

FAMILY SYSTEM QUALITIES, PARENTING  
BEHAVIORS, EXPOSURE TO VIOLENCE, AND  
EMOTION REGULATION IN LOW-INCOME URBAN  
YOUTH

By

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YOUTH

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Overall Family System Qualities, Parenting Behaviors, Exposure to Violence, and  
Emotion Regulation in a Low-Income, Urban Youth

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## Abstract

This study examined youth perceptions of family systems and parenting variables in relation to youth reports of their own anger regulation in a predominately minority sample in high risk communities. Path analysis was used to examine a theoretical model that posited perceptions of family system variables (cohesion and adaptability) and parenting behaviors (support and supervision) were directly associated with youth reports of their own anger regulation and exposure to violence. Bootstrapping methodology was employed to examine indirect effects of family system qualities on emotion regulation and exposure to violence through parenting behaviors. Data were collected from 84 youth (mean age of 10.5) at two Boys and Girls Clubs in a large southwestern city. Perceptions of family cohesion and adaptability were indirectly associated with perceived anger regulation through a positive association with parental support. Family cohesion was indirectly associated with youth reports of being exposed to violence through a positive association to supervision while adaptability was indirectly related through a negative association with supervision. Findings suggested youth perceptions of parental support and supervision are important to better anger regulation and less exposure to violence. Overall family cohesion was indirectly associated with anger regulation, through parental support. A positive indirect association was identified between overall family adaptability to anger regulation, through parental support. Yet, higher overall family adaptability was associated with heightened risk for exposure to violence, through parental supervision.

## MANUSCRIPT

### Overall Family System Qualities, Parenting Behaviors, Exposure to Violence, and Emotion Regulation in a Low-Income, Urban Youth

Substantial research has established a link between emotion regulation and different outcomes (e.g., social competence, emotional health, self-appraisal) among children, adolescents, and adults (Ayduk et al., 2000; Dubow, Huesmann, Boxer, Pulkkinen, & Kokko, 2006; Eisenberg & Morris, 2002). Emotion regulation, or the process by which emotions are managed in order to function in the context of emotional arousal, is important for adolescents (Cicchetti, Ganniban, & Barnett, 1991; Larson & Richards, 1994; Thompson, 1991). The ability to regulate anger is particularly salient for youth exposed to high levels of violence and socio-economic disadvantage as they are at greater risk for emotional disruption (Levanthal & Brooks-Gunn, 2000) and the ability to manage anger in this context may be particularly adaptive (Buckner, Mezzacappa, & Beardslee, 2003). Although there are strong ties between emotion regulation and biological characteristics such as temperament, emotion regulation occurs in the context of relationships (Campos, Mumme, Kermoian, & Campos, 1994). Specifically, quality family interactions serve as an important socialization role in how youth manage emotions (Morris, Silk, Steinberg, Myers, & Robinson, 2007). Yet, little is known about family processes and youth anger regulation because most research has focused solely on

the mother-child relationships in younger children (Morris et al.). Further, prior research on families and emotion regulation is limited by a focus on parenting without considering how overall family system and parenting behaviors may both be associated with emotion regulation. The current study sought to address these gaps by examining the associations between youth perceptions of overall family qualities and specific parenting behaviors and youth reports of exposure to violence and anger regulation from high risk environments.

### Emotion Regulation in High Risk Environments

Emotion regulation about anger, or *anger regulation*, can be defined as processes (both internal and external) that modulate the intensity and occurrence of anger in appropriate ways (Eisenberg & Morris, 2002). The transition into early adolescence is a time of rapid and notable biological, social, and emotional changes that increase the opportunity to engage in emotion regulation (Buchanan, Eccles, & Becker, 1992; Nelson, Leibenluft, McClure, & Pine, 2005; Steinberg, 2005; Yap, Allen, & Sheeber, 2007). The inability of youth to regulate anger has been associated with internalizing, externalizing, and social problems (Cicchetti, Ackerman, & Izard, 1995; Morris et al., 2007; Nichols, Mahadeo, Bryant, & Botvin, 2008; Zeman, Shipman, & Suveg, 2002). Although residing in high risk environments increases the risk of maladaptive outcomes and emotional disruption (Barnett, 2008; Grant et al., 2005; Leventhal & Brooks-Gunn, 2000; McLoyd, 1998; Spano, Rivera, Vazsonyi, & Bolland, 2008), little is known about the protective potential and socialization process of anger regulation in low-income urban samples (Barnett, 2008; Grant et al., 2005; Leventhal & Brooks-Gunn; McLoyd, 1998; Morris et al.).

There is some empirical evidence that further investigation of anger regulation in communities of elevated risk is warranted. High risk communities may be defined by the increased levels of exposure to violence and neighborhood indicators of socioeconomic disadvantage (Boxer et al., 2008; Buckner et al., 2003). Research indicates youth in such environments are at increased risk. For example, in a sample of predominately black youth (mean age of 10.5) exposure of violence was positively associated with anger, while negatively associated with the ability to manage these emotions (Boxer et al., 2008). Thus, youth with high exposure to violence may be at heightened risk for both maladaptive outcomes and deficits in abilities to manage anger (Cicchetti et al., 1995; Zeman et al., 2002). In a sample of youth (36% African American, 35% Caucasian) of eight to 17 year olds from high risk communities, Buckner et al. (2003) found that youth who demonstrated resilience (e.g., competencies, good adaptive functioning, and lack of mental health problems) were stronger in anger management with less tendency to lash out and appear as volatile compared to less resilient youth. Further, Buckner et al. found that self-regulation was the most powerful predictor of resilience in youth, after accounting for adversity, intelligence, self-esteem, and parental monitoring.

#### Theoretical Foundations

General systems theory applications to families emphasize how family systems are complex social entities involving interrelationships among members of the system through relationships that constitute the whole (Whitchurch & Constantine, 1993). Family system qualities provide a context for understanding parent-youth interactions (Kuczynski, 2003). Examining variables on both the overall family systems and dyadic level within families is critical to attain a broader perspective (Cox & Paley, 2003;

Cromwell & Peterson, 1983; Henry, 1994; Parke, 2004). Family processes, both family system qualities and parent-child dyadic relationships serve as important contexts for aspects of youth emotional development (Cromwell & Peterson; Henry, Robinson, Neal, & Huey, 2006). Although some empirical support has examined the association between family systems variables and parent-child dyad variables, further examination is warranted (Henry et al., 2006) in relation to emotion regulation about anger.

Consistent with family systems perspectives, functionalistic approaches emphasize understanding emotion regulation within the context of relationships that include internal and external processes that interact to create the socialization of emotion regulation (Campos et al., 1994; Thompson, 1991). Thus, the subjective experiences of emotions in family relationships provide opportunities for socializing the regulation of emotions in youth (Campos, Frankel, & Camras, 2004; Eisenberg & Morris, 2002). In addition, self-report measures of youth emotion regulation provide information about an individual's cognitive experience of how one manages emotions (Eisenberg & Morris). Therefore, youth perceptions of family processes create a reality in which emotions are elicited and provide a framework for how youth report the managing of emotions.

#### Overall Family System Qualities and Emotion Regulation

As youth transition into early adolescence, families play a central role in providing a solid foundation for youth to assert greater autonomy and independence (Carter & McGoldrick, 1999). Thus, families continue to socialize emotional development (Lunkheimeir, Shields, & Cortina, 2007). Within economically disadvantaged neighborhoods family relationships hold potential to protect youth from exposure to violence and promote emotional wellbeing (Barnett, 2008; Brody & Ge,

2001; Morris et al., 2007; Silk et al., 2007; Spano et al., 2008). Previous research has established an association between family processes and exposure to violence (see Proctor, 2006 for review). Although family system qualities have been shown to be associated with youth exposure to violence, less is known about the complex role that families play in relation to exposure to violence and youth adjustment (Proctor). One important approach to understanding family system qualities is to consider overall family cohesion and family adaptability as key components (Olson, 1991).

*Family cohesion* refers to the closeness or bonding of family members within the system and the degree in which family members are separated. The perception of connection and closeness within families is central to healthy youth development (Henry, 1994; Olson, Sprenkle, & Russell, 1979). Although there is little research on the relationship between family cohesion and emotion regulation, difficulty establishing emotional connection within families may be associated with difficulties in emotion regulation (McKeown et al., 1997; Morris et al., 2007; Yap et al., 2007). Further research is warranted in exploring how family cohesion is associated with emotion regulation and exposure to violence (Morris et al., 2007; Proctor, 2006).

*Family adaptability* describes the ability of family systems to modify family roles and responsibilities as needed (Olson, 1991; Olson et al., 1979). During the transition into adolescence, considerable change and development that occurs in youth and the ability of families to adapt to these changes are important for emotional development (Olson & Gorrall, 2003). Further, family systems with limited adaptability may increase the risk of emotional disruption in children (Morris et al., 2007). In addition, disruption in family processes associated with the transition to early adolescence may present challenges to

children's sense of emotional security, yielding maladaptive coping strategies (Davies & Cummings, 1994). However, further examination of the link between overall family adaptability and emotion regulation and exposure to violence is needed because not much is known about this connection in diverse youth from high risk samples (Smith, Prinz, Dumas, & Laughlin, 2001).

### Parenting Behaviors and Emotion Regulation

Parent-child dyadic interactions provide one level of family socialization in emotion regulation for youth (Eisenberg et al., 2001; Garber, Braafladt & Weiss, 1995). One prominent approach for understanding socialization is to examine specific parenting behaviors such as responsiveness (supportive, warm, nurturing parental behaviors) and demandingness (control, monitoring; Maccoby & Martin, 1993; Peterson & Hann, 1999) and their association with emotional adjustment. Among parenting qualities, Loeber and Stouthamer-Loeber (1986) identified warmth (i.e., support or responsiveness) and supervision (i.e., demandingness) as important parenting components to the socialization of youth.

*Parent support* is defined as warm parental behaviors such as physical affection, encouragement, praising and spending quality time with youth (Henry, 1994; Peterson, 2005). Parental support is consistently associated with positive social and emotional outcomes in youth (Loeber, & Stouthamer-Loeber, 1986; Maccoby & Martin, 1993). Early adolescents' perceptions of parental support provide a protective process through which youth can work to develop skills to manage a wide range of emotions (Klimes-Dougan et al., 2007). Previous research shows a positive association between parental support and youth emotion regulation (Morris et al., 2007; Yap et al., 2007). Further,

research shows the potential of supportive parenting behaviors to promote self-regulation and emotional development among youth in risky neighborhoods (Brody & Ge, 2001; Natsuaki et al., 2007; Pettit, Bates, & Dodge, 1997; Simons, Johnson, Beaman, Conger, & Whitbeck, 1996). In addition, there is empirical support for the association between youth perceptions of parental support and reports of less victimization (Kuther, & Fisher, 1998) and reduced exposure to violence (Sheidow, Gorman-Smith, Tolan, & Henry, 2001).

Parental demandingness, or consistency in child guidance (e.g., rule enforcement) accompanied by realistic expectations for children is also central to youth emotional development (Morris et al., 2002; Peterson, 2005). One important aspect of parental demandingness is *parental supervision* or the attention to and knowledge of youth schedules, friends and activities (Dishion & McMahon, 1998; Stattin & Kerr, 2000). Although parental supervision is negatively associated with exposure to stressors in youth (Rankin & Quane, 2002), supervision of children's activities tends to decrease as they transition into early adolescence (Spano et al., 2008). Further, parental supervision provides additional protective processes against youth exposure to violence and emotional disruption (Boxer et al., 2009; Buckner et al., 2003). The current study focuses on the youth reports of parental supervision on the whereabouts and activities of youth rather than the behavioral efforts of parents to control or monitor youth whereabouts (Stattin & Kerr, 2000).

#### Overall Family Systems Qualities and Parenting Behaviors

As mentioned previously, the overall family system characteristics provide a climate in which parenting behaviors are implemented (Kuczynski, 2003) and both are



important to youth emotional development (Henry et al., 2006). Johnson (2001) found that parenting observed between one child and one parent was not consistent with parenting when both parents were present. Johnson indicated the importance of studying the dyadic relationship of the parent and child within the whole family system. Thus, examining the association between specific overall family characteristics (cohesion and adaptability) and parenting behaviors (support and supervision) may provide additional information in relation to emotion regulation and exposure to violence.

In a mainly rural, white sample of youth, Henry et al. (2006) found youth who perceived balanced levels of cohesion and adaptability reported higher levels of parental support and parental monitoring. Specifically, youth who saw their families as having greater overall family cohesion and overall family adaptability reported higher levels of parental support and higher levels of parental monitoring. Thus, youth perceptions of parental behaviors may occur within the larger contexts of perceptions of overall family systems qualities. The association between family cohesion and parental support is consistent with previous findings in similar samples that increased levels of parental support are associated with higher levels of family cohesion (Barber & Beuhler, 1996; Olson & Gorral, 2006). Thus, perception of closeness within the family may provide a sense of parental support and promote a feeling that parents are aware of youth whereabouts and activities. However, Henry et al., and Olson and Gorall utilized family types by combining perceptions of family adaptability and cohesion whereas little is known about how each family system characteristic relates to specific parenting behaviors and how both are associated with anger regulation and exposure to violence.

Not much is known about how youth perceived flexibility (adaptability) in the family is associated with parenting behaviors. However, Mupinga, Garrison and Pierce (2002) found that mothers' reports of overall family functioning (high adaptability and cohesion) were associated with authoritative parenting styles (consistent with high parental support and supervision). Further, adolescents who saw their overall family systems as functioning more effectively (high in cohesion and adaptability) reported greater parental support and knowledge (similar to supervision; Henry et al., 2006). However, the Mupinga et al. study also combined adaptability and cohesion limiting the understanding of the specific associations between the two family characteristics and specific parenting behaviors. Similar to the emphasis of research to examine specific parenting behaviors (Peterson & Hann, 1999) over parenting style, understanding specific overall family qualities in relation to specific parenting behaviors may provide additional information about the socialization process of emotion regulation.

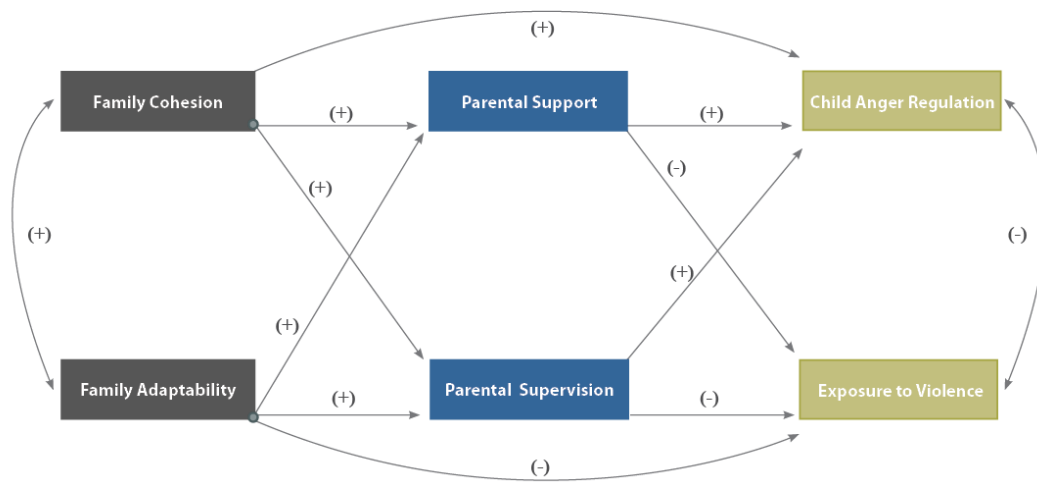
For example, Valiente, Lemery-Chalfant, and Reiser (2007) tested a model where parenting behaviors mediated the association between family chaos and an aspect of emotion regulation. Family chaos was assessed at the overall family system level and focused on the lack of structure (e.g., routines) and disorganization (e.g., always rushed). These findings indicated that a high level of family chaos predicted low levels of positive parenting behaviors towards emotions, which in turn predicted low levels of effortful control. Thus, empirical and theoretical support suggests an association between overall family system qualities and specific parenting behaviors and in relation to emotion regulation however, further examination is needed. In addition, a substantial amount of

research on family processes has been conducted with white, middle-upper class families and further research is needed in more diverse samples (Smith et al., 2001).

### Theoretical Model and Hypotheses

Based on the theory and research presented above, a theoretical model was examined of how youth perceptions of overall family system qualities and parenting behaviors relate to youth reports of exposure to violence and anger regulation in order to test indirect and direct effects (see Figure 1). Despite stronger empirical evidence for some of the specific pathways, however, all were included because of some empirical support was provided and we were interested in testing the tenability of the model (Kline, 2005). Specific hypotheses in regards to youth reports include: (a) family cohesion and adaptability will be positively associated with both parental support and parental supervision, (b) family cohesion and adaptability will be positively associated with anger regulation and negatively associated with exposure to violence, (c) family cohesion and adaptability will be indirectly associated with anger regulation through a positive association with both parental support and parental supervision, (d) parental supervision and parental support will be negatively associated with reports of exposure to violence, and (e) family cohesion and adaptability will be indirectly associated with exposure to violence through parental supervision and parental support. In addition, gender differences were explored in this model because past research suggests potential socialization differences according to gender. For example, research shows that boys exhibited more anger than girls (Chaplin, Cole, & Zahn-Waxler, 2005) and parents emphasized the inhibition of anger for girls (Casey, 1993).

Figure 1 *Theoretical Model and Hypothesized Direction of Associations*



## Methodology

### *Procedure*

Data collection occurred in the spring and fall of 2008 through two separate Boys and Girls Clubs in a large city in a large southwestern city. Boys and Girls Club personnel advertised the study by distributing flyers to families in their community. Meetings were held on two separate nights at each site that was available for participants to attend the meeting. In this meeting, parents were given additional information about the study and told that participation in the study is voluntary and that services through the Boys and Girls Club would not be affected by whether or not parents or children participated in the study. Parents and children were informed that the aim of the study was to better understand family factors and conflict resolution. Upon completion of the questionnaires, each child and parent was compensated \$20 for their time for a total of \$40 per parent-child dyad.

## *Participants*

The Boys and Girls Clubs are located in disadvantaged neighborhoods and reach out to at-risk youth and families (<http://www.bgca.org/howeare/mission.asp>). Reports of exposure to violence by youth residing in high risk environments from the Boxer et al. (2008; 1/3 of participants were drawn from the same communities) study is consistent with reports of the current study that identified high exposure to violence (see Table 1). Among the 84 children who participated, 35 (42%) were female, and 49 (58%) were male. The mean age of children was 10.5 years (ranging from seven to 15 years), and children were from a broad range of grade levels from first to ninth grades. Most children self-identified as Black/African-American (54, 64%), sixteen (19%) self-identified as Caucasian, three (4%) as Hispanic, one self-identified as Asian and 10 (12%) self-identified as “other” ethnicity.

Table 1

### *Child Reports of Exposure to Violence in the Last Year N = 84*

<b>In the past year.....</b>	<b>Percentage</b>
Heard guns being shot	81%
Heard gun shots many times	30%
Saw someone get shot	32%
Saw someone get stabbed	38%
Saw kids with guns or knives at school	57%
Saw someone get beaten up	78%
Reported being hit or pushed themselves	75%
Saw gangs in their neighborhood	63%

### *Measurement*

The subjective experiences of emotions elicited in family relationships and self-report measures of youth emotion regulation provide information about an individual's cognitive experience of how one manages emotions (Campos et al., 2004; Eisenberg & Morris, 2002). In addition, there is empirical support for the importance of utilizing youth perspectives of family processes and youth reports have been shown to be a valid assessment of parenting practices (Larsen & Olson, 1990; Loeber, & Stouthamer-Loeber, 1986). Thus, existing self-report measures and demographic items were used and for all measures higher scores indicated higher levels of that particular variable (e.g., higher anger regulation, higher cohesion).

*Anger regulation.* The 4-item anger regulation coping scale of the *Children's Anger Management Scales* (CAMS; Zeman, Shipman, & Penza-Clyve, 2001) was used to assess youth emotion 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 emotional regulation coping subscale, 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 regulation. The mean score was calculated to attain anger regulation score. In the present study the Cronbach's alpha for anger regulation was .60.

*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 youth perceptions of overall family functioning. Specifically, perceptions of family cohesion subscale (16 items) and family adaptability subscale (14 items) were used. Sample items follow: "Family members feel closer to people outside the family than to

other family members” (cohesion), and “When problems arise, we compromise” (adaptability). Response choices ranged from 1 = *strongly disagree* to 5 = *strongly agree*. The adaptability and cohesion subscales were scored using the linear scoring guidelines provided by Olson et al. (1992). Although there is empirical support for good internal consistency in adaptability and cohesion subscales in diverse samples (Henry, Sager, & Plunkett, 1996; Olson et al., 1992), most research to date is in predominately white, middle class families (Smith et al., 2001). In the current study, the Cronbach's alphas were for .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 and poor monitoring 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”). Youth were instructed to report on their parent that they interacted with most. The mean score for each subscale was computed to create a parental support score and the mean score for poor parental supervision was reversed coded to obtain a supervision score. The APQ has been found to be reliable in a diverse urban sample (Frick et al., 1999, Magoon & Ingersoll, 2005). Using the present data, Cronbach's alphas were .75 for parental support and .74 for parental supervision.

*Exposure to violence* was measured via 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 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 are based on the same 4-point Likert type scale: 1 = *Never*, 2 = *Once or Twice*, 3 = *A few times*, and 4 = *Many times*. The combined z-scores of responses to these two measures were used to calculate an overall exposure to violence score (range = -2.06 to 2.71; Boxer et al., 2008), which yielded a Cronbach’s alpha of .86.

## Results

### *Overview of the Analyses*

A series of one-way ANOVAs were examined to test for significant difference in the variables based on demographic variables (gender, two collection sites, and race). Bivariate correlations and path analysis were used to test the theoretical model (see Figure 1). 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 (Pedhauzer, 1997) 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 parental behaviors in relation to youth outcomes because of the limited empirical support for some of the hypothesized pathways. Goodness of fit can be evaluated through the traditional maximum likelihood (ML) chi square test and/or several goodness of fit (GOF) indexes (Marsh, Hau, & Wen, 2004). Both the chi square test and GOF indexes provide preliminary interpretations and “a rule of thumb” of how well the model fits the data



consistent with theory (Marsh et al.). This study examined the traditional chi square test and three GOF indexes (RMSEA, SRMR and CFI) based on the stability of these particular indexes (Hu & Bentler, 1999) and the need to examine several fit statistics rather than relying on a single index (see Marsh et al. for further discussion). 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 (Kline). The bootstrapping technique in *Mplus* (Muthen & Muthen) was used to calculate the confidence intervals to determine the significance of indirect effects (MacKinnon, Lockwood, & Hoffman, 2002; Valiente et al., 2007). Bootstrapping was used to overcome the conservative nature of the Sobel Test of mediation (MacKinnon et al., 2002) and estimates indirect effects through empirical sampling distributions by calculating confidence limits (MacKinnon, Lockwood, & Williams, 2004).

#### *Descriptive Statistics and Correlations*

Multiple one-way ANOVAs demonstrated no significant differences on any of the variables of interest based on gender, race/ethnicity, or collection site. As expected, bivariate correlations indicated a positive association between the overall family system qualities (cohesion and adaptability) and parental support (see Table 2). Family cohesion was positively associated with parental supervision. Parental support was positively associated with anger regulation, whereas parental supervision was negatively associated with youth exposure to violence.

Table 2

*Correlations, Means, and Standard Deviations N = 84*

	M	SD	1	2	3	4	5	6	7
1. Gender <sup>a</sup>	1.58	.50	--	-.13	-.19	-.18.	.04	-.02	-.13
2. Cohesion	53.18	8.45		--	.48**	.62**	.45	.05	-.25
3. Adaptability	42.08	7.62			--	.59**	-.07	.18	.09
4. Parent support	3.56	.83				--	.13	.26*	-.07
5. Parent supervision	3.55	.72					--	-.13	-.42**
6. Anger regulation	2.04	.56						--	-.18
7. Exposure to violence	3.73	1.63							--

<sup>a</sup>Gender of adolescent (boys = 0, girls = 1)

\* $p < .05$ ; \*\* $p < .01$

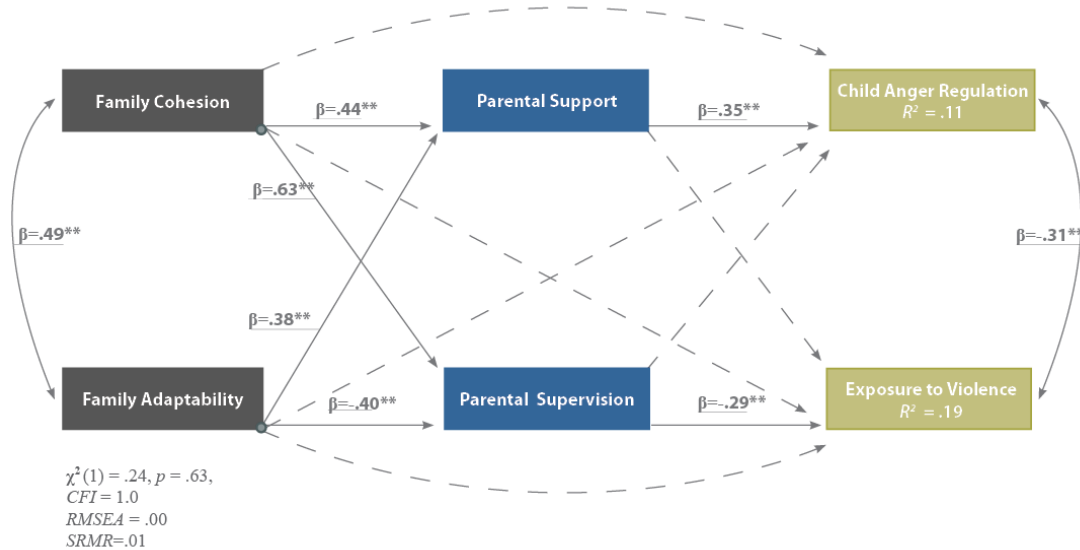
### *Path Analysis*

Path analysis was used to test the theoretical model illustrated in Figure 1.

Although limited empirical support existed for some pathways, all were included in the initial analysis to examine the tenability of the model (Kline, 2005). The path between parental support and parental supervision allowed for understanding specific parenting behaviors as distinct. As expected of a model with only one degree of freedom (Kline, 2005), the model fit was good (see Figure 2;  $\chi^2(1) = .24, p = .63, CFI = 1.0, RMSEA = .00, SRMR = .01$ ). Further, family cohesion showed direct positive associations with parental support ( $\beta = .44, p = .00$ ) and parental supervision ( $\beta = .63, p = .00$ ) while family adaptability was positively associated with parental support ( $\beta = .38, p = .00$ ) but negatively associated with parental supervision ( $\beta = -.40, p = .00$ ). Parental support was positively associated with anger regulation ( $\beta = .35, p = .00$ ) and parental supervision was negatively associated with exposure to violence ( $\beta = -.29, p = .00$ ). The path from parental support to exposure to violence was not significant and parental supervision was

not associated with anger regulation. Cohesion and adaptability were not directly associated with anger regulation or exposure to violence and there was an inverse association between exposure to violence and anger regulation ( $\beta = -.31, p = .00$ ).

Figure 2 Full Path Model with Standardized Betas for Significant Pathways and Dotted Arrows for Non-Significant Pathways with Overall Variance  $N = 84$



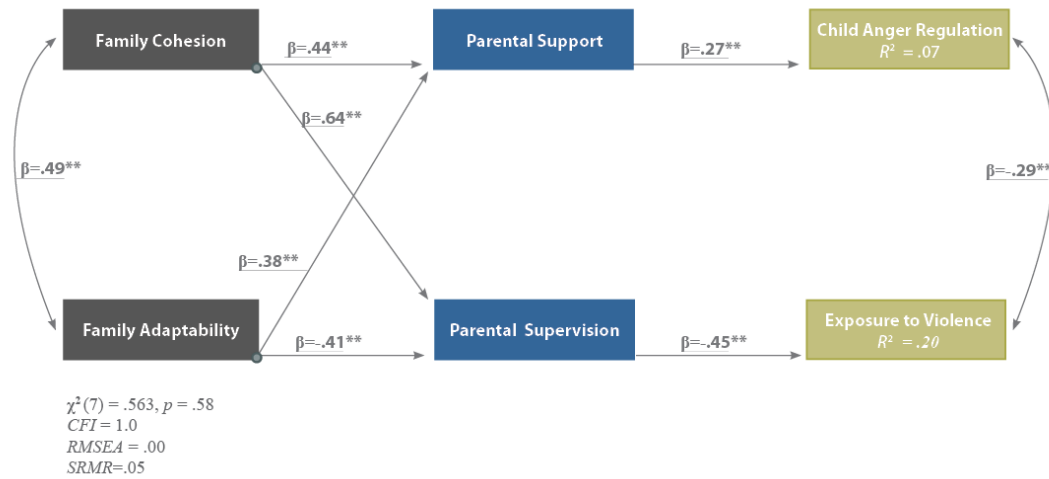
*Chi Square Difference Test and Final Model*

Next, model trimming was applied to find the more parsimonious models that were consistent with theory and data (Kline, 2005). The non-significant pathways were examined and corresponded with lack of empirical support of the pathways. Thus, non-significant parameters were fixed to zero and model fit indices were examined to observe the chi square difference test. Although there was not a statistically significant difference between the two models ( $X^2_d [6], 5.39, p = .49$ ), the more parsimonious model demonstrated goodness of fit according to the statistics suggested by Marsh et al. (2004;  $X^2 (7) = 5.63, p = .58, CFI = 1.0, RMSEA = .00, SRMR = .05$ ). In path analysis as pathways are trimmed the model fit tends to decrease, thus the trimmed model should be

□

fit is adequate as it demonstrates stronger support for your theoretical model (Kline). Consistent with the full model, the final model showed that both overall family cohesion and adaptability were indirectly associated with youth emotion regulation through parental support (see Figure 3). Further, family cohesion and adaptability were indirectly associated with youth exposure to violence through parental knowledge. In addition, youth perceptions of family cohesion were positively associated with both parental supervision ( $\beta = .64, p = .00$ ) and support ( $\beta = .44, p = .00$ ). Family adaptability was positively associated with parental support ( $\beta = .38, p = .00$ ) and negatively associated with parental supervision ( $\beta = -.41, p = .00$ ). In sum, cohesion and adaptability were positively associated with support, which, in turn, was positively associated with anger regulation ( $\beta = .27, p = .01$ ). Additionally, cohesion and adaptability were associated with supervision that in turn was associated with lower levels of exposure to violence ( $\beta = -.45, p = .00$ ). Finally, there was an inverse association between youth anger regulation and youth exposure to violence ( $\beta = -.29, p = .01$ ).

Figure 3 *Final Model with Standardized Beta Coefficients and Overall Variance in Exogenous Variables Accounted For N=84*



### Indirect Effects

To test for indirect effects bootstrap methodology was employed using *Mplus* (Muthen & Muthen, 2007) with 2,000 bootstrap samples. This program creates 2,000 bootstrap intervals in order to attain an accurate estimate of the confidence interval for determining each indirect effect (MacKinnon et al., 2002; MacKinnon et al., 2004). Specifically, confidence intervals were created from multiple estimates derived from computer generated samples that obtain upper and lower confidence intervals from these distributions (Noreen, 1989). Thus, a confidence interval was calculated for each indirect effect in this model (see Table 3). If zero is not within the interval, statistical significance is examined and the null hypothesis of no indirect effects is rejected (Mackinnon et al., 2004). None of the calculated confidence intervals included zero and thus all four were statistically significant indirect effects (see Table 3; Mackinnon et al., 2004). Thus, cohesion and adaptability showed significant indirect associations with (a) anger regulation through support and associated with (b) exposure to violence through supervision. Specifically, cohesion and adaptability were positively associated with

support. In turn, support was positively associated with anger regulation. However, cohesion and adaptability were indirectly associated with exposure to violence 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. In contrast, adaptability was negatively associated with parental supervision

Table 3

*Bootstrap Analyses of the Magnitude and Significance of Indirect Effects N=84*

Independent Variable	Mediator Variables	Dependent Variable	$\beta$ indirect effect	95% CI (lower, upper)	T-Value of indirect paths
Family Cohesion → +	Parental Support → +	Anger Regulation	.12	.013, .216	2.22*
Family Adaptability → +	Parental Support → +	Anger Regulation	.10	.002, .197	2.01*
Family Cohesion → +	Parental Supervision → -	Exposure to Violence	.29	.142, .433	3.88***
Family Adaptability → -	Parental Supervision → -	Exposure to Violence	.18	.051, .315	2.71* *

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

### Discussion

The results indicate that youth perceptions of family cohesion (or closeness) and adaptability (or flexibility) are associated with youth reports of anger regulation indirectly through parental support, but not through supervision. However, youth perceptions of parental supervision are important to protecting youth from being exposed to violence, which is negatively associated with youth reports of anger regulation. Given that the inability to manage anger has been associated with a host of difficulties (Cicchetti et al., 1995; Morris et al., 2007; Nichols et al., 2008; Zeman et al., 2002), the present findings suggest that cohesive, adaptable families with strong parental support serve as a protective factor promoting anger regulation among high-risk youth. Further, we found youth perceptions of parental supervision are particularly important in preventing youth

from being exposed to high levels of violence. These findings suggest the importance of examining specific family and parenting processes that may protect youth from particular maladaptive outcomes in high risk communities.

In contrast to previous research indicating overall family adaptability is generally family system strength (Olson & Gorrall, 2003); our findings show a negative association between family adaptability and parental supervision. This is noteworthy because of the possibility that perceptions of family adaptability by youth in low-income urban settings may be interpreted differently in contexts where family involvement (e.g., parental supervision) is seen as less available to protect against exposure to violence (Buckner et al., 2003). Thus, our results emphasize the salience of examining the contexts in which particular overall family system qualities and parenting behaviors are associated with youth outcomes. Although high family adaptability and family cohesion may be more conducive for higher levels of parental support (which we found in our study), youth from high risk samples may perceive that less adaptability, or less regularity in family roles in responsibilities, may encourage perceptions that parents know about their offspring and seek to supervise them in to the face of violence.

These findings are consistent with previous parenting research that indicates more structured approaches as adaptable in high-risk communities, particularly among African American youth (Steinberg, Lamborn, Dornbusch, & Darling, 1994). This style is consistent with what some scholars call traditional or no-nonsense parenting (e.g., Brody & Flor, 1998) that may be more prevalent in African American families. Further, our findings support the approach of examining specific parental behaviors such as parental support (or responsiveness) and supervision (or demandingness) in relation to particular

child outcomes (Maccoby & Martin, 1993; Peterson & Hann, 1999). Parental support seems to be particularly important to anger regulation of youth in this study, whereas parental supervision was a protective process lowering youth exposure to violence.

Thus, 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; Natsuaki et al., 2007; Pettit et al., 1997; Simons et al., 1996). Youth are more likely to perceive supportive parenting when they see their overall family systems as cohesive and flexible. This emotional context of warmth may be especially important to the ability of youth to manage anger appropriate to the context. However, our findings suggest that emotion-related parenting behaviors alone may not be enough for youth in high risk settings in relation to anger regulation. In contrast, youth that perceive high levels of supervision from parents may see their overall family systems as being more rigid or less flexible. Parental supervision and overall family structure in day-to-day life may be particularly important in protecting children from being exposed to violence that negatively associated with anger regulation. Further, including family processes and exposure to violence holds potential for providing additional information about emotion regulation in youth from high-risk communities (Barnett, 2008).

There are several methodological and theoretical strengths of this study. The results of this study have the potential to build on previous literature by applying systems perspectives to examine the role of family process variables in the socialization of emotion regulation. Our theoretical model incorporates youth perceptions of overall family system qualities, parenting behaviors, and an indicator of context-- exposure to violence--to explain emotion regulation about anger of youth residing in low-income



urban contexts. 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 emotional regulation (Morris et al., 2007) and the association between family system qualities and parenting variables (Henry et al., 2006). Further, this study has the potential to contribute to the need for further research of the process of emotional regulation in youth (Yap et al., 2007) in high-risk, minority samples (Raver, 2004) indicating the importance of extending research to look at family processes and exposure to violence.

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 provide certainty about direction of the effects. Further, the socialization of youth emotion regulation about anger is a bidirectional process and youth play an important role in the socialization process (Peterson & Rollins, 1987). Despite a strong theoretical rationale for using youth perceptions of the variables, the use of youth perceptions for all of the variables created shared method variance, potentially inflating the likelihood of finding significant results (Loeber, & Stouthamer-Loeber, 1986). Although the complexity of family systems cannot be captured through a single perspective, youth perceptions of their families and emotions have been shown to be valid assessments that are central to understanding emotional development (Campos, Frankel, & Camras, 2004; Eisenberg & Morris, 2002; Olson, 1990; Loeber, & Stouthamer-Loeber). Future research is needed to build from our theoretical model by utilizing longitudinal methodology and comparing varying ages and racial or ethnic groups.

The lack of significant direct associations between both family cohesion and family adaptability to either anger regulation or exposure to violence is noteworthy. Perhaps the conceptualization of the overall family system qualities as a context in which specific parenting behaviors are implemented is similar to Darling and Steinberg's (1993) model of parenting styles as a "constellation of attitudes that creates an emotional climate in which parenting behaviors are expressed" (p. 488). Thus, overall family system qualities may provide an emotional climate for which parenting styles and parenting behaviors are expressed which, in turn, is associated with youth outcomes. However, examining specific overall family qualities and specific parenting behaviors rather than combining scores for family types and parenting styles, may provide more information on how family processes relate to youth outcomes. Building upon prior research demonstrating associations between overall family systems and parenting (Henry et al., 2006), our results show that youth in low-income urban contexts may see their parents' behaviors as occurring within the contexts of their overall family systems, which are associated with youth outcomes in different ways.

### *Conclusions and Implications*

The findings of this study suggest that context matters when examining family processes and youth outcomes in low-income samples. The consideration for sociocultural contexts is important to understanding protective processes within families that hold potential for promoting resilience in youth. For example, high levels of perceived family adaptability may expose youth to higher levels of violence through perceptions of less parental supervision. Thus the inclusion of exposure to violence in the model identified higher adaptability as an indirect asset associated with parental support

in relation to anger regulation, yet an indirect risk through parental supervision in terms of exposure to violence. Therefore, the overall family processes may relate differently to parenting behaviors in different contexts. This is particularly important to consider in youth from socioeconomic disadvantage as family processes can protect youth from elevated levels of risk. Our study suggests that a youth perception of parental support in a context of overall family cohesion and flexibility is an important factor in youth anger regulation. In addition, youth who see their families as cohesive and as providing regularity in day-to-day life appear to provide a context where youth feel supervised and protected them from exposure to violence. However, these findings are subject to future research utilizing different age ranges and samples. Our sample utilized a sample of youth transitioning into early adolescence and future studies could examine these processes in youth of varying stages of development.

In addition, the functionalist view of emotions in context may benefit from future research examining interacting systems beyond the mother-child dyad. This may include diverse family forms such as partners, extended relatives, or other individuals in the home that potentially socialize youth emotion regulation. Further, the socialization of anger may depend in part on the greater context in which it occurs. For example, it may be more adaptable for youth in high risk neighborhoods to display anger rather than sadness or disappointment. Yet, youth that demonstrate higher levels of anger in a school environment are at risk of disciplinary problems that impact school achievement. Further, it may be more socially acceptable to report feelings of anger over sadness in different contexts. Thus future research should consider the broader context in which anger occur

and examine different ways that the inability to manage anger in different settings may impact youth development.

The examination of interacting systems (overall family system qualities, parenting behaviors, and contextual factors) in relation to emotion regulation provides insight into the development of more comprehensive intervention that extends across multiple systemic levels. Youth that grow up in urban contexts of socioeconomic disadvantage face multiple risks to emotional development and identifying multiple resources may provide opportunities for interventions in different contexts. Our results suggest that interventions aimed at youth violence prevention and youth anger management may benefit from programs focused on both overall family systems qualities and parenting behaviors. Future research could further examine protective processes within the community (e.g., schools, afterschool programs, sports) that promote resilience in youth from high risk contexts in order to focus intervention. A multisystemic approach to understanding the socialization of anger regulation takes into account the impact of the larger systems and holds potential for exploring the “many levels across multiple systems involved in many processes that lead to resilience” (Masten, Cutuli, Herbers, & Reed, 2009).

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## APPENDIX A

### DISSERTATION PROPOSAL

#### Introduction

Substantial research over the past decade has focused on emotional development in children and the role that parents play in emotion socialization. An important part of the increased interest in emotional development may be attributed to the findings that emotion regulation or the ability to manage emotions has been linked to many different outcomes among children, adolescents, and adults (Ayduk et al., 2000; Dubow, Huesmann, Boxer, Pulkkinen, & Kokko, 2006; Eisenberg & Morris, 2002). Emotion regulation can be defined as the process by which emotional arousal is modulated or redirected in a way that allows an individual to function adaptively in the context of emotional arousal (Cicchetti, Ganniban, & Barnett, 1991). In particular, inability to manage and modulate anger has been associated with internalizing and externalizing problems (Zeman, Shipman, & Suveg, 2002), increased drug use and fighting (Nichols et al., 2008) and behavioral and social problems (Cicchetti, Ackerman, & Izard, 1995; Morris, Silk, Steinberg, Myers, & Robinson, 2007). Although there are strong ties between emotion regulation and biological characteristics, such as temperament, the quality of family interactions serve as an important socialization agent of how youth manage emotions (Morris et al., 2007).



The socialization of emotion regulation is particularly important in late childhood and early adolescence as children begin to experience heightened emotionality, developmental changes, and personal theories on managing emotions (Larson & Richards, 1994; Thompson, 1991). However, further research is needed to examine the socialization process through which family processes (both family system qualities and parenting behaviors) are associated with youth emotion regulation (Morris et al., 2007). Most research to date on emotion regulation has focused on younger children. Early adolescents are at particular risk of problems in emotion regulation because of increased emotional and behavioral impulses and limited ability to regulate emotions (Yap, Allen, & Sheeber, 2007). The ability of youth to manage emotions through constructive control is associated with positive socio-emotional development and deficits in abilities to manage emotions have been associated with maladaptive behaviors (Cicchetti et al., 1995; Zeman et al., 2002). Previous research established the importance of parent-child relationships in regard to emotion regulation in younger children, but little is known about family system qualities and emotion regulation in middle childhood and early adolescents. Indeed, family systems perspectives suggest that parent-youth dyadic relationships are subsystems, or smaller units, of the overall family systems (Whitchurch, & Constantine, 1993). Further, a functionalist approach to emotion regulation emphasizes the importance of context and relationships in which emotions occur (Campos, Mumme, Kermoian, & Campos, 1994). Therefore, overall family characteristics serve as a context in which parent-child relationships operate and likely provide additional information about the emotion regulation of youth. However, further research is needed to examine how *both* overall family qualities and specific parenting behaviors interact or relate to

each other in relation to emotion regulation in youth.

### Emotion Regulation in High Risk Environments

The normative processes of the transition to early adolescence is marked with many biological, social, and emotional changes, which occur at different rates and interaction of these changes, increase the potential for emotional distress (Steinberg, 2005). The changes in physical and social development provide a context of heightened emotionality and an increased range of emotions (Larson & Richards, 1994). The transition to early adolescence is particularly a time of many changes that occur at different rates for each individual and as a dynamic process rather than occurring at a particular age (Buchanan, Eccles, & Becker, 1992). In the current study target youth are between the ages of seven to 15 years old. During this age range, youth are developing the ability to think abstractly and the regions of the brain that are associated with emotional regulation are rapidly maturing at this time (Nelson, Leibenluft, McClure, & Pine, 2005). Therefore, the ability of youth to manage and regulate emotions becomes particularly important during this developmental stage because of the changes in emotionality.

The study of emotion regulation has produced many different perspectives about the contribution of emotion regulation to youth development. However, the definition of emotion regulation remains fairly consistent throughout the literature and generally consists of common themes (Eisenberg & Morris, 2002). Eisenberg and Morris propose a broad definition of emotion regulation as “the internal and external processes involved in initiating, maintaining, and modulating the occurrence, intensity, or duration of internal feeling states, emotion-related physiological processes, emotion related goals, and/or

behavioral concomitants of emotion generally in the service of accomplishing one's goal" (pp. 191). In particular, the ability to manage anger in constructive ways is important during this stage, as it is a common emotion and has particularly negative outcomes when not controlled. The inability to manage anger in youth has been associated with internalizing and externalizing problems (Zeman et al., 2002), increased drug use and fighting (Nichols, Mahadeo, Bryant, & Botvin, 2008), and behavioral and social problems (Cicchetti et al., 1995).

Further, the association between anger regulation and disruptive behavior may provide an avenue by which specific parenting behaviors socialize psychosocial development (Morris et al., 2007). Understanding anger regulation in low-income high-risk neighborhoods is particularly important due to the increased risk for disruption of emotional processes (Levanthal & Brooks-Gunn, 2000) and the increased risk of maladaptive outcomes (Barnett, 2008; Grant et al., 2005; McLoyd, 1998). The risk for disruption in the emotional processes can occur in many different ways for youth in high-risk contexts (e.g., safety, exposure to violence, transitions in living). Thus, the exposure to chronic strains in the life of youth can impact one's emotional well-being. Buckner, Mezzacappa, and Beardslee (2003) examined characteristic of resilient youth living in poverty. The diverse sample of youth (36% African American, 35% Caucasian) consisted of eight to 17 year olds from high-risk communities. This study found that youth in the resilient group demonstrated better anger management and were unlikely to lash out and were not seen as volatile as youth in the non-resilient group. Further, self-regulation was the most powerful predictor of resilient youth after controlling for several other explanatory variables. Self-regulation explained additional variance beyond adversity,

intelligence, self-esteem and parental monitoring. These findings suggest that the ability to manage anger within a context of high risk for emotional disruption is important to promoting resilience in youth. However, much of the emotion regulation research has focused on younger children (Yap et al., 2007) and not much is known about the socialization of anger regulation in low-income urban samples despite the increased risk for psychosocial and emotional problems (Barnett, 2008; Grant et al., 2005; Leventhal & Brooks-Gunn, 2000; McLoyd, 1998; Morris et al., 2007).

Boxer et al. (2008) conducted an earlier study that consisted of three samples from different parts of the United States, including one sample that had participants from the same community as the current study. In the Boxer et al. study, these participants were 35 predominately Black youth with a mean age of 10.5. Findings showed that participants in the study were exposed to high levels of violence and higher levels of violence were associated with increased emotional symptoms (sadness and anger). Specifically, the study found that 90% of the youth reported witnessing a violent act in the last year, 74% witnessed a beating, 30% witnessed a shooting, and 23% witnessed a stabbing. Boxer et al.'s findings are consistent with the empirical support that children and youth from high-risk neighborhoods are at risk for disruption in emotional processes (see table 1; Brody & Ge, 2001; Levanthal & Brooks-Gunn, 2000; Silk et al., 2007; Spano, Vazsonyi, & Bolland, 2008).

Reports of exposure to violence by youth from the Boxer et al. (2008) study is consistent with reports of the current study in that most of the children reported hearing guns being shot at least once (65, 81%) while 25 (30%) of the children reported hearing guns shot many times. Approximately 32% of the children reported seeing someone get

shot and 38% reported seeing someone get stabbed. In addition 57% (48) of the children reported hearing people talk about bringing weapons to school and have seen other kids with guns or knives at school. Further, about 78% (64) of the children reported seeing someone get beaten up while sixty-three (75%) children reported being hit or pushed themselves. Finally, fifty-three (63%) children reported seeing gangs in their neighborhood. Youth from this sample are placed at higher risk for emotional disruption.

*The purpose of this study* is to examine family processes (family system qualities and parent behavior) and youth emotion regulation, specifically anger regulation, within an understudied sample that may be at particular risk for emotional problems.

Specifically, this study will examine the association between perceptions of overall family qualities and specific parenting behaviors in relation to exposure to violence and anger regulation in two ways. First, a theoretical model will be tested through path analysis that examines direct and indirect effects including a test for significance of indirect effects that would suggest mediation. Second, perceptions of parental support and supervision will be examined as potential moderators of the association between perceptions of family qualities and anger regulation.

### Theoretical Foundations

General systems theory stresses the importance of the dynamic relationship between families and the broader context in relation to individual development (Cox & Paley, 2003). Interactions within family systems and family subsystems (e.g., parent-child dyads) are embedded in the greater context that has potential to alter family processes. Consequently, it is important to acknowledge and discuss the greater context in which families interact when examining family processes and emotion regulation

(Raver, 2004). Therefore, specific aspects of both family qualities and parenting behaviors may be particularly important to youth development in low income and high risk neighborhoods. Economically disadvantaged neighborhoods are associated with multiple risks to the emotional development of children and adolescents and processes within family systems provide an important context that can protect youth from exposure to violence and provide an important source of support (Barnett, 2008; Brody & Ge, 2001; Silk et al., 2007; Spano et al., 2008). Thus, understanding family processes in relation to emotion regulation within low income neighborhoods may be particularly important for youth emotional well being.

General systems theory applications to families emphasize how family systems develop qualities that characterize regular patterns of interaction within the system as a whole (Whitchurch & Constantine, 1993). In turn, family system qualities provide a context for understanding parent-youth interactions (Kuczynski, 2003). Therefore, family processes, both family system qualities and parent-child dyadic relationships serve as important contexts for aspects of youth emotional development (Cromwell & Peterson, 1983). However, much of the previous research in emotion regulation has examined parental behaviors on a dyadic level, neglecting family system qualities. In contrast, family systems perspectives emphasize the importance of examining variables on both the systems and dyadic level because of the distinct nature of each within family systems (Henry, 1994). Further, systemic views posit that family systems are complex social entities involving interrelationships among members of the system through relationships that constitute the whole (Peterson, 2005). Thus, family systems are composed of subsystems, including parent-child dyads that operate distinctly but are connected to and

combine to produce the whole. Therefore, it is important to assess the unique qualities of subsystems and the overall characteristics of the family systems in order to attain a broader perspective (Cromwell & Peterson, 1983).

Cox and Paley (2003) highlight the general systems concept of wholeness as moving research beyond the focus of the parent-child relationship to the overall family system. Barber and Beuhler (1996) identified the importance for future research to examine family properties and specific dyadic interactions in a family. In a review on development in the family, Parke (2004) highlighted the importance of analysis to include overall family characteristics and each subsystem within the system in order to understand the family. Johnson (2001) found that parenting observed between one child and one parent was not consistent with parenting when both parents were present. This study suggests the interdependence of the parent-child dyad with other subsystems within the family. Johnson indicated the importance of studying the dyadic relationship of the parent and child within the whole family level. Other research has found similar influence on the parent-child relationships from additional subsystems such as sibling influence, marital conflict and the individual subsystem of a parent with symptoms of depression (Feinberg et al., 2005; Smetana, Campione-Barr, & Metzger, 2006). Therefore, the proposed study utilizes the family systems perspectives to examine two aspects of family processes, the family system qualities *and* parenting behaviors, in relation to youth exposure to violence and the socialization of emotion regulation in youth.

In addition to family systems perspectives, functionalistic views of emotion regulation are useful in understanding how family factors relate to youth emotion regulation. Functionalistic views of emotion emphasize understanding the process within

the context and the relational nature of emotions (Campos et al., 1994). The functionalistic approach advocates for examining the interaction between *intrapersonal* and *interpersonal* process in relation to managing emotions. The nature of family interactions provides an interpersonal process for which emotion is elicited. Thus, emotion regulation includes the ability to manage emotions in ways appropriate to different family contexts or relationships (Eisenberg & Morris, 2002). Therefore, managing emotions includes internal and external processes that interact to create the socialization of emotion regulation (Thompson, 1991). Thus, the family system qualities and parent child relationships provide contexts in which interactions occur that have the ability to promote or inhibit emotion regulation. Thompson further believed that the development of emotion regulation was particularly important during the transition to early adolescence as children develop a personal theory of emotions. Similar to the functionalistic view of emotion regulation, Gottman et al. (1997) emphasized the importance of interpersonal relationships in regards to emotion regulation in middle childhood and adolescence.

Further, the subjective experience of emotions elicited in family relationships may create a context for which youth implement ways to manage this emotion (Eisenberg & Morris, 2002). Becvar and Becvar (1999) emphasize how individuals create subjective realities based upon their perceptions of family systems and respond to these subjective realities. Self-report measures of youth emotion regulation provide information about an individual's cognitive experience of how one manages emotions (Eisenberg & Morris, 2002). Thus, the youth perception of the nature of family relationships may create a reality in which emotions are elicited and provide a framework of how youth report the



managing of emotions. The perception of each family member may provide different information based one's own constructed reality. This study examines youth perspectives and acknowledges that it only constitutes one perspective of many important perspectives on families. Because the focus of this study is on understanding youth reports of their own emotional regulation, the present study requires consideration of the subjective reality that youth hold regarding family functioning and parenting behaviors.

### Family Processes and Emotion Regulation

The youth perception of the nature of the family system and parent behaviors provides a framework for how emotions are elicited and regulated. Emotions are elicited by one's interpretation of the significance of an event or interaction and impact the regulatory process that is chosen to modulate the emotion (Campos, Frankel, & Camras, 2004). Thus, the youth perception of overall family qualities and parenting behaviors towards them provide a context for which emotions are regulated. Further, the perception of overall family system qualities provide a context in which parenting behaviors are perceived and likely contribute to youth appraisal of the parenting behaviors and implementation of ways to manage emotions. Overall, the family processes provide an external process that provides social signals and rules that have the potential to govern the generation and regulation of many emotions (Campos et al.).

### *Overall Family Systems Qualities and Emotion Regulation*

The early adolescent stage of family life is characterized as a tension between the search for autonomy and independence while maintaining connected to the family (Carter & McGoldrick, 1999). Although the emergence into adolescence is characterized by seeking independence from ones' parents, the family context continues to shape the

socialization of emotional development and maintaining connection remains important (Lunkheimer, Shields, & Cortina, 2007). Further, Morris et al. (2007) identified the family climate, which is characterized by the many family interactions and processes, as important in the socialization of emotion regulation. Although aspects of the family climate hold promise for explaining the development of regulating emotions, there is a need for further research to examine this interaction. Brody and Ge (2001) identified the family processes in high-risk neighborhoods as particularly important in self-regulation of youth. Yet, much of the research of emotional wellbeing in disadvantaged contexts focused on maternal parenting behavior where expansion to family processes is particularly important (Barnett, 2008). Family system qualities may be described as an aspect of the family climate and has been associated with the emotional components of youth development (Olson, 1991). For example, several studies found an inverse relationship between family cohesion and depression in youth (Carbonell, Reinhertz, & Glaconia, 1998; Hoffmann, Baldwin, & Cerbone, 2003; Jewell & Stark, 2003; McKeown, Garrison, Jackson, Cuffe, Addy, & Waller; 1997).

One important approach to understanding family system qualities is to consider overall family cohesion and family adaptability as key components (Olson, 1991). *Family cohesion* refers to the closeness or bonding of family members within the system and the degree in which family members are separated. The perception of connection and closeness in the family provides a framework that is conducive to healthy youth development and effective family functioning (Olson, Sprenkle, & Russell, 1979). Thus, family cohesion creates a context to serve as a foundation for developing a sense of self apart from the family and provides an emotionally solid context for which youth manage

emotions (Henry, 1994). Classical approaches to family systems proposed that understanding family functioning requires examining the underlying emotional processes and emphasized counterbalancing forces of family togetherness and individuality (Bowen, 1978). However, further research is needed to explore the relationship between family connectivity and emotional processes in the family (Miller, Anderson, & Keala 2004). There is some empirical support for the idea that the inability to establish connections with the family may lead to poor emotion regulation and increase the likelihood of externalizing or internalizing problems (Morris et al., 2007). Further, Yap et al., (2007) found low levels of family cohesion were associated with low levels of emotion regulation.

Another overall family system quality, family adaptability describes the ability of family systems to change and adapt according to developmental stress and changes that is common in youth (Olson et al., 1979). Olson (1991) defined *family adaptability* as “the ability of a marital or family system to change its power structure, role relationships, and relationship rules in response to situational and developmental stress” (p. 1). There is a large amount of change and development that occurs in youth and the ability of the family to adapt to these changes are important for youth emotional development. Families that have difficulty adapting to the developmental changes during the emergence to early adolescence and adjust family roles and relationships accordingly may be vulnerable for youth maladaptive emotional coping skills (Olson & Gorrall, 2003). The emergence into youth in disadvantaged neighborhoods may introduce additional changes needed in the family structure in order to adapt to the potential risk in this context. Further, family systems that are unable to adapt according to the

developmental needs of the context and provide unpredictable climate increase the risk of emotional reactivity in children (Morris et al., 2007). The predictability of family systems in disadvantaged neighborhoods is particularly important since youth internalize and integrate characteristics of the surrounding in which they live (Brody et al., 1994). Further, the inability to adapt to the disruption in stability in families related to the emergence into youth has the tendency to sabotage children's sense of emotional security yielding maladaptive coping strategies (Davies & Cummings, 1994). Based upon these ideas, perceptions of youth family adaptability can be expected to be positively associated with youth reports of anger regulation.

#### *Parenting Behaviors and Emotion Regulation*

The nature of parent-child dyadic interactions provides a prominent way in which emotion regulation is socialized in youth (Garber, Braafladt, & Weiss, 1995; Eisenberg et al., 2001). There are many ways in which parents socialize their children in emotion regulation (see Morris et al., 2007 for comprehensive discussion). One prominent approach is to examine specific parental behaviors such as parental responsiveness (supportive, warm, nurturing parental behaviors) and demandingness (control, monitoring, punitiveness, love withdrawal, and psychological and behavioral control; Maccoby & Martin, 1993; Peterson & Hann, 1999). Among specific parenting qualities, Loeber and Stouthamer-Loeber (1986) identify parental warmth (i.e., support or responsiveness) and parental monitoring/supervision (i.e., demandingness) as important to the socialization of youth.

Responsive parenting involves warm, nurturing, and supportive behaviors that are associated with a range of positive outcomes for children (see Peterson & Haan, 1999 for

a review). In particular, aspects of responsiveness such as parental warmth, support, and sympathy have been shown to be important to the development of components of emotion regulation (Eisenberg et al., 2001; Hardy, Power, & Jaedicke, 1993; Kliewer, Fearnow, & Miller, 1996). *Parental support* can be defined as warm parental behaviors such as physical affection, encouragement, praising and spending quality time with youth (Henry, 1994; Peterson, 2005). Throughout parenting literature, encouragement, nurturing and accepting behavior has consistently been shown to be associated with positive social and emotional outcomes in youth (Loeber, & Stouthamer-Loeber; Maccoby & Martin, 1993). Further, high levels of supportive parenting behaviors have been shown to mitigate the associations between neighborhood disadvantage variables and youth behavior problems, psychological distress, self regulation and emotional development (Brody & Ge, 2001; Natsuaki et al., 2007; Pettit, Bates, & Dodge, 1997; Simons, Johnson, Beaman, Conger, & Whitebeck, 1996).

Early adolescents' perceptions of parental support are particularly important because of the challenges of addressing negative emotions and managing a wide range of emotions (Klimes-Dougan et al., 2007). Low parental support is associated with poorer emotion regulation (Yap et al., 2007) while high parental support has been associated with higher levels of youth emotion regulation (Morris et al., 2007). Further, parental support has been consistently associated with social competence in youth (Peterson, 2005) and youth that report higher levels of parental support report lower anxiety and depression (Maccoby & Martin, 1993; Peterson & Hann, 1999). Parental support provides quality interaction with children that promotes positive emotion toward the child and is associated with emotion regulation (Eisenberg et al., 2001) is particularly

important for youth in low-income urban neighborhoods (Barnett, 2008; Leventhal & Brooks-Gunn 2000; McLoyd, 1990). There is also empirical evidence that high risk neighborhoods may be negatively associated with perceptions of parental support due to the elevated level of stress in the neighborhoods (Conger et al., 1993; Leventhal & Brooks-Gunn, 2000).

Parental demandingness, or consistency in child guidance (e.g., rule enforcement) accompanied by realistic expectations for children is also central to youth development (Peterson, 2005), including emotion regulation (Morris et al., 2002). One important aspect of parental demandingness is *parental supervision* or the attention to and knowledge of youth schedules, friends, and activities (Dishion & McMahon, 1998). Parental supervision is particularly important in early adolescence because of the increase in strong emotional impulses and limited ability to regulate these impulses (Yap et al., 2007).

Stattin and Kerr (2000) identified the importance of the knowledge of the parent of the child's activities through the divulging of information from the child. Further, the authors discuss the importance of labeling parental measures of knowledge as parental knowledge and not parental monitoring when parents' active efforts are not measured. This view challenges some of the traditional approaches to measuring parental monitoring and identifies the measures as tapping knowledge over monitoring. Further, Stattin and Kerr highlight the importance of the adolescent point of view and perception of parental supervision as being particularly important. Therefore, the current study focuses on the youth reports of *parental supervision* or the whereabouts and activities of youth rather than the behavioral efforts of parents to control or monitor the whereabouts.

Further, supervision of children' activities appears to decrease as they emerge into early adolescence (Spano et al., 2008). Thus, the lack of parental supervision may provide a context that lacks external processes that socialize the regulation and modulation of emotions in early adolescence (Buckner et al., 2003). Further, low-income neighborhoods provide exposure to risk outside of the families that impact emotional development (Leventhal & Brooks-Gunn, 2000). Parental knowledge has been shown to decrease exposure to stressors in early adolescence that are detrimental to emotional development (Rankin & Quane, 2002; Spano et al., 2008) and is associated with more favorable emotional regulation despite high-risk contextual factors (Buckner et al., 2003). On the contrary, the lack of parental supervision may be associated with the maladaptive forms of emotion regulation and provide further insight into the socialization of youth emotion regulation. Further, the empirical link between parental supervision and exposure to violence provides additional protective processes to emotional disruption for youth in high-risk situations (Boxer et al., 2008).

Overall family qualities and parenting behaviors are particularly important sources of emotional support for youth in a low income, high-risk neighborhoods (Brody et al., 2001; Natsuaki et al., 2007). However, there is a greater need to understand family processes within low income and diverse contexts (Barnet, 2008; Brody & Ge, 2003). Thus, it is important to understand the socialization of emotion regulation of youth and in particularly youth from low income urban samples yet little is known about the family processes and self regulation in this sample (Brody & Ge, 2001).

## Overall Family Systems Qualities and Parenting Behaviors

Both parents' interactions with youths and overall family system qualities are conceptually related, however, very little research has examined this association (Henry, Robinson, Neal, & Huey, 2006). In addition, both overall family system qualities and parenting behaviors are important in youth development. Further, Henry et al. found that youth perceptions of parental support and monitoring differentiated youth perceptions of the types of overall family system qualities. Specifically, youth in this study that saw their families as balanced families, or interacting using healthy levels of cohesion and adaptability reported higher levels of parental support and higher levels of parental monitoring. Thus, it is plausible that the overall family climate may provide a context in which particular parenting behaviors are implemented. This finding is consistent with previous findings that increased levels of parental support are associated with higher levels of family cohesion (Barber & Beuhler, 1996; Olson & Gorrall, 2006). Further, the conceptualization of the overall family system qualities, as a context for which specific parenting behaviors are implemented is similar to a model of parenting styles as a "constellation of attitudes that creates an emotional climate in which parenting behaviors are expressed" (Darling, & Steinberg, pp. 488; 1993). Thus, youth perceptions of parental behaviors may occur within the larger contexts of perceptions of overall family systems qualities. Thus, empirical and theoretical support suggest a association between overall family system qualities and specific parenting behaviors yet not much is known on how these variables interact or relate in regards to emotion regulation in youth.

Further, Olson and Gorrall (2003) proposed that balanced family functioning types tend to utilize more democratic approaches to discipline and positive approaches to



parenting. Also, Olson and Gorrall (2006) discussed a conceptual model of the association between Baumrind's (1991) parenting styles and overall family system qualities. Valiente, Lemery-Chalfant, and Reiser (2007) tested a model where parenting behaviors mediated the association between family chaos and an aspect of emotion regulation. The findings indicated that a high level of family chaos predicts low levels of positive parenting behaviors towards emotions, which predicts low levels of effortful control. These findings are consistent with evidence that parents in chaotic homes do not use parenting behaviors that promote healthy emotional development (Evans, Maxwell, & Hart, 1999). Valiente et al., point out the importance of the association between family environment and proximal factors of parenting when examining the socialization of emotion in children. Therefore, there is some conceptual and empirical evidence that suggest associations between aspects of parenting and family functioning, however further research is needed to explore these associations (Henry, Sager, & Plunkett, 2006).

Due to the need for further research in the associations between overall family qualities and parental behaviors and some theoretical and empirical support of the interaction and association between the two constructs, this study will examine parenting behaviors as moderators and mediators in relation to family qualities and anger regulation (Evans et al., 1999; Valiente et al., 2007). Barber, Stolz, and Olsen (2005) utilized a similar approach to disentangle father and mother behaviors and explore which explanation was best supported through mediation and moderation analysis. Thus the nature of the association between family quality variables may differ according to the level of parenting behavior. For example, family adaptability may be associated with anger regulation only when there is high support from the parent. It is important to note

that although the nature of parent-child interactions and the family system qualities are interconnected, the systemic notion of emergence (the whole is greater than the sum of its parts) suggests the distinct nature of parent-child subsystems and the family systems as a whole (Whitechurch & Constantine, 1993).

### Gender Differences

Substantial research establishes the need to examine gender differences in the socialization of emotion regulation (see Brody & Hall, 2000 for a review). For example, Chaplin, Cole, and Zahn-Waxler (2005) found that in relation to emotional expressiveness, boys exhibited more anger and girls demonstrated more anxiety and sadness. Further, the way in which emotion regulation is socialized can be attributable to specific gender expectations and goals of the parents. Casey (1993) found that parents emphasized the inhibition of sadness for boys and anger for girls. There is also evidence that fathers and mothers interact with boys and girls in different ways (Cassano, Zeman, & Perry-Parrish, 2007). Therefore, boys and girls utilize different emotion regulation depending on the social environment. Cassano et al. found that fathers tend to minimize sadness behavior and mothers utilize encouragement and problem solving techniques. Therefore, there is an ample amount of literature that suggests the importance of taking gender differences into account when examining the association between family variables and emotion regulation.

### *Theoretical Model and Conceptual Hypotheses*

Based on the theory and research presented above, a theoretical model of how youth perceptions of overall family system qualities and parenting behaviors relate to exposure to violence and youth anger regulation is examined in order to test indirect and

direct effects (see Figure 1). Specific hypotheses in regards to youth reports include: (a) family cohesion and adaptability will be positively associated with both parental support and parental supervision, (b) family cohesion and adaptability will be positively associated with both anger regulation and negatively associated with exposure to violence, (c) family cohesion and adaptability will be indirectly associated with regulation through a positive association with both parental support and parental supervision, (d) parental supervision and parental support will be negatively associated with reports of exposure to violence, (e) family cohesion and adaptability will be indirectly associated with exposure to violence through parental supervision and parental support. In addition, gender differences were explored in this model because past research suggests potential socialization differences according to gender. For example, research shows that boys exhibited more anger than girls (Chaplin, Cole, & Zahn-Waxler, 2005) and parents emphasized the inhibition of anger for girls (Casey, 1993).

In addition, perceptions of parental support and supervision will be examined as moderators of the association between perceptions of each overall family quality (cohesion and adaptability) and perception of specific parenting behaviors (support and supervision) in relation to emotion regulation during youth. Because of the empirical support for some interaction between family qualities and parental behaviors and the need for further research to explore this association, perception of parental behaviors will be examined as moderators of the association between perception of family qualities and emotion regulation. Specific hypotheses follow: (e) perception of parental support will moderate the association between perception of overall family qualities (cohesion and adaptability) and youth emotion regulation (f) perceptions of parental supervision will

moderate the association between overall family qualities and youth emotion regulation.

### Methodology

This study is part of the Family and Youth Development Project (FYDP) conducted by Dr. Amanda Sheffield Morris, principal investigator, and her research team. As project coordinator and co-principal investigator, I was a part of the research design, data collection, and data entry. I was responsible for data preparation and analysis. The Family and Youth Development Project, funded by the Oklahoma Agricultural Experiment Station (OEAS), utilizes a survey design with a convenience sample of youth and their parents to investigate how family and youth factors are associated with selected aspects of youth development. Data collection occurred in the spring of 2008 and the fall of 2008 through two separate Boys and Girls Clubs in a large city in the southern United States. Children and families were notified through flyers and the Boys and Girls Club personnel that a local university is conducting research and participation in the study is completely voluntary. Parents and children were informed that the aim of the study is to better understand family factors and conflict resolution.

The Boys and Girls Clubs are located in disadvantaged neighborhoods and reach out to at-risk youth and families. Therefore, the sample consists of youth from high-risk neighborhoods that reside in low-income families.

#### *Participants*

Children ages seven to 15 and their parents was the target of the FYDP involving data collection at one site at a time. Parents with children in this age group were invited to participate in the study. Although data collection occurred through the Boys and Girls Clubs, regular attendance at the club was not mandatory for participation. There were two

nights at each site that data collection occurred. The participants are expected to be diverse in ethnicity with a large proportion of African American participants who reside in low-income areas.

This study utilized a survey design to test the theoretical model using existing self-report measures to examine youth reports of family functioning, parenting behaviors, and emotion regulation. Parental reports of family functioning were also ascertained as part of the larger study but will not be used in the proposed study due to an emphasis upon understanding youth subjective realities. Interactions within particular family systems are perceived differently by each family member who constructs one's own subjective reality, which in turn elicits behavior based on these perceptions. This study is particularly focused on the youth subjective experience of managing emotions in relation to perceptions of family processes that serve as an important context for emotional development (Eisenberg & Morris, 2002). Further, youth were allowed to define one's family and report according to one's own definition of family. This is consistent with the need to allow for broader definitions of family in diverse contexts (Barnett, 2008) and allowed for youth to report on the overall family system and specific parent-youth subsystem.

*Measurement*

Table 4

*Summary of Measures*

<i>Variable</i>	<i>Measure</i>	<i># of Items</i>	<i>Format</i>	<i>Score Range</i>	<i>alpha</i>	<i>References For alpha</i>
Family cohesion	Cohesion Subscale of the Family Adaptability and Cohesion Evaluation Scales II (FACES II, Olson et al., 1992)	16	Likert-type	1 (low) to 5 (high)	.82 to .87	(Henry et al., 1996; Olson et al., 1992)
Family adaptability	Adaptability Subscale of the Family Adaptability and Cohesion Evaluation Scales II (FACES II, Olson et al., 1992)	14	Likert-type	1 (low) to 5 (high)	.76 to .78	(Henry et al., 1996; Olson et al., 1992)
Parental support	Positive Parenting Subscale of the Alabama Parenting Questionnaire (APQ; Frick, 1991; Shelton, Frick, & Wootton, 1996)	6	Likert-type	1 (low) to 5 (high)	.76	(Frick et al., 1999; Shelton et al., 1996)
Parental supervision	Poor Monitoring /Supervision Subscale of Alabama Parenting Questionnaire (APQ; Frick, 1991; Shelton, Frick, & Wootton, 1996)	10	Likert-type	1 (low supervision ) to 5 (high supervision) *reversed scored	.72 to .78	(Frick et al., 1999; Magoon, & Ingersoll, 2005; Shelton et al., 1996)
Emotion regulation	Anger subscale score on the Children's Anger Management Scale (CAMS ; Zeman et al., 2001)	4	Likert-type	1 (low) to 3 (high)	.70-.80	Zeman et al., 2001; Shipman et al., 2000
Exposure to violence	(Richters et al., 1993 <i>Things I Have Seen and Heard Scale &amp; Aggression Scale</i> (Boxer et al., 2003)	20	Likert-type	1(Never) to 4 (many times)	.86	Boxer et al., 2008

*Emotion regulation.* The *Children's Anger Management Scales* (CAMS; Zeman, Shipman, & Penza-Clyve, 2001) were used to assess youth emotion regulation. The CAMS is a 11-item anger scale in which children respond on a 3-point Likert type scale: 1 = *hardly ever*, 2 = *sometimes*, and 3 = *often*. The emotional regulation (4 items-anger) subscales was used from CAMS. The emotional regulation coping subscale, or the ability to cope with anger through constructive control of emotional behavior (e.g., "When I am feeling mad, I control my temper") will was used for anger (4 items). The mean scores will be calculated to attain a score anger regulation. Initial reliability coefficients have been reported as ranging from .70 to .80 for anger emotion regulation coping (Shipman et al., 2000; Zeman et al.). Further, construct validity has been established in relation to self-report measures of anger and sadness regulation and internalizing and externalizing outcomes (Zeman et al.).

*Overall family system qualities.* The two subscales of the 30-item self-report Likert-type *Family Adaptability and Cohesion Evaluation Scales II* (FACES II; Olson et al., 1992) were used to assess youth perceptions of family functioning. Specifically, the perceptions of family cohesion subscale (16 items) and family adaptability subscale (14 items) were used. Sample items follow: (a) "Family members feel closer to people outside the family than to other family members" (cohesion), and (b) "When problems arise, we compromise" (adaptability). Response choices ranged from 1 = *strongly disagree* to 5 = *strongly agree* on a Likert type scale. The adaptability and cohesion subscales will be scored using the linear scoring guidelines provided by Olson et al. (1992). FACES II has been shown to have good concurrent validity with the Dallas Self-report Family Inventory which measures similar constructs (Cohesion  $r = .93$  with

cohesion,  $r = .49$  with adaptability; Hampson, Hulgus, & Beavers, 1991). Olson et al. reported internal consistency reliability coefficients of .87 for the cohesion subscale and .78 for the adaptability subscale. Further, using a sample of youth ages 13 to 18, Henry, Sager, and Plunkett (1996) found internal consistency reliability coefficients (Cronbach's alphas) .82 for cohesion and .76 for adaptability.

*Parenting behaviors.* The *Alabama Parenting Questionnaire* (APQ; Frick, 1991; Shelton, Frick, & Wootton, 1996). The APQ consist 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*. Positive parenting and poor monitoring subscales of this measure will be used to assess youth perceptions of parental support (“parents praise you for doing well”), and supervision (e.g., “home without an adult being with you”). The APQ was designed to utilize the parent and child perspective through global reports and phone interviews. Although there is a need for further empirical research, the available empirical support suggests good validity and internal consistency for youth reports of parental support and monitoring in clinical, nonclinical and international sample groups (Frick et al., 1999; Magoon, & Ingersoll, 2005; Shelton et al., 1996). The mean score for each subscale will be computed to create a parental support score. The mean score for poor parental monitoring will be reversed coded to yield a parental monitoring score. The APQ reported reliability score for youth reports of parental support is .76 and for parental monitoring is .72, respectively in a clinical sample (Frick et al., 1999) and .78 for parental monitoring in a diverse urban sample (Magoon & Ingersoll, 2005). Although further research is needed to examine the reliability of parental support in a diverse sample, initial analysis shows favorable reliability.



*Exposure to violence* was measured via 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 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 are based on the same 4-point Likert type scale: 1 = *Never*, 2 = *Once or Twice*, 3 = *A few times*, and 4 = *Many times*. The combined z-scores of responses to these two measures were used to calculate an overall exposure to violence score (range = -2.06 to 2.71; Boxer et al., 2008), which yielded a Cronbach's alpha of .86.

#### *Procedure*

For the overall project, the Boys and Girls Club personnel from two separate sites announced and actively recruited potential participants (both youth and parents) to attend a meeting at the Boys and Girls Club facility. There were two separate nights at each site that was available for participants to attend the meeting. In addition, Boys and Girls Club personnel distributed flyers at basketball games at the center and in the neighborhood apartments. In this meeting, parents were given additional information about the study and told that participation in the study is voluntary and that services through the Boys and Girls Club would not be affected by whether or not parents or children participated in the study. Parents were also informed of the problem solving groups that were offered to students at the Boys and Girls Club. The problem solving groups consisted of a 12-week program utilizing an adaptation of Shure's (2001) *I Can Problem Solve (ICPS)*. The program was conducted at two Boys and Girls Clubs and focuses on the process of

problem solving. Topics that were discussed were identifying feelings of self and others, alternative solutions to problems and other communication skills. The problem solving program was available to all Boys and Girls Club children ages 7 to 12 as well as participants in the community.

Signed informed consent forms were obtained from parents for their children to participate, as well as consent for self-participation. Upon consent, questionnaires were distributed to parents that asked about family functioning, child emotional regulation, and parental behaviors. Child assent was also obtained and youth were asked to self-report on emotional regulation, family functioning, and parenting. A research assistant also read the questionnaires to the parents and children with several pauses and to ensure that participants were keeping up with the pace. Further, participants were informed that they could terminate participation at any time during the study. Upon completion of the questionnaires, each child and parent was compensated \$20 each for their time. Data from the youth are proposed for this study.

### *Operational Hypotheses*

Based upon the theoretical model, the following operational hypotheses are proposed: (a) youth scores on both the Cohesion and Adaptability subscales of FACES II will be positively associated with youth scores on the subscale of anger regulation coping of CAMS and negatively associated with exposure to violence (b) youth scores on both the Cohesion and Adaptability subscales of FACES II will be positively associated with youth scores on the Support and Supervision subscales of the APQ, (c) youth scores on both the Cohesion and Adaptability subscales of FACES II will be indirectly associated with youth reports of anger regulation and negatively associated with exposure to

violence through youth scores on the Support and Supervision subscales of the APQ and (d) and finally, gender differences will emerge in the model. In regards to the moderation hypotheses (e) youth scores on Supervision subscale of the APQ will moderate the association between Cohesion and Adaptability subscales of FACES II and CAMS subscales of youth perception of anger regulation (f) youth scores on Support subscale of the APQ will moderate the association between Cohesion and Adaptability subscales of FACES II and CAMS subscales of youth perception of anger regulation.

#### Proposed Analyses

Preliminary bivariate correlations will be examined for the initial nature of the associations between the variables. Further, a series of one-way ANOVAs will be utilized to test linearity of the scales and examine the need for transformations. In addition, a one-way ANOVA will be used to examine if there are differences in the mean scores on any of the measures according to collection sites. In addition, gender differences will initially be examined through the correlation matrix and further examined through a series of one-way ANOVAs. Due to the need to explore the nature of the associations between family qualities and parental behaviors in relation to youth emotion regulation, this study will employ analyses that examine mediation and moderation of parental behaviors. Thus, examining multiple explanations for how these variables interact or relate in relation to youth emotion regulation and exploring which explanation is supported by the data. Stolz et al. (2005) utilized a similar approach to disentangle father and mother behaviors and explore which explanation was best supported through mediation and moderation analysis. This study will utilize path analysis and hierarchical regression to explore multiple explanations for how perceptions of family qualities and parent behaviors relate

and interact in relation to youth emotion regulation and exposure to violence. First, a theoretical model will be tested through path analysis that examines direct and indirect effects including a test for significance of indirect effects that would suggest mediation. Second, perceptions of parental support and supervision will be examined as potential moderators of the association between perceptions of family qualities and emotion regulation and exposure to violence.

First, path analysis will be employed to identify the significant pathways of the proposed theoretical model (see Figures 1). Path analysis provides an approach to examine the tenability of a model that is based on theoretical considerations and supervision (Pedhauzer, 1997). Further, path analysis allows for the decomposition of correlations among variables as well as allowing for the examination of the pattern of effects of variables (Kline, 2005). Therefore, the path analysis approach provides a way to examine the association between youth reports of family cohesion and adaptability and youth perceptions of parental support and supervision in relation to exposure to violence and youth emotion regulation.

The analyses will be conducted in *Mplus* (Muthen & Muthen, 2007), a statistical package that has the ability to test hypothesized pathways for statistical significance, provide multiple model fit statistics and examine group differences. The purpose of this study is to test the theoretical model of how youth perceptions of family system qualities, parenting behaviors relate to youth reports of components of emotion regulation and exposure to violence. Specifically, youth perceptions of family cohesion and family adaptability will be examined as exogenous variables, each with direct paths to perceptions of parental support and parental supervision. Paths from family cohesion and

family adaptability also are theorized to be directly and positively associated with emotion regulation and directly and negatively associated with exposure to violence, and indirectly associated with emotion regulation and exposure to violence through parental supervision and support. The initial analysis will include all possible paths from the family system qualities variables to the parenting variables and exposure to violence and emotion regulation. The hypothesized pathways will be examined for significance and multiple model fit statistics suggested by Marsh et al. (2004) will be used to determine adequate fit. Further, indirect pathways will also be examined for statistical significance using bootstrapping in *Mplus* (Muthen & Muthen). Bootstrapping is a statistical procedure that calculates the upper and lower confidence limits for the indirect effects of variables. The confidence intervals are examined to determine the significance of a mediator or indirect effects (Valiente al., 2007).

The statistical power that is required to complete a path analysis is a ratio of five to 10 participants to every parameter in the model in order to examine a particular path model (Kline, 2005). Thus, the estimated sample size of 80 to 90 participants would allow for the proposed theoretical model that contains 10 pathways as well as the bootstrapping technique to test for indirect effects. Further, previous research and a theory will guide the trimming of the path models in order to increase statistical power if needed. Due to the lack of empirical research in the proposed area, the advantage to path analysis provides an opportunity to examine the pathways of family processes and parenting behaviors in relation to emotion regulation in an understudied population (youth in disadvantaged context). Thus, the lack of statistical power will be taken into

account with the advantages of path analysis to test the tenability of a theoretical model in an area that is in need of further research (Morris et al., 2001; Pedhauzer, 1997).

Beyond the expected positive associations between adolescent reports of family qualities and parenting behaviors and youth emotion regulation, parenting behaviors also may moderate the associations between aspects of family qualities and youth emotion regulation and exposure to violence. Specifically, if parenting behaviors moderates the associations between perceived family qualities and youth emotion regulation, either the direction or strength of the associations may be changed in the presence of higher parental support and supervision (Baron & Kenny, 1986). Thus, four separate hierarchical linear regressions analyses will be used to examine each perception of parental behaviors (support and supervision) as potential moderators of the associations between youth perceptions of each of overall family qualities (cohesion and adaptability) and youth emotion regulation. In addition, parenting variables will be examined as potential moderators in relation to exposure to violence. In preparation for the analyses, a dummy variable was created for gender of the adolescent (*boys* = 0; *girls* = 1; Cohen, Cohen, West, & Aiken, 2003). Bivariate correlations and descriptive statistics will be calculated with variables before centering and presented in a table.

Prior to conducting the regression analyses, the predictor and proposed moderators variables will be centered by subtracting the mean score from each individual value (Cohen et al., 2003) from all values so that the mean will be zero. Next, two way interaction terms will be created to allow for testing moderation. Two way interaction terms will be created for support (cohesion x support, adaptability x support) and supervision (cohesion x supervision, adaptability x supervision). In each of the

hierarchical multiple regression analyses, the family qualities variable and parental behaviors will be entered in Step 1, and two way interaction terms will be entered in Step 2. When an interaction term are significant, a test of regression slopes will be used to examine the pattern of slopes for low and high levels of parental support and supervision (Jaccard, Wan, & Turrisi, 1990).

In sum, the nature of the associations between perceptions of family qualities and parenting behaviors will be examined through two different statistical techniques that will explore two different explanations of this association. Preliminary analysis will explore gender differences in the variables of interest and path analysis and hierarchical linear regression will be utilized to examine which best explanation for this association is supported in this data.

#### Limitations of the Proposed Study

Among limitations, this study utilizes a convenience sample and a cross sectional design, which limits the ability to generalize to other, samples or examines causal associations. Thus the direction of the effects cannot be certain in a cross sectional, correlational design and findings are tentative to future research. Future, research could build from theoretical model in this study by utilizing longitudinal methodology with a random sample. Nevertheless, the underrepresented sample utilized in this study warrants that importance of initial examination of the associations between family variables and emotion regulation in youth. Thus, this study provides an initial investigation of the potential associations between overall family characteristics, parenting behaviors and emotion regulation in a low-income urban sample.

Despite a strong theoretical rationale for using youth perceptions of the variables,

the use of youth perceptions for all of the variables will create shared method variance, potentially inflating the likelihood of finding significant results (Loeber, & Stouthamer-Loeber, 1986). There are multiple perspectives in a family system and the complexity of a family system cannot be captured through a single perspective. This study utilizes the perspective of the youth and acknowledges that it is only the reality of the youth. Further, the measure of parenting behaviors (APQ) was designed for multiple informants while this study only utilized the youth perspective. Thus, attaining only the youth perspective only captures one perspective and represents one of many views in the family. However, there is empirical support for the importance of utilizing youth perspectives of family processes and youth reports have been shown to be a valid assessment of parenting practices (Larsen & Olson, 1990; Loeber, & Stouthamer-Loeber, 1986).

Also, it is important to note that the socialization of emotion regulation in youths is a bidirectional process and youths play an important role in the process (Peterson & Rollins, 1987). Therefore, youth who report lower emotion regulation may report less favorable family functioning and parenting behaviors. Further, it is plausible that the ways in which youth manage emotions may elicit particular family interactions. Yet, path analysis assumes a one way, linear association between the variables in the model.

In addition, there are many other important factors in the socialization of emotion regulation in youths. For example, peer relationships are an important factor in youths that influence the process of emotional regulation (Steinberg & Morris, 2001). Alternatively, comparing youths in varying racial/ethnic groups, neighborhoods, regions of the United States, or several countries would allow for the examination of differences based on cultural or socio-economic factors.



The statistical power that is required to complete a path analysis and multi-group comparison exceeds the sample size of this study. Kline (2005) suggests a ratio of 5 to 10 participants to every parameter in the model in order to examine a particular path model. Further, a multi-group comparison based on gender would require an adequate sample for each group being compared. Thus, the estimated sample size of 80-90 participants would allow for the proposed theoretical model that contains 10 pathways as well as the bootstrapping technique to test for indirect effects. However, the sample size of the current study will not have enough power to perform a multi-group analysis. Multi-group analysis is used to test for significant difference in groups that may exist in the path coefficients and could give information about gender differences in the proposed pathways (Kline).

Despite these limitations, methodological strengths of the study exist. Path analysis allows for examining both family system qualities and parenting variables within the same research model in relation to youth emotion regulation. The results of this study have the potential to build on previous literature on the role of family process variables in the socialization of emotional regulation. Further, this study may provide unique contributions to the field by addressing important questions and expanding on important issues in the study of emotional regulation socialization. The systemic approach to understanding this process allows for the researcher to examine the unique nature of family system qualities and the association with parenting variables. Therefore, this study addresses the need for further research to examine the broader context of the development of emotional regulation (Morris et al., 2007) and for research to examine the associations between family system qualities and parenting variables (Henry et al., 2006).

Further, this study has the potential to contribute to the need for further research of the process of emotional regulation in youth (Yap et al., 2007) and in disadvantaged, minority samples (Raver, 2004).

### Conceptual Definitions

*Anger regulation* - Anger is a frequent emotion experienced in youth and the management of these emotions in contextual appropriate ways is important to youth wellbeing (Zeman, 1997).

*Emergence* - Emergence is the general systems theory idea that the whole is greater than the sum of its parts. The application to the family suggests that summation of specific parenting behaviors in a family system does not equal the overall family system qualities. In other words, it is important to look the parenting behaviors on a dyadic level and the overall family system qualities (Montgomery & Fewer, 1988).

*Emotion regulation* - “The internal and external processes involved in initiating, maintaining, and modulating the occurrence, intensity, or duration of internal feeling states, emotion-related physiological processes, emotion related goals, and/or behavioral concomitants of emotion generally in the service of accomplishing one’s goal” (Eisenberg, & Morris, 2002, p. 191).

*Exposure to violence* - Boxer et al. (2008) defined exposure to violence as witnessing community violence, antisocial behavior and being a victim of violence.

*Family cohesion* - Family cohesion refers to the closeness or bonding of family members within the system and the degree in which family members are separated (Olson et al., 1979).

*Family adaptability* - Olson (1991) defined this concept as “the ability of a marital or family system to change its power structure, role relationships, and relationship rules in response to situational and developmental stress” (p. 1).

*Overall family qualities* - The overall functioning in the family may be described as an aspect of the family climate and has been associated with the emotional components of development in youths (Olson, 1991).

*Parental supervision* - Attention to and knowledge of friends, activities, and schedules of youth utilized for guidance or monitoring (Dishion & McMahon, 1998; Stattin & Kerr, 2000).

*Parental support* - Positive affect through warmth, praise, encouragement and related behaviors are examples of parental support (Henry, 1994; Peterson, 2005).

*Wholeness* - Cox and Paley (2003) highlight the general systems concept of wholeness as moving research beyond the focus of the parent-child relationship to understand context and mutual influences among family subsystems.

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## APPENDIX B

### QUESTIONNAIRES

*Children's Anger Management Scales* (CAMS; Zeman, Shipman, & Penza-Clyve, 2001)  
The mean score was calculated to attain anger regulation score.

#### Subscale items

Emotion Regulation Coping: 13, 15, 20, 22

- 13. When I am feeling mad, I control my temper.
- 15. I stay calm and keep my cool when I am feeling mad.
- 20. I can stop myself from losing my temper.
- 22. I try to calmly deal with what is making me feel mad.

<b>Hardly Ever</b>	<b>Sometimes</b>	<b>Often</b>
(1)	(2)	(3)
0	0	0

Higher score means greater anger regulation coping.

*Alabama Parenting Questionnaire- Subscales* (APQ; Frick, 1991; Shelton, et al., 1996)  
The mean score for each subscale was computed to create a parental support score. The mean score for poor parental monitoring was reversed coded to yield a parental monitoring score.

#### Subscale items

Positive Parenting: 7, 3, 25, 23, 18, 36

Poor Monitoring/Supervision: 29, 26, 14, 39, 41, 8, 37, 24, 32, 38

#### *Parental Support*

- 3. Your parents tell you that you are doing a good job.
- 7. Your parents reward or give something extra to you for behaving well.
- 18. Your parents compliment you when you have done something well.
- 23. Your parents praise you for behaving well.
- 25. Your parents hug or kiss you when you have done something well.
- 36. Your parents tell you that they like it when you help out around the house.

*Parental Supervision*

- 8. You fail to leave a note or let your parents know where you are going.
- 14. You stay out in the evening past the time you are supposed to be home.
- 24. Your parents do not know the friends you are with.
- 26. You go out without a set time to be home.
- 32. Your parents get so busy that they forget where you are and what you are doing.
- 37. You stay out later than you are supposed to and your parents don't know it.
- 38. Your parents leave the house and don't tell you where they are going.
- 39. You come home from school more than an hour past the time your parents expect you to be home.

Never (1)	Almost Never (2)	Sometimes (3)	Often (4)	Always (5)
O	O	O	O	O

Higher scores indicate higher parental support and higher supervision

*Family Adaptability and Cohesion Evaluation Scales II* (FACES II; Olson et al., 1992)

The adaptability and cohesion subscales were scored using the linear scoring guidelines provided by Olson et al. (1992). Particular questions were reversed scored [(r) means reversed scored] and mean scores for each subscale were calculated.

Subscales items.

Adaptability: 2, 14, 28 (r), 4, 16, 6, 18, 8, 20, 26, 10, 22, 12 (r), 24 (r)

Cohesion: 1, 17, 3 (r), 19 (r), 9 (r), 29 (r), 7, 23, 5, 25 (r), 11, 27, 13, 21, 15 (r), 30

- 1. Family members are supportive of each other during difficult times.
- 2. In our family, it is easy for everyone to express her/his opinion.
- 3. It is easier to discuss problems with people outside the family than with other family members.
- 4. Each family member has input regarding major family decisions.
- 5. Our family gathers together in the same room.
- 6. Children have a say in their discipline.
- 7. Our family does things together.
- 8. Family members discuss problems and feel good about the solutions.
- 9. In our family, everyone goes his/her own way.
- 10. We shift household responsibilities from person to person.
- 11. Family members know each other's close friends.
- 12. It is hard to know what the rules are in our family.
- 13. Family members consult other family members on personal decisions.
- 14. Family members say what they want.
- 15. We have difficulty thinking of things to do as a family.
- 16. In solving problems, the children's suggestions are followed.
- 17. Family members feel very close to each other.
- 18. Discipline is fair in our family.
- 19. Family members feel closer to people outside the family than to other family members.

20. Our family tries new ways of dealing with problems.
21. Family members go along with what the family decides to do.
22. In our family, everyone shares responsibilities.
23. Family members like to spend their free time with each other.
24. It is difficult to get a rule changed in our family.
25. Family members avoid each other at home.
26. When problems arise, we compromise.
27. We approve of each other's friends.
28. Family members are afraid to say what is on their minds.
29. Family members pair up rather than do things as a total family.
30. Family members share interests and hobbies with each other.

Almost Never (1)	Once in Awhile (2)	Sometimes (3)	Frequently (4)	Almost Always (5)
O	O	O	O	O

Higher score indicate greater adaptability and greater cohesion.

Exposure to Violence/Low level aggression (Boxer, et al., 2003; Richters & Martinez, 1993)

Exposure to violence was calculated based on z-scores of these three subscales to create an overall exposure to violence score (Boxer et al., 2008)

Subscales items

Witnessing Community Violence: 1, 3, 4, 5, 7, 10, 12

Witnessing Nonviolent Antisocial Behaviors: 2, 6, 8, 9, 15, 21, 22

Victimization: 13, 16, 17, 18, 19, 20

1. I have heard guns being shot.
2. I have seen drug deals.
3. I have seen someone being beaten up.
4. I have seen somebody get stabbed.
5. I have seen somebody get shot.
6. I have seen gangs in my neighborhood.
7. I have seen somebody pull a gun on another person.
8. I have heard other kids talk about bringing weapons to school with them.
9. I have seen other kids with guns or knives at school or in my neighborhood.
10. I have heard other kids threatening to beat someone up or hurt someone.
12. I have seen other kids get hit or pushed.
13. I have been hit or pushed by someone.
15. I have heard kids saying bad things about others behind their back.
16. Other kids have said mean things to me.
17. Other kids have kept me from joining in what they're doing.
18. Other kids have stopped talking to me for a while.
19. Other kids have spread rumors about me.
20. Other kids have threatened to hurt me.
21. I have seen people break windows on cars or buildings on purpose.

22. I have seen people tag or spray paint words or pictures on buildings or other places.

<b>Never (0)</b>  O	<b>Once or twice (1)</b>  O	<b>A few times (2)</b>  O	<b>Many times (3)</b>  O
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Higher scores indicate higher level of violence/aggression seen/experienced.

Demographic Questions

How old are you? \_\_\_\_\_

What grade are you in? \_\_\_\_\_

Are you a girl or a boy? (fill-in the circle)

<b>Girl (1)</b>  O	<b>Boy (2)</b>  O
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What is your ethnicity or race?

<b>Black/ African- American (1)</b>  O	<b>White (2)</b>  O	<b>Hispanic/ Latino/a (3)</b>  O	<b>Asian (4)</b>  O	<b>Other (5)</b>  O Please describe: _____
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APPENDIX C

Institutional Review Board Approval Form

Oklahoma State University Institutional Review Board

Date: Tuesday, March 04, 2008      Protocol Expires: 11/28/2008  
IRB Application: HE0770  
Proposal Title: Family and Youth Development Project

Reviewed and Processed as: Expedited (Spec Pop)  
**Modification**

Status Recommended by Reviewer(s) **Approved**

Principal Investigator(s) ;

Amanda S Morris  
700 N. Greenwood  
Tulsa, OK 741060700

Ben Houltberg  
700 N. Greenwood  
Tulsa, OK 74106

Brenda McDaniel  
212 North Murray  
Stillwater, OK 74078

---

The requested modification to this IRB protocol has been approved. Please note that the original expiration date of the protocol has not changed. The IRB office MUST be notified in writing when a project is complete. All approved projects are subject to monitoring by the IRB

The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

Signature:   
Sheila Kennison, Chair, OSU Institutional Review Board

Tuesday, March 04, 2008  
Date

**Oklahoma State University Institutional Review Board**

Date Thursday, September 25, 2008 Protocol Expires: 9/24/2009  
IRB Application No: HE0770  
Proposal Title: Family and Youth Development Project

Reviewed and Expedited (Spec Pop)  
Processed as: **Continuation**

Status Recommended by Reviewer(s): **Approved**

Principal  
Investigator(s) :

Amanda S Morris	Ben Houlberg
700 N. Greenwood	700 N. Greenwood
Tulsa, OK 741060700	Tulsa, OK 74106

---

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modifications to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office **MUST** be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

- The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

Signature :



Shelia Kennison, Chair, Institutional Review Board

Thursday, September 25, 2008  
Date

## VITA

Benjamin J. Houlberg

Candidate for the Degree of

Doctor of Philosophy

Thesis: FAMILY SYSTEM QUALITIES, PARENTING BEHAVIORS, EXPOSURE TO VIOLENCE, AND EMOTION REGULATION IN LOW-INCOME URBAN YOUTH

Major Field: Human Environmental Science

Area of Specialization: Family Science and Human Development

Biographical:

Personal Data: My research focus is on resilience among youth and families in high risk contexts through understanding interacting systems (contextual, family, and biological) in relation to emotional outcomes. In addition, a goal of my work is to apply research based approaches to promote resilience through intervention and prevention programming targeting youth in high risk settings.

Education: Graduated from Salina South High School, Salina, Kansas in 1996; Received Bachelor of Arts Degree in Pastoral Care and Counseling with an Emphasis of Youth from Oral Roberts University, Tulsa, Oklahoma in May 2001; Received a Masters of Arts in Christian Counseling with an Emphasis of Marriage and Family Therapy from Oral Roberts University, Tulsa, Oklahoma; Completed the requirements for the Doctor of Philosophy in Human Environmental Sciences at Oklahoma State University, Stillwater, Oklahoma in May, 2010.

Experience: Licensed Marriage and Family Therapist in State of Oklahoma, Graduate teaching/research assistant at Oklahoma State University from 2006 to 2010, Counselor to "at risk" youth at Union High School from 2004 to 2007, Family Support Specialist and Therapist at Family and Children's Services from 2002-2004 in Tulsa, Oklahoma.

Professional Memberships: National Council on Family Relations, Society of Research on Adolescence, Society of Research on Child Development, Oklahoma Council on Family Relations



Name: Benjamin J. Houlberg

Date of Degree: May, 2010

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: FAMILY SYSTEM QUALITIES, PARENTING BEHAVIORS,  
EXPOSURE TO VIOLENCE, AND EMOTION REGULATION IN  
LOW-INCOME URBAN YOUTH

Pages in Study: 96

Candidate for the Degree of Doctor of Philosophy

Major Field: Human Environmental Sciences

Scope and Method of Study: The purpose of this study was to examine a theoretical model that posited perceptions of family system variables (cohesion and adaptability) and parenting behaviors (support and supervision) were directly associated with youth reports of their own anger regulation and exposure to violence. Bootstrapping methodology was employed to examine indirect effects of family system qualities on emotion regulation and exposure to violence through parenting behaviors. Participants were 84 youth from diverse race/ethnic backgrounds (ages 7 to 15) who were associated with Boys and Girls Clubs in a large southwestern city. Self-report questionnaires of youth revealed high levels of exposure to violence in the community and Boys and Girls Clubs resided in neighborhoods of socioeconomic disadvantage.

Findings and Conclusions: Perception of family cohesion and adaptability were indirectly associated with perceived anger regulation through a positive association with parental support. Perceptions of family cohesion were indirectly associated with lower reports of being exposed to violence through a positive association to supervision. Yet, higher overall family adaptability was associated with heightened risk for exposure to violence, through less perceived parental supervision. Findings suggested youth perceptions of parental support and supervision are important to better anger regulation and less exposure to violence. In addition, context matters when examining family processes and youth outcomes in low-income samples and future research should consider the broader context which may potentially lead to the development of more comprehensive intervention that extends across multiple systemic levels.

ADVISERS' APPROVAL: Carolyn S. Henry

Amanda Morris