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To cite this article: Madeline R. Levitt , Wendy S. Grolnick & Jacquelyn N. Raftery-Helmer (2020): Maternal control and children's internalizing and externalizing symptoms in the context of neighbourhood safety: moderating and mediating models, Journal of Family Studies, DOI: [10.1080/13229400.2020.1845779](https://doi.org/10.1080/13229400.2020.1845779)

To link to this article: <https://doi.org/10.1080/13229400.2020.1845779>



Published online: 15 Nov 2020.



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Maternal control and children's internalizing and externalizing symptoms in the context of neighbourhood safety: moderating and mediating models

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ABSTRACT

While there are strong associations between parenting and children's well-being, it is important to understand these relations in different home environments. This study examined relations of two parenting dimensions previously examined as parental control, controllingness and structure, and child symptomatology with regard to neighbourhood safety. It explored the *dangerous neighbourhood hypothesis*, suggesting that parents should exert more control in less safe and less control in safer contexts, and a *neighbourhood stress hypothesis* in which less safe neighbourhoods undermine adaptive parenting and increase child symptomatology. 213 mothers and their sixth-grade children (Mean age = 11 years) participated. Mothers completed questionnaires measuring neighbourhood safety and children's internalizing and externalizing symptoms, and children completed measures of maternal controllingness and structure provision, and their own internalizing and externalizing symptoms. Maternal controllingness was associated with more and maternal structure with fewer child symptoms. Controllingness was associated with greater child-reported depression in less but not more safe neighbourhoods. Mediation analyses suggested that lower neighbourhood safety was associated with more controllingness which was associated with children's reports of depression and hostility. Results did not support the dangerous neighbourhood hypothesis, but suggest that less safe neighbourhoods may challenge mothers' abilities to parent in a way that prevents symptomatology in children.

ARTICLE HISTORY

Received 15 February 2020
Accepted 29 October 2020

KEYWORDS

Parenting; neighbourhood safety; internalizing symptoms; externalizing symptoms

Parenting plays a major role in children's development and there is some consensus about the parenting styles and behaviours that facilitate positive mental health outcomes in children (e.g. Barber et al., 2005; Grolnick, 2003). Yet parenting occurs within a context, such as a socioeconomic position or neighbourhood setting, and this context can play a role in how parenting is enacted as well as its effects on children (e.g. Bronfenbrenner, 1989; Deater-Deckard & Dodge, 1997). Thus, understanding how specific parenting behaviours relate to children's mental health outcomes (i.e. internalizing

and externalizing symptoms) in the context of neighbourhood safety is an important step in furthering research on this topic.

A key aspect of parenting is parental control. Parental control has been conceptualized and operationalized in a number of ways using terms such as controlling, behavioural control, harsh control and restrictiveness. One way of conceptualizing parental control is with the construct of controlling (i.e. pressuring, coercive) parenting or 'controllingness' (Grolnick et al., 1997). Controlling parenting has been associated with a variety of negative sequelae for children including less autonomous self-regulation, lower school achievement, and higher anxiety and depression (e.g. Barber et al., 2005; Grolnick & Ryan, 1989; Soenens et al., 2005). Parental control has also been conceptualized as providing oversight, guidance or monitoring, using constructs such as behavioural control (Barber, 1996), firm control (Schaefer, 1965), and structure (Grolnick et al., 2014). Parental control conceptualized in this way has been linked to positive outcomes in children, including higher perceived control and academic achievement and fewer behaviour problems (e.g. Barber et al., 2005; Farkas & Grolnick, 2010). Inconsistent definitions and measures of control, sometimes conflating these two types, have yielded variable conclusions regarding relations of parental control with child outcomes within particular contexts and cultures (Soenens et al., 2015).

This study addressed links between the two types of parental control, controllingness and structure, and children's internalizing and externalizing symptoms in the context of neighbourhood safety. In particular, it explored the *dangerous neighbourhood hypothesis*, which suggests that parents should exert more control in less safe neighbourhoods but lower control in safer neighbourhoods (e.g. Baldwin et al., 1990). An alternative, also addressed in this paper, is a *neighbourhood stress model* in which lower neighbourhood safety is associated with less adaptive parenting (higher controllingness or lower structure), which is then associated with more negative child mental health outcomes (i.e. more internalizing and externalizing symptomatology). If the dangerous neighbourhood hypothesis is supported, it would suggest that mothers who perceive their neighbourhoods to be unsafe should exert more control over their children in order to assure their well-being, whereas mothers who perceive their neighbourhoods to be safer should refrain from using control. If the neighbourhood stress model is supported, it would be important to help parents in less safe neighbourhoods refrain from using nonfacilitative types of control (i.e. controllingness), despite the barriers that prevent them from doing so.

The study included early adolescent children, ages 10–13. Given that many mental health problems (i.e. internalizing and externalizing symptoms) first present during early adolescence, it is important to identify parenting that may be associated with problems during this key developmental period (Johnson & Galambos, 2014). Also around this age children are gaining more independence from their parents and beginning to spend more time unsupervised in their neighbourhoods. In particular, children's independent mobility (CIM), or their ability to move around public spaces without being accompanied by an adult, may increase beginning in early adolescence (Crawford et al., 2017). Children's increased vulnerability in terms of their safety as they gain more independence from parents makes questions about parental controllingness and structure provision particularly important during this transitional period (Grolnick et al., 2014). Importantly, these parenting decisions may be influenced by numerous contextual factors including neighbourhood safety (Crawford et al., 2017).

Controlling parenting and structure provision – an SDT perspective

The dangerous neighbourhood hypothesis and neighbourhood stress models were examined using a Self-Determination Theory (SDT; Ryan & Deci, 2017) approach, which differentiates between two dimensions relevant to parental control: autonomy supportive versus controlling parenting (i.e. controllingness) and parental provision of structure (Grolnick & Pomerantz, 2009; Ryan & Deci, 2017). According to SDT, these dimensions are tied to two universal psychological needs: autonomy and competence, respectively. Controlling parenting involves pressuring children toward specified outcomes, ignoring children's perspectives and input, and solving problems for them (Grolnick, 2003). More controlling parenting defined in this way has been associated with children's less autonomous self-regulation (Grolnick & Ryan, 1989), lower perceived competence and perceptions of control (e.g. Skinner et al., 2005), lower school achievement (Soenens & Vansteenkiste, 2005), and higher anxiety and depression (Wood et al., 2003). Because controlling parenting undermines the need for autonomy, SDT would suggest that it would be associated with negative outcomes in diverse contexts (e.g. in safe and unsafe neighbourhoods).

A second dimension relevant to control is structure, defined as the organization of the environment to facilitate competence, which includes clear and consistent expectations, guidelines, and feedback (Farkas & Grolnick, 2010). Parental provision of structure has been associated with higher perceived competence, perceived control, school performance, and academic engagement in children (Farkas & Grolnick, 2010; Grolnick et al., 2014). Because structure is hypothesized to meet the need for competence, it should be positively associated with child outcomes in both safe and unsafe contexts.

Controlling parenting is related to a number of parenting dimensions depicted in the literature with various terms, including harsh parenting and psychological control, which have each been associated with internalizing and externalizing symptoms in children and adolescents (Gilliom & Shaw, 2004; Landsford et al., 2014; Soenens et al., 2008). Also related is restrictive control, which likely includes both aspects of structure (i.e. rules and expectations) and controllingness in the way it is enforced (i.e. in a controlling or demanding manner).

Related to parental structure are terms such as parental monitoring and behavioural control, defined as parents' management or oversight of children's behaviour (Barber, 1996). Grolnick and Pomerantz (2009) argued that to avoid confusion, the term controlling be reserved for coercive, pressuring behaviour whereas structure be used to connote guidance and limits. In this study, we measured both mothers' controllingness and provision of structure to understand how neighbourhood safety may moderate relations between parenting and children's internalizing (anxiety, depression) and externalizing (hostility, aggression) symptoms, and how parenting may mediate relations between neighbourhood safety and children's internalizing and externalizing symptoms.

Models of maternal control in neighbourhood context

The quality of the neighbourhood, including the availability of resources, social organizational features (e.g. cohesion), and presence of crime and drug activity, has been linked

to children's achievement and socio-emotional functioning (Sampson et al., 2002), even controlling for family socioeconomic status (SES; Leventhal & Brooks-Gunn, 2000).

Whereas early research focused on effects of neighbourhood danger on child outcomes, recent research has explored mechanisms explaining these links as well as factors that exacerbate or attenuate them, especially those involving parents (Skinner et al., 2014). While maternal appraisals of their neighbourhoods have been linked to census data on community disadvantage, including such aspects as average per capita income and proportion of unemployed residents (Brody et al., 2001), mothers' subjective experiences of their neighbourhoods may be most pertinent in determining how neighbourhood context might regulate parenting (O'Neil et al., 2001). Thus, we employed a subjective measure of neighbourhood safety in our study.

Dangerous neighbourhood hypothesis

One model posed to understand the role neighbourhood may play in the parenting-child symptomatology link is the dangerous neighbourhood hypothesis. This hypothesis, which does not differentiate between controllingness and structure, suggests that in less safe neighbourhoods higher parental control is most adaptive, as it assures that children are protected from exposure to dangers and/or are less likely to engage in risky behaviours (e.g. Furstenberg et al., 1993). In safer neighbourhoods, the hypothesis states it would be more adaptive for parents to relax control, allowing children to venture out and learn to solve problems on their own, as the consequences of straying would not be so dire. Often cited to support this hypothesis is a study by Baldwin et al. (1990) in which early adolescents were divided into high- and low-risk groups based on SES, minority status, and absence of the father. The high-risk group would, presumably, be subject to greater danger. On the basis of interviews, parents were rated on restrictiveness (i.e. how much freedom the child had). For example, higher ratings would be given when a child had to be home if the parent was not there and a lower rating if the child just had to inform the parent where he/she was. Consistent with the dangerous neighbourhood hypothesis, greater restrictiveness was associated with higher child competence (IQ and school achievement) in the high but not the low-risk group. Whereas these results are often interpreted as evidence for the positive effects of controlling or authoritarian parenting in high-risk neighbourhoods, from an SDT perspective, they provide some support for the importance of structure rather than controllingness in risky contexts, though the two components may not have been completely disentangled. Lamborn et al. (1996) found little support that community advantage moderated the negative effects of unilateral parental decision making (consistent with controllingness) on child adjustment. Given the possible negative implications of suggesting that parents should increase controllingness in certain contexts, it is crucial to examine whether the effects of both controllingness and structure differ in less versus more safe neighbourhoods.

Two studies examining parental restriction, which combines controllingness and structure, provided some support for the dangerous neighbourhood hypothesis. Dearing (2004) showed that restrictive parenting was positively associated with school performance only for African American children in very low-quality neighbourhoods. Gonzales et al. (1996) found negative effects of restrictive control for adolescents in lower risk neighbourhoods and non-significant effects for those in higher risk

neighbourhoods. Since restrictiveness includes aspects of controllingness and structure, it is not clear which of these aspects of control were responsible for the positive effects in particular groups. Examining parental supervision, a variable most related to structure, lack of supervision was found to be a greater risk factor for children in dangerous neighbourhoods (Coley & Hoffman, 1996; Pettit et al., 1999) and for children in neighbourhoods with more residential instability (Beyers et al., 2003), findings which support the dangerous neighbourhood hypothesis.

On the other hand, studies have found interactions between neighbourhood risk and parental control in a pattern opposite the dangerous neighbourhood hypothesis. Harsh parenting was more positively associated with child symptomatology in less safe (Callahan et al., 2011) and less cohesive (Krishnakumar et al., 2014) neighbourhoods. It was concluded that difficult circumstances may amplify the negative effects of harsh parenting, wherein already vulnerable children are more likely to succumb to further stress. Cooper-Vince et al. (2014) found that restrictive parenting in fathers, measured through observations of father–child tasks and discussions, was associated with higher child anxiety in more dangerous neighbourhoods but lower child anxiety in safer neighbourhoods. The authors suggest that the fathers pushing the children to play in novel ways was perceived as a mild challenge for children who were not confronted with environmental stresses.

In sum, the literature shows mixed support for the dangerous neighbourhood hypothesis. The least support, even opposite findings, was found for effects of controllingness, which would support the SDT tenet that controllingness is problematic across contexts since it undermines the need for autonomy. The most support is for effects of structure-like parenting behaviours, such that increased structure may be more important for children's outcomes in less safe neighbourhoods. The present study used separate measures of parental structure and controllingness to clarify these findings.

Neighbourhood stress model

A neighbourhood stress model would suggest that parents who experience their neighbourhoods as less safe are more likely to push and pressure their children, perhaps with a goal of protecting their safety, and this in turn would result in higher child symptomatology. This hypothesis is consistent with the empirically supported Family Stress Model (Conger & Conger, 2002; Masarik & Conger, 2017), which suggests that the stress of economic hardship leads to more problematic parenting methods (e.g. punitive and controlling behaviours). With regard to controllingness in particular, there is evidence that low SES (Dodge et al., 1994), stressful life events (Conger et al., 1995), laboratory induced stress (Zussman, 1980), and environmental threat (Gurland & Grolnick, 2005) increase controlling parenting. Gurland and Grolnick (2005) suggested that all of these experiences involve a perception of threat for one's child, which increases the probability of taking over and assuring children's behaviour. With regard to neighbourhood quality and parental controllingness in particular, lack of neighbourhood safety has been associated with more hostile control (Hill & Herman-Stahl, 2002) and harsh parenting (Barajas-Gonzalez & Brooks-Gunn, 2014). In mediational models, neighbourhood efficacy (vs. disorder) was associated with less parental harsh punishment which was then related to fewer child behaviour

difficulties (Jocson & McLoyd, 2015; Krishnakumar et al., 2014). Skinner et al. (2014) found that neighbourhood danger predicted more harsh parenting which was then associated with child aggression.

With regard to structure, some studies have found higher neighbourhood danger to be associated with lower parental provision of behavioural control, which includes aspects of structure such as guidance and monitoring (e.g. Pinderhughes et al., 2001). Others have found that parents monitor their children more when there is more neighbourhood danger (e.g. Jones et al., 2005). Still other studies have found no association between neighbourhood danger and monitoring (Gayles et al., 2009; Taylor, 2000). In sum, there is evidence that neighbourhood danger is associated with higher parental controllingness, though the evidence for associations with parental structure is less clear.

The present study builds on these studies and includes measures of maternal structure and controllingness and child internalizing and externalizing symptoms. Neighbourhood safety was measured using mothers' reports of perceived neighbourhood safety. We examined these variables in an early adolescent cohort, who may begin spending more independent, unsupervised time in their neighbourhoods, making it important to examine parenting and related outcomes at this time (Crawford et al., 2017; Grolnick et al., 2014). In examining the effects of neighbourhood, maternal education and race/ethnicity are taken into account (i.e. controlled for), as disadvantaged families are more likely to live in more dangerous neighbourhoods (Fry & Taylor, 2012), and there may be racial-ethnic differences in how neighbourhood characteristics are experienced (Sampson & Raudenbush, 2004).

Study hypotheses

It was predicted that (1) mothers' perceptions of safer neighbourhoods would be associated with lower levels of child internalizing and externalizing symptomatology, (2) the dangerous neighbourhood hypothesis would not be supported for parental controllingness (i.e. higher maternal controllingness would be associated with higher levels of child symptomatology across levels of neighbourhood safety), (3) the dangerous neighbourhood hypothesis would be supported for maternal structure, (i.e. higher levels of maternal structure would be associated with lower levels of child symptomatology, and this would be especially apparent in less safe as compared to safer neighbourhoods), (4) maternal controllingness would mediate the relations between neighbourhood safety and child symptomatology, with lower neighbourhood safety associated with higher controllingness and higher controllingness associated with more child symptomatology. Given the mixed findings in the literature, no hypothesis was put forth regarding the mediating role of structure in relations between neighbourhood safety and child symptomatology and the analyses were thus exploratory.

Methods

Study design

The study used a cross-sectional design in which parents and their sixth-grade children completed questionnaires. Mothers completed questionnaires on perceived

neighbourhood safety and their child's internalizing/externalizing symptoms, and children completed questionnaires on their mothers' parenting (controllingness and structure) and their own internalizing/externalizing symptoms.

Study context

Families were recruited from an economically diverse urban school district in a North-east US city that, according to national crime statistics, was on average more dangerous than 87% of cities in the US (Neighborhood Scout, 2019), and in which 57.9% of families were classified as economically disadvantaged (School and district profiles, 2019–2020).

Procedure

Participant recruitment

This study was approved by the University Institutional Review Board (IRB). After receiving approval from the school district to conduct the study, 11 elementary school principals were contacted and all schools agreed to participate. Researchers visited students' classrooms and distributed a letter to students (either in English or Spanish) to bring home to parents/caregivers inviting participation. This included a space for parents to indicate whether they would like to be contacted to participate in the study and an envelope to send the letter back to school with their child. Students were asked to return the sealed envelopes to their teachers. Five-hundred thirty-two letters were distributed to students. Of these, 324 (61%) parents returned responses, 213 (66%) affirmatively. Parents who indicated interest were contacted and scheduled to participate in the university lab or in their homes. Participants needed to speak English or Spanish to participate.

While all caregivers were invited to participate, the parent who signed the letter became the point of contact for the study. Many more mothers than fathers expressed interest in participating.

Data collection

At the visit, mothers provided consent and children provided assent prior to completing questionnaires separately for about 40 minutes. Mother questionnaires were administered in either English or Spanish according to preference. Thirty-one mothers (14%) elected to complete the questionnaires in Spanish. Trained research assistants administered questionnaires aloud to the children as they circled their responses. This was done to be sure each child understood all questions regardless of reading ability, and so that research assistants were easily accessible to answer their questions. All parent/child questionnaires were completed in person on hard copies. Questionnaires were translated into Spanish and then back-translated by a separate native speaker to assure accuracy. Families received \$60 for participating.

Participants

Participants were 213 mothers (Ages 26–55; $M = 39.25$, $SD = 7.12$) and their sixth-grade children (Ages 10–13 [primarily 11 and 12-year-olds]; $M = 11.48$, $SD = 0.64$, 103 males,

110 females). Including the child participant, mothers had 1–8 children ($M = 2.88$, $SD = 1.31$). Participants self-identified as Hispanic (39%), European American (34%), African American (6.3%), Asian (1.4%), multi-racial (10%) or other (6%). This sample was largely representative of the school district, which included 43.1% Hispanic, 29.1% European American, 16.9% African American, 6.4% Asian, and 4.2% multi-racial children (2019–2020 enrolment data).

With regard to parental education, 16.7% of the mothers did not complete high school or obtain an equivalent GED (General Educational Development) diploma, 24.3% completed high school or obtained a GED diploma, 4.1% completed technical/vocational training, 28.4% completed some college or had an associate's degree, 16.2% completed college, and 6.3% had an advanced degree. Twenty-two per cent of the mothers were single, 46.4% were married, 18.9% were separated or divorced, and 8.6% responded other. Few fathers ultimately participated and their responses could not be combined with that of mothers since maternal and paternal parenting may have different effects on children. Thus, data on fathers was not included in the study.

Measures – parent completed

Neighbourhood safety

Mothers completed the perceived neighbourhood safety (Pettit et al., 1999) scale, which includes six items rated from 1 (very unsafe) to 6 (very safe), for example, 'how safe do you think it is for your child to play outside when you aren't at home?' It also includes eight items regarding problems in the neighbourhood (e.g. I worry about people with guns and knives in my neighborhood [reverse coded]; In my neighborhood people do not need to lock their doors when they go out for a short time) rated from 'very untrue' to 'very true.' The 14 items were combined to create one score with Cronbach's alpha of .91.

Child internalizing/externalizing symptoms

Mothers completed the Aggression and Anxiety subscales from the *Behavior Assessment System for Children, 2nd Edition* (BASC-2; Reynolds & Kamphaus, 2004). Mothers rated the frequency of 11 aggressive behaviours (e.g. hits other children) and 14 symptoms of anxiety (e.g. worries about what other children think) on 4-point scales ranging from 'Never' to 'Almost Always.' These two BASC-2 subscales have good reliability and validity (Reynolds & Kamphaus, 2004). Cronbach's alphas were .86 for Aggression and .82 for Anxiety.

Measures – child completed

Maternal provision of structure

The Parental Structure Questionnaire (Flamm & Grolnick, 2013) includes 16 items (8 general and 8 in the academic domain) measuring 2 aspects of structure: clear rules and expectations (e.g. My parents make it clear what they expect of me; I don't know what my parents expect of me in school; reverse coded) and predictable consequences (e.g. When I don't follow the rules, my parents do something and it is the same each time; My parents make it clear what will happen if I don't follow our rules about

homework and schoolwork). Children rated items on a 4-point scale from ‘not true at all’ to ‘very true.’ Cronbach’s alpha for this scale was .73.

Maternal controllingness

Children completed the four general (e.g. My parents try to control everything I do) and four academic (e.g. My parents insist I do school things their way) controlling parenting items from the Parenting Context Questionnaire (Grolnick & Wellborn, 1988). Children rated items from 1 (not true at all) to 4 (very true). Cronbach’s alpha was .71.

Child internalizing symptoms

Children completed the Child Depression Inventory-2-Short Form (CDI-2; Kovacs, 2010). Ten items present three statements representing increasing levels of depression from which children select the answer that best describes their feelings in the past two weeks (e.g. ‘I am sad once in a while,’ ‘I am sad many times,’ ‘I am sad all the time’). The CDI-2-Short Form, adapted from the 27-item original, has been shown to have good internal consistency (Cronbach’s alpha \geq .80) in studies with school-aged children (Caqueo-Urizar et al., 2014). Cronbach’s alpha was .77 for this study.

The 10-item Multidimensional Anxiety Scale for Children-2-Short Form (MASC-10) (March, 1998) was used to measure children’s anxiety symptoms. Children rated each item (e.g. I feel restless and on edge) on a scale from 0 (never true about me) to 3 (often true about me) regarding how they have been feeling in the past week. The MASC-10 has excellent diagnostic efficiency and strong reliability (March et al., 1999). Cronbach’s alpha was .73.

Child externalizing symptoms

Children completed the Child Hostility Scale (Cook, 1986) on which they rate their engagement in 22 externalizing behaviours (e.g. You argue a lot, You disobey at school) on a 3-point scale from ‘not true’ to ‘often true’ over the past month. Cook reports good internal consistency (alpha = .85) for the scale. Cronbach’s alpha was .85 for this study.

Data analytic plan

First, means, standard deviations, and possible ranges of all variables were examined. Next, we examined relations of study variables with mothers’ socioeconomic status (SES), which was operationalized through mothers’ education level, as this has been shown to be a key demographic indicator of SES for parenting studies (Hoff-Ginsberg & Tardif, 1995). We also examined relations of study variables with child gender (boys = 1; girls = 2) and mothers’ age.

To examine whether there were differences in parenting and child symptomatology by child ethnicity (European American, Hispanic, Other), one-way ANOVAs were conducted. Next, the 8 controllingness items and 16 structure items were subjected to a confirmatory factor analysis (CFA) using AMOS 19.0 to confirm that structure and controllingness could be considered separate constructs. Correlations between parenting, neighbourhood safety, and child outcomes were then conducted.

To examine relations between maternal controllingness, structure, and child symptomatology and to determine whether these relations would be moderated by neighbourhood safety, a series of linear regressions were conducted in SPSS entering perceived neighbourhood safety, maternal controllingness (or structure), and the interaction between controllingness (or structure) and neighbourhood safety. All variables and interactions were centred. Outcomes were child hostility, depression, anxiety, and aggression, and all analyses controlled for maternal education, child gender, and child ethnicity.

To determine whether maternal controllingness and structure mediated relations between perceived neighbourhood safety and child symptomatology, structural equation modelling (SEM) using R version 3.4.3 was performed. Models examined whether perceived neighbourhood safety related to child symptomatology through maternal controllingness/structure, controlling for maternal education, child gender, and child ethnicity. For missing data, we used a full-information maximum likelihood method, which has been recommended over other methods to estimate parameters using implied values of the missing data (Schlomer et al., 2010). The significance of the models was tested through bootstrapping, which computes a confidence interval for the indirect effect after it has been resampled 5000–10,000 times. If the confidence interval does not include zero, the indirect effect is significant (Hayes, 2009). To determine the percentage mediated for each model, we divided the direct effect by the indirect effect (ab/c; Preacher & Kelley, 2011).

Results

Preliminary analyses

Data were screened for missing values. All variables were missing 5% or fewer of values. The non-significant result of Little's MCAR test (Little, 1988), $\chi^2 = 41.95$ ($df = 34$, $p = .16$) supported the assumption that data were missing completely at random. Because of the low amount of missing data and because the data were missing at random, imputation was not conducted for the general analyses.

Table 1 presents means, standard deviations, and zero-order correlations among study variables. Preliminary analyses were run to determine whether the study variables differed significantly on demographics (mothers' age, maternal education, child gender, child ethnicity). Mothers' age was not significantly related to any study variables and, therefore, was not controlled for in further analyses. Correlations revealed that maternal education was positively associated with maternal structure and neighbourhood safety, but not maternal controllingness. An independent sample *t*-test revealed that mothers of girls ($M = 4.28$, $SD = 0.99$) perceived their neighbourhoods to be significantly less safe than mothers of boys ($M = 4.59$, $SD = 0.86$; $t(210) = 2.38$, $p < .05$). In addition, girls rated themselves ($M = 1.17$, $SD = 0.53$) to be significantly more anxious than boys ($M = 0.88$, $SD = 0.50$; $t(206) = 4.06$, $p < .001$), and mothers rated girls ($M = 1.36$, $SD = 0.32$) to have significantly fewer aggressive behaviours than mothers of boys ($M = 1.46$, $SD = 0.40$; $t(209) = 2.00$, $p < .05$).

One-way ANOVAs revealed that there were significant race/ethnicity (European American, Hispanic, Other) differences in maternal controllingness ($F(2, 206) = 7.54$, $p < .01$, $M_{EA} = 2.24$, $SD = 0.47$; $M_{Hispanic} = 2.52$, $SD = 0.51$; $M_{Other} = 2.51$, $SD = 0.51$), perceived neighbourhood safety ($F(2, 209) = 13.26$, $p < .001$, $M_{EA} = 4.81$, $SD = 0.72$; $M_{Hispanic} = 4.08$, $SD = 0.93$; $M_{Other} = 4.45$, $SD = 1.05$), child-reported hostility ($F(2, 201) = 5.41$, p

Table 1. Intercorrelations, means, and standard deviations for study variables.

	1	2	3	4	5	6	7	8	9
Demographics									
1. Maternal Education									
Parenting									
2. Controllingness	−.10								
3. Structure	.20**	−.45***							
Context									
4. Neighbourhood Safety	.27**	−.26***	.18*						
Child Outcomes									
5. Hostility (child report)	−.12	.25***	−.25***	−.16*					
6. Depression (child report)	−.12 ⁺	.38***	−.32***	−.25**	.37**				
7. Anxiety (child report)	−.08	.06	−.04	−.20**	.35**	.30**			
8. Aggression (parent report)	−.01	.05	−.19**	−.07	.28**	.18*	−.05		
9. Anxiety (parent report)	−.04	.01	−.04	−.18**	−.08	.14*	.07	.20**	
<i>M</i>	3.23	2.42	3.07	4.43	1.29	1.16	1.03	1.40	1.93
<i>SD</i>	1.58	0.51	0.37	0.94	0.26	0.24	0.54	0.36	0.42
Range	1–6	1–4	1–4	1–6	1–3	1–3	0–3	1–4	1–4

Notes: Maternal education is an ordinal variable with seven categories. ⁺ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

$< .01$, $M_{EA} = 1.23$, $SD = 0.21$; $M_{Hispanic} = 1.30$, $SD = 0.22$; $M_{Other} = 1.38$, $SD = 0.34$) and child-reported anxiety ($F(2, 205) = 5.47$, $p < .01$, $M_{EA} = .90$, $SD = 0.46$; $M_{Hispanic} = 1.05$, $SD = 0.59$; $M_{Other} = 1.21$, $SD = 0.51$). Since child gender, maternal education, and child ethnicity were related to parenting, neighbourhood safety, and child internalizing and externalizing symptoms, these three variables were controlled for in further analyses. Ethnicity was entered as two contrasts: European American vs. other, and Hispanic vs. other.

The 8 controllingness items and 16 structure items were subjected to a confirmatory factor analysis with SEM using Amos 19.0. Full-information maximum likelihood estimation was used. Controllingness and structure were represented by two and three indicators, respectively, based on identified parcels (for the pros and cons of using individual items versus parcels of items, see Little et al., 2002). The model showed a good fit $\chi^2(222) = 14.13$, $\chi^2/df = 1.77$, incremental fit index (IFI) = .98, comparative fit index (CFI) = .98, root mean square error of approximation (RMSEA) = .059, with loadings of indicators on their respective factors ranging from .375 to .836, $p < .001$. The results suggest that structure and controllingness can be considered separate constructs.

Correlations among study variables

In support of hypothesis 1, lower perceived neighbourhood safety was associated with higher child-reported hostility and depression, and higher child- and mother-reported child anxiety. Additional correlations indicated that higher ratings of perceived neighbourhood safety were associated with children's reports of lower maternal controllingness and higher maternal structure (Table 1). Maternal controllingness was negatively related to maternal structure. More controllingness was also related to higher levels of child-reported hostility and depression. Higher maternal structure was related to lower child hostility, depression, and aggression, as reported by both children and mothers. Across informants, child symptomatology measures (hostility, depression, anxiety, aggression) shared moderate to strong relations.

Moderation models – maternal controlling behaviour

To examine hypothesis 2, which concerned the dangerous neighbourhood hypothesis for parental controllingness, moderation analyses were conducted for all child outcomes (child hostility, aggression, depression, and anxiety). All models controlled for maternal education, child gender, and child ethnicity (Table 2).

Externalizing behaviours

For child-reported hostility, there was a significant main effect of maternal controllingness, with higher controllingness associated with more child hostility. There was no main effect for neighbourhood safety and the interaction between neighbourhood safety and maternal controllingness was not significant. For child aggression (reported by mothers), there were no significant main effects or interactions.

Table 2. Multiple regressions with neighbourhood safety and parental controllingness predicting child symptom outcomes.

	Hostility (child report)			Depression (child report)			Anxiety (child report)			Anxiety (parent report)			Aggression (parent report)		
	<i>T</i>	β	<i>SE</i>	<i>T</i>	β	<i>SE</i>	<i>T</i>	β	<i>SE</i>	<i>T</i>	β	<i>SE</i>	<i>T</i>	β	<i>SE</i>
Maternal education	−0.59	−.007	.01	−1.23	−.01	.01	0.36	.009	.02	−0.15	−.003	.02	−0.83	−.01	.02
Child ethnicity															
European American	−2.23*	−.12	.05	−0.77	−.03	.04	−3.15**	−.31	.10	1.78 ⁺	.14	.08	2.03*	.14	.07
Hispanic	−1.92 ⁺	−.09	.05	−2.19*	−.09	.04	−2.26*	−.21	.09	0.90	.07	.07	−0.58	−.04	.07
Other (comparison)															
Child gender	0.56	.02	.04	−0.34	−.01	.03	3.83***	.28	.07	−0.60	−.04	.06	−2.33*	−.12	.05
Neighbourhood safety	−1.09	−.02	.02	−2.08*	−.04	.02	−1.80 ⁺	−.08	.04	−2.58*	−.09	.04	−1.66	−.05	.03
Parental controllingness	2.70**	.10	.04	5.47***	.17	.03	−0.15	−.01	.07	−0.08	−.005	.06	1.03	.05	.05
Neighbourhood safety × controllingness	0.08	.003	.04	−3.13**	−.10	.03	−0.28	−.02	.08	−0.69	−.04	.06	−0.83	−.05	.05

Notes: For gender, male = 1, female = 2. Maternal education is an ordinal variable with seven categories. ⁺ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Internalizing symptoms

For child-reported depression, there were significant main effects of neighbourhood safety and maternal controllingness, indicating that the safer the neighbourhood, the lower was child depression, and that the higher mothers' controllingness, the higher was child depression. Results also revealed a significant interaction between neighbourhood safety and controllingness. The interaction was probed using simple slopes analysis (Aiken & West, 1991). Specifically, equations were computed for high and low levels (1 SD above the mean and 1 SD below the mean) of neighbourhood safety. Simple slopes analysis showed that when mothers perceived their neighbourhoods to be safer, there was a marginally significant positive relation between maternal controllingness and child-reported depression, $t = 1.88$, $p = .06$, $\beta = .08$, whereas when mothers perceived their neighbourhoods to be less safe, there was a strong positive relation, $t = 5.89$, $p < .001$, $\beta = .27$ (Figure 1).

Next, we conducted regressions predicting child anxiety reported by mother and child. Results revealed no significant main effects of controllingness or interactions, but there were significant main effects of neighbourhood safety for both reports of child anxiety, such that the safer the neighbourhood, the lower was child anxiety (though the significance for child report was marginal).

Moderation models – maternal structure

To examine hypothesis 3, which concerned the dangerous neighbourhood hypothesis for parental structure, the same regressions were conducted examining the effects of maternal structure on all child outcomes. Again, all models controlled for maternal education, child gender, and child ethnicity (Table 3).

Externalizing behaviour

For child hostility (reported by child) and child aggression (reported by mothers) there were significant main effects of maternal structure, indicating that the higher the level of

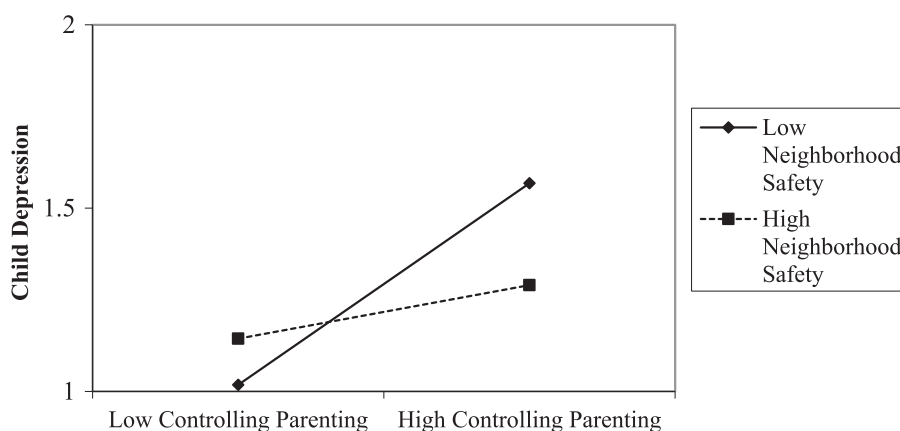


Figure 1. Moderating role of neighbourhood safety on the relation between parental controllingness and child depression, controlling for maternal education, child gender, and child ethnicity.

Table 3. Multiple regressions with neighbourhood safety and parental structure predicting child symptom outcomes.

	Hostility (child report)			Depression (child report)			Anxiety (child report)			Anxiety (parent report)			Aggression (parent report)		
	<i>T</i>	β	<i>SE</i>	<i>T</i>	β	<i>SE</i>	<i>T</i>	β	<i>SE</i>	<i>T</i>	β	<i>SE</i>	<i>T</i>	β	<i>SE</i>
Maternal education	0.12	.002	.01	−0.04	.00	.01	0.55	.01	.03	−0.09	−.002	.02	−0.35	−.01	.02
Child ethnicity															
European American	−2.68**	−.13	.05	−1.43	−.06	.04	−3.12**	−.30	.10	1.86 ⁺	.15	.08	1.99*	.13	.07
Hispanic	−2.00*	−.09	.05	−1.69 ⁺	−.07	.04	−2.23*	−.20	.09	1.03	.08	.08	−0.43	−.03	.06
Other (comparison)															
Child gender	0.86	.03	.04	0.14	.004	.03	4.02***	.29	.07	−0.60	−.04	.06	−2.15*	−.11	.05
Neighbourhood safety	−1.36	−.03	.02	−2.89**	−.05	.02	−1.89 ⁺	−.08	.04	−2.60*	−.09	.03	−1.62	−.05	.03
Parental structure	−3.29**	−.17	.05	−4.19***	−.19	.05	−0.69	−.07	.10	−0.08	−.007	.08	−2.32*	−.17	.07
Neighbourhood safety × structure	−0.46	−.02	.05	−0.30	−.10	.04	−1.36	−.13	.09	0.73	.06	.08	0.92	.06	.07

Note: For gender, male = 1, female = 2. Maternal education is an ordinal variable with seven categories. ⁺ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

structure, the lower were levels of child hostility and aggression. The interactions between neighbourhood safety and structure were not significant for either child hostility or aggression.

Internalizing symptoms

The regressions predicting child-reported depression showed significant main effects of neighbourhood safety and maternal structure, indicating the more safe the neighbourhood and the higher the level of maternal structure, the lower the level of child depression. The interaction between neighbourhood safety and structure was not significant. There was a main effect of neighbourhood safety for mother-reported child anxiety and a marginally significant main effect for child-reported anxiety, indicating that the safer the neighbourhood, the lower the level of child anxiety. There were no significant main effects of structure or significant interactions for models predicting child anxiety.

Mediational models

To examine hypothesis 4, which concerned whether controllingness was a mediator of the relations between neighbourhood safety and child symptomatology, two models were tested – those for child-reported hostility and depression, given that these two variables were significantly associated with controllingness (Bauer & Curran, 2012). All models controlled for maternal education, child gender, and child ethnicity. Bootstrapping revealed a significant indirect effect of neighbourhood safety on child hostility through maternal controllingness, $\beta = -.04$, 95% CI $[-.023, -.002]$ (Figure 2). Maternal controllingness mediated 49.37% of the total effect of neighbourhood safety on child hostility (Preacher & Kelley, 2011). Controllingness fully mediated the relation between neighbourhood safety and child hostility, as the direct effect of neighbourhood safety on child hostility was not significant, $\beta = -.08$, $p = .33$, whereas the indirect effect was, $\beta = -.04$, $p = .04$. There was a significant indirect effect of neighbourhood safety on child depression through maternal controllingness, $\beta = -.07$, 95% CI $[-.040, -.004]$

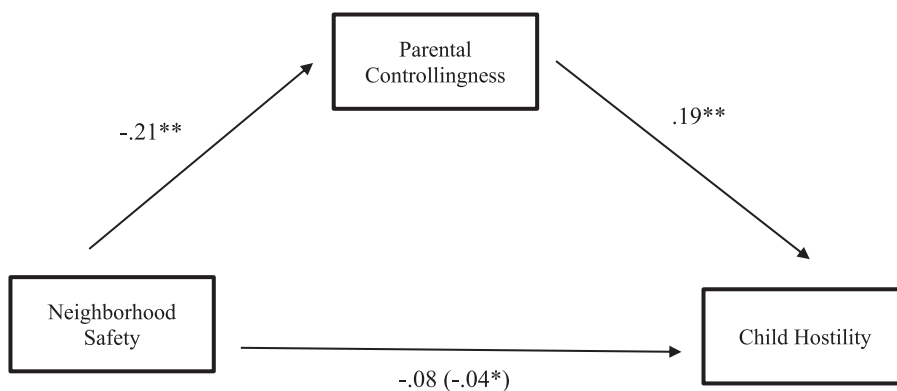


Figure 2. Mediational model of the role of parental controllingness in the relation between neighbourhood safety and child hostility, controlling for maternal education, child gender, and child ethnicity. $+p < .10$, $*p < .05$, $**p < .01$, $***p < .001$.

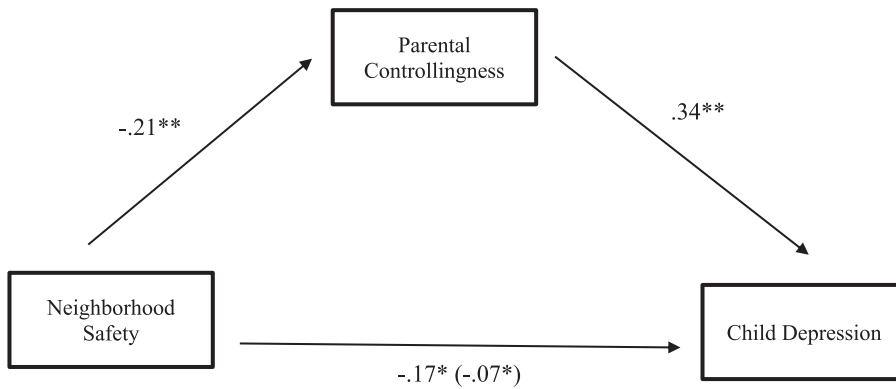


Figure 3. Mediation model of the role of parental controllingness in the relation between neighbourhood safety and child depression, controlling for maternal education, child gender, and child ethnicity. $+p < .10$, $*p < .05$, $**p < .01$, $***p < .001$.

(Figure 3). Maternal controllingness mediated 41.18% of the total effect of neighbourhood safety on child depression. The direct effect was also significant, $\beta = -.17$, $p = .03$, indicating partial mediation.

For maternal structure as a mediator, in accord with the correlation results, we tested three mediation models: child hostility (child report), depression (child report), and aggression (mother report), again controlling for maternal education, child gender, and child ethnicity. None of the indirect effects of perceived neighbourhood safety on child outcomes through maternal structure were significant.

Discussion

This study aimed to determine whether neighbourhood safety moderated relations between maternal controllingness, structure, and child symptomatology during early adolescence, a risky period given vulnerability to mental health problems and increased time unsupervised by adults. It also examined whether parenting (controllingness and structure) mediated relations between neighbourhood safety and child symptomatology. Overall, results were not consistent with the dangerous neighbourhood hypothesis. Mediation analyses did support a neighbourhood stress model, suggesting that less safe contexts were associated with more controllingness, which was in turn associated with children's self-reported depression and hostility.

First, regressions revealed that maternal controllingness was significantly positively associated with children's reports of depression and hostility, controlling for demographic variables. Maternal structure was negatively associated with child-reported depression and hostility, and mother-reported child aggression. These results are consistent with SDT-based research showing that higher parental controllingness is related to children's greater symptomatology, since it interferes with children's autonomy and volitional behaviour (e.g. Grolnick & Pomerantz, 2009), while more parental structure provision is related to lower child symptomatology, since it supports children's competence and efficacy (e.g. Flamm & Grolnick, 2013). Higher perceived neighbourhood safety was

also associated with lower maternal controllingness, more maternal structure, and lower child symptomatology, supporting hypothesis 1. These results are consistent with previous findings that higher neighbourhood safety is associated with more facilitative parenting and children's positive mental health (e.g. Skinner et al., 2014). Importantly, there were stronger significant relations between neighbourhood safety and child internalizing symptoms compared to child externalizing symptoms. Feeling unsafe may be especially associated with children's worrying or ruminating about their own well-being or that of their family members and experiencing internal distress. Results suggest that externalizing symptoms may be more rooted in parenting approaches rather than neighbourhood context per se.

Addressing hypothesis 2, analyses examining whether neighbourhood safety moderated relations between maternal controllingness and child symptomatology did not support the dangerous neighbourhood hypothesis, as controllingness was associated with more child symptomatology (child-reported hostility and depression) across safe and unsafe neighbourhoods, controlling for demographics. One significant interaction, in fact, found that controllingness was *more* strongly positively associated with children's reports of their depression in less safe rather than safer neighbourhoods. Thus, in less safe neighbourhoods, children may be more likely to show symptoms of depression when mothers are controlling. This pattern of findings is more consistent with a 'double stress' model in which children who are at risk given a less safe context may be particularly vulnerable to less adaptive parenting, and in this case, for internalizing symptoms more specifically. There were no significant interactions for child anxiety or externalizing symptomatology, suggesting that maternal controllingness was equally problematic in both safe and unsafe neighbourhood contexts for these symptoms. Results provided no evidence that increasing controllingness would be helpful to children in either context.

Addressing hypothesis 3, moderation analyses were also conducted for parental structure. In safe and unsafe neighbourhoods, higher levels of maternal structure were related to lower child symptomatology, specifically lower hostility (child reported), aggression (mother reported), and depression (child reported). The results highlight the importance of clear rules and expectations across all neighbourhood contexts.

Addressing hypothesis 4, there was more evidence for a neighbourhood stress model, such that maternal controllingness mediated relations between neighbourhood safety and child symptomatology. Analyses indicated that unsafe neighbourhood contexts were associated with more maternal controllingness, and more controllingness was associated with child-reported hostility and depression. When families are living in less safe neighbourhoods, parents may feel a greater threat to their children's safety and/or experience additional stressors that increase their level of controllingness due to pressures they feel to keep their child safe (Gurland & Grolnick, 2005). According to SDT, when parents are more controlling, children's self-worth and self-regulation may be lower, which can present as higher externalizing or internalizing symptomatology (Ryan & Deci, 2017). An alternative explanation for these findings is a child-to-parent effect in which mothers may become more controlling when children act out or exhibit more problematic behaviours.

Maternal controllingness only partially explained relations between neighbourhood safety and child depression, meaning there were both direct and indirect effects of

neighbourhood safety. Thus, aside from parenting, there are other factors in unsafe neighbourhoods that may be associated with children's sad or hopeless feelings. Analyses showed that structure did not mediate relations between neighbourhood safety and child symptomatology. In fact, the negative relation between neighbourhood safety and maternal structure was not significant when controlling for maternal education. Thus, relations between safety and structure may be better explained by mothers' lower access to resources in less safe neighbourhoods, making it more challenging for them to provide structure.

There were several limitations to this study. The data were collected at one time-point and are correlational in nature, and therefore, causality cannot be inferred. Relatedly, though there was a strong theoretical rationale for the mediational model, mediation models conducted with cross-sectional data can be biased relative to those with temporal order and thus should be interpreted with caution (Shrout, 2011). Second, mothers reported neighbourhood safety to be relatively high in this sample, though there was sufficient variability, and families were living in one city, which may limit generalizability to populations in other cities or very unsafe neighbourhood contexts. Future studies could examine this question in separate communities more disparate from one another, and could also examine the role of culture in relations between neighbourhood context and child outcomes. Finally, the model examined did not include mothers' mental health or distress which may be linked to both their perceptions of the neighbourhood and parenting, as well as perceptions of their own children's mental health, as suggested in the Family Stress Model (Masarik & Conger, 2017). Future studies could include parent mental health as a predictor of perceived neighbourhood safety, parenting, and children's symptomatology.

In conclusion, this study did not support the dangerous neighbourhood hypothesis, but rather suggested the importance of mothers refraining from using controlling strategies and instead providing structure in both safe and less safe neighbourhood contexts. Results suggested that unsafe neighbourhoods may put mothers at risk for using more controlling parenting methods, which may have negative ramifications for child symptomatology. Results also suggest the need for interventions to help parents provide facilitative resources to young adolescents, an especially vulnerable developmental period (Steinberg, 2005). Given the differential findings for controllingness and structure, it is crucial for researchers to assess these dimensions independently.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by William T. Grant Foundation.

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Sage Publications, Inc.

- Baldwin, A. L., Baldwin, C., & Cole, R. E. (1990). Stress-resistant families and stress resistant children. In J. Rolf, A. S. Masten, D. Cicchetti, K. H. Nuechterlein, & S. Weintraub (Eds.), *Risk and protective factors in the development of psychopathology* (pp. 257–280). Cambridge University Press.
- Barajas-Gonzalez, R. G., & Brooks-Gunn, J. (2014). Income, neighborhood stressors, and harsh parenting: Test of moderation by ethnicity, age, and gender. *Journal of Family Psychology*, 28(6), 855. <https://doi.org/10.1037/a0038242>
- Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development*, 67(6), 3296–3319. <https://doi.org/10.2307/1131780>
- Barber, B. K., Stolz, H. E., Olsen, J. A., Collins, W. A., & Burchinal, M. (2005). Parental support, psychological control, and behavioral control: Assessing relevance across time, culture, and method: I Introduction. *Monographs of the Society for Research in Child Development*, 70(4), 1–13.
- Bauer, D. J., & Curran, P. J. (2012). *Introduction to structural equation modeling*. Curran-Bauer Analytics, LLC.
- Beyers, J. M., Bates, J. E., Pettit, G. S., & Dodge, K. A. (2003). Neighborhood structure, parenting processes, and the development of youths' externalizing behaviors: A multilevel analysis. *American Journal of Community Psychology*, 31(1–2), 35–53. <https://doi.org/10.1023/A:1023018502759>
- Brody, G. H., Conger, R., Gibbons, F. X., Ge, X., McBride Murry, V., Gerrard, M., & Simons, R. L. (2001). The influence of neighborhood disadvantage, collective socialization, and parenting on African American children's affiliation with deviant peers. *Child Development*, 72(4), 1231–1246. <https://doi.org/10.1111/1467-8624.00344>
- Bronfenbrenner, U. (1989). Ecological systems theory. *Annals of Child Development*, 6, 185–246.
- Callahan, K. L., Scaramella, L. V., Laird, R. D., & Sohr-Preston, S. L. (2011). Neighborhood disadvantage as a moderator of the association between harsh parenting and toddler-aged children's internalizing and externalizing problems. *Journal of Family Psychology*, 25(1), 68. <https://doi.org/10.1037/a0022448>
- Caqueo-Urizar, A., Urzúa, A., & De Munter, K. (2014). Mental health of indigenous school children in Northern Chile. *BMC Psychiatry*, 14(1), 11–17. <https://doi.org/10.1186/1471-244X-14-11>
- Coley, R. L., & Hoffman, L. W. (1996). Relations of parental supervision and monitoring to children's functioning in various contexts: Moderating effects of families and neighborhoods. *Journal of Applied Developmental Psychology*, 17(1), 51–68. [https://doi.org/10.1016/S0193-3973\(96\)90005-2](https://doi.org/10.1016/S0193-3973(96)90005-2)
- Conger, R. D., & Conger, K. J. (2002). Resilience in midwestern families: Selected findings from the first decade of a prospective, longitudinal study. *Journal of Marriage and Family*, 64(2), 361–373. <https://doi.org/10.1111/j.1741-3737.2002.00361.x>
- Conger, R. D., Patterson, G. R., & Ge, X. (1995). It takes two to replicate: A mediational model for the impact of parents' stress on adolescent adjustment. *Child Development*, 66(1), 80–97. <https://doi.org/10.2307/1131192>
- Cook, C. (1986). The Youth Self Report Hostility Scale [Unpublished manuscript]. Program for Prevention Research, Arizona State University.
- Cooper-Vince, C. E., Chan, P. T., Pincus, D. B., & Comer, J. S. (2014). Paternal autonomy restriction, neighborhood safety, and child anxiety trajectory in community youth. *Journal of Applied Developmental Psychology*, 35(4), 265–272. <https://doi.org/10.1016/j.appdev.2014.04.006>
- Crawford, S. B., Bennetts, S. K., Hackworth, N. J., Green, J., Graesser, H., Cooklin, A. R., Matthews, J., Strazdins, L., Zubrick, S. R., D'Esposito, F., & Nicholson, J. M. (2017). Worries, 'weirdos', neighborhoods and knowing people: A qualitative study with children and parents regarding children's independent mobility. *Health & Place*, 45, 131–139. <https://doi.org/10.1016/j.healthplace.2017.03.005>
- Dearing, E. (2004). The developmental implications of restrictive and supportive parenting across neighborhoods and ethnicities: Exceptions are the rule. *Journal of Applied Developmental Psychology*, 25(5), 555–575. <https://doi.org/10.1016/j.appdev.2004.08.007>

- Deater-Deckard, K., & Dodge, K. A. (1997). Externalizing behavior problems and discipline revisited: Nonlinear effects and variation by culture, context, and gender. *Psychological Inquiry*, 8(3), 161–175. https://doi.org/10.1207/s15327965pli0803_1
- Dodge, K. A., Pettit, G. S., & Bates, J. E. (1994). Socialization mediators of the relation between socioeconomic status and child conduct problems. *Child Development*, 65(2), 649–665. <https://doi.org/10.2307/1131407>
- Farkas, M. S., & Grolnick, W. S. (2010). Examining the components and concomitants of parental structure in the academic domain. *Motivation and Emotion*, 34(3), 266–279. <https://doi.org/10.1007/s11031-010-9176-7>
- Flamm, E. S., & Grolnick, W. S. (2013). Adolescent adjustment in the context of life change: The supportive role of parental structure provision. *Journal of Adolescence*, 36(5), 899–912. <https://doi.org/10.1016/j.adolescence.2013.07.006>
- Fry, R. A., & Taylor, P. (2012). *The rise of residential segregation by income*. Pew Research Center.
- Furstenberg, F. F., Belzer, A., Davis, C., Levine, J. A., Morrow, K., & Washington, M. (1993). How families manage risk and opportunity in dangerous neighborhoods. In W. J. Wilson (Ed.), *Sociology and the public agenda* (pp. 231–258). Sage.
- Gayles, J. G., Coatsworth, J. D., Pantin, H. M., & Szapocznik, J. (2009). Parenting and neighborhood predictors of youth problem behaviors within Hispanic families: The moderating role of family structure. *Hispanic Journal of Behavioral Sciences*, 31(3), 277–296. <https://doi.org/10.1177/0739986309338891>
- Gilliom, M., & Shaw, D. S. (2004). Codevelopment of externalizing and internalizing problems in early childhood. *Development and Psychopathology*, 16(2), 313–333. <https://doi.org/10.1017/S0954579404044530>
- Gonzales, N. A., Cauce, A., Friedman, R. J., & Mason, C. A. (1996). Family, peer, and neighborhood influences on academic achievement among African-American adolescents: One-year prospective effects. *American Journal of Community Psychology*, 24(3), 365–387. <https://doi.org/10.1007/BF02512027>
- Grolnick, W. S. (2003). *The psychology of parental control: How well-meant parenting backfires*. Lawrence Erlbaum Associates.
- Grolnick, W. S., Deci, E. L., & Ryan, R. M. (1997). Internalization within the family: The self-determination theory perspective. In J. E. Grusec & L. Kuczynski (Eds.), *Parenting and children's internalization of values: A handbook of contemporary theory* (pp. 135–161). John Wiley & Sons Inc.
- Grolnick, W. S., & Pomerantz, E. M. (2009). Issues and challenges in studying parental control: Toward a new conceptualization. *Child Development Perspectives*, 3(3), 165–170. <https://doi.org/10.1111/j.1750-8606.2009.00099.x>
- Grolnick, W. S., Raftery-Helmer, J. N., Marbell, K. N., Flamm, E. S., Cardemil, E. V., & Sanchez, M. (2014). Parental provision of structure: Implementation and correlates in three domains. *Merrill-Palmer Quarterly*, 60(3), 355–384. <https://doi.org/10.13110/merrpalmquar1982.60.3.0355>
- Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology*, 81(2), 143. <https://doi.org/10.1037/0022-0663.81.2.143>
- Grolnick, W., & Wellborn, J. (1988, April). *Parent influences on children's school-related self-system process* [Paper presentation]. Annual Meeting of the American Educational Research Association, New Orleans, LA. <https://doi.org/10.2307/1131378>
- Gurland, S. T., & Grolnick, W. S. (2005). Perceived threat, controlling parenting, and children's achievement orientations. *Motivation and Emotion*, 29(2), 103–121. <https://doi.org/10.1007/s11031-005-7956-2>
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408–420. <https://doi.org/10.1080/03637750903310360>
- Hill, N. E., & Herman-Stahl, M. A. (2002). Neighborhood safety and social involvement: Associations with parenting behaviors and depressive symptoms among African-American

- and Euro-American mothers. *Journal of Family Psychology*, 16(2), 209–219. <https://doi.org/10.1037/0893-3200.16.2.209>
- Hoff-Ginsberg, E., & Tardif, T. (1995). Socioeconomic status and parenting. In M. H. Bornstein (Ed.), *Handbook of parenting, Vol. 2. Biology and ecology of parenting* (pp. 161–188). Lawrence Erlbaum Associates, Inc.
- Jocson, R. M., & McLoyd, V. (2015). Neighborhood and housing disorder, parenting, and youth adjustment in low-income urban families. *American Journal of Community Psychology*, 55(3–4), 304–313. <https://doi.org/10.1007/s10464-015-9710-6>
- Johnson, M. D., & Galambos, N. L. (2014). Paths to intimate relationship quality from parent–adolescent relations and mental health. *Journal of Marriage and Family*, 76(1), 145–160. <https://doi.org/10.1111/jomf.12074>
- Jones, D. J., Forehand, R., O’Connell, C., Armistead, L., & Brody, G. (2005). Mothers’ perceptions of neighborhood violence and mother-reported monitoring of African American children: An examination of the moderating role of perceived support. *Behavior Therapy*, 36(1), 25–34. [https://doi.org/10.1016/S0005-7894\(05\)80051-6](https://doi.org/10.1016/S0005-7894(05)80051-6)
- Kovacs, M. (2010). *Children’s Depression Inventory 2nd Edition (CDI 2) technical manual*. MHS.
- Krishnakumar, A., Narine, L., Roopnarine, J. L., & Logie, C. (2014). Multilevel and cross-level effects of neighborhood and family influences on children’s behavioral outcomes in Trinidad and Tobago: The intervening role of parental control. *Journal of Abnormal Child Psychology*, 42(6), 1057–1068. <https://doi.org/10.1007/s10802-014-9852-2>
- Lamborn, S. D., Dornbusch, S. M., & Steinberg, L. (1996). Ethnicity and community context as moderators of the relations between family decision making and adolescent adjustment. *Child Development*, 67(2), 283–301. <https://doi.org/10.2307/1131814>
- Landsford, J. E., Laird, R. D., Pettit, G. S., Bates, J. E., & Dodge, K. A. (2014). Mothers’ and fathers’ autonomy-relevant parenting: Longitudinal links with adolescents’ externalizing and internalizing behavior. *Journal of Youth and Adolescence*, 43(11), 1877–1889. <https://doi.org/10.1007/s10964-013-0079-2>
- Leventhal, T., & Brooks-Gunn, J. (2000). The neighborhoods they live in: The effects of neighborhood residence on child and adolescent outcomes. *Psychological Bulletin*, 126(2), 309. <https://doi.org/10.1037/0033-2909.126.2.309>
- Little, R. J. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association*, 83(404), 1198–1202. <https://doi.org/10.1080/01621459.1988.10478722>
- Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling: A Multidisciplinary Journal*, 9(2), 151–173. https://doi.org/10.1207/S15328007SEM0902_1
- March, J. S. (1998). *Multidimensional anxiety scale for children*. Multi-Health Systems.
- March, J. S., Sullivan, K., & Parker, J. (1999). Test-retest reliability of the Multidimensional Anxiety Scale for Children. *Journal of Anxiety Disorders*, 13(4), 349–358. [https://doi.org/10.1016/S0887-6185\(99\)00009-2](https://doi.org/10.1016/S0887-6185(99)00009-2)
- Masarik, A. S., & Conger, R. D. (2017). Stress and child development: A review of the Family Stress Model. *Current Opinion in Psychology*, 13, 85–90. <https://doi.org/10.1016/j.copsyc.2016.05.008>
- Neighborhood Scout. (2019). <https://www.neighborhoodscout.com/>
- O’Neil, R., Parke, R. D., & McDowell, D. J. (2001). Objective and subjective features of children’s neighborhoods: Relations to parental regulatory strategies and children’s social competence. *Journal of Applied Developmental Psychology*, 22(2), 135–155. [https://doi.org/10.1016/S0193-3973\(01\)00073-9](https://doi.org/10.1016/S0193-3973(01)00073-9)
- Pettit, G. S., Bates, J. E., Dodge, K. A., & Meece, D. W. (1999). The impact of after-school peer contact on early adolescent externalizing problems is moderated by parental monitoring, perceived neighborhood safety, and prior adjustment. *Child Development*, 70(3), 768–778. <https://doi.org/10.1111/1467-8624.00055>
- Pinderhughes, E. E., Nix, R., Foster, E. M., Jones, D., & Conduct Problems Prevention Research Group. (2001). Parenting in context: Impact of neighborhood poverty, residential stability,

- public services, social networks, and danger on parental behaviors. *Journal of Marriage and Family*, 63(4), 941–953. <https://doi.org/10.1111/j.1741-3737.2001.00941.x>
- Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models: Quantitative strategies for communicating indirect effects. *Psychological Methods*, 16(2), 93. <https://doi.org/10.1037/a0022658>
- Reynolds, C., & Kamphaus, R. (2004). *Behavior Assessment System for Children*, (BASC-2) *handout*. AGS Publishing.
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.
- Sampson, R. J., Morenoff, J. D., & Gannon-Rowley, T. (2002). Assessing ‘neighborhood effects’: Social processes and new directions in research. *Annual Review of Sociology*, 28(1), 443–478. <https://doi.org/10.1146/annurev.soc.28.110601.141114>
- Sampson, R. J., & Raudenbush, S. W. (2004). Seeing disorder: Neighborhood stigma and the social construction of ‘broken windows’. *Social Psychology Quarterly*, 67(4), 319–342. <https://doi.org/10.1177/019027250406700401>
- Schaefer, E. S. (1965). A configurational analysis of children’s reports of parent behavior. *Journal of Consulting Psychology*, 29(6), 552–557. <https://doi.org/10.1037/h0022702>
- Schlomer, G. L., Bauman, S., & Card, N. A. (2010). Best practices for missing data management in counseling psychology. *Journal of Counseling Psychology*, 57(1, Suppl.), 1–10. <https://doi.org/10.1037/a0018082.supp>
- Shrout, P. E. (2011). Commentary: Mediation analysis, causal process, and cross-sectional data. *Multivariate Behavioral Research*, 46(5), 852–860. <https://doi.org/10.1080/00273171.2011.606718>
- Skinner, A. T., Bacchini, D., Lansford, J. E., Godwin, J. W., Sorbring, E., Tapanya, S., ... Bombi, A. S. (2014). Neighborhood danger, parental monitoring, harsh parenting, and child aggression in nine countries. *Societies*, 4(1), 45–67. <https://doi.org/10.3390/soc4010045>
- Skinner, E., Johnson, S., & Snyder, T. (2005). Six dimensions of parenting: A motivational model. *Parenting: Science and Practice*, 5(2), 175–235. https://doi.org/10.1207/s15327922par0502_3
- Soenens, B., & Vansteenkiste, M. (2005). Antecedents and outcomes of self-determination in 3 life domains: The role of parents’ and teachers’ autonomy support. *Journal of Youth and Adolescence*, 34(6), 589–604. <https://doi.org/10.1007/s10964-005-8948-y>
- Soenens, B., Luyckx, K., Vansteenkiste, M., Luyten, P., Duriez, B., & Goossens, L. (2008). Maladaptive perfectionism as an intervening variable between psychological control and adolescent depressive symptoms: A three-wave longitudinal study. *Journal of Family Psychology*, 22(3), 465–474. <https://doi.org/10.1037/0893-3200.22.3.465>
- Soenens, B., Vansteenkiste, M., Luyten, P., Duriez, B., & Goossens, L. (2005). Maladaptive perfectionistic self-representations: The mediational link between psychological control and adjustment. *Personality and Individual Differences*, 38(2), 487–498. <https://doi.org/10.1016/j.paid.2004.05.008>
- Soenens, B., Vansteenkiste, M., & Van Petegem, S. (2015). Let us not throw out the baby with the bathwater: Applying the principle of universalism without uniformity to autonomy-supportive and controlling parenting. *Child Development Perspectives*, 9(1), 44–49. <https://doi.org/10.1111/cdep.12103>
- Steinberg, L. (2005). Cognitive and affective development in adolescence. *Trends in Cognitive Sciences*, 9(2), 69–74. <https://doi.org/10.1016/j.tics.2004.12.005>
- Taylor, R. D. (2000). An examination of the association of African American mothers’ perceptions of their neighborhoods with their parenting and adolescent adjustment. *Journal of Black Psychology*, 26(3), 267–287. <https://doi.org/10.1177/0095798400026003001>
- Wood, J. J., McLeod, B. D., Sigman, M., Hwang, W. C., & Chu, B. C. (2003). Parenting and childhood anxiety: Theory, empirical findings, and future directions. *Journal of Child Psychology and Psychiatry*, 44(1), 134–151. <https://doi.org/10.1111/1469-7610.00106>
- Zussman, J. U. (1980). Situational determinants of parental behavior: Effects of competing cognitive activity. *Child Development*, 51(3), 792–800. <https://doi.org/10.2307/1129466>