

# Impact of Neighborhood Safety on the Association between Parental Knowledge and Delinquency

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**Abstract** It is important to understand the role of sources of parental knowledge within the context of perceived neighborhood safety, which has clear implications for how parents should effectively gain knowledge of youth behavior depending on the perceived safety of the neighborhood in which they reside. The current study examined perceived neighborhood safety as a moderator of the relation between sources of parental knowledge (i.e., child disclosure, parental solicitation, and parental control) and child delinquency in a community-recruited sample of 89 children (56% male) ranging from 9 to 12 years of age ( $M = 10.44$ ). Youth and their primary caregiver (85% mothers) responded to survey items. Findings suggested that the link between child disclosure and delinquent behavior was moderated by perceived neighborhood safety, such that the link between child disclosure and lower levels of delinquency weakens in neighborhoods perceived as less safe. In contrast, the link between parental solicitation and delinquency strengthened in neighborhoods perceived as less safe using both child and parent reports of delinquency, such that more solicitation was associated with higher levels of delinquent activity. Perceived neighborhood safety did not have a moderating effect on the relation between parental control and child-reported or parent-reported delinquency. Future directions are discussed.

**Keywords** Sources of knowledge · Delinquency · Neighborhood safety · Parental monitoring

## Introduction

As children transition from childhood into adolescence, they typically begin to gain more independence from parents. This transition towards autonomy is important, because it is a stage in development where children feel mature enough to make their own decisions but still require guidance from parents (Pardeck and Pardeck 1990). Sometimes this freedom gives children the opportunity to participate in antisocial and delinquent activities (Kerr and Stattin 2000). However, effective parental monitoring, which is defined as strategies that parents use to obtain knowledge of children's daily activities, has been linked to low levels of conduct problems (Crouter et al. 1990; Patterson Stouthamer-Loeber 1984). Yet, too much or too little parental behavioral control (i.e., a commonly assessed parental source of knowledge of children's activities) can also result in children engaging in delinquent behavior, and this effect may depend on other contextual factors (Mason et al. 1996). For example, studies have found that high levels of parental restrictive control (i.e., component of the authoritarian parenting style) was linked to low problem behaviors in adolescents living in at-risk environments, while adolescents in low-risk environments only required low levels of parental control (Baldwin et al. 1990; Gonzales et al. 1996). Thus, it is important to better understand what strategies parents should use to gain information regarding their child's behavior within

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particular contexts to aid in the prevention of child problem behavior.

On the basis of the developmental ecological model, previous research has supported the theory that the environment has important influences, which affect the way parents foster the development of their children (Bronfenbrenner 1986). Research also suggests that children living in unsafe neighborhoods are especially at risk of developing problem behaviors such as delinquency (Pettit et al. 1999). It may be that increased levels of parental monitoring behaviors are particularly important in situations in which the environment puts children at risk of developing problem behaviors as their autonomy develops. Therefore, it is important to investigate how contextual factors, such as neighborhood safety, may impact the relation between parental knowledge and child delinquency in late childhood, as children begin to transition into adolescence.

Parental monitoring has been historically assessed by evaluating parents' sources of obtaining knowledge of their child's activities and whereabouts (e.g., Crouter et al. 1999; Pettit et al. 1999; Stattin and Kerr 2000), and ample research links poor parental monitoring to child problem behaviors (e.g., Dishion and McMahon 1998; Pardini et al. 2008; Racz and McMahon 2011). However, research by Stattin and Kerr (2000) suggests that it is the parents' sources of knowledge that are important when understanding the influence of parental monitoring. They identified that parents' knowledge of child's activities and whereabouts come from three sources: child disclosure, parental solicitation, and parental control (Stattin and Kerr 2000).

Child disclosure is the child's spontaneous sharing of information, parental solicitation is parents' efforts to ask their children for information, and parental control is the parents' imposed rules on their children's activities (Stattin and Kerr 2000). Stattin and Kerr (2000) found that child disclosure is the source of knowledge that is most important in predicting norm-breaking behavior such as delinquency, which suggests that it is very important to have positive parent-child relationships so that the child is willing to freely disclose information about their everyday life. For example, studies analyzing parental knowledge have shown that high levels of child disclosure are associated with low levels of delinquent behavior, while low child disclosure is associated with norm-breaking and aggressive behavior (Gaertner et al. 2010; Stattin and Kerr 2000). In contrast, parental solicitation has been linked to higher levels of problem behavior (Kerr et al. 2010; Kiesner et al. 2009; Stattin and Kerr 2000; Willoughby and Hamza 2011). Parental control was linked to lower problem behavior, but only for adolescents who often hung out in the streets during the evening (Stattin and Kerr 2000). The link between high levels of parental control and lower norm-

breaking behavior was not as large as the main effect of child disclosure (Stattin and Kerr 2000). Additionally, few longitudinal studies have suggested that parental control predicted a decrease in delinquency (Kiesner et al. 2009; Willoughby and Hamza 2011). However, some longitudinal studies have revealed that parental control does not influence delinquency (Keijsers et al. 2010; Kerr et al. 2010). This research has challenged previous findings by suggesting that parental tracking and surveillance strategies are not as effective at preventing adolescents from being involved in delinquent activities (Kerr and Stattin 2000; Kerr et al. 2010). However, most of these studies did not take into account the possible moderating effects of the larger context, such as neighborhood safety, on determining which sources of parental knowledge are most relevant.

Neighborhood structure can influence behavior; poor neighborhood structural factors, such as high crime rates and low SES, are linked to high levels of delinquency (Chung and Steinberg 2006; Fite et al. 2010). These poor neighborhood structural factors lead to social disorganization, which causes the community to abandon effective social controls (Chung and Steinberg 2006). This is consistent with the neighborhood disorder model, which posits that a loss of social control can negatively affect a neighborhood and its residents (Sampson and Raudenbush 1999). More importantly, previous research has shown that neighborhood context can moderate the association between parenting and child behavior problems. For example, Coley and Hoffman (1996) found that readily unsupervised children from safe neighborhoods received better behavior ratings than readily supervised children from unsafe neighborhoods. Further, high levels of parental knowledge have been linked to low levels of children's problem behavior for children who live in neighborhoods that are perceived to be unsafe (Pettit et al. 1999). Although this study established the link between parental knowledge and child delinquency within the context of perceived neighborhood safety, there has not been a focus on investigating the specific parental sources of knowledge and child delinquency within the context of perceived neighborhood safety, which has implications for how parents should be gaining knowledge of their child's whereabouts and behaviors depending on the neighborhood in which they reside.

Children living in unsafe neighborhoods are less at risk of engaging in externalizing problem behavior and developing negative psychological symptoms when their parents provide increased or strict monitoring (e.g., Ceballo et al. 2003; Cuellar et al. 2015). Children residing in less well-off neighborhoods tend to have worse problem behaviors when parents report low levels of monitoring, and this has been attributed to the notion that economically disadvantaged neighborhoods are less likely to offer resources that contribute to positive socialization in adolescents (Sampson

et al. 1999). Living in these less affluent neighborhoods place a burden on parents to compensate for the lack of neighborhood resources by increasing monitoring and supervision, while children in affluent neighborhoods do not require high levels of parental monitoring because their neighborhoods may provide resources for positive socialization (Beyers et al. 2003). These findings are consistent with the ecological theory, which suggests that environmental factors such as neighborhood structure have a large impact on parenting practices (Bronfenbrenner 1986).

However, although these studies further establish that increased parental monitoring is a protective factor against child delinquency in neighborhoods with unsafe characteristics, no research has examined the impact of neighborhood safety on the associations between the sources of parental knowledge that make up parental monitoring and child delinquency. It may be that when parents perceive their neighborhood as being less safe, parental knowledge sources, such as parental control, play a more significant role in preventing children from becoming involved in delinquent activities.

The present study investigates perceived neighborhood safety as a potential moderator of the relation between parental sources of knowledge (child disclosure, parental solicitation, and control) and child delinquency in a community selected sample of 9–12 year olds. The current study extends the literature by understanding the role of sources of parental knowledge within the context of perceived neighborhood safety, which has clear implications for how parents should effectively gain knowledge of youth behavior depending on the perceived safety of the neighborhood in which they reside. Further, the current study extends the literature by determining these effects as youth transition into adolescence, a time of rapid change and risk for problem behaviors increase. Stattin and Kerr (2000) suggest that child disclosure is the most effective source of parental knowledge; however, research on disadvantaged neighborhoods suggests that increased parental monitoring (e.g., parents' awareness of their children's activities) is necessary for the reduction of child externalizing problem behaviors within unsafe neighborhoods (Beyers et al. 2003). Thus, when unsafe neighborhood factors are present, different sources of parental knowledge may play a significant role in preventing children's problem behavior. It was hypothesized that when neighborhoods were perceived as being less safe, high levels of both parental control and child disclosure were expected to be associated with low levels of child delinquency. Given the research literature on parental solicitation and its consistent link with higher levels of delinquency (Kerr et al. 2010; Kiesner et al. 2009; Stattin and Kerr 2000; Willoughby and Hamza 2011), it was expected that solicitation would be associated with delinquency regardless of neighborhood safety.

## Method

### Participants

Participants included 89 children ( $N = 50$  male) ranging from 9 to 12 years of age ( $M = 10.44$ ;  $SD = 1.14$ ) and their primary caregiver (85% mothers). We chose to use a late childhood sample to investigate what sources of parental knowledge are most beneficial in preventing the development of delinquent activities, as children begin to develop autonomy as they transition into adolescence (Pardeck and Pardeck 1990). Participants were community recruited from a midsized Southeastern community in order to evaluate these associations in children from a variety of backgrounds. Flyers and advertisements were distributed throughout the community (e.g., doctor offices, recreational centers, and restaurants) to recruit participants. Caregivers participated in a brief phone screening process to ensure that the child and caregiver did not meet any of the exclusionary criteria, including child developmental delays, medication that may interfere with the child's reaction time, and non-English speaking families.

The majority of children in our sample were Caucasian (74%), 20.5% were African–American, and 5.5% were biracial or “other” racial/ethnic group. The sample represents a range of socioeconomic backgrounds (\$5600–240,000), with the median family income at \$50,000, ~27% of the participating families received public assistance, and 21.2% participating families having income at \$20,000 or below.

### Procedure

All study procedures and materials were approved by the principal investigator's Institutional Review Board. The data for the current study were collected between 2009 and 2010 as part of a larger study examining family, friends, school, and individual characteristics associated with aggression in children and included computerized tasks not relevant to the current study. Upon being invited to the lab, both caregiver consent and child assent for participation was obtained. Children and caregivers were interviewed simultaneously, but separately to ensure confidentiality of responding. Interviewers read each item of a series of questionnaires aloud to both children and caregivers and recorded respondents' answers on a computer using MediaLab software. Participants were assured confidentiality and were encouraged to be honest in their responses. The data collection sessions lasted ~90 min. Caregivers were compensated \$45 and children received a small prize for their participation.

## Measures

### *Perceived neighborhood safety*

Caregiver perceptions of neighborhood safety were assessed using six items adapted from the Self-Care Checklist (Pettit et al. 1999; Posner and Vandell 1994). This measure assesses caregivers' feelings of personal safety as well as the safety of their child. High scores on this measure indicated feeling unsafe and/or that the neighborhood was dangerous for their child. Sample items include "How safe do you feeling coming home alone?" and "How safe do you think it is for your child to play outside when you are home?" Caregivers responded on a 6-point Likert scale ranging from 1 = "Very unsafe" to 6 = "Very safe". Mean scores were computed and used for analyses. The internal consistency in the current sample was good ( $\alpha = .87$ ).

### *Parental knowledge*

Caregiver reports of child disclosure, parental solicitation, and parental control were obtained using the 24-item Parental Knowledge Questionnaire (Kerr and Stattin 2000). This questionnaire is a measure of how parents obtain information regarding their child's whereabouts, activities, and associations. The 5-item child disclosure subscale measures the amount of information the child is willing to share with their caregiver regarding their activities and whereabouts (e.g., "Does your child hide a lot from you about what they are doing during nights and weekends?"). The 5-item parental solicitation subscale measures the amount of parent driven questioning regarding the child's activities and whereabouts (e.g., "During the past month, how often have you started a conversation with your child about their free time?"). Lastly, the 5-item parental control subscale measures the amount of parent imposed rules and restrictions placed upon the child's freedom (e.g., "Do you always require that your child tell you where they are at night, who they are with, and what they do together?"). Caregivers responded to all items using a 5-point Likert scale from 1 = "Never" to 5 = "Always". Stattin and Kerr (2000) indicate that all three subscales are distinct but related sources of parental knowledge. Mean scores were computed and used for analyses, such that high values indicate high levels of child disclosure, parental solicitation, and parental control. Internal consistencies of the measures were modest: child disclosure,  $\alpha = .68$ ; parental solicitation,  $\alpha = .69$ ; parental control,  $\alpha = .63$ , which is likely due to the small number of items used to assess each scale (Tavakol and Dennick 2011).

### *Delinquency*

Caregiver reports of child delinquency were assessed using the rule-breaking behavior subscale of the Child Behavior

Checklist (Achenbach and Rescorla 2001). The rule-breaking subscale consists of 17 items comprised of child delinquent behaviors (e.g., vandalism). Caregivers responded to all items using a 3-point frequency scale (1 = "Not True", 2 = "Somewhat/Sometimes True", 3 = "Very/Often True") regarding how consistent each item was with their child's behavior in the past 6 months. Mean scores were computed and used for analyses. Internal consistencies of the measures were adequate ( $\alpha = .75$ ).

Child self-reports of delinquency were assessed using 14 items from the Self Report Delinquency scale (Fergusson et al. 1999). The scale consists of 14 items comprised of child delinquent behaviors (e.g., "Purposely damaged property that did not belong to you, not counting property of your family member?"). Children responded by choosing 1 = "Yes" or 0 = "No" regarding how consistent each item was with their behavior in the past year. Items were summed such that high scores indicate high levels of delinquency. Children's scores ranged from 0 to 4 out of a potential maximum of 14. Due to the dichotomous nature of the variables that results in limited variability in responses, internal consistency (Chronbach's alpha) values were not appropriate and were therefore not computed (Cohen et al. 2003).

## Data Analyses

Correlations were first estimated to assess the bivariate associations among all study variables. Multiple regression models were then estimated to examine unique associations and to evaluate the proposed moderating effect of perceived neighborhood safety on the association between parental knowledge and child delinquency. Following steps outlined by Aiken et al. 1991 to test interaction effects, a hierarchical approach was used to evaluate both the child-reported and parent-reported delinquency outcome variables. First, child-reported delinquency and parent-reported delinquency were regressed on each parental sources of knowledge (child disclosure, parental solicitation, and parental control), perceived neighborhood safety, age, and gender to evaluate first-order effects. Next, due to power considerations of the small sample size (Aiken et al. 1991), each parental source of knowledge by perceived neighborhood safety interaction term was entered into the model one at a time to examine whether the association between different parental sources of knowledge and child delinquency varied as a function of perceived neighborhood safety. Significant interactions were probed at "more safe" (+1 SD) and "less-safe" (-1SD) neighborhoods to determine the nature of the interaction effects. All variables were standardized ( $M = 0$ ,  $SD = 1$ ) prior to conducting regression analyses to facilitate interpretation, with scores indicating high and low levels in the current sample of youth.

**Table 1** Correlations and descriptive statistics of study variables

Variable	1	2	3	4	5	6	7	8
1. Age	—							
2. Gender	−0.08	—						
3. Neighborhood safety	0.17	−0.21	—					
4. Child disclosure	−0.14	0.06	0.10	—				
5. Parental solicitation	−0.20	−0.01	−0.04	0.44*	—			
6. Parental control	0.05	0.04	0.31*	0.40*	0.42*	—		
7. Child Self-report delinq.	0.10	−0.16	0.06	−0.17	0.05	0.10	—	
8. Parent-report delinquency	0.08	0.02	−0.11	−0.32*	0.04	0.02	0.40*	—
Mean	10.44	—	5.13	4.52	4.30	4.94	.53	1.15
Standard dev.	1.14	—	0.78	0.45	0.49	0.16	0.93	0.17
Min	9	—	1.83	3	3.20	4.20	0	1
Max	12	—	6	5	5	5	4	1.79
Range	9–12	—	1–6	1–5	1–5	1–5	0–14	1–3

\* $p < .01$

**Results**

Using frequencies and plots, no outliers were identified. The skewness values of the outcome variables were within recommended limits (child-report delinquency = 1.95, parent-reported delinquency = 1.78), indicating that non-normality was not a concern for regression analyses (George and Mallery 2010). Correlations, means, and standard deviations are reported in Table 1. Parent reports of child delinquency were positively correlated with child self-reports of delinquent behavior. Child disclosure was the only source of knowledge linked to parent reports of child delinquency, with high scores of child disclosure associated with low scores of child delinquency. No associations with child self-reported delinquency were evident. Parental control was positively correlated with neighborhood safety, indicating that high levels of parental control were associated with more safe neighborhoods. Parental control was positively correlated with child disclosure and parental solicitation, indicating that high levels of control were associated with high disclosure and high solicitation. Parental solicitation and child disclosure were also positively correlated, such that high levels of solicitation were associated with high levels of disclosure. Age and gender were not associated with any study variables and no other associations were evident.

In two separate models, child self-reported and parent-reported delinquency were regressed on age, gender, perceived neighborhood safety, child disclosure, parental solicitation, and parental control to determine unique associations (Table 2). The interactions between each source of knowledge and perceived neighborhood safety were then added to the model one at a time to determine if associations between sources of knowledge and delinquency depended on perceived neighborhood safety. As indicated in Table 2,

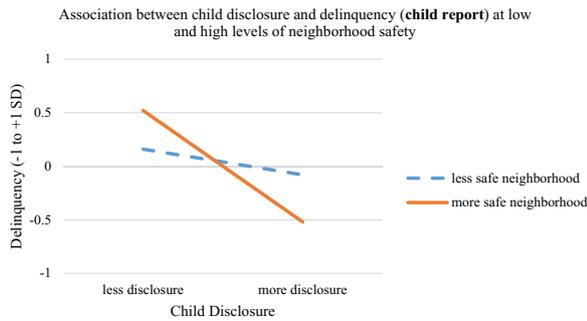
**Table 2** Regression models

Variable	Child-reported delinquency		Parent-reported delinquency	
	$\beta$	SE	$\beta$	SE
Model 1: First-order effects	$R^2 = .10$		$R^2 = .16$	
Age	.06	.11	.07	.11
Gender	−.15	.11	.03	.11
Neighborhood safety	−.00	.12	−.11	.14
Child Disclosure	−.27*	.12	−.43*	.12
Parental solicitation	.11	.13	.18	.12
Parental control	.17	.13	.14	.12
Model 2: Interaction effect	$R^2$ change = .04**		$R^2$ change = .06*	
Child dis. × neigh. safety	−.22**	.10	−.26*	.10
Model 3: Interaction effect	$R^2$ change = .05*		$R^2$ change = .04*	
Solicit. × neigh. safety	−.25*	.12	−.22*	.11
Model 4: Interaction effect	$R^2$ Change = .01		$R^2$ Change = .01	
Control. × neigh. safety	.10	.13	−.10	.12

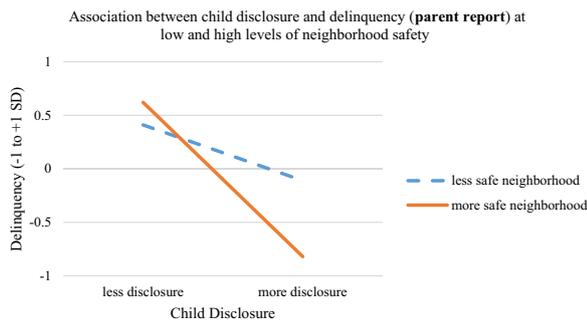
\* $p < .05$ ; \*\* $p = .05$

neither gender nor age were related to either outcome variable. Further, perceived neighborhood safety was not related to either outcome. First-order effects of parental sources of knowledge and moderating effects of perceived neighborhood safety on associations between sources of knowledge and delinquency results are presented by source.

Child disclosure was uniquely associated with both child-reported and parent-reported delinquency, such that more child disclosure was associated with less delinquency (Table 2). Further, perceived neighborhood safety had a moderating effect on the relation between child disclosure and child reported ( $\beta = −.22, p = .05$ ), as well as parent-reported delinquency ( $\beta = −.26, p = .02$ ). The interactions were probed at less safe (−1 SD) and more safe



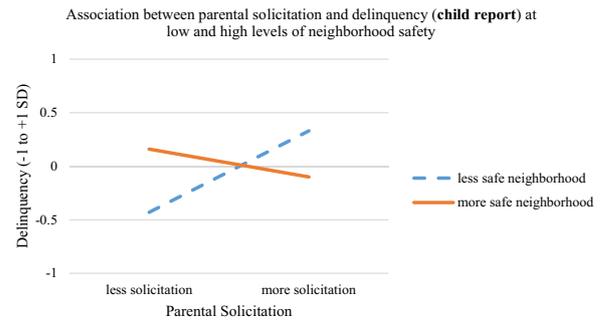
**Fig. 1** The association between child disclosure and child-reported delinquency at low and high levels of perceived neighborhood safety



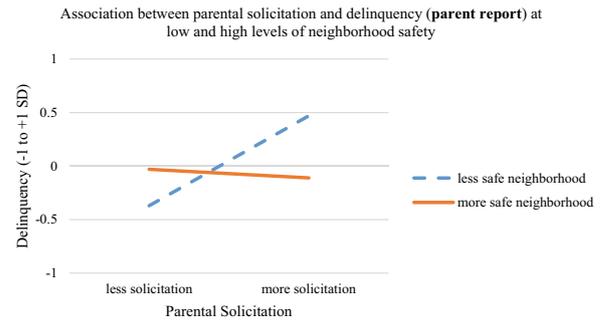
**Fig. 2** The association between child disclosure and parent-reported delinquency at low and high levels of perceived neighborhood safety

(+1 SD) levels of perceived neighborhood safety to understand the nature of the interactions. The magnitude of the link between child disclosure and delinquency strengthened in neighborhoods perceived as safer. When neighborhoods were perceived as being safer, child disclosure was significantly associated with child-reported ( $\beta = -.52, p = .00$ ) and parent-reported delinquency ( $\beta = -.72, p = .00$ ), such that high levels of disclosure were associated with low levels of delinquent activity (Figs. 1 and 2). However, this association was not evident in neighborhoods perceived as less safe for child-reported ( $\beta = -.12, p = .41$ ) or parent-reported delinquency ( $\beta = -.26, p = .06$ ).

Parental solicitation was not uniquely associated with child-reported or parent-reported delinquency (Table 2). Perceived neighborhood safety had a moderating effect on the relation between parental solicitation and child-reported ( $\beta = -.25, p = .03$ ), and parent-reported delinquency ( $\beta = -.22, p = .05$ ). The nature of the link between parental solicitation and delinquency strengthened in neighborhoods perceived as less safe. When neighborhoods were perceived as being less safe, high levels of parental solicitation was significantly associated with high levels of child-reported ( $\beta = .38, p = .03$ ) and parent-reported delinquency ( $\beta = .42, p = .02$ ) (Figs. 3 and 4). However, this link was not evident in neighborhoods perceived as more safe for child-reported ( $\beta = -.13, p = .44$ ) or parent-reported delinquency ( $\beta = -.04, p = .83$ ).



**Fig. 3** The association between parental solicitation and child-reported delinquency at low and high levels of perceived neighborhood safety



**Fig. 4** The association between parental solicitation and parent-reported delinquency at low and high levels of perceived neighborhood safety

Parental control was not uniquely associated with child-reported delinquency or parent-reported rule-breaking (Table 2). Perceived neighborhood safety did not have a moderating effect on the relation between parental control and child-reported ( $\beta = .10, p = .47$ ) or parent-reported delinquency ( $\beta = -.10, p = .47$ ).

## Discussion

The current study extended previous studies by examining the link between parental sources of knowledge and child delinquency while also considering the influence of perceived neighborhood safety. The current study also examines these interactions before children transition to adolescent autonomy by using a community-recruited sample in late childhood. Consistent with previous cross-sectional research (e.g., Gaertner et al. (2010); Stattin and Kerr 2000), child disclosure was the only source of knowledge consistently associated with child delinquency. However, this influence was only indicated when neighborhoods were perceived as being safer. When neighborhoods were perceived as being less safe, the negative link between child disclosure and child delinquency weakened using either child or parent reports.

The results of the present study suggest that, when neighborhoods are perceived as being less safe, the link between child disclosure and child delinquency weakens. A cross-sectional study suggests that children in less-safe neighborhoods may have more access to deviant peers and opportunities to be involved in delinquent activities (Sampson et al. 1999). Additionally, an unsafe neighborhood is a characteristic of a disorganized neighborhood with weak social controls (e.g., Chung and Steinberg 2006; Loeber et al. 2003). Consistent with the neighborhood disorder model, loss of social control can allow delinquent activity to become a norm and go unmonitored and unnoticed (Sampson and Raudenbush 1999). Even if children in less-safe neighborhoods disclose their activities and whereabouts to parents, there are environmental factors such as lack of resources and higher crime rates that may lead to negative socialization (Chung and Steinberg 2006). This negative socialization contributes to the development of delinquent behavior, which may cause disclosure to not have the same protective effect on delinquency. It could also be that families living in perceived less-safe neighborhoods experience a number of burdens (e.g., lack of resources, underemployment) (Beyers et al. 2003), which may make it more difficult for children to engage in disclosure especially if their parents are busy due to long hours working multiple jobs and experiencing high stress.

The results of the present study also suggested that when neighborhoods are perceived as less safe, the link between parental solicitation and child delinquency strengthens. This is a finding consistent with previous studies that show parental solicitation is associated with more delinquency. Stattin and Kerr (2000) suspected that adolescents might view solicitation as an intrusion into their privacy, which causes them to externalize more problem behavior. In a longitudinal study, Kiesner et al. (2009) speculated that solicitation decreases the quality of the parent–child relationship because it may seem overly invasive, thus putting youth at risk of more problem behavior. Willoughby and Hamza (2011) also suggests that adolescents may perceive solicitation efforts as over-solicitation and intrusive longitudinally. Although excessive solicitation may be seen as intrusive to adolescents, this may not be the reason we see the relation between solicitation and delinquency with a late childhood sample within the less-safe neighborhood context. Perhaps when children in less-safe neighborhoods become involved in delinquent activities their parents tend to question them more often about their whereabouts and activities. Additionally, Laird et al. (2010) found solicitation to only be effective when adolescents regularly spend time outside of adult supervision and when adolescents question parental authority longitudinally. It may be that children in less-safe neighborhoods have more opportunities to engage in delinquent activities because they witness more

delinquent acts (e.g., crime, robberies) and have limited access to resources that promote positive socialization (Sampson et al. 1999). The results suggest that parents who perceive their neighborhood as less safe should find effective ways of communication with their children that do not feel intrusive and untrusting. When the environment is perceived as unsafe, finding ways of establishing open communication that elicits child disclosure may be important for youth to feel trusted by their parents.

Parental control did not have any significant associations with child delinquency in the present study. This may be a result of the young age group of the children in this sample. Majority of the parents in this sample reported high levels of parental control, with little variability evident. Parents typically impose rules on their children's activities because although the child is transitioning towards autonomy, parents have some control over the child's behavior until they mature and become an adult (Pardeck and Pardeck 1990). Higher autonomy or independence from parents is seen as very important during adolescence; however, this study uses a late childhood sample, which suggests that the younger age group do not have much independence from parents (Pardeck and Pardeck 1990). This finding is consistent with few studies that suggest that there is no link between parental control and delinquency (Keijsers et al. 2010; Kerr et al. 2010).

It is important to note that the findings of previous research come from adolescent samples, with the current study extending previous research by demonstrating similar results with a late childhood sample. The findings of the present study suggest that it is very important to address delinquency at younger ages. Indeed, the US Department of Justice suggests delinquency interventions start as early as possible to have the best preventative effects when children become adolescents (Loeber et al. 2003). The results also suggest that interventions should be tailored to the needs of the children based on environmental context. Previous research has identified environmental risk factors for the early development of serious delinquent behaviors, including negative family factors, poor academic performance, delinquent peers, low SES, and disorganized neighborhoods (e.g., Loeber et al. 2003). Successful interventions that have been based in the environmental context, such as schools and communities, focus on social competence promotion, conflict resolution, bullying prevention, after-school recreation, and mentoring programs (Loeber et al. 2003; Webster-Stratton and Taylor 2001).

Evidence-based delinquency prevention initiatives, such as parent-management training and Communities that Care, have been effective at preventing child delinquency (Pardini 2016). Parent-management training teaches parents behavioral management techniques that focus on increasing positive parenting practices such as positive reinforcement, warmth, involvement, effective discipline, and proactive

monitoring (Pardini 2016). Communities that Care is an initiative that encourages community leaders to collaborate, to promote community-wide values that discourage delinquency, and to implement sustainable evidence-based programs that reduce risk factors associated with delinquency behavior that children in their community may be exposed to (Hawkins et al. 2002; Pardini 2016). Parents and children who live in neighborhoods that are perceived as unsafe may benefit from interventions that improve parent–child relationships through positive parenting, as well as, benefit from interventions that focus on improving larger community context. After reviewing many interventions, Loeber et al. (2003) concluded that there is not a “one size fits all” intervention that can be promoted because there are many different risk factors that play a role in the development of delinquency and children are exposed to different risks. The present study shows an example of how child disclosure and parental solicitation do not operate similarly in neighborhoods that are perceived as more safe and less safe. This suggests that parenting and community intervention programs may need to be tailored differently for children in risky neighborhoods.

### Limitations

Although the results of the current study yield important implications regarding the influence of perceived neighborhood safety on parental knowledge and child delinquency, limitations of the study should be noted. On the basis of Aiken et al. 1991 power tables, the current sample size had adequate power to detect moderate to large interaction effect sizes, but not small effect sizes, indicating that the current findings are impactful. However, although some questions the utility of small effect sizes, we cannot completely rule out that perceived neighborhood safety may moderate the link between control and delinquency. Future research using larger sample sizes may yield small effects that the current sample was not able to detect. Additionally, the current data is cross-sectional in nature, and therefore, predictive and developmental implications cannot be inferred. Additionally, we know that parent and children bidirectionally influence each other (e.g., Fite et al. 2006), and as such future longitudinal research is needed to further evaluate how child behavior influences parental sources of knowledge and vice versa. The sample was also primarily Caucasian, and the results may not generalize to other racial and ethnic groups. There were no child reports of sources of parental knowledge so there are no cross-reporter models for sources of parental knowledge. Only parents reported on both their perception of neighborhood safety as well as the different sources of knowledge so there may be some bias in these reports. Future research would benefit from the inclusion of a larger, more diverse, longitudinal sample that utilizes multiple informants of all constructs to garner a better understanding of these

associations. The sources of knowledge measure produced modest internal consistencies among the subscales, which may have attenuated results. Additionally, most of the parents reported high levels of parental control, with limited variability captured by this measure in this age group. Future research using more internally consistent and variable measures would be useful. The participants were from a community-recruited convenience sample and were not recruited from neighborhoods that were sought to be safe or unsafe. It is also not clear how “unsafe” the neighborhoods perceived as less safe were compared to other neighborhoods perceived as less safe. Further, although there were some reports of delinquency, no parents nor youth reported any extreme cases, which is likely a reflection of this age group, but may also limit the generalizability of the current findings. This delinquency measurement issue may also have influenced the lack of effects noted in the study.

Despite these limitations, findings point out the need to consider neighborhood factors when evaluating parental sources of knowledge and its role in preventing child delinquency. Particularly, research should examine pro-social interventions for children residing in unsafe neighborhoods to further determine effective ways to prevent later delinquency. Additionally, a longitudinal study examining the relation between parental sources of knowledge and delinquency within neighborhood context starting at middle childhood throughout adolescence would give us a better understanding of the causal and bidirectional relations between sources of knowledge and delinquency. It is also important to note that assessing parental sources of knowledge has been a way for researchers to measure parental monitoring (Stattin and Kerr 2000), but there may be other important parenting practices that have a protective effect against child delinquency. Parenting practices such as parent–child communication and parental involvement (Loeber et al. 1998) may be related to parental sources of knowledge. Further examination of the characteristics of neighborhoods that are perceived as safe or less safe is warranted, so that we can better understand how environment factors moderate the relation between parenting and child delinquency and better determine specific interventions that would be successful.

### Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no competing interests.

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