

ABSTRACT

Title of Dissertation: RELATIONSHIPS IN THE HOME AS A
MODERATOR OF INTERGENERATIONAL
CONTINUITY

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Continuity in problem behavior across generations is a long-standing notion that has been largely supported by research. Nonetheless, there is substantial discontinuity in this relationship, as many children benefit from protective factors that buffer intergenerational risk. In this paper, I examine how parent-partner relationships can act as a protective factor to reduce the intergenerational continuity of problem behavior. Specifically, I test whether parent-partner relationship satisfaction, stability, and conflict moderate the relationship between parental adolescent delinquency and child delinquency and substance use. I use data from the Rochester Youth Development Study and its intergenerational companion, the Rochester Intergenerational Study. Several findings emerged. First, there is evidence of intergeneration continuity, but this continuity is limited to child delinquency. In addition, when testing for the moderation of intergenerational continuity, none of the parent-partner relationship measures act as moderators. Instead, parent-partner relationship qualities appear to only act as direct protective factors.

RELATIONSHIPS IN THE HOME AS A MODERATOR OF INTERGENERATIONAL
CONTINUITY

by

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Introduction

Whether it is in appearance or personality, it is widely believed that children resemble their parents. This resemblance is considered especially true when comparing the parent's characteristics during the same developmental period as their child. Thus, a parent's adolescent behavioral history is often viewed as a predictor of their child's adolescent behavior. This notion of continuity across generations is largely supported by the literature for a variety of behaviors. For instance, research has found that parental delinquency in adolescence is related to increased delinquent behavior in their adolescent children (Thornberry et al., 2003; Smith & Farrington, 2004), and parental substance use in adolescence is positively related to substance use in adolescent children (Thornberry, Krohn, & Freeman-Gallant, 2006; Kerr et al. 2012; Vuolo & Staff, 2013). Though intergenerational research using prospective, longitudinal data across multiple generations is still a relatively new innovation, there is evidence to suggest that a parent's adolescent behavioral history is an important influence on child adolescent behavior and may put the child at risk for later problem behaviors, such as delinquency and substance use.

Though parental problem behavior in adolescence may be seen as a risk factor for problem behavior in their adolescent children, the link is certainly not deterministic. There is substantial discontinuity in behavior across generations. That is to say, even though a parent may exhibit problem behaviors in adolescence, their adolescent children will not necessarily exhibit these problem behaviors as well. Thus, a risk model is inherently limited. That is because, even within high-risk groups, the majority of children develop relatively well (Lösel & Farrington, 2012; Rutter, 1979). One of the many

reasons that not all children follow in the footsteps of their parents is because some children benefit from protective factors that buffer the negative effects of having a parent with a history of problem behavior. Examples of the various types of protective factors that have been explored include individual factors, such as biology and temperament, to environmental factors, such as relationships in the home and school (Lösel & Farrington, 2012).

While the risk model is informative in suggesting a target population for intervention, it leaves much of the outcome variance unexplained. In order to fully understand the origin of human behavior, it is necessary to look at both risk factors as well as protective factors that could act to buffer the negative effects of risk.

Understanding the reasons for discontinuity across generations and identifying potential protective factors may aid in the development of effective prevention programs for delinquency, substance abuse, and like behaviors by helping researchers to not only target specific populations at risk but also to concentrate on areas known to promote resiliency within this risky population. Researchers need to look not only at what factors put children at risk for problem behaviors, but they must also discover what factors are protective, or lessen the risk for problem behavior.

Even though understanding protective factors is critical to our development of effective prevention programs, relatively little is known about protective factors compared to risk factors for problem behaviors, such as delinquency and substance use. Furthermore, within the literature on protective factors for problem behavior, studies tend to examine how protective factors can reduce the risk for future negative behavior for those individuals who have already shown signs of antisocial behavior at a young age

(e.g., Eassey, Gibson, & Krohn, 2015; Lösel & Bender, 2014; Reingle et al., 2013). This means that children are being targeted for prevention after they already exhibit unwanted behavior, rather than proactively preventing the behavior. Naturally, it is preferable to examine how protective factors may prevent this type of behavior all together.

The purpose of this study is to better understand how protective factors can buffer the effects of intergenerational risk on delinquency and substance use. In particular, this study will be examining how parent-partner relationships within the home can act as a protective factor against the risk posed by having a parent who was delinquent in adolescence. The study will first establish how parental problem behavior in adolescence can act as a risk factor to increase problem behavior in their adolescent children. Secondly, it will look at how various quality dimensions of parent-partner relationships that subsequently occur in the child's immediate home environment can work as protective factors to buffer the negative effects of having a parent with a history of problem behavior in adolescence. These questions will be answered using prospective, longitudinal data on two generations of individuals from the Rochester Youth Development Study (RYDS) and its intergenerational component, the Rochester Intergenerational Study (RIGS).

Concepts

Risk Factors

There are three central concepts for the current discussion. The first concept is known as a risk factor. Generally speaking, a risk factor is a personal or environmental characteristic that predicts the onset, persistence, or aggravation of some negative outcome, such as delinquency or substance use (Lösel & Farrington, 2012). Though

research has often looked at the link between concurrent parent and child behavior (e.g., Capaldi et al., 2016; Biederman et al., 2000; Chassin et al., 1991), or the relationship between a parent and child's behavior during the same point in time, this particular study aims to look at how parent behavior in adolescence can influence their children's behavior during the same developmental period. In other words, the proposed study is interested in examining how parental behavior in adolescence can serve as a risk factor for problem behavior in their adolescent children.

Several theories suggest why we might expect to find this intergenerational link. For instance, Thornberry (2005) illustrates how interactional theory can be extended to explain continuity across generations. It is suggested that problem behavior during adolescence, such as delinquency, may lead to serious consequences that hinder later development and transitions into adult roles. This is particularly true for those deeply involved in delinquency. For instance, those who engage in serious delinquent behavior during adolescence may be more likely to become a teen parent. This untimely transition into adulthood can lead to structural adversity and stress, and may ultimately affect their ability to effectively take on the parenting role. These intra-generational consequences ultimately lead to intergenerational consequences and increase the probability of problem behavior in their children. Indeed, though there is less research examining intergenerational continuity in behavior, as compared to concurrent behavior, there is evidence that parental adolescent problem behavior can have intergenerational consequences for their adolescent children, such as increased delinquent behavior and substance use (Thornberry et al., 2003; Smith & Farrington, 2004; Thornberry, Krohn, & Freeman-Gallant, 2006; Kerr et al. 2012; Vuolo & Staff, 2013).

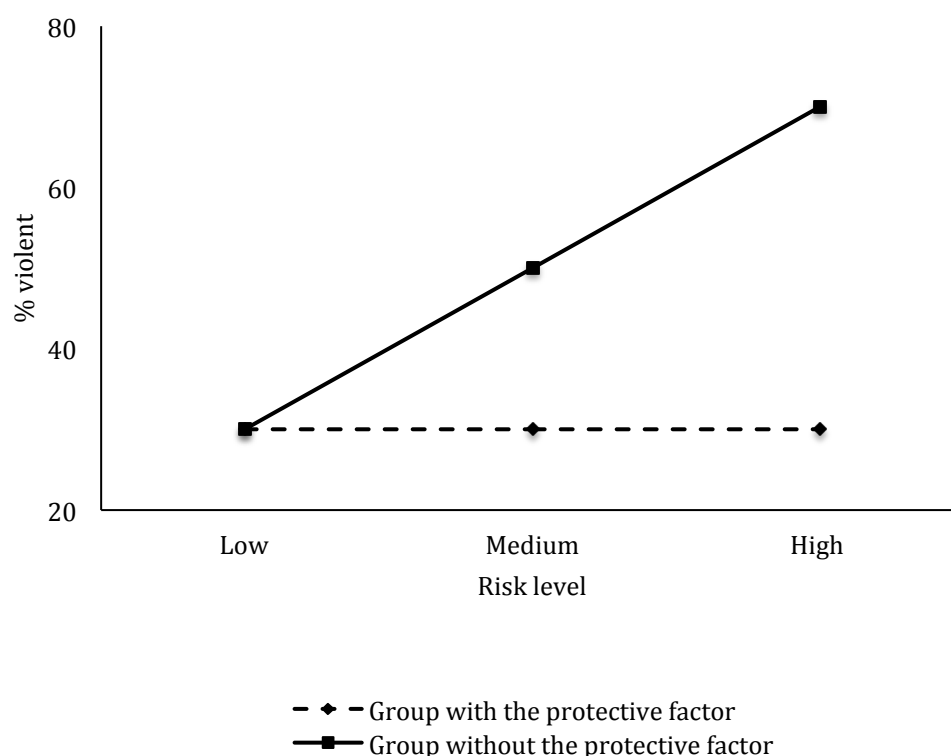
Protective Factors

Though I am interested in how parental adolescent delinquency can act as a risk factor for child adolescent problem behavior, such as delinquency and drug use, I also am interested in what variables can act as protective factors to buffer against intergenerational continuity. As acknowledged by recent research by Lösel and Farrington (2012), protective factors can be subdivided into two categories. The first type of protective factor is a direct protective factor. The researchers define this type of protective factor as the main effect of a variable. That is to say, this variable should reduce the risk of a negative outcome for all individuals. On the other hand, the second category, known as a buffering protective factor, can be thought of as an interaction effect. These variables only reduce the probability of a negative outcome when a risk factor is also present.

Lösel and Farrington (2012) demonstrate how this second type of protective factor works. In one of their graphs, reproduced in Figure 1, the authors demonstrate how a strong emotional bond to a non-criminal individual may lessen the risk of violence, depending on the level of neighborhood deprivation. For those individuals without the protective factor (having a strong emotional bond), there is a linear relationship between the risk factor (neighborhood deprivation) and the outcome (percent violent). When the protective factor is present, the impact of the risk factor is negated (in other cases, the impact of the risk factor may only be reduced). Though both types of protective factors will be examined, this second type of protective factor is the main interest for the proposed study. Specifically, we would expect to see a significant relationship between parental adolescent problem behavior and child problem behavior when there is no

protective factor present. When the protective factor is present, we would expect to find that the relationship between parental adolescent problem behavior and child problem behavior is either negated or reduced.

Figure 1. Interaction between a risk and a buffering protective factor in predicting youth violence



Family Structure and Processes

This paper will examine direct protective factors that predict a low probability of adolescent problem behavior as well as buffering protective factors that turn off the risk posed by having a parent who exhibited problem behavior as an adolescent. Within criminological literature, there have been several domains promoted as protective, such as individual, peer, family, school, and neighborhood characteristics (Loeber & Farrington, 2012). Within these domains, some examples of protective factors explored

within the literature include high intelligence, maternal warmth, and high quality school environments (Haskett et al., 2006).

Though there are an abundance of individual and environmental domains that could act as protective factors against the onset and perpetuation of adolescent problem behavior, I will be focusing on the family. The family is a logical domain to target considering the critical role that families play in child development. The family is not only the first social environment of children, but it also functions as their primary socializing institution. While this socialization role undoubtedly plays a large part in child development, families are also related to things such as where children attend school and whom the children spend their time with.

Government institutions, such as the Center for Disease Control and Prevention (CDC), have also highlighted the importance of the family. The CDC (2014) has primarily focused on the role of safe, stable, and nurturing relationships and environments (SSNRE) within the family. The CDC has based their model on stress response research. This research suggests that qualities of social relationships interact with stress to promote resiliency in individuals (Turner, 2010). Though the SSNRE model promoted by the CDC was originally meant to target both the prevention of maltreatment as well as buffer the effects of maltreatment, this model lends itself well to other risk factors, such as the intergenerational transmission of problem behavior.

The first aspect of the SSNRE model is safety. Safety is defined as the extent to which an individual is free of fear, physical harm, and psychological harm (CDC, 2014). Types of behavior that jeopardize the safety of a child's environment include corporal punishment, lack of adequate supervision, and neglect (Turner et al., 2012). There

appears to be a link between the safety of a child's environment and their later behavior, as it has been found that children who are exposed to violence within their home, as well as their broader environment outside the home, are more likely engage in violent behavior themselves (Hawkins et al., 2000).

Stability is the consistency in environment. Stability includes the consistency with whom the child is interacting and the nature of their relationship as well as the consistency of the environment itself (CDC, 2014). It is theorized that stability is critical to children seeing the world as predictable, or developing a sense of coherence, which should help to buffer the impact of negative experiences (CDC, 2014). Indeed, the literature has found that stability in a child's environment can increase cognitive functioning and the development of social skills (Loeb et al., 2004; Harden, 2004). On the other hand, unstable environments may place stress on the child, which could hinder optimal development and increase delinquent behavior (Fomby & Cherlin, 2007).

Finally, nurturing means that caregivers are available and sensitive to the needs of the child (CDC, 2014). When parents exhibit nurturing relationships with children, the children are more likely to have high self-esteem, increased social competencies and cognitive functioning, and less likely to display negative temperaments (Dehart, Pelham, & Tennen, 2006; Loeb et al., 2004; Van Den Boom, 1994). These effects are not limited to just the parent-child relationship either. Work by Conger et al. (2013) suggests that having a nurturing relationship with a co-parent can help to reduce the intergenerational continuity of harsh parenting.

The SSNRE model provides a clear framework when considering what factors could buffer the risk posed by having a parent who was delinquent as an adolescent.

From the previous work, it follows that families who successfully provide safe, stable, and nurturing environments should be protective. Due to their centrality in child development, as well as the three testable propositions outlined by the CDC, the family appears to be a promising domain to explore for protective factors.

Finally, even within this focused domain of the family, there are multiple subdomains that could be examined, such as parent-child relationships and parenting behaviors. Each of these subdomains may be uniquely related to child outcomes, but I will be focusing on parent-partner relationships. There are two reasons to suspect that parent-partner relationships may be protective. First, characteristics of these partner relationships may be directly linked to the safety, stability, and nurturance of a child's environment. That is to say, parents and children have linked lives, and the nature of the parent-partner relationship within the home will likely influence the quality of the child's environment. Second, as discussed previously, one reason we expect to find intergenerational continuity in delinquency is because of the intra-generational effects of serious delinquency as an adolescent (Thornberry, 2005). It was also suggested that high quality relationships could have the ability to promote resiliency once an individual has already been exposed to risk (Turner, 2010). Thus, I believe that having a high quality relationship that is stable and nurturing in nature may help individuals to successfully transition into the parental role, thereby reducing the intra-generational consequences of delinquency and moderating intergenerational continuity.

Parent-Partner Relationships

When considering parent-partner relationships within the home, past studies have often focused on the relationship structure, or the objective make-up the relationship.

These types of studies primarily focus on relationship aspects such as who is in the relationship (e.g., biological parent or step-parent) as well as the type of relationship (e.g., married or cohabitating). Indeed, researchers have suggested that parental divorce during childhood is related to later problem behavior, such as delinquency, alcohol use, and aggression (Hope et al., 1998; Hurre et al., 2010; Nagin & Tremblay, 2001, Juby & Farrington, 2001). It has also been concluded that children in intact families, or families with two biological parents that are married, fare the best compared to other family structures. Children from these intact families, compared to other structures, have increased cognitive functioning, higher levels of school engagement, and lower levels of delinquency (Artis, 2007; Teachman, 2008; Manning & Lamb, 2003; Apel & Kaukinen, 2008; Demuth & Brown, 2004; Dunifon & Kowaleski-Jones, 2002; Brown, 2004). Thus, there seems to be a rather robust body of literature linking parent-partner relationship structure to adolescent behavior.

I will be looking at a different, albeit related, aspect of the parent-partner relationships: quality. Though relationship structure may be an important predictor of child behavior, less is known about how the quality of parent-partner relationships in the home influences adolescent behavior. Quality of parent-partner relationships within the home is a concept that is more subjective than relationship structure. Quality of relationships encompasses factors such as low conflict, satisfaction, and stability of partner relationships.

Relationship quality factors lend themselves particularly well to the three criteria laid out by the CDC for healthy child development. For example, when there is high conflict between parents, the child may not feel secure either emotionally or physically.

Conflict in the home may threaten a child's sense of safety. On the other hand, when there is high satisfaction in parent-partner relationships, such that each partner feels supported or has their own needs met, the parent may be better equipped to deal with the needs of their child. This would be expected to increase the extent to which the environment is nurturing. Finally, if the parent's relationship is unstable, the child's environment may be unstable as well. Different adults may come in and out of the child's life, increasing the uncertainty of the child's environment. Though not directly involving the child, this suggests that parent-partner relationships may have the ability influence child outcomes.

There is some support in the literature for this role of parent-partner relationship quality. For instance, parent-partner relationship instability in the home has been consistently linked to poor child outcomes. Osborne and McLanahan (2007) found parent-partner instability to increase aggressive and anxious behavior in toddlers. In addition, this relationship is not just linked to early problem behavior. Bor et al. (2004) found marital instability during the first five years of life to more than double the odds of antisocial behavior in adolescents at age 14. Similarly, when looking at the number of parental disruptions children experienced before the age of 15, Juby and Farrington (2001) concluded that as the number of disruptions increases, so does juvenile delinquency. Finally, these effects have been found across multiple family structures. Hao and Xie (2001) found the stability of parent-partner relationship structure to decrease the odds of misbehavior, regardless of the type of structure. Thus, it appears that stability in parent-partner relationships is directly linked to behavioral problems in children.

It has also been consistently found that high-conflict relationships are related to increased rates of delinquency. For example, when examining predictors of antisocial behavior, Henry et al. (1993) found parental disagreement to be the most important predictor of antisocial behavior in children. In addition, as with instability, there is ample evidence that conflict influences the behavior of children across different family structures. Though Juby and Farrington (2001) found that parental marital disruptions increase delinquency, they also found conflict to be particularly damaging, as those children from high-conflict intact families had similar delinquency rates as those children from disrupted families. Haas et al. (2004) had very similar conclusions. Using a cross-sectional study of Swiss men, the authors concluded that although those men who experienced family disruption before the age of 12 were more likely to offend, those individuals from intact high-conflict families had the same prevalence of offending compared to those from disrupted families. Finally, McCord (1982) found that conflict not only increased the probability of future convictions, but those children from conflict ridden intact families were more likely to engage in delinquency compared to children with affectionate mothers from broken homes. Thus, it appears that the parental-partner conflict is a strong predictor of problem behavior, mirroring the effects of other known behavioral predictors.

Lastly, there is evidence that parent-partner relationship satisfaction may to play a role in predicting child problem behavior as well. For instance, Linville et al. (2010) find parent-partner satisfaction to directly predict problem behavior among toddlers. Miller et al. (1993) also suggests that less affection between spouses may lead to less warmth within parent-child relationships, thereby increasing externalizing behavior in children.

Finally, Hayatbakhsh et al. (2006) found a general measure of parental marital quality in adolescent to be related to young adulthood cannabis use. Though, one issue with these latter satisfaction and quality measures is that they combine concepts such as happiness within the relationships as well as disagreement between the couple into one measure, which makes separating the different effects difficult (Linville et al., 2010; Hayatbakhsh et al., 2006). However, these studies still point to the important role that satisfaction of parent-partner relationships may play in influencing child behavior.

The quality of parent-partner relationships may be directly linked to the safety, stability, and nurturance of a child's environment. This, in turn, suggests that high quality relationships may decrease the probability of problem behavior in children. Indeed, a review of the literature suggested that different aspects of partner relationship quality could have a profound impact on child behavior. That is, the quality of partner relationships has been shown to directly influence child problem behavior (Bor et al., 2004; Juby & Farrington, 2001; Teachman, 2008; Haas et al., 2004; Henry et al., 1993; McCord, 1982). On the other hand, while there have been some studies examining how quality partner relationships can moderate, or act as a buffering protective factor, for maltreatment and harsh parenting (Conger et al., 2013; Schofield, Lee, & Merrick, 2013), no study was found that directly looked at how quality partner relationships can moderate intergenerational transmission of delinquency or drug use. Nonetheless, there is reason to believe that stable, supportive relationships may reduce the negative intra-generational consequences of adolescent delinquency and promote safe, stable, and nurturing environments, thereby reducing the negative intergenerational consequences of adolescent delinquency.

Limitations of Previous Studies

Though there has been a rather rich body of research suggesting the importance of the family environment in influencing a multitude of outcomes for children, it nonetheless suffers from serious flaws. In particular, few studies look at parent-partner relationships beyond a simple description of the structure of the home (e.g., Nagin & Tremblay, 2001; Haas et al., 2004), and rarely is parent-partner relationship quality examined. Instead, researchers are much more apt to look at parent-child relationship variables while ignoring the parent-partner relationship (e.g., Apel & Kaukinen, 2008; Demuth & Brown, 2004; Broman, Li, & Reckase, 2008). As stated before, there is reason to believe that quality aspects of parent-partner relationships may be just as important the structure of the relationship, yet there is much more work done on the latter.

In addition, even for those few studies that do move beyond the structure of parent-partner relationships, relationship factors are often measured at one point in time (Lizotte et al., 2013; Apel & Kaukinen, 2008; Demuth & Brown, 2004; Hayatbaksh et al., 2006; Staff et al., 2015). Not only is any one snapshot of the family environment unlikely to be representative of the family as a whole over time, family environment is often measured during early childhood, such as in Staff et al. (2015), where family structure was measured when the children were only 3 years old, while the outcome was measured at 11 years old. In order to better understand the effects of family environment on child behavior, researchers need to utilize longitudinal data as well as measure the family structure at periods more proximate to the outcome of interest.

Finally, within the previously reviewed work that looks at various aspects of the family and how they are related to problem behavior in children and adolescents, the

overwhelming majority of studies only consider the family domain as a risk factor, not as a protective factor. As Lösel and Farrington (2012) note, risk factors and protective factors are not always different variables. One variable may act as both a protective factor and a risk factor. Nonetheless, just because one variable has been found to be a risk factor does not mean it will necessarily be a protective factor. Thus, while many studies focus on the negative side of the distribution for partner relationships (i.e., high conflict, low stability, etc.), it is just as important to look at the other end of the spectrum (i.e., low conflict, high stability). Additionally, it is not enough to look at the direct relationship between a protective factor and an outcome. Protective factors should be interacted with risk in order to show a buffering protective relationship. These protective factors are most relevant to prevention programs, as they promote resiliency specifically in the target group. Nonetheless, studies have overwhelmingly failed to test for this relationship.

Proposed Study

Based on the previous discussion, there is compelling reason to believe that parent-partner relationships may impact child development and adolescent behavior. Nonetheless, the literature regarding this topic suffers from multiple limitations. The proposed study aims to fill the gaps in current literature and further our understanding of what environmental influences protect against the intergenerational continuity of problem behaviors. To address these gaps, the proposed study will move beyond the structure of the parent-partner relationship and delve into quality aspects of the relationship. In order to accomplish these goals, the proposed study will use longitudinal data, collected prospectively from both the parent and child generation during their adolescence.

The study will address two main hypotheses:

1. Parental problem behavior, particularly serious problem behavior, in adolescence will significantly increase the probability of child problem behavior in adolescence. That is, there will be significant intergenerational continuity in adolescent problem behaviors.
2. Parent-partner relationships that are highly stable, low in conflict, and high in satisfaction (i.e., quality relationships) will act as protective factors, thereby reducing the probability of child problem behavior in adolescence. That is, these factors will act to moderate the intergenerational relationship.

The main purpose of this paper is to explore whether parent-partner relationship characteristics buffer the intergenerational risk posed by having a parent who was delinquent in adolescence (i.e., as a buffering protective factor), though this study will also test for main effects (i.e., as a direct protective factor). While direct protective factors are not as strong of a basis for informing prevention programs, its exploration is consistent with previous research, and it will provide a more detailed understanding of how aspects of parental partner relationships may function to reduce the risk of problem behavior as well.

Data

The data to be used for this analysis come from RYDS and its intergenerational extension, RIGS. The original study, RYDS, began in 1988 and is a longitudinal study using a stratified random sample of 1,000 7th and 8th grade boys and girls from public schools in Rochester, New York. In order to obtain an overrepresentation of high-risk youth, males were oversampled at a 75 to 25 ratio and high-crime neighborhoods were

proportionately stratified (Krohn & Thornberry, 1999). The sampling method allows the findings to be weighted so that they may represent the full cohort. The final sample consists of 68% African Americans, 17% Hispanics, and 15% Whites.

The current analysis will be using the first phase of RYDS, which took place from 1988 to 1992. During this period, the original participants, referred to from now on as G2, were interviewed every six months from the time they were on average 14 years old to the time they were on average 18 years old. Retention rate for this period is 88%, and previous comparisons of G2 participants who dropped out to those retained suggest that attrition has not biased the sample (Krohn & Thornberry, 1999; Thornberry, 2013).

The intergenerational component of this study was introduced in 1999, when the original participants of the study were approximately 25 years old. During this time, all of the oldest biological children of the original sample, age 2 and older, were asked to join the study. As the timing of G2 parenthood differed across participants, the age range of their children also varied greatly. For this reason, though all children age 2 years and older were asked to join the study, the initial average age of enrollment was 6 years old. Information is gathered on the participants, G3, on an annual basis, and first-born children are added to the study each year as they turn 2 years. The average age of first assessment for all G3 children is 4.8 years. Interviews are conducted with G2 fathers and G2 mothers, G3 children age 8 and older, plus G3's other major caregiver (OCG) who is the person, in addition to G2, primarily responsible for raising G3. For RYDS fathers, OCG is almost always the biological mother of G3 (93%), while OCG varies greatly for the RYDS mothers (47% grandmothers, 31% biological fathers, 7% aunts, 6% step-fathers, and 9% other persons).

As of Year 17, 186 of 193 eligible G2 mothers have enrolled in RIGS, and 345 of 455 G2 fathers have enrolled, despite less than half of G2 fathers actually living with G3. Enrolled and non-enrolled fathers have not shown significant differences on variables such as adolescent drug use and delinquency, race/ethnicity, age at the birth of G3, high school dropout status, or history of maltreatment. For this sample, there has been an 84% retention rate and there is no evidence to suggest differential subject loss as of project Year 17.

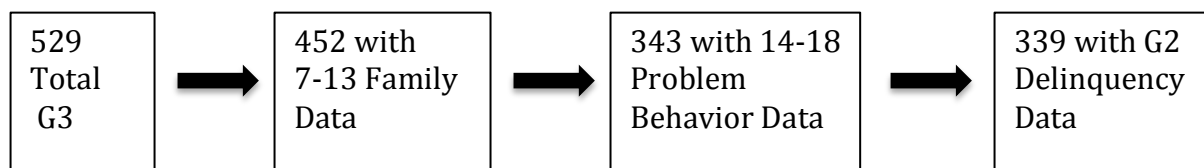
The RYDS/RIGS dataset is ideally suited to answer the proposed research question, as the children come from diverse home backgrounds. While the overwhelming majority of children have their mother as the primary caregiver, fathers have much more diverse relationships with their children. Less than a third of the fathers live in the same household as their child, and of those who do not live in the same household, contact may range from seeing the child frequently to little or no contact with the child.

To be included in this sample, G3 participants must have self-reports of their own delinquency and substance use as well as G2 adolescent reports of their delinquency. For both generations, measures were taken during the ages of 14 to 18. This is a period when children make the important transition into high school, and it is a period that is often marked by experimentation into delinquent behavior and substance use. In addition, data has to be available for mother self-reports of partner relationship quality during G3 ages 7-13. These variables are only available if the respondent reported being in a relationship for six or more months. Seventeen respondents reported being consistently single throughout G3 ages 7 to 13 and therefore are not included in the analysis. The ages of 7 to 13 were chosen, as it shows the most proximate years to our outcomes of interest. As I

am interested in the child's home environment, and mothers are almost always the primary caregivers, I will be focusing on the mothers of G3. This means that I will be using reports from G2 mothers, and for children of G2 fathers, I will be using the reports from the other caregiver, who is almost exclusively the biological mother of G3 (six G3 participants did not have biological mother reports and were therefore excluded).

Finally, the RIGS is essentially an accelerated longitudinal study, which means it follows cohorts of varying ages. As such, there are some children who are too young to be included in the current study. Of all 529 G3s participating in the RIGS, only 348 have data up to 18 years old. In addition, as is the case with all longitudinal studies, some individuals may not participate in one year but appear once again in another. Thus, even for those who have data from 7-18 years old, some individuals may be missing one or more years. In order to maximize the sample size, the decision was made to allow participants to have one year of missing data from ages 14 to 18 (the period in which delinquency is measured). This allows for flexibility, as some missing data is unfortunately inevitable within longitudinal studies. For ages 7 to 11, the period in which the moderating variables are measured, there are no such criteria. Those who have any data during this period are included in the sample. This is because parent-partner quality measures were only taken if the respondent reported being in a long-term relationship and therefore only represent of subsample of individuals interviewed at each period. With these criteria, the final sample size is 339 parent-child dyads. Figure 2 shows how the sample size changes based on the selection criteria.

Figure 2. Sample size lost by observation period



Measures

Independent Variable

Parental adolescent delinquency.

Parental adolescent delinquency is a self-reported measure of G2 general delinquency during adolescence that has been commonly used in prior RYDS studies. This measure comes from the first phase of RYDS and covers G2 ages 14 to 18. This measure includes 32 types of delinquent behavior. Examples of questions included in this measure are, “Since the last interview, have you stolen something from a car that did not belong to you?” and “Since the last interview, have you used a weapon or force to make someone give you money or things?”. A more detailed description of variables is given in Appendix A.

For each 6-month assessment period, a variety score was created that indicates how many different types of delinquent acts G2 engaged in. For the final delinquency score, the maximum variety score was taken for Waves 1-9. G2 reported an average maximum variety score of 3.81 delinquent acts per year (Table 1). The measure was highly skewed, with most participants reporting little or no delinquency.

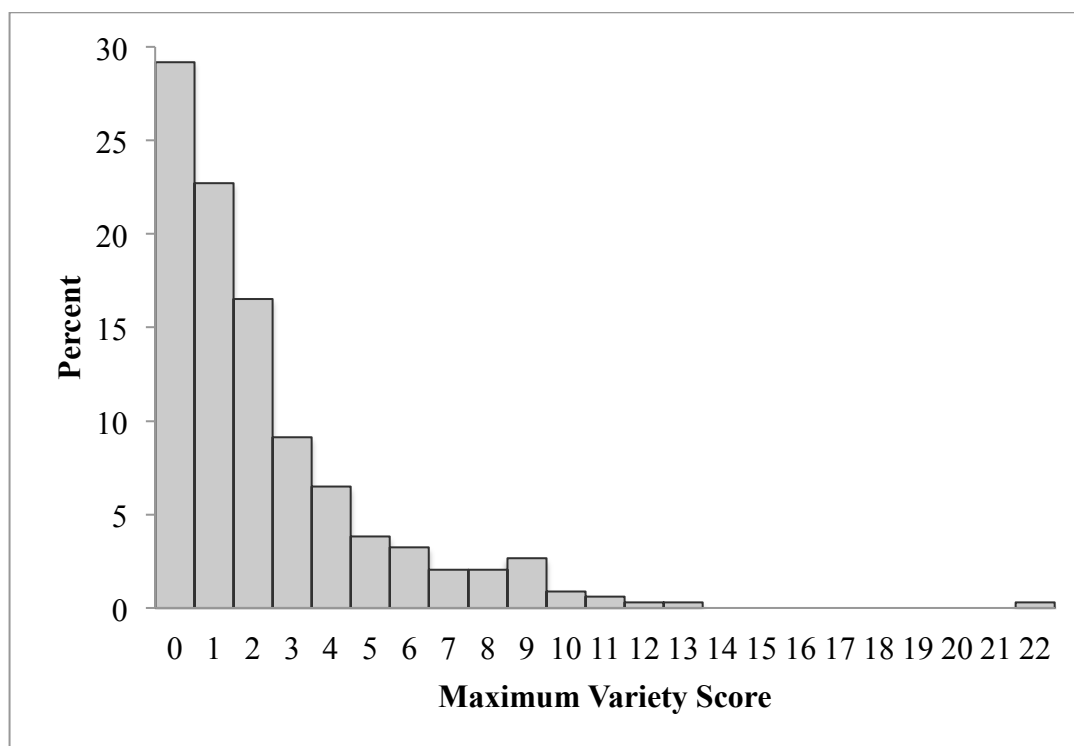
Dependent Variables

Child general delinquency.

Child general delinquency is a self-reported measure of G3 delinquency. This variable measures equivalent delinquent acts as the previous parental delinquency variable and consists of 33 types of delinquent behavior. Examples of questions included in this measure are, “Since the last interview, have you stolen someone’s purse or wallet or picked someone’s pocket?” and “Since the last interview, have you gone into or tried

to go into a building to steal or damage something?” Just as with G2 delinquency, a variety score was created that indicates how many different types of delinquent acts G3 engaged in. For the final delinquency score, the maximum variety score was taken across ages 14 to 18. The majority of G3 reported engaging in delinquent behavior (71%), and there was an average maximum variety score of 2.30 delinquent acts per year. Again, this measure was highly skewed, with most individuals reporting very little delinquency. A histogram of the distribution is displayed in Figure 3.

Figure 3. Histogram of G3 average annual delinquency

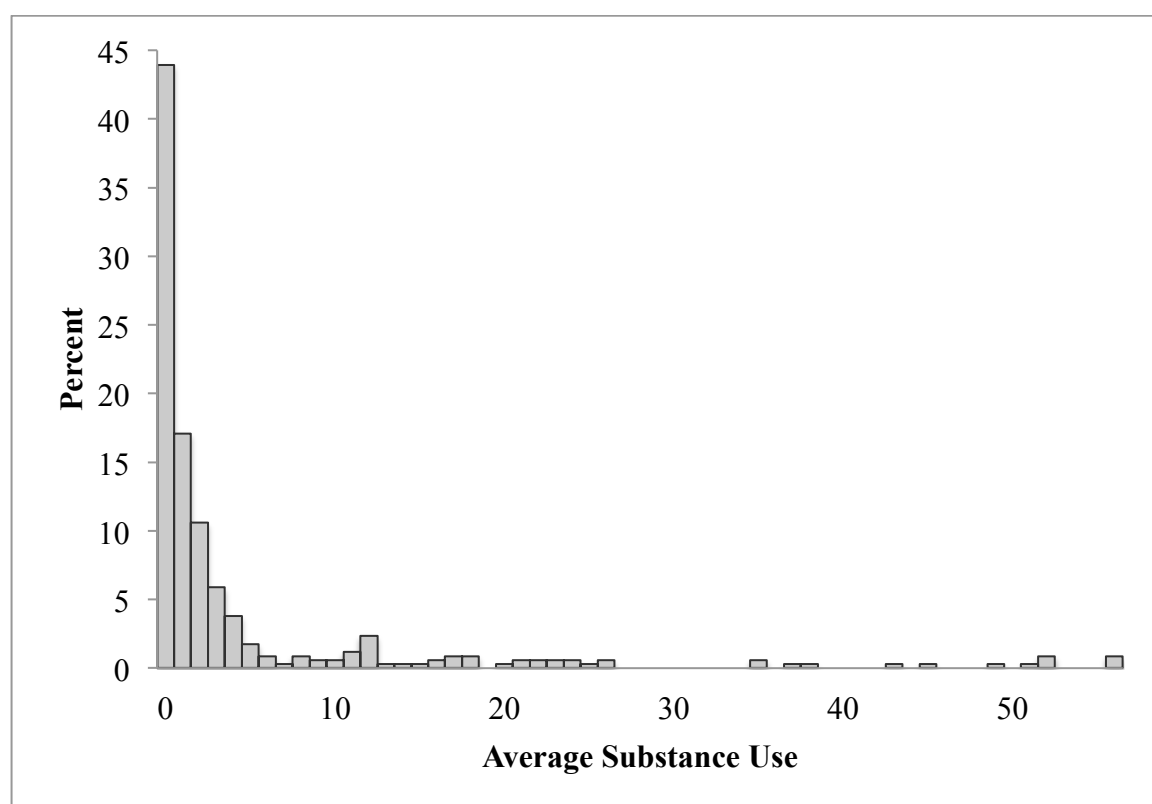


Substance use.

Child substance use covers the use of alcohol and marijuana over the ages of 14 to 18. For alcohol use, G3 was asked to self-report the number of times they drank beer, wine, or hard liquor without their parents' permission since the last interview. For marijuana use, G3 was asked to self-report the number of times they have used marijuana

since their last interview. Each type of substance use was top-coded at 52 incidents per year. These measures were then summed together and averaged across these 5 years. The majority of G3 did report using alcohol or marijuana (55%), but the measure is still highly skewed with most individuals reporting very little drug use. On average, G3 reported 4.24 annual substance use incidents. A histogram of the distribution is displayed in Figure 4.

Figure 4. Histogram of G3 average substance use



Note: In order to best display the distribution of substance use, substance use scores were rounded to the next highest whole number. Two outliers of 88.2 were binned into the next highest score (55).

Protective Factors

Longitudinal Patterns of Behavior

One obvious problem when looking at parent-partner relationship characteristics is that some individuals will have more than one marriage or cohabitation during my period of interest. For these measures, I am not interested in a specific relationship. Rather, I am interested in the quality of the mother's relationships across time and relationships. Though there are many ways to examine longitudinal patterns over time, I first examined the stability of the relationship quality measures across G3 ages 7 to 13. Correlations over time for each variable were run (shown in Appendix B). When considering adjacent time periods, average correlation coefficients for relationship satisfaction, conflict, and stability were .58, .50, and .52, respectively. Though the average correlation coefficients varied considerably across these three variables, each meets the conventional cutoff of .50, which is considered a large effect size (Cohen, 1988). Thus, all relationship variables were considered highly correlated over time, suggesting a high degree of stability for all measures. As such, it was decided that a simple summary measure would suffice. Each variable was created using an average over the 7 years.

Satisfaction within the relationship.

In order to measure *relationship satisfaction*, a scale of six questions was used. This scale ranges from '1' to '5' with higher values on this scale indicating higher quality relationships. The questions consist of whether the participant trusts their partner, the participant and partner get along well, the partner does not treat the participant well, the relationship is a very close one, the participant and partner can rely on each other, and the

partner does things to make the participant jealous. The questions regarding whether the partner does not treat the participant well and the partner does things to make the participant jealous were reverse coded. The annual scores of satisfaction were average across the 5 years.

The satisfaction scale used is highly reliable. When calculating Cronbach's alpha, the average score was .87. This is well within the acceptable score range typically suggested by researchers (Tavakol & Dennick, 2011). On average, participants reported a satisfaction score of 4.38.

Conflict over raising child within the relationship.

The next predicted protective factor is *relationship conflict*. Though there may be different sources of conflict within the household, this type of conflict is centered on conflict within the relationship and specifically focuses on conflict surrounding how G3 is raised. *Relationship conflict* is measured using a scale, and the scale ranges from '1', no conflict, to '4', a great deal of conflict. This scale is composed of four questions on conflict concerning G3. The questions include conflict over how G3 is raised, where G3 lives, how much money is spent on G3 by the primary caregiver, and how much money is spent on G3 by the partner.

The conflict scale appears reliable as well, as the average alpha is .74. The annual score of *conflict* was averaged across all observation periods. The respondents reported an average conflict score of 1.42.

Stability of relationship.

Finally, *relationship stability* is a scale ranging from '1', indicating a stable relationship, to '5', indicating a very instable relationship. The scale is composed of three

questions that include the participant having thoughts of breaking up with the partner, believing the partner wants to break up, and talking about breaking up. Once again, the measures were reverse coded, as I am interested in the protective end of stability. The annual score of *relationship stability* was averaged across all observation periods.

Once more, this scale is reliable. The average alpha is .85. On average, respondents reported a stability score of 4.25.

Table 1. Descriptive statistics for G2 and G3 measures

	n	Mean	SD	Range
Outcome Variables				
G3 Delinquency	339	2.30	2.82	0-22
G3 Substance Use	339	4.24	10.60	0-88.2
Predictor Variable				
G2 Delinquency	339	3.81	3.80	0-20
Moderating Variables				
Satisfaction	339	4.38	0.51	2.33-5
Conflict	339	1.42	0.46	1-3.92
Stability	339	4.25	.67	2.17-5
Control Variables				
G2 Male	339	0.61	0.49	0-1
G3 Male	339	0.50	0.50	0-1
Low socioeconomic Status	339	0.61	0.49	0-1
Neighborhood Arrest Rate	339	4.47	1.98	0.12-7.87

Control Variables

A number of control variables will be used for the analysis as well. First I will be controlling for *G2 sex* and *G3 sex*. These are binary variables with ‘1’ indicating the individual is male and ‘0’ otherwise. In addition, *G2 low socioeconomic status* will be

included, which also is a binary variable indicating whether G2's parents during Wave 1 were considered to be of low socioeconomic status. In order to be considered as having a low socioeconomic status, the primary wage earner had to be unemployed, receive welfare, or the household had to be at or below the federally established poverty level. Finally, the stratifying variable, *neighborhood arrest rate*, is included. This is the arrest rate for the neighborhood of residence for G2 at the beginning of RYDS.

Analysis

The proposed study aims to reveal whether quality characteristics of parent-partner relationships in the home moderate intergenerational continuity of problem behaviors between parent and child. In other words, can family relationships act as protective factors? To answer this question, intergenerational continuity must first be established. In order to do this, a series of bivariate regressions will be run in which the outcomes variables (G3 delinquency and substance use) are regressed on G2 delinquent behavior. As stated previously, the outcome variables are highly skewed. Because the outcomes are rare events and resemble count data, a negative binomial model will be used.

After the previous models testing intergenerational continuity have been run, a series of multivariate regression models will be run using the predicted moderating variables. These variables will be standardized in order to ease comparisons and reduce correlations between interaction terms and their main effects. Once again, a negative binomial regression will be run for the models. For each variable (stability, conflict, and satisfaction), I will first check for direct protective effects. That is, I will include just the main effect. Once this has been done, for each relationship factor, an interaction term will

be included in the model as well. That is, each proposed protective factor would be interacted with the risk variable (parental adolescent delinquency). As this last step is meant to test for moderation of intergenerational continuity, it will only be run for those previous models that suggest an intergenerational relationship. If the interaction term is significant in the predicted direction, then we can conclude that there is a buffering protective effect.

Results

Intergenerational continuity.

The first step in the analysis is to establish intergenerational continuity for each outcome variable. That is, I will first look at how parental adolescent delinquency predicts problem behavior in their adolescent children. Before running these models, the distributions of the outcome variables were examined. For G3 delinquency, as seen in Figure 3, there appears to be one potential outlier. There is one individual who reports engaging in 22 types of delinquency, with the next highest variety score being only 13 types of delinquency. The value of the observation is substantially higher than all the other observations and has potential to influence the results of the analysis. In addition, for G3 substance use, there once again appears to be potential outliers. As seen in Figure 4, though most observations range between 0 and 55, there are two observations reporting 88.2 instances of substance use. Again, there is reason to suspect that these observations may potentially influence the intergenerational continuity results. Therefore, models will be run both with and without the potential outliers for each of the outcome variables.

First, intergenerational continuity is tested when considering the full sample, including all potential outliers. The results of this analysis are reported in the left-side

columns of Table 2. When using G3 delinquency as the outcome, there appears to be no support for intergenerational continuity, as the coefficient fails to reach a conventional level of significance ($P > .10$). When using G3 substance use as the outcome, there once more appears to be no support for intergeneration continuity. Parental adolescent delinquency was not found to be a significant predictor of adolescent substance use ($P > .10$).

Though neither of the previous results suggests intergenerational continuity, a quadratic predictor term was included in a second set of analyses in order to account for the possibility that the relationship between parental delinquency and adolescent problem behavior is not linear. For instance, it may be expected that those parents who engaged no delinquency as an adolescent are very different to those parents who engaged in a single type of delinquency. On the other hand, this effect may diminish at higher levels. Those individuals who engaged in 19 types of delinquency may look very similar to those who engaged in 20 types of delinquency. The same argument may be applied to substance use as well. In this case, a curvilinear relationship would be expected.

When the quadratic term is added to the delinquency model, there appears to be more support for intergenerational continuity of delinquency, albeit limited. There is a marginally significant and positive main effect as well as a marginally significant and negative quadratic term for G2 delinquency ($P < .10$). If this were to be interpreted despite its statistical insignificance, it would suggest that an increase in parental delinquency increases adolescent delinquency, at a decreasing rate. For substance use, the quadratic term does not appear to add any explanatory power to the model. Though the

coefficients are in the expected direction, both the main effect and quadratic term of parental adolescent delinquency remain insignificant at all conventional alpha levels.

Next, intergenerational continuity was tested when the potential outliers were removed from the sample. These results are presented in the right-side columns of Table 2. For G3 delinquency, the results once again suggest there is no relationship between parental adolescent delinquency and adolescent delinquency when only a linear predictor term is used ($P > .10$). When including a quadratic term to test for a curvilinear relationship, evidence is once again found for intergeneration continuity between parental and child delinquency. The analysis indicates a positive and significant main effect ($P = .02$) as well as a negative and significant quadratic term ($P = .04$). This relationship is illustrated in Figure 5. As G2 delinquency increases, G3 delinquency increases at a decreasing rate. Though the figure shows that the relationship eventually flips direction (G3 delinquency decreases as G2 delinquency increases), this is likely to be an artifact due to the large confidence intervals at higher values of delinquency. Instead, it is possible that the relationship eventually flat lines, such that increases in parental delinquency no longer impact adolescent delinquency.

Finally, continuity between parental adolescent delinquency and adolescent substance use was tested without the two potential outliers. When looking at a linear relationship as well as a curvilinear relationship, though the coefficients are in the predicted direction, there is once more no evidence found for intergeneration continuity between parent adolescent delinquency and adolescent substance use. For all models, both the main effect as well as the quadratic term fails to meet significance at any

traditional alpha level ($P > .10$). Thus, it is concluded that parental adolescent delinquency is not a risk factor for adolescent substance use.

Figure 5. Predictive margins with a 95% confidence interval for delinquency

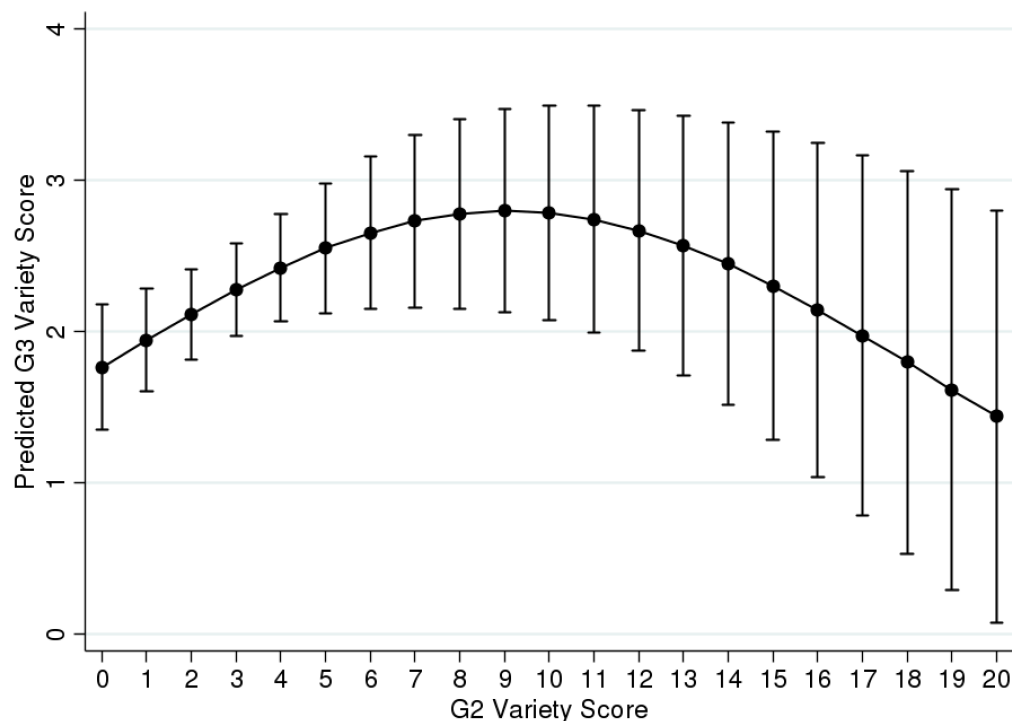


Table 2. Intergenerational relationships between G2 delinquency and G2 problem behaviors (mean, standard error)

Predictor variables	A. G3 Outcome - Full Sample		B. G3 Outcome - Outliers Removed	
	Delinquency	Substance Use	Delinquency	Substance Use
Linear Model				
G2 Delinquency	.068 (.070)	.108 (.131)	.087 (.069)	.147 (.123)
Curvilinear Model				
G2 Delinquency	.187† (.100)	.257 (.192)	.223* (.096)	.257 (.187)
G2 Delinquency Squared	-.070 (.041)	-.075 (.071)	-.081* (.040)	-.054 (.069)

Note: Each equation includes the following control variables: G3 sex, G2 sex, G2 socioeconomic status, and G2 neighborhood arrest rate.

† $p < .10$ * $p < .05$

The previous results point to a relationship between parental adolescent delinquency and their child's adolescent delinquency. Though both curvilinear models, with and without the outlying observation, suggested some degree of continuity, the model without the outlying observation presented a stronger relationship. This suggests that the removed data point indeed altered the analysis results. Thus, future models testing protective effects will be run without this observation. On the other hand, all substance use models, regardless of specification, indicated no intergenerational continuity between parental adolescent delinquency and their child's adolescent substance use. Therefore, this relationship will not be considered when testing for protective factors.

Protective Factors.

Now that intergenerational continuity between parental adolescent delinquency and their child's adolescent delinquency has been established, the next step of the analysis is to see whether qualities of parent-partner relationships can protect against this continuity. The three potential protective factors to be examined are satisfaction, stability, and conflict. The results are presented in Table 3.

The first potential protective factor examined is parent-partner relationship satisfaction. Before considering the moderating effect, the direct relationship between parent-partner satisfaction and adolescent delinquency was examined (Table 3, top-half). The results show a direct, negative relationship between parent-partner satisfaction and delinquency ($P = .03$): As parent-partner satisfaction increases, adolescent delinquency decreases. That is, parent-partner satisfaction acts as a direct protective factor, which benefits all adolescents. Next, satisfaction was interacted with the main term of parental

adolescent delinquency in order to test whether it acts as a buffering protective factor (i.e., a moderating effect) (Table 3, bottom-half). An interaction with the quadratic delinquency term was not used due to the complex nature of this interaction and the difficulty it brings when interpreting the results. In this model, the main effect coefficient is left virtually unchanged, and the interaction fails to reach significance ($P > .10$). Thus, no evidence was found to suggest that parent-partner satisfaction acts as a buffering protective factor.

Table 3. Moderating intergenerational continuity of delinquency with parent-quality variables (mean, standard error)

Predictor variables	Protective Factor		
	Satisfaction	Stability	Conflict Over Raising Child
Direct Model			
G2 Delinquency	.206* (.095)	.239* (.095)	.221* (.096)
G2 Delinquency Squared	-.075† (.039)	-.090* (.040)	-.081* (.040)
Protective Factor	-.219** (.062)	-.196** (.064)	.114† (.064)
Buffering Model			
G2 Delinquency	.076 (.067)	.097 (.069)	.087 (.069)
Protective Factor	-.223** (.062)	-.183** (.065)	.110† (.064)
G2 Delinquency X Protective Factor	-.033 (.067)	.059 (.068)	-.041 (.067)

Note: Each equation includes the following control variables: G3 sex, G2 sex, G2 socioeconomic status, and G2 neighborhood arrest rate.

† $p < .10$ * $p < .05$ ** $p < .01$

The next potential protective factor of interest is parent-partner stability. Once again, the main effect of stability is significant ($P = .01$), suggesting that stability is a direct protective factor. As parent-partner stability increases, adolescent delinquency

decreases for all adolescents. In addition, once stability is interacted with the risk term, it is still found that the interaction term is not significant ($P > .10$). Parent-partner stability does not act as a buffering protective factor for intergenerational continuity.

The third and final potential protective factor examined is parent-partner conflict over raising G3. When looking at the model testing the direct protective effect, it can be seen that coefficient for conflict is positive and marginally significant ($p=.08$), suggesting that as parent-partner conflict decreases, child delinquency decreases as well. Thus, there is some, albeit limited, evidence to suggest that parent-partner conflict is a direct protective factor for adolescent delinquency. In the final model, when an interaction between parental adolescent delinquency and parent-partner conflict is included, similar results are found to those for the previous two protective factors. The interaction term is not significant ($P > .10$). Thus, the results indicate some level of support for conflict as a direct protective factor but no evidence that it is a buffering protective factor.

Discussion

The primary goal of the current paper was to understand how quality aspects of parent-partner relationships could act to buffer the intergenerational risk posed by having a parent who was delinquent as an adolescent. In answering this question, it first had to be determined whether intergenerational continuity exists between parental adolescent delinquency and adolescent problem behavior. The results presented suggest that intergenerational continuity depends on what problem behavior we are examining.

When looking at the relationship between parental adolescent delinquency and adolescent delinquency, there does indeed appear to be a relationship, which is curvilinear. Increased parental adolescent delinquency is related to increased levels of

adolescent delinquency, albeit at a decreasing rate. This suggests that there is indeed intergenerational continuity in delinquency. On the other hand, no relationship was found between a parent's adolescent delinquency and their child's adolescent substance use. That is not to say that there is no intergenerational continuity of substance use, but parental adolescent *delinquency* at least does not appear to be a significant predictor of adolescent substance use in this sample. Thus, when considering what variables act to buffer intergenerational risk, only the relationship between a parent's adolescent delinquency and their child's adolescent delinquency was considered.

The next issue was to determine whether parent-partner relationship qualities act as *direct* protective factors for adolescent delinquency. That is, what factors reduce delinquency for all individuals? Here, it appears as though both parent-partner stability and satisfaction are important factors. As both satisfaction and stability of parent-partner relationships increase, adolescent delinquency decreases. Additionally, there was weak evidence to suggest that conflict acted as a direct protective factor as well. As conflict in relationships decreases, so too does adolescent delinquency. Overall, increasing parent-partner relationship quality in general, and stability and satisfaction in particular, should lead to decreased levels of adolescent delinquency for all individuals, regardless of prior risk status.

The main question of the paper centers on moderation, or buffering protective factors, rather than direct protective factors. Once more, the results were similar, regardless of what protective factor was being examined. That is to say, for each protective factor, the main effect remained practically unchanged, while the interaction term was not significant and often in the opposite direction than posited in the

hypotheses. Parent-partner relationship qualities did not moderate the intergenerational risk posed by having a parent that was engaged in delinquency during adolescence. Rather, all three of the protective factors worked only as *direct* protective factors.

There are multiple conclusions to be drawn from the previous analysis. While not the primary focus of the paper, the results highlight that although parental adolescent delinquency acts as a risk factor for adolescent delinquency, this risk does not necessarily extend to other types of behavior. In this case, it did not emerge as a risk factor for adolescent substance use. In addition, it highlights the difference between direct and buffering protective factors. Factors that act as direct protective factors will not necessarily act as buffering protective factors as well. In this case, all of the examined parent-partner relationship factors were determined to be direct protective factors, but none of the factors moderated intergenerational continuity.

There are possible explanations for these results. One reason moderation was expected was because the presence of safe, stable, and nurturing relationships for G2 should lead to reduced intra-generational consequences of delinquency, thereby reducing intergenerational continuity of delinquency. It was assumed that stability, satisfaction, and conflict are linked to the safety, stability, and nurturance of relationships, but more direct measures of these characteristics may be needed. For example, Conger et al. (2013) used measures of warmth, support, and positive communication in relationships when moderating the intergenerational continuity of harsh parenting. These factors may be seen as directly measuring characteristics of a nurturing relationship and, therefore, may be more likely to moderate intergenerational continuity through the SSNRE model. On the other hand, the proposed protective factors may be weakly associated with the safety,

stability, and nurturance of parent-partner relationships. For instance, high conflict relationships may indicate an absence of nurturance, but low conflict does not indicate the presence of nurturance. Similarly, though stability is used as a possible moderator, it is only the perception of stability, which may not reflect the true stability. As such, the proposed protective factors may not be linked strongly enough to the SSNRE model to reduce intra-general continuity.

The distinction between direct and buffering protective factors is important. Though direct protective factors may be important in identifying broadly what factors may help to reduce problem behavior in the general population, buffering protective factors have more direct policy implications. Accordingly, although increasing the quality of parent-partner relationships in general may help to reduce delinquency in the general population, it does not necessarily help in buffering intergenerational continuity of delinquency. On the other hand, buffering protective factors promote resiliency within a specific target population: individuals with an intergenerational risk. Thus, from a policy standpoint, it may be more beneficial to further explore other avenues for potential buffering protective factors, such as warmth and support in parent-partner relationships, rather than focusing on stability, satisfaction, and conflict of relationships.

As with all research, the present analysis did suffer from limitations. One clear limitation of the analysis is a lack of generalizability. It is based on a single cohort of children from Rochester, New York. It is not clear whether the findings will generalize to other cohorts and locations. For this reason, it will be important to replicate the study findings using samples from other backgrounds. As well as being limited in generalizability, the sample is also clearly limited in size. In order to conduct analyses

testing moderating effects, it is important to have a rather large sample size in order to obtain enough statistical power. The sample size was not large enough to conduct analyses on subsets of the sample, which could be important. No intergenerational relationship was found between parental adolescent delinquency and adolescent substance use, but different results may have been found depending on the subsample used. For instance, intergenerational continuity in substance use has been found to vary depending on parental sex (Nadel & Thornberry, 2016; Cranford et al., 2010). Nonetheless, dividing the sample into parental sex would not have allowed for stable estimates when testing for moderating effects.

Moreover, the current study explored three aspects of parent-partner relationships believed to be important determinants of relationship quality: satisfaction, stability, and conflict. These measures, however, do not necessarily reflect all aspects of relationship quality that could be examined, and, as discussed previously, they may not be the most important factors. For example, the conflict measure focused on conflict between partners centered on raising G3. There, of course, may be other sources of conflict that may be important to consider. Furthermore, the stability measure does not necessarily reflect the objective stability of the relationship. It instead measures the respondent's *perception* of how stable she views the relationship to be. As stated before, different quality aspects of parent-partner relationships may have different impacts on child behavior. If different relationship quality characteristics were considered, or if the objective stability of the relationship were instead used, different results may have been found. Thus, in future research, it will be important to look at a range of quality measures, particularly those believed to be strongly linked to the safety, stability, and nurturance of relationships.

Lastly, though the goal was to look at problem behaviors in general, only two types of problem behavior were examined. There are a multitude of different problem behaviors for both G2 and G3 that could have been examined. It will be up to future research to determine how different types of problem behaviors are interrelated across generations as well as to determine how parent-partner relationships in the home can work to buffer these intergenerational effects as well.

Despite its limitations, the current study is one of the first studies to move beyond just looking at how parent-partner relationship qualities act as protective factors for problem behavior and to consider how they might buffer the intergenerational risk of having a parent who was delinquent as an adolescent. The analysis, based on prospective reports from two generations, does indeed point to the protective effect of high quality parent-partner relationships. Relationships that are highly satisfactory and stable and low in conflict have the ability to reduce delinquency among all adolescents. This is important in suggesting that promoting quality relationships that are satisfactory, stable, and low in conflict surrounding raising children may help to reduce adolescent delinquency in general. Though buffering protective factors were the main interest of the current paper, parent-partner quality aspects were not found to moderate intergenerational continuity. Nonetheless, understanding how to reduce the intergenerational continuity of problem behavior is an important question, and it will be up to future research to discover what types of protective factors do work to moderate this relationship.

Appendix A

Parental adolescent delinquency

Since [the last interview], have you ...

- Q1. Run away from home?
- Q2. Skipped class without an excuse?
- Q3. Lied about your age to get into some place or to buy something (for example, lying about your age to get into a movie or to buy alcohol)?
- Q4. Carried a hidden weapon?
- Q5. Been loud or roudy in a public place where somebody complained and you got in trouble?
- Q6. Begged for money from strangers?
- Q7. Made obscene telephone calls, such as calling someone and saying dirty things?
- Q8. Been drunk in a public place?
- Q9. Damaged, destroyed or marked up somebody else's property on purpose?
- Q10. Set fire on pupose or tried to set fire to a house, building, or car?
- Q11. Avoided paying for things, like a movie, taking bus rides, using a computer, or anything else?
- Q12. Gone into or tried to go into a building to steal or damage something?
- Q13. Tried to steal or actually stole money or things worth \$5 or less?
- Q14. How about between \$5 and \$50?
- Q15. How about between \$50 and \$100?
- Q16. How about ovr \$100?
- Q17. Tried to buy or sell things that were stolen?

- Q18. Taken a car or motorcycle for a ride without the owner's permission?
- Q19. Stolen or tried to steal a car or other motor vehicle?
- Q20. Forged a check or used fake money to pay for something?
- Q21. Used or tried to use a credit card, bank card, or automatic teller card without permission?
- Q22. Tried to cheat someone by selling them something that was not what you said it was or that was worthless?
- Q23. Attacked someone with a weapon or with the idea of seriously hurting or killing them?
- Q24. Hit someone with the idea of hurting them (other than what you have already mentioned)?
- Q25. Been involved in gang or posse fights?
- Q26. Thrown objects such as rocks or bottle at people (other than what you have already mentioned)?
- Q27. Used a weapon or force to make someone give you money or things?
- Q28. Been paid for having sexual relations with someone?
- Q29. Physically hurt or threatened to hurt someone to get them to have sex with you?
- Q30. Sold marijuana, reefer or pot?
- Q31. Sold hard drugs such as crack, heroin, cocaine, LSD or acid?
- Q32. Helped in running an illegal gambling operation, like running numbers or books?
- Q33. Taken part in illegal gambling, such as shooting dice, betting on cards, or playing the numbers?
- Q34. Driven while under the influence of drugs or alcohol?

Q35. Paid someone to have sexual relations with you?

If respondent answered yes to the above questions, they were asked to report how many times they have engaged in each activity.

Child adolescent delinquency

Since your last interview, did you ...

Q1. Run away from home?

Q2. Skipped class without an excuse?

Q3. Lied about your age to get into some place or to buy something? For example, lying about your age to buy alcohol or cigarettes, or to get into a bar or nightclub where alcohol was served.

Q4. Hitchhiked a ride with a stranger?

Q5. Carried a hidden weapon?

Q6. Been loud or roudy in a public place where somebody complained and you got in trouble?

Q7. Begged for money from strangers?

Q8. Made obscene telephone calls where you called someone and used obscene or dirty language?

Q9. Been drunk in a public place?

Q10. Damaged, destroyed or marked up somebody else's property on purpose?

Q11. Set fire on pupose or tried to set fire to a house, building, or car?

Q12. Gone into or tried to go into a building to steal or damage something?

Q13. Tried to steal or actually stole money or things worth \$5 or less?

Q14. Tried to steal or actually stole money or things worth between \$5 and \$50?

Q15. Tried to steal or actually stole money or things worth between \$50 and \$100?

Q16. Tried to steal or actually stole money or things worth over \$100, not including stealing a car?

Q17. Shoplifted or taken something from a store on purpose, including anything you may have already told me about?

Q18. Stolen someone's purse or wallet or picked someone's pocket?

Q19. Stolen something from a car that did not belong to you?

Q20. Tried to or actually did buy or sell things that were stolen, including illegal or bootleg copies of CDs and DVDs?

Q21. Taken a car or motorcycle for a ride without the owner's permission?

Q22. Stolen or tried to steal a car or other motor vehicle?

Q23. Forged a check or used fake money to pay for something?

Q24. Stolen or tried to use without permission a credit card, bank or ATM card, phone card, or account numbers so you could buy services or things either for yourself or for someone else?

Q25. Attacked someone with a weapon or with the idea of seriously hurting or killing them?

Q26. Hit someone with the idea of hurting them, other than what you have already mentioned?

Q27. Been involved in gang or posse fights?

Q28. Thrown objects such as rocks or bottle at people, not just at buildings or cars? Do not include things you already mentioned.

Q29. Used a weapon or force to make someone give you money or things?

Q30. Been paid for having sexual relations with someone?

Q31. Physically hurt or threatened to hurt someone to get them to have sex with you?

Q32. Sold marijuana, weed, or reefer?

Q33. Sold hard drugs such as crack, heroin, cocaine, LSD or acid?

If respondent answered yes to the above questions, they were asked to report how many times they have engaged in each activity.

Child alcohol use

Since your last interview, did you...

Q1. Drink beer, wine, or wine coolers without your parent's permission?

Q2. Drink hard liquor without your parents permission?

If respondent answered yes to the above questions, they were asked to report how many times they have used.

Child marijuana use

Since your last interview, did you...

Q1. Use marijuana, weed, or reefer?

If respondent answered yes to the above question, they were asked to report how many times they have used.

Satisfaction

How often do you feel that...

- Q1. You can trust (partner)?
- Q2. (Partner) and you get along very well together?
- Q3. (Partner) treats you badly?
- Q4. Yours is a very close relationship?
- Q5. You can rely on (partner)?
- Q6. (Partner) does things to make you jealous?

Conflict

How much conflict do you and (child)'s (fater/mother) have about...

Q1. How (child) is raise?

Q2. Where (child) lives?

Q3. How you spend money on (child)?

Q4. How (he/she) spends money on (child)?

Stability

During the past six months, how often...

Q1. Have you thought of breaking up with (partner)?

Q2. Have you thought (partner) wanted to break up with you?

Q3. Have you and (partner) talked about breaking up?

Appendix B

Correlation of *Satisfaction* Over Time

	a7satis	a8satis	a9satis	a10satis	a11satis	a12satis	a13satis
Satisfaction at 7	1.0000						
Satisfaction at 8	0.5443	1.0000					
Satisfaction at 9	0.5450	0.6008	1.0000				
Satisfaction at 10	0.4219	0.4996	0.5310	1.0000			
Satisfaction at 11	0.4286	0.4382	0.4979	0.6240	1.0000		
Satisfaction at 12	0.4209	0.4562	0.4646	0.4970	0.5847	1.0000	
Satisfaction at 13	0.2979	0.4398	0.5061	0.5183	0.4607	0.6126	1.0000

Correlation of *Conflict* Over Time

	a7conf	a8conf	a9conf	a10conf	a11conf	a12conf	a13conf
Conflict at 7	1.0000						
Conflict at 8	0.4512	1.0000					
Conflict at 9	0.5316	0.4924	1.0000				
Conflict at 10	0.3829	0.2634	0.5427	1.0000			
Conflict at 11	0.5425	0.4338	0.4299	0.4061	1.0000		
Conflict at 12	0.5071	0.3810	0.5065	0.3786	0.5141	1.0000	
Conflict at 13	0.4246	0.2766	0.4844	0.3413	0.4571	0.5917	1.0000

Correlation of *Stability* Over Time

	a7stab	a8stab	a9stab	a10stab	a11stab	a12stab	a13stab
Stability at 7	1.0000						
Stability at 8	0.4360	1.0000					
Stability at 9	0.3825	0.5373	1.0000				
Stability at 10	0.3882	0.4943	0.5820	1.0000			
Stability at 11	0.2803	0.4563	0.4040	0.4950	1.0000		
Stability at 12	0.1249	0.3122	0.3176	0.3398	0.4908	1.0000	
Stability at 13	0.1966	0.2662	0.3152	0.4228	0.4442	0.5749	1.0000

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