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Family Interactions, Exposure to Violence, and Emotion Regulation: Perceptions of Children and Early Adolescents at Risk

This study examined the protective nature of youth reports of family interactions in relation to perceived exposure to violence and anger regulation in 84 children and early adolescents (mean age of 10.5; 7–15 years old) primarily from ethnic minority groups and living in high-risk communities in a large southwestern city. Path analysis and bootstrapping methodology indicated that overall family system variables were primarily associated with anger regulation and exposure to violence through parenting behaviors. Specifically, perceptions of family cohesion and adaptability were indirectly associated with anger regulation through a positive association with parental support. Family cohesion and adaptability were indirectly associated with anger regulation and exposure to violence through parental supervision in

different ways. Family cohesion was positively associated with parental supervision, whereas family adaptability was negatively associated with parental supervision. Implications are discussed for intervention and prevention programs aimed at youth residing in areas with economic disadvantage.

Children and early adolescents in low-income urban neighborhoods are often exposed to high stress that has the potential to negatively impact their development. Exposure to community violence (Proctor, 2006) and disruption in emotional processes (Leventhal & Brooks-Gunn, 2000; Walton & Flouri, 2010) place children at risk for maladaptive outcomes (e.g., internalizing problems and aggressive and antisocial behavior). The ability to manage anger holds promise for favorable outcomes for children in high-risk contexts (Buckner, Mezzacappa, & Beardslee, 2003). Yet, exposure to violence shows a negative association with the ability of children to manage anger (Boxer, Edwards-Leeper, Goldstein, Musher-Eizenman, & Dubow, 2003; Boxer et al., 2008). Thus, central challenges for children and early adolescents residing in high-risk communities are regulating (or managing) emotions such as anger (Leventhal & Brooks-Gunn, 2000) and protection from exposure to community violence (Proctor, 2006).

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Family interactions are important in socializing children and early adolescents to manage anger (Morris, Silk, Steinberg, Myers, & Robinson, 2007) and for protecting children against exposure to violence (Kennedy, Bybee, Sullivan, & Greeson, 2010). Family interactions, involving overall family systems qualities and parenting behavior (Henry, 1994; Henry, Robinson, Neal, & Huey, 2006; Henry, Sager, & Plunkett, 1996), may protect children and early adolescents against exposure to violence and foster anger regulation (Morris et al., 2007). But the protective nature of family interactions in relation to anger regulation and preventing exposure to violence in ethnic minority groups living in communities considered high risk (Morris et al., 2007; Proctor, 2006) is relatively unexplored. Thus, in the current study we developed and tested a theoretical model using reports from children and early adolescents (7–15 years old) living in high-risk communities to examine how selected overall family qualities and parenting behaviors were associated with anger regulation and exposure to violence.

EXPOSURE TO VIOLENCE AMONG CHILDREN AND ADOLESCENTS IN HIGH-RISK CONTEXTS

Research indicates that children and early adolescents in low-income, urban neighborhoods are often exposed to high stress, in particular community violence (U.S. Bureau of Justice Statistics, 2004). Exposure to violence in children and early adolescents is associated with poor emotion regulation, psychosocial maladjustment, pessimistic expectations for the future, and symptoms associated with posttraumatic stress disorder (Boxer et al., 2003, 2008). The effects of exposure to community violence have been theorized to operate directly by causing stress reactions and also indirectly by shaping maladaptive social cognitive and emotion regulatory styles (Schwartz & Proctor, 2000). Understanding the protective nature of family processes is particularly important among children and families in ethnic minority groups who are disadvantaged because of the high risk for achievement related problems, poor social competence, criminal activity, and unemployment (Boxer et al., 2008; Ingoldsby & Shaw, 2002). Quality family interactions may provide a climate that protects children and adolescents from exposure to community violence and promotes healthy anger regulation.

ANGER REGULATION AMONG CHILDREN AND ADOLESCENTS IN HIGH-RISK CONTEXTS

As children navigate the biological, social, and emotional changes of early adolescence (Steinberg & Silk, 2002), the ability to regulate anger protects against internalizing, externalizing, and social problems (Cicchetti, Ackerman, & Izard, 1995; Zeman, Shipman, & Suveg, 2002). Anger regulation, or the internal and external processes that modulate the intensity and occurrence of anger in appropriate ways (Eisenberg & Morris, 2002), promotes positive adaptation and mental health for children and early adolescents in high-risk communities (Leventhal & Brooks-Gunn, 2000; Walton & Flouri, 2010). For example, in a sample of 8- to 17-year-olds (36% African American, 35% Caucasian) in high-risk communities, Buckner et al. (2003) found stronger anger management—with less tendency to lash out—among resilient (determined by multiple measures of emotional well-being and mental health) youth compared with less resilient youth. Further, Buckner et al. found that self-regulation was the most powerful predictor of resilience in youth. Thus, examining socialization processes in children and early adolescents related to regulation may enhance our understanding of the ways in which these processes vary, providing a window into how anger regulation patterns develop.

GENERAL SYSTEMS PERSPECTIVES ON FAMILIES

Although the investigation of families and anger regulation often focuses on parent-child relationships (see Morris et al., 2007, for a review), applications of general systems theory conceptualize parent-child relationships as intertwined within overall family systems (Minuchin, 1974). Family systems involve complex interaction patterns that regulate day-to-day life for the overall family system, subsystems (e.g., parent-child dyads), and individual family members (Whitchurch & Constantine, 1993). Within family systems characterized by close emotional bonding, high parental support may be manifested within parent-child dyads (Henry et al., 2006). Thus, both parent-child relationships and individual development occur in concert with overall family system dynamics (Cox & Paley, 2003; Parke, 2004) and hold potential for understanding emotion regulation and protecting

against exposure to violence in children and early adolescents.

An emerging body of research is the investigation of family system qualities and parenting behaviors within the same research models to explain children's and adolescents' adjustment. Amato (1989) found that adolescents' perceptions of family cohesion and parental support were distinct variables associated with adolescents' general competence. Henry (1994) and Henry et al. (1996) found that adolescents' reports of family systems (e.g., cohesion, flexibility) and parenting behaviors (support and forms of parental control) were associated with aspects of adolescents' emotional well-being. Henry et al. (2006) found that adolescents' reports of higher parental support were associated with balanced or moderated balanced family systems, whereas reports of higher parental monitoring were associated with balanced or extreme (low in cohesion and adaptability) family systems. Despite the theoretical promise of systems perspectives in explaining how both overall family systems and parent-child subsystems combine to explain adolescent outcomes (Henry, 1994; Henry et al., 1996, 2006; Houlberg, Henry, Merten, & Robinson, 2011), research has not yet investigated how perceptions of family interactions are associated with exposure to violence and emotion regulation for children and early adolescents in high-risk communities.

Overall Family Systems Qualities and Child and Adolescent Outcomes

Family cohesion describes the closeness or bonding among family members (Olson et al., 1992), providing a sense of connectedness from which children and early adolescents can explore their world (Henry, 1994). Family adaptability describes families' ability to modify family dynamics such as roles and responsibilities as needed (Olson et al., 1992), fostering emotional security for children as they progress through developmental changes (Davies & Cummings, 1994). Research with other samples shows that overall family systems qualities (cohesion or adaptability) are positively associated with aspects of adolescents' emotional well-being, including family life satisfaction, empathy, and decreased risk for depression (Henry, 1994; Henry et al., 1996; McKeown et al., 1997). Thus, children's feeling of connectedness in their overall family system may provide a

context that promotes the development of anger regulation, potentially as manifested in parent-child subsystems. Additionally, overall family systems perceived as providing greater predictability in family life may afford the opportunity to learn to deal more effectively with strong emotions such as anger through parent-child subsystems. For example, parents' reports of overall family system chaos (lack of structure and disorganization) were associated with low parents' reports of positive parenting that, in turn, were associated with low child effortful control (aspect of emotion regulation; Valiente, Lemery-Chalfant, & Reiser, 2007).

To our knowledge existing research does not directly address the association between overall family system qualities and exposure to violence in children or early adolescents. Because family cohesion represents a sense of connectedness to one's family, including greater time spent with family members, children and adolescents who view their families as more cohesive may perceive their families as a secure base that affords some protection against the risk of exposure to violence (especially violence outside the home in disadvantaged neighborhoods). Similarly, children and early adolescents who see their families as more adaptable may be less likely to follow regular family routines and schedules and increase interactions with the broader community, which may lead to greater exposure to violence (or less supervision through parent-child subsystems).

Parenting Behaviors and Child and Early Adolescent Outcomes

Family socialization of emotion regulation also occurs within parent-child dyads (Eisenberg et al., 2001). Parental support (i.e., warmth, nurturing, physical affection, encouragement, or praise) is consistently associated with positive youth outcomes (Peterson & Rollins, 1987). Parental support creates an emotional atmosphere that encourages youth to develop the skills (e.g., self-regulation; Brody & Ge, 2001) needed to respond effectively to emotions such as anger (Klimes-Dougan et al., 2007; Walton & Flouri, 2010) and protects against victimization (Kuther & Fisher, 1998). Parental supervision (i.e., showing involvement and guidance to children and adolescents by paying attention to and demonstrating knowledge of their schedules, friends, and activities; Dishion & McMahon,

1998) protects against exposure to violence and promotes anger regulation (Gorman-Smith, Henry, & Tolan, 2004; Stattin & Kerr, 2000; Walton & Flouri, 2010).

The present study utilizes children's and early adolescents' reports because they are the best reporters of their own anger regulation and exposure to violence, and their experiences in the family are important to understanding adjustment (Campos, Frankel, & Camras, 2004; Eisenberg & Morris, 2002). On the basis of literature reviewed, family system qualities and parenting behaviors were both expected to be important in understanding anger regulation and exposure to violence (Amato, 1989; Cox & Paley, 2003; Henry et al., 1996; Parke, 2004). Further, it was hypothesized that overall family system qualities would be associated with children's outcomes through parenting behaviors (Henry et al., 2006). Because of a lack of empirical support examining the link between family cohesion and adaptability and children's anger regulation and exposure to violence, no hypothesis was made in relation to this direct association. Specifically, our model posits that (a) overall family system variables of cohesion and adaptability are positively associated with parental support and supervision, (b) overall family system variables indirectly are associated with child and early adolescent anger regulation and exposure to violence through parental support and supervision, and (c) supervision and support are positively associated with child and early adolescent anger regulation and negatively associated with exposure to violence. Despite stronger empirical evidence for some specific pathways, all pathways were included to allow for testing the tenability of the model (Kline, 2005). Direct pathways from family cohesion and adaptability to exposure to violence and anger regulation were free to vary to examine the associations. Because of the possibility that variables in the model might vary based on demographic variables, we examined whether differences existed associated with gender, age, or ethnicity (Boxer et al., 2008; Klimes-Dougan et al., 2007).

METHOD

Participants

Participants were part of a larger study involving data collection from parents, children, and early adolescents (ages 7 to 15) recruited through

two Boys and Girls Clubs and surrounding communities in a large southwestern city in the United States. Data were collected from 84 children and adolescents in the spring and fall of 2008. Boys and Girls Clubs of America (2010) provide services to children and families in disadvantaged communities. In our sample, community disadvantage was evident through the Title I (Public Law 107-110) funding of the elementary and middle schools (National Center for Education Statistics, 2010) closest to the two Boys and Girls Clubs. Title I funding is provided to schools showing a high prevalence of academic, economic, and social risks among students (U.S. Department of Education, 2010). Most of the children in the current sample reported hearing guns being shot (81%) and 32% of the children reported seeing someone get shot and 38% reported seeing someone get stabbed. Further, about 78% of the children reported seeing someone beaten up and 75% of the children reported being hit or pushed themselves. Among the 84 children who participated, 35 (41.7%) were female, and 49 (58.3%) were male. Participants' ages ranged from 7 to 15 years (mean = 10.5, median = 10.0). The participants' ages ranged from late childhood to early adolescence and were distributed as follows: 7–9-year-olds (35, 41.7%), 10–12-year-olds (29, 34.5%), and 13–15-year-olds (20, 23.8%). Race and ethnicity was self-identified as follows: Black or African American (54, 64.3%), Caucasian (16, 19%), Hispanic (3, 3.6%), Asian (1, 1.2%), and "other" ethnicity (10, 11.9%).

Procedure

Boys and Girls Clubs' personnel and research team members distributed flyers to families served by the organizations. In addition, flyers were distributed through door-to-door canvassing of surrounding communities inviting families to increase participation in the study. The families were invited to attend one of two early evening sessions at each site. In this meeting, parents were informed about the nature of the study, that participation was voluntary, and that services through the Boys and Girls Clubs would not be affected by study participation. Once parental consent was given, child assent was obtained and questions were read by a researcher in a group format (parents and children in separate rooms) while participants marked their answers

individually and read along with the packet. Each child or early adolescent and each parent was compensated \$20 for completing the questionnaires (\$40 per parent-child dyad). Prior to conducting the study, university institutional review board approval was obtained.

Measures

Anger regulation. The 4-item anger regulation coping scale of the Children's Anger Management Scales (CAMS; Zeman, Shipman, & Penza-Clyve, 2001; Zeman et al., 2002) was used to assess child and early adolescent anger regulation. The CAMS is an 11-item anger scale in which children respond on a 3-point Likert type scale: 1 = *hardly ever*, 2 = *sometimes*, and 3 = *often*. The anger regulation coping subscale (4 items), or the ability to cope with anger through constructive control of emotional behavior (e.g., "When I am feeling mad, I control my temper") was used to assess anger regulation. The mean score was calculated to obtain an anger regulation score. Previous Cronbach's α s of .77 (in a study of predominately Caucasian fourth and fifth graders; Zeman et al., 2001) and .61 (in a study of predominately African American fifth and eighth graders; Sullivan, Helms, Kliever, & Goodman, 2010) were found, and the present study yielded a Cronbach's α of .60. The construct validity of the scale has been established through comparisons with the Child Behavior Checklist (Shields & Cicchetti, 1997) and the Emotion Regulation Checklist (Suveg & Zeman, 2004; Zeman et al., 2002).

Overall family system qualities. The two subscales from the Family Adaptability and Cohesion Evaluation Scales II (FACES II; Olson et al., 1992) were used to assess children's and adolescents' perceptions of overall family functioning. The family cohesion (16 items) and family adaptability (14 items) subscales were used. Sample items include "Family members feel closer to people outside the family than to other family members" (cohesion, reverse coded), and "When problems arise, we compromise" (adaptability). Response choices range from 1 (*strongly disagree*) to 5 (*strongly agree*). The mean score was calculated to obtain an adaptability and cohesion score following the linear scoring guidelines provided by Olson et al. Despite strong empirical support for internal consistency reliability of the subscales (Henry

et al., 1996; Olson et al., 1992), most research to date is in predominately White, middle-class families rather than diverse samples (Smith, Prinz, Dumas, & Laughlin, 2001). Two items (12 and 14) were removed from the adaptability subscale in order to improve the internal consistency. In the current study, the Cronbach's α s were .70 for family cohesion and .72 for family adaptability.

Parenting behaviors. The Alabama Parenting Questionnaire (APQ; Frick, 1991; Shelton, Frick, & Wootton, 1996) consists of 51 items that elicit responses on a 5-point Likert type scale: 1 = *never*, 2 = *almost never*, 3 = *sometimes*, 4 = *often*, and 5 = *always*. The positive parenting (6 items) and poor monitoring (10 items) subscales of this measure were used to assess youths' perceptions of parental support (e.g., "parents praise you for doing well") and supervision (e.g., "home without an adult being with you"). Children were instructed to report on the parent that they interacted with most. The mean scores for each subscale were computed to create a parental support score and a poor parental supervision score (reversed coded). Frick, Christian, and Wootton (1999) found the APQ to be reliable in a diverse urban sample. Using the present data, Cronbach's α s were .75 for parental support and .74 for parental supervision.

Exposure to violence. Children reported on exposure to violence during the past year using Richters and Martinez's (1993) 7-item Things I Have Seen and Heard Scale, which measures seeing and hearing serious violent and criminal behavior (e.g., "I have seen someone get shot") and the 13-item Exposure to "Low Level" Aggression Scale (Boxer et al., 2003), which measures witnessing of and victimization by less severe forms of aggression (e.g., "I have been hit or pushed or kids say mean things to me"). The two measures use the same 4-point Likert type scale (1 = *never*, 2 = *once or twice*, 3 = *a few times*, and 4 = *many times*) and are highly correlated ($r = .66$, $p = .001$). On the basis of the descriptive statistics and previous research support for combining Things I Have Seen and Heard Scale ($M = 1.27$, median = 1.29, $SD = 0.71$) and Exposure to "Low Level" Aggression Scale ($M = 1.23$, median = 1.23, $SD = 0.56$; Boxer et al., 2008), combined mean scores of responses to these two measures resulted in an overall exposure to violence score. Higher scores

indicated more exposure to violence ($M = 1.25$, median = 1.21, $SD = 0.56$), and yielded a Cronbach's α of .86.

Analytic Approach

A series of one-way analyses of variance (ANOVAs) was examined to test for significant differences in the variables on the basis of demographic variables (gender, age, and two collection sites). Bivariate correlations and path analysis were used to test the theoretical model. The path analysis was conducted in Mplus (Muthen & Muthen, 2007) to test hypothesized direct pathways for statistical significance. Path analysis provides an approach to examine the tenability of a theoretical model and allows for the decomposition of correlations among variables as well as allowing for the examination of the pattern of effects of variables (Kline, 2005). This approach is particularly relevant to examining overall family systems qualities and parenting behaviors in relation to children's and early adolescents' outcomes because of the limited empirical support for some of the hypothesized pathways. Goodness of fit was evaluated through the traditional maximum likelihood (ML) chi-square test and several goodness of fit indexes (Marsh, Hau, & Wen, 2004). Thus, pathways were trimmed based on theory and significance of path coefficients, and improvement in model fit was examined using a chi-square difference test and modification indices (Kline, 2005). Bootstrap methodology was employed to test for indirect effects using Mplus (Muthen & Muthen) with 2,000 bootstrap samples. Bootstrapping was used to overcome the conservative nature of the Sobel Test of mediation (MacKinnon,

Lockwood, & Hoffman, 2002) and estimates indirect effects through empirical sampling distributions by calculating confidence limits (MacKinnon, Lockwood, & Williams, 2004). If 0 is not within the interval, statistical significance is examined and the null hypothesis of no indirect effects is rejected (MacKinnon et al., 2004).

RESULTS

Descriptives and Bivariate Correlations

The one-way ANOVAs demonstrated no significant differences on any of the variables of interest based on gender, age (by year), or collection site. Our sample was predominately African American, which limited our power to explore possible ethnic differences. There was no bivariate correlation, however, between ethnicity and any variables of interest. There was a significant positive bivariate correlation between age and exposure to violence (see Table 1). In addition, bivariate correlations indicated a positive association between the overall family system qualities (cohesion and adaptability) and parental support. Family cohesion was positively associated with parental supervision and negatively associated with exposure to violence. Parental support was positively associated with anger regulation, whereas parental supervision was negatively associated with youth exposure to violence.

The Full Model: The Initial Examination of Significant Path Coefficients

As expected of a model with few degrees of freedom (Kline, 2005), the model fit was

Table 1. Correlations, Means, and Standard Deviations ($N = 84$)

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Gender ^a	0.58	0.50	—	-.08	-.13	-.14	-.18	.04	-.08	-.11
2. Age	10.54	2.21		—	-.09	-.04	-.03	-.07	-.14	.26*
3. Cohesion	3.32	0.52			—	.49**	.61**	.42**	.08	-.26*
4. Adaptability	3.33	0.68				—	.58**	.00	.18	.08
5. Parent support	3.56	0.83					—	.13	.29**	-.09
6. Parent supervision	3.55	0.72						—	-.18	-.40**
7. Anger regulation	2.04	0.56							—	-.15
8. Exposure to violence	1.25	0.56								—

^aGender of adolescent (*boys* = 0, *girls* = 1).

* $p < .05$. ** $p < .01$.

good, $\chi^2(3) = 4.53, p = .21$, comparative fit index (CFI) = .99, root mean square error of approximation (RMSEA) = .08, Standardized Root Mean Square Residual (SRMR) = .03. Family cohesion showed direct positive associations with parental support ($\beta = .43, p = .001$) and parental supervision ($\beta = .54, p = .001$). Family adaptability was positively associated with parental support ($\beta = .37, p = .001$) and negatively associated with parental supervision ($\beta = -.27, p = .01$). Neither cohesion nor adaptability was directly associated with anger regulation or exposure to violence. Exposure to violence and anger regulation were inversely related ($\beta = -.27, p = .01$). Because exposure to violence and anger regulation are endogenous variables with no direct effects designated in the model, the association between the two represents a correlated disturbance that suggests common omitted causes (Kline, 2005). Parental support was positively associated with anger regulation ($\beta = .33, p = .02$), and parental supervision was negatively associated with exposure to violence ($\beta = -.39, p = .001$). Significant associations were not found between parental support and exposure to violence or parental supervision and anger regulation. The pathway between parental supervision and anger regulation, however, approached significance ($\beta = -.20, p = .10$).

Trimmed Model: Chi-Square Difference Test and Modification Indices

Next, model trimming was applied to find a more parsimonious model that was consistent with the theory and data (Kline, 2005). The nonsignificant pathways were examined and corresponded with lack of empirical support of the pathways. Thus, nonsignificant parameters were fixed to zero and the model fit indices were examined to observe the chi square difference test. Modification indices were also examined to determine whether model fit significantly improved by freeing any pathway that was trimmed from the full model. Although the trimmed model demonstrated goodness of fit, $\chi^2(7) = 9.50, p = .22$, CFI = .98, RMSEA = .07, SRMR = .06, the modification indices suggested that the model fit would be significantly improved by freeing the pathway between parental supervision and anger regulation. Thus, the constraint on this pathway was relaxed, and a chi-square difference test

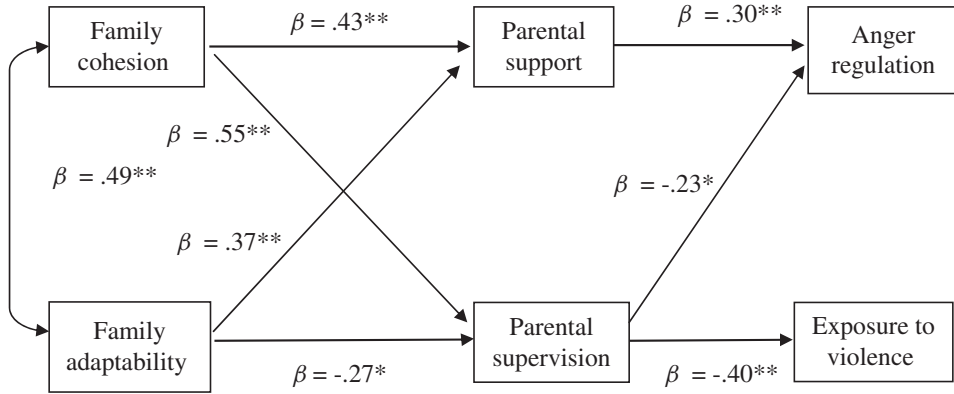
confirmed that the model fit was significantly improved with the inclusion of the pathway between parental supervision and anger regulation, $\chi^2_d(1), 4.58, p = .03$, which was retained in the final model.

Final Model: Chi-Square Difference Test and Main Effects of the Parsimonious Model

Although a chi-square difference test showed no statistically significant difference between the full and final model with the pathway from parental supervision to anger regulation free, $\chi^2_d(3), .05, p = .99$, the more parsimonious model demonstrated goodness of fit, and the pathway was retained, $\chi^2(6) = 4.92, p = .55$, CFI = 1.0, RMSEA = .001, SRMR = .03). Consistent with the full model, the final model showed that both overall family cohesion and adaptability were indirectly associated with anger regulation through parental support (see Figure 1). Further, family cohesion and adaptability were indirectly associated with youth exposure to violence through parental supervision. With the trimmed, final model, there was a significant negative path coefficient between parental supervision and anger regulation ($\beta = -.23, p = .03$), which indicates that family cohesion and adaptability were indirectly associated with anger regulation through parental supervision.

Family cohesion was positively associated with both parental supervision ($\beta = .55, p = .001$) and support ($\beta = .43, p = .001$). Family adaptability was associated positively with parental support ($\beta = .37, p = .001$) and negatively with parental supervision ($\beta = -.27, p = .01$). In sum, cohesion and adaptability were positively associated with support and, in turn, were positively associated with anger regulation ($\beta = .30, p = .02$). Cohesion and adaptability were associated with supervision (in different directions; see above) and, in turn, were associated with lower levels of exposure to violence ($\beta = -.40, p = .001$) and lower anger regulation ($\beta = -.23, p = .03$). There was a negative correlation between anger regulation and exposure to violence ($\beta = -.26, p = .02$). As previously noted, the path between exposure to violence and anger regulation was not specified in the model and therefore represents correlated error variances rather than a direct effect and was omitted from Figure 1 (Kline, 2005).

FIGURE 1. FINAL MODEL WITH STANDARDIZED BETA COEFFICIENTS (N = 84).



$\chi^2(6) = 4.92, p = .55$

CFI = 1.0

RMSEA = .001

SRMR = .03

* $p < .05$. ** $p < .01$.

Final Model: Controlling for Gender and Age

To examine path coefficients when controlling for possible gender and age differences, we included gender and age as predictors in our final model. No significant differences were found in the path coefficients, model fit statistics, or overall predicted variance in the endogenous variables when age and gender were included in the final model. Further, gender was not significantly related to any variables in the model, and age was only significantly associated with exposure to violence ($\beta = .23, p = .03$), suggesting that older children are exposed to higher levels of violence.

Indirect Effects: Significant Indirect Effects Using Bootstrap Methodology

The calculated confidence intervals produced by the bootstrapping only included zero in one of the possible six indirect effects, which indicated five statistically significant indirect effects (see Table 2; MacKinnon et al., 2004). Cohesion and adaptability showed significant indirect associations with (a) anger regulation through support and (b) exposure to violence through supervision. Cohesion also was indirectly related to (c) anger regulation through supervision; however, the indirect path from adaptability to anger regulation through

Table 2. Bootstrap Analyses of the Magnitude and Significance of Indirect Effects (N = 84)

Independent Variable	Mediator Variables	Dependent Variable	β Indirect Effect	95% CI (Lower, Upper)	T Value of Indirect Paths
Family cohesion → +	Parental support → +	Anger regulation	.12	.019, .227	2.33*
Family adaptability → +	Parental support → +	Anger regulation	.11	.015, .195	2.28*
Family cohesion → +	Parental supervision → -	Exposure to violence	-.24	-.387, -.096	-3.25***
Family adaptability → -	Parental supervision → -	Exposure to violence	.15	.036, .265	2.58**
Family cohesion → +	Parental supervision → -	Anger regulation	-.15	-.291, -.040	-2.11*

* $p < .05$. ** $p < .01$. *** $p < .001$.

supervision was not significant. Specifically, cohesion and adaptability were positively associated with support. In turn, support was positively associated with anger regulation. Cohesion and adaptability were, however, indirectly associated with exposure to violence and anger regulation in different ways. Cohesion was associated with exposure to violence through a positive association with parental supervision, which was associated with lower levels of exposure to violence and lower reported anger regulation. In contrast, adaptability was negatively associated with parental supervision, and supervision was associated with lower levels of exposure to violence, and there was no significant indirect effect between adaptability and anger regulation.

DISCUSSION

Our findings indicate that perceived overall family system qualities (cohesion and adaptability) and support from parents create an emotional climate that enhances the anger regulation of children and early adolescents living in disadvantaged communities. Anger regulation is particularly salient for children and early adolescents residing in high-risk communities, given the host of difficulties associated with the inability to manage anger (Buckner et al., 2003; Cicchetti et al., 1995; Morris et al., 2007). Our findings suggest that a positive family emotional climate may act as a protective process promoting healthy anger regulation among children and early adolescents at risk. In addition, our findings suggest that parental supervision and family cohesion may protect children from being exposed to violence (Proctor, 2006). Thus, our findings indicate that specific supportive parenting behaviors (e.g., warmth, praise) that have an emotional component may be particularly important to the socialization of emotion regulation (Brody & Ge, 2001; Pettit, Bates, & Dodge, 1997), whereas parental supervision and structure in day-to-day family life may be particularly important in protecting children and adolescents from being exposed to violence.

Contrary to the hypothesized positive relationship between parental supervision and anger regulation, we found that children and early adolescents who reported higher parental supervision reported less ability to regulate anger, despite the protective effect of supervision against exposure to violence. There have been

mixed findings in previous research in regards to parental control and adolescents' problem behavior, such that moderate forms of control were associated with better outcomes rather than extreme control, which was associated with greater antisocial behavior (Mason, Cauce, Gonzales, & Hiraga, 1996). Developmental research also indicates the importance of children and early adolescents taking more individual responsibility for emotion regulation, whereas younger children rely more on parents to aid in emotion regulation (Eisenberg & Morris, 2002). Thus, it may be that children who see their parents as high in supervision also see their parents as less inclined to facilitate child anger regulation, but more research is needed to confirm this thinking. Taken together, our findings suggest that perceived parental supervision alone may contribute to feelings of protection against exposure to violence but may not encourage children and early adolescents in their ability to manage anger. These findings support the approach of examining both specific overall family qualities and parenting behaviors in relation to child outcomes (Henry et al., 2006) and the need for further research to examine the protective role of family processes for children and adolescents in high-risk communities (Proctor, 2006).

The lack of significant direct associations between overall family system qualities, both family cohesion and family adaptability, to either anger regulation or exposure to violence is noteworthy. Parallel to Darling and Steinberg's (1993) conceptualization of parenting style as a "constellation of attitudes that creates an emotional climate in which parenting behaviors are expressed" (p. 488), our findings suggest that children and early adolescents perceive parenting behaviors such as support and supervision as reflecting dynamics within their overall family systems. Thus, for example, child or early adolescents perceptions of high overall family cohesion may translate into greater feelings of parental support, which, in turn, provides a sense of family connectedness that provides a context where experiencing and regulating anger may be more likely. Because seeing one's family as higher in cohesion is likely to be accompanied by perceiving greater parental supervision, however, children and early adolescents also may feel protected against violence, even when they have more difficulty regulating their anger.

On the other hand, children and early adolescents who see their overall family systems as highly adaptable tend not to see their parents as being aware of their activities and whereabouts, leaving children and adolescents feeling unprotected from exposure to violence. This suggests that too much family flexibility may be a risk factor in high-risk communities, whereas family cohesion appears to be a protective process. These findings are consistent with previous research examining overall family systems qualities and parenting behaviors in relation to children and adolescent outcomes in the same model (Amato, 1989; Henry, 1994; Henry et al., 1996, 2006). Our findings extend this work by recognizing the importance of examining parental behaviors that express emotional *and* structure in day-to-day family life in relation (Brody & Ge, 2001; Pettit et al., 1997) to outcomes in children growing up in high-risk environments.

Although previous research indicating overall family adaptability is generally a family system strength providing flexibility in roles and relationships when change is needed (Olson & Gorral, 2003), our findings show a negative association between family adaptability and parental supervision that may put children and early adolescents in disadvantaged contexts at greater risk for exposure to violence. This risk appears to play out in the form of perceiving less supervision from parents. These findings extend earlier research showing that structure within families (e.g., Brody & Flor, 1998) may protect children in disadvantaged communities against exposure to violence through increased parental supervision (Steinberg, Lamborn, Dornbusch, & Darling, 1992).

As expected, we found that overall family adaptability is important in youth anger regulation through reports of parental support. Despite the potential for less perceived parental supervision, children and early adolescents who reported their overall families as more flexible tended to report their parents were more supportive. The compelling case for parental support as a factor associated with positive developmental outcomes in children and early adolescents (Peterson & Rollins, 1987) is extended by the present study examining anger regulation in children and early adolescents who live in urban low-income settings. Because parental support is affirming to children, it holds outstanding promise to promote the development

of aspects of emotional competence, including anger regulation.

A different pattern emerged for the relationship between overall family system qualities and anger regulation through parental supervision. Although family adaptability did not show an indirect relation to anger regulation through parental supervision, family cohesion was indirectly related to anger regulation through a negative relationship with parental supervision. Thus, children and early adolescents' perceptions of strong connectedness to the overall family system appear to promote perceptions of greater parental supervision that, in turn, related to decreased anger regulation and decreased exposure to violence. Children and early adolescents who perceive close family relationships and high parental supervision may feel greater comfort and security in their families and experience less anger to control.

There are several methodological and theoretical strengths of this study. Our theoretical model incorporates children and early adolescents' perceptions of overall family system qualities, parenting behaviors, and an indicator of context—exposure to violence—to explain anger regulation among children residing in disadvantaged communities. The use of path analysis allowed for considering both direct and indirect associations among the variables. This study addresses the need for further research to examine the broader context of the development of emotion regulation among middle childhood and adolescence (Morris et al., 2007) and the association between overall family system qualities and parenting behaviors (Henry et al., 2006). This study advances research on the family processes associated with anger regulation and exposure to violence in a sample of children and early adolescents from ethnic minority groups who reside in communities identified as high risk (Proctor, 2006; Raver, 2004).

Despite the strengths, several limitations merit consideration. This study utilized a convenience sample and a cross-sectional design, limiting the ability to generalize to other samples, examine causal relationships, or to provide certainty about the direction of the effects. The challenges in recruiting participants from communities identified as high risk required that we used a community sampling technique that yielded participants from a wide age group from similar ethnic groups. Thus, we were not able to examine possible

ethnic differences in our model. Consistent with Buckner et al.'s (2003) findings that self-regulation and resilience did not vary based on age or gender with a wide age range (8–15-year-olds), we did not find any significant differences based on age and gender in our final model. Further, we conducted our data collection in the early evening, potentially limiting some participants from the community (e.g., fear of being out at night, work schedule) and increasing the likelihood of a selection bias.

We found lower reliabilities on the family measures (ranging from .70 to .75) and anger regulation coping (.60) than in some earlier research, indicating a need for further refinements of these measures in diverse samples of children and early adolescents. This study utilized children and early adolescents' perceptions for all the variables in the study. Although the complexity of family systems cannot be captured through a single perspective, children and early adolescents may respond to their perceptions of their families as they progress in emotional development and interact in their communities (Campos et al., 2004; Eisenberg & Morris, 2002). Despite these limitations, the current study advances the understanding of family interactions, anger regulation, and exposure to violence, providing the foundation for extending our theoretical model by utilizing longitudinal methodology in varying contexts.

Implications

Our results provide insights for family practitioners working with children and early adolescents living in disadvantaged neighborhoods from a contextual, family, and individual perspective. First, context matters when examining family processes and children's outcomes in high-risk communities (Pinderhughes & Hurley, 2008). For example, some family processes have different meanings and goals depending on the sociocultural context (Le et al., 2008). In mainly Caucasian middle-class families (Olson & Gorall, 2003), overall family adaptability is viewed as an important family strength, particularly as youth increase in age. Yet, for our participants, who resided in risky neighborhoods and were transitioning from middle childhood into early adolescence, seeing one's overall family system as having greater adaptability was related to less supervision and heightened reports of

exposure to violence. Yet, family adaptability also appears to foster anger regulation, through greater parental support. Practitioners are encouraged to consider this potential paradox regarding overall family adaptability in the families of children and early adolescents living in dangerous communities. This paradox may be addressed in educational or therapeutic settings by relating the importance of overall family adaptability in terms of parent-child relationships (or parental support) to promote aspects of development, such as anger regulation, paired with the need for structure (or parental supervision) to protect against exposure to violence. Clearly, context is important (Le et al., 2008) to understanding the role of overall family adaptability in anger regulation and protection against violence and merits additional research.

Our results suggest that interventions aimed at violence prevention and anger regulation in middle childhood and early adolescence may benefit from programs focused on both overall family systems qualities and parenting behaviors. Improving the quality of family interactions that communicate both cohesion and support may be particularly important for children and early adolescents in high-risk neighborhoods. Our findings indicate that family cohesion is related to greater supervision and support and is linked to both higher anger regulation and lower exposure to violence through positive parenting (i.e., support for anger regulation and supervision for exposure to violence). Thus, improving family interactions may include working with multiple members of the family that extend beyond the traditional mother-child dyad.

Finally, our findings suggest that children and early adolescents' perceptions of overall family system qualities and parenting behaviors are related to exposure to violence and anger regulation. Working with children to identify overall family characteristics and parenting efforts that communicate responsiveness and demandingness may be an important way to promote resilience in children and early adolescents. Because support may extend across multiple systemic levels, additional research is needed to examine protective processes within the community (e.g., schools, afterschool programs, sports) that promote resilience in children and adolescents from high-risk communities (Masten, Cutuli, Herbers, & Reed, 2009).

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