)	9279.23	9543.61	.990	.027	.037

Table 5*Parameter estimates for Model 1: LCM-SR Maternal Warmth and Well-Being*

	<i>b</i>	SE	p-value
Fixed Effects			
MW intercept	3.82	.215	< .001***
MW slope	-.217	.050	< .001***
WB intercept	3.343	.203	< .001***
WB slope	.108	.046	.019*
Autoregressive effects			
MW(t) → MW(t+1)	.18	.03	< .001***
WB(t) → WB(t+1)	.17	.03	< .001***
Cross-lagged effects			
MW(t) → WB(t+1)	.07	.02	< .001***
WB(t) → MW(t+1)	.07	.02	.002**
Between-Person Effects			
MW intercept ↔ MW slope	-.004	.004	.330
MW intercept ↔ WB intercept	.10	.01	< .001***
MW intercept ↔ WB slope	.00	.00	.530
WB intercept ↔ WB slope	-.003	.003	.355
WB intercept ↔ MW slope	.006	.002	.010*
WB slope ↔ MW slope	.000	.001	.530
Age Effects			
Age ↔ MW intercept	-.05	.01	.001***
Age ↔ MW slope	.02	.00	< .001***
Age ↔ WB intercept	.04	.01	.002**
Age ↔ WB slope	-.002	.00	.407

b = unstandardized coefficient, MW = maternal warmth, WB = well-being, *** $p < .001$, ** $p < .01$,

* $p < .05$

Table 6*Parameter estimates for Model 2: LCM-SR Peer Warmth and Well-Being*

	<i>b</i>	SE	p-value
Fixed Effects			
PW intercept	2.25	.20	< .001***
PW slope	.15	.05	.006**
WB intercept	3.36	.20	< .001***
WB slope	.11	.05	.02*
Autoregressive effects			
PW(t) → PW(t+1)	.15	.03	< .001***
WB(t) → WB(t+1)	.17	.03	< .001***
Cross-lagged effects			
PW(t) → WB(t+1)	.06	.02	< .001***
WB(t) → PW(t+1)	.13	.03	< .001***
Between-Person Effects			
PW intercept ↔ PW slope	-.003	.004	.433
PW intercept ↔ WB intercept	.09	.01	< .001***
PW intercept ↔ WB slope	.00	.001	.773
WB intercept ↔ WB slope	-.003	.003	.396
WB intercept ↔ PW slope	.01	.003	.010*
WB slope ↔ PW slope	.00	.001	.773
Age Effects			
Age ↔ PW intercept	.03	.01	.012*
Age ↔ PW slope	-.01	.004	.040*
Age ↔ WB intercept	.04	.01	.003**
Age ↔ WB slope	-.002	.003	.446

b = unstandardized coefficient, PW = peer warmth, WB = well-being, *** $p < .001$, ** $p < .01$,

* $p < .05$

Table 7*Parameter estimates for Model 3: LCM-SR School Bonding and Well-Being*

	<i>b</i>	SE	p-value
Fixed Effects			
SB intercept	3.66	.20	< .001***
SB slope	-.23	.06	< .001***
WB intercept	3.35	.21	< .001***
WB slope	.10	.05	.027*
Autoregressive effects			
SB(t) → SB(t+1)	.22	.05	< .001***
WB(t) → WB(t+1)	.16	.03	< .001***
Cross-lagged effects			
SB(t) → WB(t+1)	.05	.02	.024*
WB(t) → SB(t+1)	.03	.03	.300
Between-Person Effects			
SB intercept ↔ SB slope	.00	.01	.830
SB intercept ↔ WB intercept	.08	.01	< .001***
SB intercept ↔ WB slope	.00	.00	.916
WB intercept ↔ WB slope	-.01	.00	.023*
WB intercept ↔ SB slope	.00	.00	.580
WM slope ↔ SB slope	.00	.00	.503
Age Effects			
Age ↔ SB intercept	.00	.01	.886
Age ↔ SB slope	.02	.00	< .001***
Age ↔ WB intercept	.04	.01	.004**
Age ↔ WB slope	-.00	.00	.471

b = unstandardized coefficient, SB = school bonding, WB = well-being, *** $p < .001$, ** $p < .01$,

* $p < .05$

Table 8*Parameter estimates for Model 4: LCM-SR Neighborhood Conditions and Well-Being*

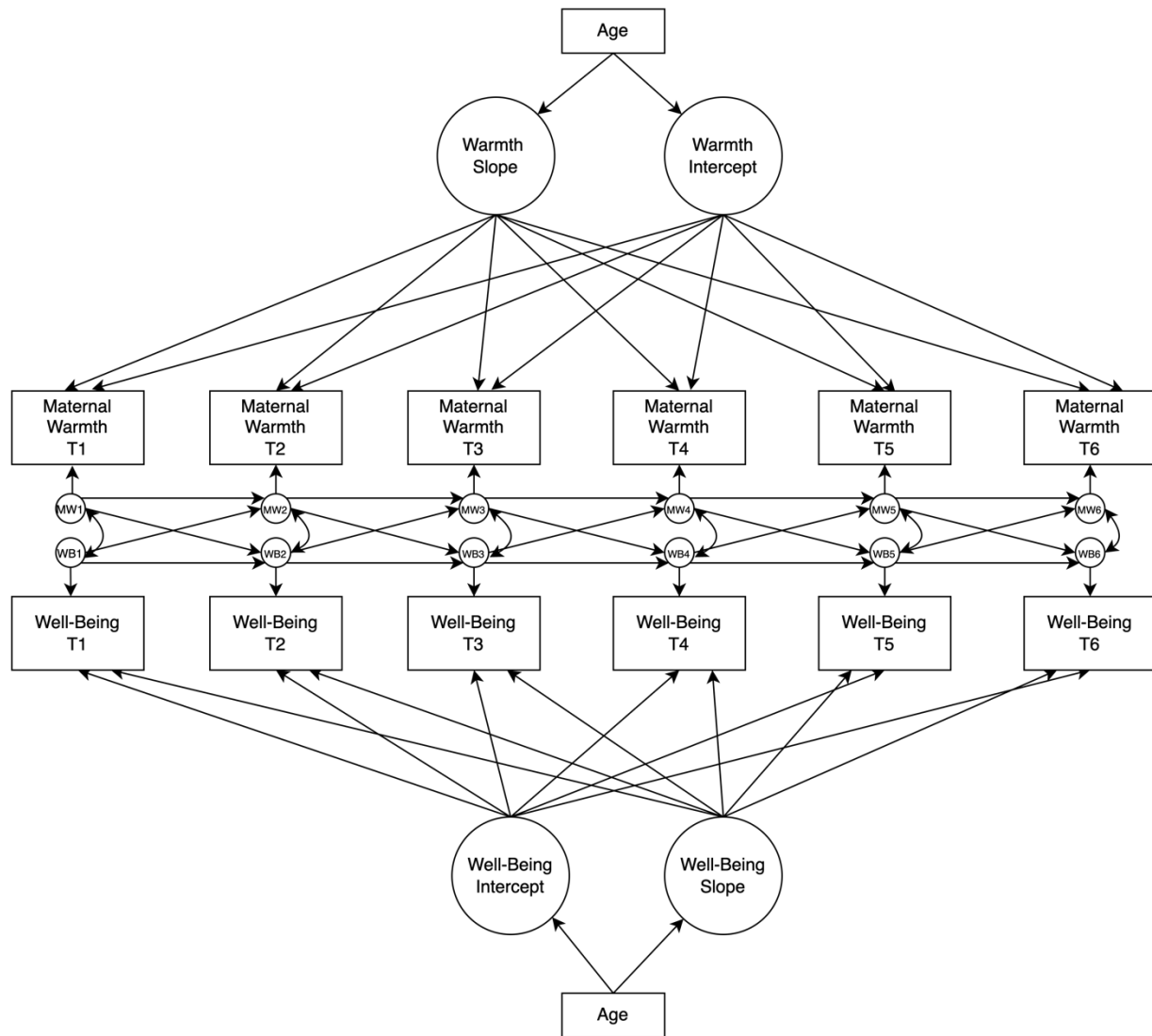
	<i>b</i>	SE	p-value
Fixed Effects			
NC intercept	1.99	.22	< .001***
NC slope	.16	.05	.002**
WB intercept	3.39	.21	< .001***
WB slope	.10	.05	.031*
Autoregressive effects			
NC(t) → NC(t+1)	.22	.03	< .001***
WB(t) → WB(t+1)	.17	.03	< .001***
Cross-lagged effects			
NC(t) → WB(t+1)	-.02	.02	.271
WB(t) → NC(t+1)	.02	.03	.449
Between-Person Effects			
NC intercept ↔ NC slope	-.01	.00	.230
NC intercept ↔ WB intercept	.00	.01	.910
NC intercept ↔ WB slope	-.00	.00	.613
WB intercept ↔ WB slope	-.01	.00	.042*
WB intercept ↔ NC slope	-.01	.00	.044*
WB intercept ↔ NC slope	.00	.00	.718
Age Effects			
Age ↔ NC intercept	.00	.02	.780
Age ↔ NC slope	-.01	.00	.001**
Age ↔ WB intercept	.04	.01	.006**
Age ↔ WB slope	-.00	.00	.509

b = unstandardized coefficient, NC = Neighborhood conditions, WB = well-being, *** $p < .001$, ** $p < .01$,* $p < .05$

Table 9*Parameter estimates for Model 5: LCM-SR Procedural Justice and Well-Being*

	<i>b</i>	SE	p-value
Fixed Effects			
PJ intercept	3.09	.12	< .001***
PJ slope	-.09	.03	.002**
WB intercept	3.38	.21	< .001***
WB slope	.10	.05	.028*
Autoregressive effects			
PJ(t) → PJ(t+1)	.04	.04	.222
WB(t) → WB(t+1)	.17	.03	< .001***
Cross-lagged effects			
PJ(t) → WB(t+1)	.02	.01	.080
WB(t) → PJ(t+1)	.01	.05	.770
Between-Person Effects			
PJ intercept ↔ PJ slope	-.00	.00	.105
PJ intercept ↔ WB intercept	.01	.01	.055
PJ intercept ↔ WB slope	-.00	.00	.133
WB intercept ↔ WB slope	-.01	.00	.033*
WB intercept ↔ PJ slope	.00	.00	.830
WB slope ↔ PJ slope	.00	.00	.895
Age Effects			
Age ↔ PJ intercept	-.02	.01	.002**
Age ↔ PJ slope	.01	.00	.006**
Age ↔ WB intercept	.04	.01	.005**
Age ↔ WB slope	-.00	.00	.486

b = unstandardized coefficient, PJ = Procedural Justice, WB = well-being, *** $p < .001$, ** $p < .01$,* $p < .05$

Figure 1*Conceptual LCM-SR of the relation between Maternal Warmth and Well-Being*

Appendix A

The EPOCH Measure of Adolescent Well-Being

Directions to participants: This is a survey about you! Please read each of the following statements.

Circle how much each statement describes you. Please be honest - there are no right or wrong answers!

Scaling: 1 to 5 scale: Almost never, Sometimes, Often, Very often, Almost always

Scoring EPOCH: Each item is scored on a 1 to 5 scale (almost never/ not at all like me = 1; almost always/very much like me = 5). Scores are computed as the average of the four items, and results can be presented as a profile across domains

Item	Question
C1	When something good happens to me, I have people who I like to share the good news with.
P1	I finish whatever I begin.
O1	I am optimistic about my future.
H1	I feel happy.
E1	When I do an activity, I enjoy it so much that I lose track of time.
H2	I have a lot of fun.
E2	I get completely absorbed in what I am doing.
H3	I love life.
P2	I keep at my schoolwork until I am done with it.
C2	When I have a problem, I have someone who will be there for me.
E3	I get so involved in activities that I forget about everything else.
E4	When I am learning something new, I lose track of how much time has passed.
O2	In uncertain times, I expect the best.
C3	There are people in my life who really care about me.
O3	I think good things are going to happen to me.

- C4** I have friends that I really care about.
 - P3** Once I make a plan to get something done, I stick to it.
 - O4** I believe that things will work out, no matter how difficult they seem.
 - P4** I am a hard worker.
 - H4** I am a cheerful person.
-

Appendix B

Relationship (Parent AND Peer) Warmth

INSTRUCTIONS:

[The wording of the items presented here is for the respondent's report of others' behavior toward him/her. Pronouns are changed depending on the version.]

During the past 12 months when you and your mother/your peers have spent time talking or doing things together, how often did she/he...

Item	Question
2	Ask you for your opinion about an important matter?
3	Listen carefully to your point of view?
4	Let you know she/he really cares about you?
7	Act loving and affectionate toward you?
10	Let you know that she/he appreciates you, your ideas or the things you do?
11	Help you do something that was important to you?
13	Have a good laugh with you about something that was funny?
17	Act supportive and understanding toward you?
22	Tell you she/he loves you?

Appendix C

School Bonding

Directions to participants: This is a survey about you! Please read each of the following statements.

Circle how much each statement describes you. Please be honest - there are no right or wrong answers!

Scaling: 1 to 5 scale: Almost never, Sometimes, Often, Very often, Almost always

Scoring EPOCH: Each item is scored on a 1 to 5 scale (almost never/ not at all like me = 1; almost always/very much like me = 5). Scores are computed as the average of the four items, and results can be presented as a profile across domains

Item	Question
1	Most of my teachers treat me fairly
2	I care what my teachers think of me
3	I like school
4	Getting good grades is not important to me
5	Homework is a waste of my time
6	I like my teachers
7	I try hard at school
8	Schoolwork is very important to me
9	I wish I could drop out of school
10	I feel as if I really don't belong at school

Appendix D
Neighborhood Conditions

Item	Questions
P1	Cigarettes on the street or in the gutters
P2	Garbage in the streets or on the sidewalks
P3	Empty beer bottles on the streets or the sidewalks
P4	Boarded up windows on buildings
P5	Graffiti or tags
P6	Graffiti painted over
P7	Gang graffiti
S1	Gangs (or other teen groups) hanging out
P8	Abandoned cars
P9	Empty lots with garbage
P10	Condoms on sidewalk
P11	Needles or syringes
P12	Political messages in graffiti
S2	Adults hanging out in the street
S3	People drinking beer, wine, or liquor
S4	People drunk or passed out
S5	Adults fighting or arguing loudly
S6	Prostitutes on the street
S7	People smoking marijuana
S8	People smoking crack
S9	People using needles or syringes to take drugs

Appendix E
Procedural Justice

Item	Question
1	During your last contact with the police when you were accused of a crime, how much of your story did the police let you tell?
2	Of the people you know who have had a contact with the police (in terms of crime accusations), how much of their story did the police let them tell?
3	The police treat me the same way they treat most people my age.
4	Over the past six months, the police have been treating me the same way they always treated me in the past.
5	During my last encounter with the police, they treated me in the way that I expected they would treat me.
6	During my last encounter with the police, they treated me in the way that I thought I should be treated
7	Even after the police make a decision about arresting me, there is nothing I can do to appeal it.
8	After the police make a decision about arresting me, someone in higher authority can listen to my cases, change the decision.
9	The police considered the evidence/viewpoints in this incident fairly.
10	The police overlooked evidence/viewpoints in this incident.
11	The police were honest in the way they handled their case.
12	The police used evidence that was fair and neutral.
13	The police made up their mind prior to receiving any information about the case.
14	Police treat males and females differently.
15	Police treat people differently depending on how old they are.
16	Police treat people differently depending on their race/ethnic group.
17	Police treat people differently depending on the neighborhoods they are from.
18	Think back to the last time the police accused you of doing something wrong. Did the police treat you with respect and dignity or did they disrespect you?
19	Think back to the last time the police accused you of doing something wrong. Did

the police show concern for your rights?

- 20 During my last contact with the court system when you were accused of a crime, how much did the judge let you tell your side of the story?
- 21 Of the people you know who have had contact with the courts (in terms of crime accusation), how much did the judge let them tell their side of the story?
- 22 During my last encounter with the court, the judge treated me the same way s/he treated most people my age
- 23 Over the past 6 months, judges have been treating me the same way they have treated me in the past.
- 24 During my last encounter with the judge, s/he treated me the way that I expected s/he would treat me.
- 25 During my last encounter with the judge, s/he treated me the way that I thought I should be treated.
- 26 Even after the judge makes a decision about sentencing me, there is nothing I can do to appeal it.
- 27 After the judge makes a decision about sentencing me, someone in higher authority can listen to my case, and even in some cases, change the decision.
- 28 The court considered the evidence/viewpoints in this incident fairly.
- 29 The court overlooked important evidence/viewpoints in this incident.
- 30 The court was honest in the way it handled the case.
- 31 The court used evidence that was fair and neutral.
- 32 The judge made up his/her mind prior to receiving any information about the case.
- 33 Judges treat males and females differently.
- 34 Judges treat people differently depending on how old they are.
- 35 Judges treat people differently depending on their race/ethnic group.
- 36 Judges treat people differently depending on the neighborhoods they are from.
- 37 Think back to the last time you were before a judge because of something you were accused of doing. Did the judge treat you with respect and dignity or did they disrespect you?
- 38 Think back to the last time you were before a judge because of something you were accused of doing. Did the judge show concern for your rights?

- 39 I have a great deal of respect for the police
 - 40 Overall, the police are honest.
 - 41 I feel proud of the police
 - 42 I feel people should support the police.
 - 43 The police should be allowed to hold a person suspected of a serious crime until they get enough evidence to charge them.
 - 44 The police should be allowed to stop people on the street and require them to identify themselves.
 - 45 The courts generally guarantee everyone a fair hearing (trial).
 - 46 The basic rights of citizens are protected in the courts.
 - 47 Many people convicted of crimes in the courts are actually innocent.
 - 48 Overall, judges in the courts here are honest.
 - 49 Court decisions here are almost always fair.
 - 50 Laws are meant to be broken
 - 51 It is okay to do anything you want.
 - 52 There are no right or wrong ways to make money.
 - 53 If I have a fight with someone, it is no one else's business.
 - 54 A person has to live without thinking about the future.
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