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“They mess with me, I mess with them”: Understanding physical aggression in rural girls and boys from methamphetamine-involved families

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This paper examines the mental health, and experiences of physical aggression in school-aged girls and boys from rural families involved with methamphetamine and the child welfare system. The misuse of methamphetamine, a powerful central nervous system stimulant and neurotoxin (Wermuth, 2000; Rawson, Gonzales, & Brethen, 2002; SAMHSA, 2002), is a sizeable and ongoing criminal justice and public health problem across the U.S. (Cretzmeyer, Sarrazin, Huber, Block, & Hall 2003; Hohman, Oliver, & Wright, 2004). In 2008, methamphetamine lab seizures nation-wide increased for the first time since 2003 (National Drug Intelligence Center, 2009). Methamphetamine misuse may be especially problematic in rural areas (Adrian, 2003; Illinois Criminal Justice Information Authority, 2004; F.B.I., 2006) where adolescents (Hutchison & Blakely, 2003) and young adults (Muskie School of Public Service, 2007) misuse this drug at approximately twice the rate of their urban counterparts.

Methamphetamine misuse affects not just individuals, but entire families. Rural law enforcement officers and health, mental health, and child welfare professionals encounter children living in homes where methamphetamine is produced and misused (Shillington, Hohman, & Jones, 2002; Haight, Jacobsen, Black, Kingery, Sheridan & Mulder, 2005). Children entering the child welfare system from methamphetamine-involved families may be at heightened risk for a variety of mental health problems including externalizing behaviors such as aggression (Asanbe, Hall & Bolden, 2008; Black, Haight & Ostler, 2006; Ostler, Haight & Black, 2007). Childhood aggression is one of the best-known social predictors of concurrent and future maladjustment (Crick, 1996; Parker & Asher, 1987; Prinstein & Greca, 2004; Rosen, Beron, Gentsch, Wharton & Rahdar, 2009) and can lead to involvement in the criminal justice system (Huesmann & Eron, 1992). Successful intervention with physically aggressive, rural children from methamphetamine-involved

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families requires an understanding of the contexts in which such behavior develops, and its meaning for children and their caregivers.

In this report we first consider, broadly, children's externalizing behavior; that is, problems involving interpersonal conflicts and violations of cultural norms for behavior. Externalizing behaviors include a cluster of rule-breaking and other oppositional behaviors such as disobeying parents, drinking alcohol, setting fires, lying and cheating. They also include aggressive behavior on which we more narrowly focus. Consistent with Dodge, Coie and Lynam (2006), we consider aggressive behavior to be the deliberate infliction or attempt to inflict physical, psychological or social pain. It includes behavior such as getting into fights, arguing, cruel teasing, threatening others, destroying others' property (Achenbach, 1991), mean gossip and social exclusion (see Dodge, Coie & Lynam, 2006). We will focus even more narrowly on physically aggressive behavior.

The Development of Physical Aggression

We approach physical aggression from the theoretical perspective and methods of cultural developmental psychology (e.g., Rogoff, 2003; Shweder, Goodnow, Hatano, LeVine, Markus, & Miller, 2006). We view human development as shaped within sociocultural-historical contexts, and thus focus on concrete patterns of everyday life, the local beliefs that support these practices and how individuals experience beliefs and practices. To understand children's physical aggression, we consider their experiences and interpretations of the physically aggressive interactions they observe and in which they participate, as well as their emotional responses, particularly of anger resulting from multiple stressors such as the experience of maltreatment.

Developmental theory and research indicate that within particular cultural contexts, biological factors in transaction with ecological contexts play an important role in the emergence of problematic aggressive behavior in some children (e.g., Dodge, 2009; Dodge et al, 2006; Putallaz & Bierman, 2006). In homes where methamphetamine is misused, multiple stressors such as exposure to adult violence, criminality and child maltreatment may place children at risk for the development of physical aggression (e.g., Haight et al., 2005). Especially affected may be children who are biologically vulnerable to the development of aggressive behaviors. These children typically show high rates of active, impulsive and noncompliant behaviors which escalate into hostile, aggressive behaviors in early childhood (Bierman, Bruschi, Domitrovich, Fang, Miller-Jimson, & the Conduct Problems Prevention Research Group, 2004). Although this paper focuses on sociocultural contexts, we expect that they will have a differential impact on children with varying degrees of biologically-based vulnerabilities.

Children from methamphetamine-involved families may be exposed to a variety of environmental factors that place them at risk for the development of externalizing behavior disorders. First, parents' methamphetamine misuse often co occurs with violent behavior including severe intimate partner violence to which children are exposed (Haight et al., 2005, 2007, 2009). Exposure to aggressive behavior, including intimate partner violence (Jimson, Kotch, Catelier, Winsor, Dufort, Hunter et al., 2002; Yates, Dodds, Sroufe & Egeland, 2003), is associated with the development of children's aggression (e.g., Dodge et al., 2006). In addition, many children from methamphetamine-involved families are exposed to adult criminality related to the production and purchase of methamphetamine (Haight et al., 2005, 2007, 2009). Adult criminality also is associated with the development of children's aggressive behavior (e.g., Dodge et al., 2006). Next, many children from methamphetamine-involved families experience physical, sexual and emotional abuse from substance misusing parents and other users who frequent the home to purchase and misuse drugs (Cretzmeyer et al., 2003; Hohman et al., 2004; West, McKenna, Stuntz, & Webber-

Brown, 2000; Manning, 1999; Haight et al., 2005, 2006, 2009). Indeed, children whose parents misuse substances are almost three times more likely to be physically or sexually assaulted than children of non-substance-involved parents (National Center on Addiction and Substance Abuse at Columbia University (CASA), 1999). Child maltreatment is associated with a variety of children's externalizing problems including conduct problems, and disruptive behavior disorders (Cicchetti, Toth & Maughan, 2000; Dodge et al., 2006; Egeland, 1997). Finally, placement in foster care, an outcome for many children from methamphetamine-involved families, is associated with heightened levels of externalizing behaviors, including aggression and rule breaking (Achenbach & Rescorla, 2001; Clausen, Landsverk, Ganger, Chaadwick & Litrownik, 1998; Finzi, Ram, Har-Even, Shnit & Weizman, 2001; Heflinger, Simpkins & Combs-Orme, 2000; Tarren-Sweeney, 2008; Tarren-Sweeney & Hazell, 2006), and involvement with the criminal justice system (Jonson-Reid & Barth, 2000; Ryan & Testa, 2005; Thornberry, Smith, Rivera, Huizinga, & Stouthamer-Loeber, 1999).

Consistent with research and theory on the development of aggressive behavior, some research suggests that children from methamphetamine-involved families engage in problematic levels of aggressive behavior. Asanbe, Hall, and Bolden (2008) studied rural, Tennessee 4- to 5-year-old children from methamphetamine-involved families who had been placed by child protection services in the homes of relatives and who were attending a community-based intervention program for low income children. These children scored higher than did a comparison group of preschoolers also participating in the intervention, but who had no known history of parent methamphetamine involvement, on caregiver reports (BASC-PRS-P) of externalizing behaviors (40% vs 15% clinical range, respectively), especially aggression (42% vs 5% clinical range, respectively). Knowledgeable adults (teachers, child welfare professionals, foster care providers, etc.) reported high levels of aggressive behavior in school-aged children from methamphetamine-involved families (Haight et al., 2005). As a group, school-aged children from methamphetamine-involved families who were in foster care showed elevated externalizing behaviors (48% in the borderline or clinically significant ranges) and aggression scores (43% in the borderline- or clinically- significant ranges) on the Childhood Behavior Checklist (CBCL) (Ostler, Haight, Black, Choi, Kingery & Sheridan, 2007).

Gender and Physical Aggression

Gender is a significant but neglected factor to consider in understanding physical aggression in children from methamphetamine-involved families. In the general population, significantly higher levels of physical aggression have been found for boys than girls from early childhood through adolescence, and across a variety of cultural contexts using a variety of instruments including the CBCL (see Dodge, Coie & Lynam, 2006). Boys, generally, are at heightened risk for externalizing behavior problems, while girls are at heightened risk for internalizing behavior problems (e.g., Hoffman & Su, 1997; Smith & Palmieri, 2007; Stiles, Liu, & Kaplan, 2000). When confronted with stressful situations or when coping with unresolved traumatic experiences, boys have a greater tendency to express anger and act out aggressively, while girls are more likely to exhibit maladaptive psychological or emotional behaviors (Escheneck, Kohlman, & Lohaus 2007; Hoffman & Su, 1997; Leadbeater, Blatt, & Quinlan, 1995; Maschi, Morgan, Bradley & Hatcher, 2008). Boys are generally more likely than girls to report fighting and physically injuring someone (Goodkind, Wallace, Shook, Bachman, & O'Malley, 2009) and, historically, have been more likely to engage in other violent and delinquent behaviors. Consistent with this research, males with substantiated cases of child maltreatment are more likely to engage in delinquency or adult criminality than are their female counterparts (Kilpatrick, Saunders, & Smith, 2003; Smith and Thornberry, 1995). When girls act out aggressively, they often

engage in social/relational forms of aggression in which they hurt others through damaging their reputations or relationships (Crick & Grotpeter, 1995; Dodge et al., 2006; see Putallaz & Bierman, 2004)

Recently, however, attention has focused on the physically aggressive behavior of girls. This interest is motivated, in part, by increases in girls' arrests and adjudications for violent crimes over the past 25 years (Goodkind et al., 2009; Snyder & Sigmund, 2006; Steffensmeier et al., 2005). Arrests of girls for simple assaults rose from 130 arrests per 100,000 girls in 1980 to 513 in 2006 (National Center for Juvenile Justice, 2007). FBI Uniform Crime Report (UCR) data indicate that while girls' arrests for simple assault increased from 1996 to 2006 (+24%), boys' decreased (-4%). In addition, boys' arrests for aggravated assault decreased (-25%) more than girls' (-5%). (Zahn, et al., 2008). Although these changes may reflect changes in societal responses to girls' physical aggression rather than an actual increase in girls' violent behavior (Goodkind et al., 2009; Steffensmeier, Schwartz, Zhong & Ackerson, 2005; Zahn et al., 2008); clearly, some girls do engage in problematic levels of physically aggressive behavior. Understanding the circumstances and reasons why girls become physically aggressive is necessary for effective intervention.

Some research has begun to examine the contexts and meaning of girls' physical aggression, primarily in urban settings. In a nationally representative sample, Franke and colleagues (2002) found that for both boys and girls, physical aggression is most common among same sex peers, accounting for about 50% of the incidents of adolescents' violence. For girls, family members are the second most common target, while for boys strangers are the second most common target. Girls' physical aggression more often occurs at home, and boys' violence occurs away from home. Prior victimization is a significant precursor to physical aggression for girls. Other contributing factors may include exposure to family members' physical aggression, negative community influences and lack of opportunities. In school, girls may behave aggressively to protect themselves, when they feel their victimization is ignored by school officials, to save face or earn status, and to express anger or hopelessness. (For review see Zahn et al., 2008).

There is some evidence from suburban and urban communities suggesting cultural diversity in the contexts and meaning of girls' physical aggression. Artz's (1998) ethnographic research with violent, white, suburban adolescent girls suggested that these girls' primary motivation for physical aggression was perceived threats from other girls to their relationships with boys. In Adams' (1999) ethnographic study of a southern, mostly working class middle school, girls typically viewed their fighting as necessary for survival and part of assuming responsibility for their own well being. Similarly, the low income, inner city adolescent girls in Ness' (2004) ethnography viewed street fighting as commonplace, and as necessary to defending themselves against daily dangers. In addition, some girls also admitted to enjoyment in beating others and used fighting as a venue for identity enhancement, solidifying peer relationships, enhancing status and respect, expressing pent up rage, and resolving conflicts.

Research is needed to describe the contexts and meaning of rural girls' physical aggression. The current study utilizes a rural Midwestern sample of children involved with the child welfare system whose parents misused methamphetamine. It is part of a larger study of rural methamphetamine-involved families. We explore: 1) the extent of girls' and boys' clinically-significant externalizing behaviors and other mental health problems through standardized, clinical assessments; 2) children's experiences and perspectives of physical aggression through their spontaneous narratives; and 3) patterns of girls' and boys' experiences, perspectives and physical aggression.

Method

Design

We employ a mixed methods research design with an emphasis on the qualitative component primarily for purposes of complementarity (Greene, 2007). We intentionally used both standardized, structured assessments and contextual, narrative constructions of multiple facets of children's social and emotional functioning. The combination of different measures and data offer an enriched portrait and more complete understanding of children's experiences in methamphetamine-involved families. Consistent with this purpose, the narratives of children – especially girls with extreme scores on standardized measures of externalizing and aggression - are examined in depth to learn more about the contexts of such emotions and behavior.

Setting

This study was conducted in the state of Illinois, which ranks fourth in the country for methamphetamine-related arrests and lab seizures (U.S. Department of Justice, 2008), in a nine county area served by several rural outposts of the Illinois Department of Children and Family Services (DCFS). According to the U.S. Census Bureau (2009), the region served by these field offices is predominantly rural and working-class and covers a total of 4,457 square miles. The estimated 2008 population in these nine counties is 202,439 and more than 95% of the population is white. The median annual family income in these counties in 2008 ranged from \$36,007 to \$48,033 and the percentage of the population with at least a high school education ranged from 79% to 86% with 10% to 21% of residents graduating from college.

Participants

Following IRB approval for the study, children ages six to 14 years whose families were involved with DCFS and whose parents misused methamphetamine were referred by DCFS caseworkers. Of the 60 referred children, research staff members were able to contact the families of 54 children. Forty-one white children from 27 families and their primary caretakers agreed to participate.

Eighteen of the child participants (44%) were female and 23 (56%) were male. Child participants' ages ranged from 6 to 14 years ($M=9.9$ years). Thirty-four percent of children had substantiated cases of neglect and 28% of sexual and/or physical abuse. Sixty-six percent of children were school-aged when their parents began misusing methamphetamine. In 74% of families, both parents used methamphetamine, and 90% of parents did so for longer than three successive months. Seventy-six percent of children had parents who were involved with methamphetamine production in the home, and 54% had a parent in jail or prison for a methamphetamine related offense. The parents of all children also misused other substances: 83% of parents misused alcohol and 88% misused other illicit substances, primarily marijuana and cocaine. Fifty-nine percent of children were from families with substance misuse dating back at least as far as their grandparents' generation.

At the time of the study, 26 children were in foster care. Their length of time in care ranged from 5 to 39 months ($M=18$ months) with an average of 1.7 placements. Fifteen children were living with their families of origin (intact families) receiving services and monitoring from DCFS. Five of the children (12%) had previous psychiatric hospitalizations for suicidal ideation and twenty-seven children (66%) were receiving mental health counseling.

In this report, data from children living in intact families and foster care will be combined. There were no significant differences between children living in intact and foster families on

gender, age, receipt of counseling, or CBCL rule-breaking, aggression, externalizing of total problem behaviors. Children from intact families had higher Trauma Symptom Checklist for Children Alternate Version (TSCC-A) anger scores than youth in foster care ($M=14.40$ vs. $M=7.60$, $t(28)=2.32$, $p<.05$), as well as higher CBCL internalizing scores ($M=64.1$ vs. $M=55.6$, $t(36)=2.26$, $p<.05$).

Twenty-seven primary caregivers (10 biological parents 3 grandparents and 14 foster parents) assessed their children's behavioral functioning via the CBCL. In addition, three, master's level clinicians who collected the data contributed their professional judgments of each child's social and psychological functioning based on multiple contacts with him/her. All of these clinicians were experienced in working with children involved with DCFS and from substance-involved families, and two had more than 25 years experience.

Instruments

Externalizing and Other Mental Health Issues—Children's mental health and behavioral functioning were assessed by their current caregivers using the Child Behavior Checklist for Children (CBCL). Developed for children between the ages of 6 and 18, this measure is a checklist including children's internalizing, externalizing, aggression and total behavior problems. The form takes about 15 minutes to complete. The CBCL is a widely used standardized assessment with adequate reliability and validity (Achenbach, 1991).

The Trauma Symptom Checklist for Children Alternate version (TSCC-A) is a self-report measure of post-traumatic distress and related acute and chronic posttraumatic symptoms for children aged 8–18 years. The anger subscale includes children's reports of their own aggressive behavior (including getting into fights) as well as feelings of anger and hatred and the desire to hurt others or destroy property. The questionnaire takes approximately 15 minutes to complete. Children may either completely self-administer the instrument, or the interviewer can read aloud the items while the child marks them. Any extreme responses, i.e., items endorsed as "Almost all of the time," were discussed with the child. The TSCC-A is a widely-used standardized assessment with adequate reliability and validity (see Briere, 1997; Ebert & Fairbank, 1996).

Clinicians who collected the data were informally asked to list the children about whom they were most concerned, and to explain the basis of their concerns. Each child was assessed by two clinicians each of whom saw the child for a minimum of three hours on a minimum of 3 occasions in and around the child's home.

Children's Experiences and Perspectives—A review of children's DCFS records was conducted to identify information related to length of time in care, placement history, history of mental health treatment, exposure to methamphetamine and other substance misuse, intergenerational substance misuse and the reason for DCFS involvement with the family.

The Home Observation for Measurement of the Environment (HOME) assessed the quality and quantity of stimulation and support available to a child in the home environment during a home visit involving a low-key, semi-structured observation and interview. The measure has been used in a wide variety of clinical and research settings and has good reliability (Caldwell & Bradley, 1984).

Semi-structured interviews lasting approximately 30–45 minutes were audio-taped. Children were given the opportunity to choose among a variety of expressive toys (puppets, dollhouse and props) and art supplies (clay, drawing materials). As the interviewer and the child engaged in an activity of the child's choosing the interviewer invited the child to respond to

interview questions. Interviews began with some open-ended questions: “Tell me about your family,” and, “Tell me about a time in your family that was happy.” Children then were asked to, “Tell me about a time in your family that was sad or scary.” The interview concluded with an invitation for children to, “Tell me about a time in your family that was fun.”

Screening of Children’s Verbal and Cognitive Abilities—To ensure that children’s linguistic and cognitive abilities were adequate to meaningfully respond to standardized assessment and interviews, they were administered the Peabody Picture Vocabulary Test (PPVT-III), a norm-referenced, individually administered measure of receptive vocabulary for individuals from age 2-1/2 to adult (Dunn & Dunn, 1997). The PPVT-III takes approximately 10 minutes to administer and requires that children identify spoken words by pointing to pictures. It has excellent reliability and validity and is positively correlated with the Wechsler Intelligence Scale for Children’s (WISC) full-scale IQ score (Dunn & Dunn, 1981) and with the WISC Verbal, Performance, and Full Scale IQ among emotionally disturbed children (Himelstein & Herndon, 2006).

Field notes—Field notes were completed by clinicians after each contact with the families. By design, they were less structured and more narrative-like than other instruments and were intended to raise important questions, allow for correction of methods, and elaborate on information collected during standardized assessments. Examples of field notes include descriptions of the child’s interactions with family, friends and the researcher; as well as the type and condition of the home and property.

Procedures

Working in pairs, clinicians collected data in the home of each child and his/her primary caregiver from January 2004 to June 2009. At an initial meeting, lasting approximately one hour, the study was explained and the HOME completed for intact families. At a second meeting, lasting 45 minutes to one-hour, children worked with clinicians to complete standardized assessments and interviews. The order of administration of the interview, TSCC-A, and PPVT with child participants was counter-balanced. While the interview was conducted, caretakers completed the CBCL. During a third visit, caregivers also completed a battery of standardized assessments and participated in semi structured interviews. These data will be presented in subsequent reports. Record reviews occurred subsequent to other data collection. Child participants and caregivers received small thank you gifts.

Qualitative Data Management and Analysis

Children’s interviews were transcribed verbatim and narratives of physical aggression were identified from the transcripts. These temporally sequenced utterances described past events in which the child personally experienced physical aggression; that is, the deliberate infliction or attempt to inflict physical pain or injury on another, or to damage another’s possessions. Given our interest in discerning children’s perspectives of physical aggression, we include both those narratives in which children report that they were bystanders, i.e., they directly observed physical aggression but were not otherwise involved, and those in which they also were directly involved, i.e., they behaved aggressively and/or were the targets of physical aggression. Emic codes describing the context and meaning of physically aggressive behaviors were developed from identified narratives. All interviews were read by two coders who independently identified narratives of physical aggression, and generated a list of descriptive codes characterizing these narratives. An intermediate coding system was developed through discussion, subsequently critiqued by a third coder and further modified through discussion. To enhance intersubjective agreement and consistency of coding, two individuals were trained to apply the coding system. They independently coded all narratives

of physical aggression. Intersubjective agreement on identification of narratives of physical aggression as well as the descriptive codes was good. Disagreements were resolved through discussion. Coders were blinded with regard to all other assessments.

Results

The Extent of Girls' and Boys' Clinically-Significant Anger, Externalizing Behaviors, Aggression and Other Mental Health Issues

We first considered children's anger as self-reported on the TSCC-A and caregiver reports of children's externalizing behaviors on the CBCL. Table 1 shows that mean scores on the anger scale of the TSCC-A fall in the borderline clinically significant range (81st to 93rd percentile) for the 17 boys and 13 girls with valid scores.¹ Table 1 also shows that the mean broad band CBCL externalizing score for the 16 girls falls within the clinically significant range (approximately 98th percentile and above), while the mean externalizing score for the 22 boys is within the normal range. (CBCL data are missing for one boy and two girls.) The mean narrow band score of aggression for girls is within the borderline clinical range (approximately 93rd to 98th percentile), while the mean score for boys is within the normal range. T-tests revealed no significant mean gender differences, but power analyses suggest insufficient sample size to detect small to moderate gender effects. (Details available upon request).

We also considered the percentage of girls and boys whose TSCC-A anger and CBCL aggression, rule breaking and externalizing scores fall within the clinically significant range. Ten percent of children score within the clinical range on the TSCC-A anger scale and 32% on CBCL rule breaking, 26% on CBCL aggression, and 50% on CBCL externalizing scales. Chi-square analyses reveal gender differences on the CBCL externalizing scale with 12 of 16 girls and seven of 22 boys scoring in the clinically significant range (Pearson's $\chi^2(1) = 6.91, p=.01$; Fisher's $p = .02$).

Although the focus of this paper is on externalizing behaviors, it is important to note that the children in this sample had multiple mental health problems. Mean scores for CBCL total problems were within the clinical range for both boys and girls, and internalizing was within the clinical range for girls. Chi-square analyses reveal gender differences in the total problems CBCL scale (Pearson's $\chi^2(1) = 4.35, p=.04$; Fisher's $p = .05$) with 12 of 16 girls and nine of 22 boys scoring within the clinically significant range.

Girls' and Boys' Spontaneous Narratives of Physical Aggression

Although each child's voice and narrative are distinct, some clear group trends emerged during semi structured interviews with 35 children. (Two girls and four boys refused the interview). Many children, those with and without externalizing behavior problems, spontaneously identified as disturbing or problematic incidents involving physical aggression. Forty-nine percent of children ($n = 17$; 56% of girls and 35% of boys) produced 58 narratives of physical aggression in which they had first hand experience; that is, they were bystanders (six children produced nine narratives) or they were directly involved in the physical aggression (16 children produced 52 narratives). All episodes in which children were bystanders involved incidents of parents' intimate partner violence. Note that physical aggression was not systematically probed in the interviews; rather, these narratives emerged spontaneously when children were asked to discuss during the interview times in their

¹Scores for nine children who scored in the clinical range on the underreporting scale, and two children who scored in the clinical range on the hyperreporting scale were eliminated from the analysis. See Ostler et al. (2007) for interpretation of underreporting on the TSCC-A in children from substance-involved families.

families of origin that were sad or scary, or any extreme responses to TSCC-A items; that is, items involving feelings of fear, sadness and anger endorsed by the child as “Almost all of the time”.

Children’s narratives typically included the location of the violence. All 17 children who produced narratives of physical aggression described physical aggression as occurring in and around their homes. In the following narrative fragment, 10-year-old Mary described intimate partner violence initiated by her mother when her parents were using methamphetamine. The violence escalated to involvement and injury of Mary, destroyed property and resulted in police contact:

Do you know the house that’s down there by the field, the t-ball field? We lived ... there and my mom and dad got into a fight. Well, my mom pulled out a hammer and hit my dad in the head. And she took it out and hit herself in the head. ... And then, my dad went outside and we locked all the doors and the windows and he busted the back window out ... I got a piece of glass stuck in my eye. And I had to get it out. Right there... so, my dad took me out of the front window because we didn’t lock the front window. And I had to get in his girlfriend’s car. And my mom went out there and took a hammer and busted her windshield. ... And my mom tried to grab me, but she (girlfriend) had pulled out with my dad and we went to Motor Mart and the cops were there. And my dad went in and told the cops and stuff because Motor Mart had called the cops ...

Some children (35%) also described involvement in physical aggression occurring in their communities.² In the following narrative fragment, 12-year-old Kim described an incident occurring on the street near her home involving an adult man whom her sister struck. This aggressive behavior resulted in a death threat from the man and Kim’s lingering anxiety:

...there’s this guy, Adam, he started a mouthing me to come up and calling me a bitch. Ellen (Kim’s sister) come up and slapped him and he said, “You’re gonna pay for that, bitch, I’m gonna kill you and your sister.” And, ya know that kinda scared me cause he’s 20 years old and my sister’s only like 15. I know he’s not gonna do something, but ya know I ...still got worries and ... what if he can do something?

A few children (12%) also described physical aggression as occurring at school. Twelve-year-old Denise described incidents of bullying at school and at her rural bus stop:

I’m scared at school because this one boy beat me up and tried to throw me off the bridge (at the bus stop)...He threw walnuts at me, still in the green cases and everything. ... I told my mom and dad and they called the cops.

Children’ narratives typically included a variety of participants in the physical violence. Most children (88%) described physical aggression involving adults. Although most were men, some children (33%) described women as physically aggressive. For example, 13-year-old Karen related several narratives involving her father’s girlfriend’s violence including the following fragment in which Karen described her traumatic reactions to the girlfriend’s death threat:

Lora and my dad got into a fight and she threatened to kill me...I was so scared because she came up behind me with a knife and I was like sitting there like I was asleep and everything, but I was bawling....

²The denominator of all percentages in the rest of this section is 17, i.e., the subset of children who produced narratives of physical aggression.

Additionally, most children (88%) described other children as physically aggressive. For example, 7-year-old Jim described an incident that happened shortly after his fifth birthday in which he defended himself from a neighborhood bully.

I remember getting beat up by this kid... I had to take things into my own hands cuz nobody was home. And then I just had to kick his own butt because he was kicking me in the stomach. ... (sighs) They mess with me, I mess with them.

Like Jim, most children (59%) also described themselves as drawn into episodes of physical aggression. For example, 14-year-old Tom described defending his mother from his drunken stepfather:

... my step-dad would drink heavily. Non-stop. Every night he'd come home drunk....It was bad... One time he physically went to hit my mom and he regretted it because I took him through a wall...This was when I was 11... I tackled him.

Children's narratives also included the initiator of the physical aggression, i.e., the first person to destroy property or physically attack the other person, not necessarily the initiator of the verbal conflict. Most children (59%) described themselves as initiating physical aggression. For example, after being forced to the home of her father and his girlfriend, 10-year-old Mary described initiating physical aggression with the girlfriend, which she justified as condoned by her mother:

...And, so, we went back to their house and I didn't want to so I started hitting her (girlfriend) and I started cussing at her because I was so mad because my mom said if anybody tries to take you, just beat on them. And, so I beat on her because I was so mad at her. Cause she almost ran over my mom. ... I ran out the door and I called my mom on my cell phone. And she was going to come and pick me up (but) she couldn't because the cops were at the ... house.

Most children (53%) also described physical aggression initiated by a parent's intimate partner, most often their fathers initiating physical aggression against their mothers. Other children (35%), other adults (35%) and siblings (35%) also were described as initiating physical aggression.

Children's narratives of physical aggression also included the target of the violence, i.e., the person(s) or property, towards which the initiator directed his/her attack. Most children (94%) described other people as the targets of physical aggression, but many (41%) also described physical aggression directed at objects. For example, 7-year-old Brad described his father putting a fist through a window during an argument with his mother.

Most children (87%) described themselves as targets of physical aggression. In the following narrative fragment, 12-year-old Kim responded to a probe of her self-reported high levels of angry feelings on the TSCC-A. Here, she described herself as the target of physical aggression initiated by another girl. Notice, however, that she responds in kind, justifying her own behavior as self-defense:

...there's just this D. chick at school. She come up, pushed me ...on the ground ... She comes up, she hit me again. I come up knock her down on the ground, and I get on top of her. You know all she was doing is pulling my hair and I'm all, you know, hurtin' her, you know, because she laid her hands on me ... an adult came outside, got us off each other. D. takes off. I'm not really hurt, she has like a bloody nose and black eye and all that. She starts mouthin' again up there on a hill ... I'm like "... don't lay your hands on me." That's one thing that you don't really want to do. I will defend myself if I have to...

Most children (94%) also described their siblings as targets of physical aggression. For example, 6-year-old Sara (S) described her response to her mother's drug use in this narrative fragment co-constructed with the interviewer (I) in which both mother and daughter are physically aggressive:

I. Did you ever see your mom on drugs...?

S. Yeah... she would always fight

I. Do you remember how you felt to see your mom on drugs?

S. Actually, really, really mad.

I. And what would you do when you were mad?

S. Hit my brother.

Adults' intimate partners, most often children's mothers, also were described by many children (47%) as targets of physical aggression. Other adults (20%) and other children (13%) also were described as targets.

Most children (82%) described the hands, feet and/or teeth as instruments of physical aggression directed towards people; that is, violent episodes involved punching, kicking, choking, biting, scratching and hair pulling. Some children (24%) described episodes of physical aggression involving weapons such as knives, bats and hammers. For example, 9-year-old Amy (A) described to the interviewer (I) a "sad or scary" time in her family:

A: When my mom and Sterling (paramour) they always fought, and stuff like that. One night my mom came in with the knife because she had been out doing drugs and she knew she was going to get it, so she came in with a knife.

I: What does it mean, "She's going to get it?"

A: Sterling was going to beat her up ...

I: Did he ever beat her up?

A: Yeah, lots of times.

I: What did you see there, what happened?

A: They just fought right in front of me. They didn't even care, they just fought right in front of me. ... It was not very pleasant, I can tell you that much.

Children's narratives also interpreted physical aggression: its causes and consequences. Children's spontaneous interpretations of the reasons why individuals behave violently primarily were anger (41%) and adult substance misuse (41%). For example, 14-year-old Tim described his mother's physical aggression as linked to her drug use. After explaining that his mother hit the children harder than she intended because she was "taking drugs" and "didn't know what she was doing," he continued:

My brother said that he was going to get out of this house [when his mother was using drugs]. He opened up the window, tried to jump out the window. My mom pulled him back and started hitting him, physically hitting him. And he trying to get out, trying to run away, trying to go somewhere where he wouldn't get hit ... and my mom was telling me she was going to call the cops, saying that there's a child missing and everything and I was thinking, "Mom, if you do this they're not going to believe you. They're going to believe what's happening cuz they'll ask us kids." And I was telling her, I was like, "Mom, you gotta stop this. This ain't fair. ... This ain't supposed to go on like this."

A few children (17%) clearly attribute their own aggression to self-defense, or defense of a family member. For example, 14-year-old Tom's description of knocking his step father through the wall to stop him from beating his mother.

Children also interpreted the consequences of violence. Almost all children (94%) described negative consequences of violence. For example, 29% reported separation from a parent because the parent went to jail, the child was placed in foster care, the parent left home, or the child ran away. Most children (94%) also described other negative outcomes including police involvement, the child's lingering sadness and fear, continued anger, physical injury, death threats, and more violence. Only rarely did children (18%) describe positive resolutions. In the following narrative fragment, 14-year-old Tim related an incident that included his apology and reconciliation:

I was playing a basketball game and I got mad cuz I was losing and I did it... I got mad and this kid was all mouthy to me and everything so I slammed him against a wall and he got hurt a little on his head... But I apologized. I told him how sorry I was. I told him I shouldn't have done that.

Patterns of Experiences, Perspectives and Externalizing Behaviors

We explore patterns of experiences, perspectives and externalizing behaviors with the 35 children (16 girls and 19 boys) who had valid CBCL scores and interviews. We also consider clinicians' judgments. Given that 27% of the sample had invalid TSCC-A scores, we did not include the "anger" scale. Given the unexpectedly high levels of caregivers' CBCL reports of girls' externalizing and aggression, we focus on girls who identified physical aggression as problematic. For purposes of comparison, however, Table 2 also presents the profiles of girls and boys who did not identify physical aggression as problematic.

Many girls who produced narratives of physical aggression self-identified and were identified by caregivers as physically aggressive. In contrast to the other children (boys who produced narratives of physical aggression, and boys and girls who did not), caregivers reported clinically-significant levels on the CBCL externalizing scale for 90% of girls (Kasey, Kim, Denise, Mary, Amy, Jennifer, Jessica, Karen, Susan) and on the aggression scale for 40% of girls (Kasey, Kim, Amy and Jennifer) who produced narratives of physical aggression. Consistent with their caregiver CBCL reports, 70% of these girls (Kasey, Kim, Denise, Mary, Amy, Susan, Sara) portray themselves in their spontaneous narratives as behaving aggressively; that is, initiating physical aggression.

All girls who produced narratives of physical aggression identify themselves in those narratives as targets of physical aggression in contrast to 57% of boys who produced narratives of physical aggression. In contrast to boys who produced narratives of physical aggression, and similar to the children who did not produce narratives of physical aggression, 50% of caregivers of girls who produced narratives of physical aggression describe clinically significant levels of internalizing behaviors (Kasey, Kim, Denise, Amy and Jennifer) which can be associated with victimization.

Girls who produced narratives of physical aggression also display other behavioral and mental health problems. Of the children with spontaneous narratives of physical aggression, 80% of girls (Kasey, Kim, Mary, Denise, Amy, Jennifer, Jessica, Karen) and 29% of boys also score in the clinical range on the CBCL total problems scale. (Note that 67% of the other girls who did not produce narratives of physical aggression also scored within the clinically significant range on total problems). In addition, two experienced clinicians who collected the data independently listed six of these ten girls (Kasey, Kim, Denise, Mary,

Jessica and Susan), and two externalizing boys who did not produce narratives of physical aggression, as those about whom they were most concerned. The common concern that distinguished the girls was a perception by clinicians that these girls accepted the role of “violent victim.” Based on their interactions with them during home visits and while administering standardized assessments and interviews, clinicians noted that these children seemed to expect that physical aggression would continue to be an inevitable part of their lives and, further, they expressed little personal responsibility for, or control of, their own physical aggression. These girls seemed to view their own physical aggression as unavoidably driven by others’ violent and unfair treatment of them. A second common concern raised by the clinicians was based both on their knowledge on the communities in which the children lived and their contact with the girls. They noted that these preadolescent girls had such extensive problems that they were not accepted by “conventional” adults in their rural communities; that is, educators identified these children as problematic as soon as they “walked in the school door”, and other parents did not wish their children to associate with them. This lack of acceptance by presumably adequately-functioning adults in the community was seen as inadvertently pushing these girls towards a delinquent peer group.

In terms of children’s perceptions and experiences of physical violence, of those 17 children who produced narratives of physical aggression, 80% of girls (Kasey, Kim, Denise, Mary, Amy, Jennifer, Jessica, and Karen) and 43% of boys describe in those narratives parents’ intimate partner violence. The narratives of physical aggression in 50% of girls (Kasey, Kim, Denise, Mary and Amy) and 14% of boys justify their own physical aggression as appropriate retaliation against perceived slights, threats or past physical aggression. In the following narrative fragment, 12-year-old Kim is describing a fight that occurred at school between herself and her male cousin whom she identifies as a friend.

He showed anger in his eyes to me... and I didn’t like it. ...Then I come up, I push him...he comes up and grabs me right here and starts, you know, yankin’ on me. I come up, pick him up as far as I can get him and slam him on the counter. ... And he done it a couple times- stuff to me too, you know - pick me up, slam me somewhere... But then, you know, we got over the little fight.

Perhaps most strikingly, 50% of these girls (Kasey, Kim, Denise, Mary and Susan) and 14% of boys express positive emotional responses or outcomes resulting from their own physical aggression. Violence is portrayed as effectively influencing others’ behavior, providing a release from intense, pent-up anger, and/or hurting someone is “fun.” In the following narrative fragment, 12-year-old Kasey describes her own feelings about her physically aggressive behavior:

Sometimes when I’m mad at a person ... I think bad thoughts about em and want to hurt em sometimes. ... I like getting into fights, when I can - that’s all of the time - cause I just like to see the blood pour from people...My brother, because he took my purse and kept running all over the house, so I kept on punching him until he was bleeding because I just get sick of him doing things and doing it and doing it and doing it... So I finally just punch him until he stops.

Kasey exemplifies the cluster of girls who produced narratives of physical aggression presented in Table 2. At the time of the study, Kasey was 12-years-old and in the seventh grade. She lives with her mother and three younger siblings ranging in age from 3 to 11. Her father died 3 years earlier from complications of untreated diabetes. Kasey takes medication for depression and ADHD. She is of average height, but obese. She scored in the clinically significant range on all CBCL scales: both broad and narrow band, and total problems. She also reported clinically significant levels of anxiety on the TSCC-A.

During the interview, Kasey not only produced multiple narratives describing her own physically aggressive behavior, but she also described her own fears of violence. The following excerpt is taken from a discussion of the TSCC-A:

I. Feeling afraid somebody will kill me? (reading items)

K. Yes, yes.

I. Who are you afraid will kill you?

K. Like murderers. People that murder people.

I. Do you feel like that sometimes or all the time?

K. Yeah, sometimes I feel that when people are like following me. It happened when I was 7 with my aunt M.

I: Mhmm

K: I got followed all the way from my first house to my aunt's. I was walking, but they kept on going really slow and it was four guys, but I wasn't scared of 'em because I had a real pocket knife. I usually carry a real one around.

I: How old were you when that happened?

K: Just months ago.

Kasey's family is impoverished. Her mother did not graduate from high school and lives on social security disability and the children's survivor's benefits. She does not report any significant work history. Following a period of homeless, the family moved into a single family, rented home in a small town. In contrast to other homes in the neighborhood, it is in poor condition. During participant observation, researchers noted dirt on the inside floors and surfaces, spoiled food on the kitchen table, a broken window, trash in the yard, and many feral cats living underneath the house. Consistent with these observations, scores on all HOME subscales were well below the median. (Total score = 28 out of a possible 60 with a median of 44).

Relationships within the family also were problematic. In a case note, Kasey's caseworker described her relationship with her mother, Brittney, and behaviors as follows:

Kasey's relationship with her mother is strained. Kasey has told Brittney on several occasions that she wished Brittney would have died and her father would have lived. Brittney reports that she has been unable to form a close relationship with Kasey. ... Kasey's behaviors include acting out at school and at home. She does not always tell the truth. She has a lot of attention seeking behaviors. Kasey is disrespectful and belligerent to her mother and other adults. She has also gotten caught stealing things from other people and from stores.

Child welfare records characterize Brittney's parenting as follows:

Brittney's parenting skills need improvement. She yells a lot. She curses at her children. Brittney's relationship with her children is very damaged, probably due to the years of her substance abuse and domestic violence in the home. ...

During participant observation, Kasey and her 11-year-old brother were verbally abusive to one another and to their mother, swearing at one another and name-calling. Brittney had several angry outbursts at the children, yelling and cursing at them. Then, she would give in to their demands. The most recent contact with child protective services occurred for abuse when Brittney threw an object at Kasey, striking her in the face and leaving a bruise. The police have been called to the house on several occasions due to physical fights between

Kasey and her brother, and Brittney and the two older children. Most recently, Kasey and her brother were banned from the YMCA swimming pool because of fighting with one another.

The family has had multiple contacts with the police over the years due to severe intimate partner violence and substance misuse to which the children were exposed. Their father was extremely abusive towards Brittney, and also physically and psychologically abused the children. During participant observation, Kasey spontaneously offered that she missed her father. She said that he was abusive to her mother and “us kids”, but that he was nice too. He would spend money on getting things for “us kids”, even things they “just wanted and didn’t need.” Then, when he did not have money to pay the rent, he would “make drugs or sell drugs” to get the money. She said that he had a “bad temper just like me” and would hit “us kids and mom” when he got angry or was on drugs or alcohol. Kasey said that he did not want to die because he knew their mother was a bad mother and could not take care of them. She reported that before he died, her father “gave” her the baby because he knew she would be a better parent than her mother. Kasey reports that although Brittney did not allow her to have the baby, she does help take care of her.

The family also has an extensive, intergenerational history of substance misuse to which the children also were exposed. Both parents misused alcohol and illegal drugs, and the father cooked methamphetamine at home. Brittney began using methamphetamine with her own father, and used for the first 10 years of Kasey’s life. Brittney also reports misusing alcohol, LSD, prescription drugs, cocaine and marijuana. She reports that her 3 siblings continue to misuse drugs and alcohol. Following the death of her husband, Brittney spent one year in a substance rehabilitation program while the children were in foster care. At the time of interview, Brittney reported one year sobriety. She has multiple health and dental problems which she attributes to methamphetamine misuse. In the following interview, she describes the impact of her methamphetamine misuse on her children, and her continuing struggles to parent:

I. How has meth use affected your children’s life?

B. I just had them all messed up and confused. And they didn’t know how to act. I mean, they don’t know how to act.

I. And how is that a result from using meth?

B. From the ups and downs from that. ... You know, happy one minute and mean as hell the next. You know, I got them confused and scared... I feel like I put my kids in a corner ... I just more or less ignored them... I shunned em. I was always on the run for meth. I’d come home, crash, maybe eat something, maybe shower.

...

B. I know the (cycle of) violence have got to be broken in my kids. ... It’s just got to. And it would still be going on today if he (husband) wouldn’t have died. I know that for sure. ... Them two (Kasey and brother) always get into it. They cuss, hit, they fight.

...

B. They (DCFS) took my kids. I still couldn’t stop (using meth). ... I kept prayin’ and prayin’ and I woke up and decided I wanted my kids more than I wanted anything else... and I went ahead... got into rehab...

...

I. What do you think your parenting is like now?

B. Still shitty. They don't listen.

I. What do you think would change that.

B. I haven't got a clue.

Kasey and her family also have resources. Brittney has more than one year of recovery from substance misuse and her caseworker reports increased motivation and improvement in her relationships with her children. Kasey scored within the average range on the PPVT, and was regularly attending school in the grade appropriate for her age. At last contact with the family, both older children were in counseling with Brittney participating in Kasey's counseling every other week. Although Kasey does not bestow trust easily, she spoke positively of her counselor. Unfortunately, this counselor has since been laid off due to budgetary problems.

Discussion

Physical aggression has been identified as a common and traumatizing experience for individuals who misuse methamphetamine. In a recent study of over a thousand methamphetamine users, 85% of women and 70% of men reported being the victim of physical violence (Cohen Dickow, Homer, Zweben, Balabis, Vanderstoot, 2003). The narratives of children in our study and their caregivers' CBCL reports suggest that physical aggression also characterizes the experiences of many children from methamphetamine-involved families. When asked to describe sad or scary times in their families or to discuss extreme TSCC-A responses, many children produced narratives of physical aggression. These narratives were primarily set at home and involved adults and the children themselves. Children most often described the initiator of the physical aggression as their parents or themselves and, likewise, most often described themselves, their siblings or parents as the targets of physical aggression. Most episodes of physical aggression depicted in narratives involved punching, kicking, biting, choking and/or hair pulling. Relatively few involved weapons. Children primarily attributed the physical aggression to anger and adult substance misuse, and described negative outcomes of the physical aggression. Many children also scored in the clinical range on externalizing and aggression CBCL scales.

Consistent with existing research, children, all of whom were both targets and initiators of physical aggression displayed mental health problems. Children who are the victims of physical aggression such as child abuse face a variety of mental health risks (e.g., Cicchetti et al., 2000; Egeland, 1997). In this study, 75% of girls and 41% of boys scored in the clinical range on the CBCL total problems scale. Like Kasey, children, who both experience and display physical aggression are at heightened risk for depression and anxiety (Espelage, Mebane & Swearer, 2004). Forty-four percent of girls and 32% of boys scored in the clinical range on the CBCL internalizing scale.

Gender differences in physical aggression found in the current study are not consistent with existing research. Decades of developmental research have identified boys as most vulnerable to externalizing behavior problems, especially physical aggression (e.g., Dodge et al., 2006). Girls' expression of aggression often takes the form of social/relational aggression; that is, harming others through manipulating their relationships, for example, through malicious gossip or exclusion (e.g., see Putallaz & Bierman, 2004). Yet, many young girls in our sample reported, as did their caregivers, that they engaged in physical aggression at problematic levels at least equivalent to that of the boys. Indeed, significantly more girls scored within the clinically significant range on CBCL externalizing behavior problems than did boys. Girls also spontaneously described episodes of physical violence during interviews. The levels, contexts, experiences and interpretations of physical aggression in rural girls from methamphetamine-involved families deserve further research.

One possible explanation for our unexpected finding of high levels of problematic physical aggression in these rural girls from methamphetamine-involved families is that they are especially vulnerable to abuse. In previous research, prior victimization has been associated with girls' physical aggression (Franke et al., 2002). Of the children producing narratives of physical aggression, all of the girls, in contrast to approximately half of boys, described being the target of others' physical aggression, an experience associated with girls' physical aggression (Zahn et al., 2008). Although we have no data on this issue, parental methamphetamine misuse also may put girls at heightened risk for sexual abuse. In general, girls are more vulnerable than boys to sexual abuse (Becker-Blease et al., 2009). Methamphetamine misuse is associated not only with poor judgment and impulse control, but with heightened sexual arousal (Anglin, Burke, Perrochet, Stamper & Dawad-Noursi, 2000). Following a methamphetamine binge, parents may "crash" into a deep sleep for days at a time. While parents are crashed, their children may be unprotected from adults who frequent the home in search of drugs and a place to use them as well as the adolescents who accompany them. Sexual abuse is associated with the development of aggressive and other antisocial behavior in girls (see Trickett & Gordis, 2004; Becker-Bleas et al., 2009; Zahn et al., 2008). It also is associated with depression (Becker-Blease, Cheit & Freyd, 2009). In contrast to the boys who produced narratives of physical aggression, half of the girls scored in the clinically significant range on CBCL internalizing. Note also that clinicians reported that the children about whom they were most concerned had internalized the role of "violent victim:" girls who saw others' physical aggression towards them as an inevitable part of their future, and their own physical aggression as unavoidably driven by that violence.

Longitudinal data from younger ages will be necessary to understand the development of physical aggression in girls from rural, methamphetamine-involved families. It is possible that the emergence of physical aggression in some girls from methamphetamine-involved families was influenced by self defense and pent-up anger from experiences of victimization, as seems to have occurred with girls living in other dangerous circumstances (e.g., Adams, 1999; Ness, 2004). Over time, some children may have become less sensitive to others' responses to their own physical aggression, and more aware of the benefits of physical aggression for releasing rage and warding off further abuse. This interpretation is consistent with the most physically aggressive girls' accounts of their own violence as appropriate retaliation and as emotionally positive or gratifying.

In addition to its cross-sectional design, this study has other limitations. Our analyses of children's interpretations of physical aggression emerged from their spontaneous narratives, and were not systematically probed. Not all children offered spontaneous narratives of physical aggression, and the experiences and perspectives of those who did not may differ from those reported here. In addition, not all child narratives provided clear interpretations of the causes or consequences on violence. Direct probing will be necessary for a full understanding of children's perspectives, for example, of their own use of physical aggression in self-defense. Further, we did not systematically probe for sexual abuse. It is unclear the extent to which any distinct responses of physically aggressive girls is linked to the extent of their victimization or other aspects of their gendered experiences because gender and victimization may be confounded. Boys who also experience extensive victimization including sexual abuse may come to experience and interpret physical aggression in ways similar to the physically aggressive girls in this study. Finally, for the quantitative component, this research uses a relatively small sample especially for the exploration of gender differences. It is important to underscore, however, that the importance of our findings is not simply that there are statistically significant differences between the girls and boys, but in the description of the distinctive experiences and perceptions of a sizeable group of physically aggressive girls. Further research needs to

focus on these rural girls from substance-involved families in order to enhance understanding and the development of effective interventions.

On the other hand, physical aggression emerged as a topic of concern not of the researchers, but of the children themselves suggesting its salience in their lives. In addition, our interpretations of children's physical aggression do not rely on a single, flawed method, but on rich and multiple sources of information for each child who was seen in familiar surroundings on multiple occasions. Multiple methods, i.e., caregiver reports, child narratives, clinical assessments and record reviews, converge on the interpretation of problematic levels of physical aggression for some girls, and also elaborate and contextualize the experience of children's physical aggression.

Implications for Intervention

The results from the current study direct our attention to a relatively neglected area of research and practice: rural girls' experiences and perspectives of physical aggression. Clearly, the development and implementation of effective interventions for these children is urgent to correct current problems and prevent more serious ones from emerging. Childhood aggression is one of the strongest social predictors of concurrent and future maladjustment (e.g., Crick, 1996; Parker & Asher, 1987). Children who develop physically aggressive behaviors often struggle academically, experience social rejection, adolescent delinquency, substance abuse, and drop out of school (e.g., Dodge et al, 2006). In the past decade, there has been an explosion of empirically tested interventions to prevent the development of children's aggressive behavior (e.g., see Dodge et al., 2006). Some interventions have been developed to address gender-specific interventions that incorporate the needs of physically aggressive girls, many of whom have been sexually and/or physically abused (Odgers & Moretti, 2002). Results of this study, in conjunction with this previous research and evidence-based programs, suggest some characteristics of intervention strategies likely to be effective with physically aggressive girls from rural, methamphetamine-involved families.

To be effective, an intervention must address the complex web of related issues facing any individual child. Physically aggressive girls from this study had multiple social and mental health needs. Consistent with earlier pilot research revealing high levels of trauma symptoms and diverse mental health issues (Ostler et al., 2007; Black, Haight, & Ostler, 2006), girls in this study had high levels not only of externalizing problems (including aggression), but of internalizing and total behavior problems on the CBCL. According to clinicians, they also may face risk through exclusion from a non-delinquent peer group. Consistent with earlier pilot research (Haight et al. 2005, 2007, 2009), they also lived in families struggling with poverty, parental recovery from addiction(s), intimate partner violence and criminality, and/or they were experiencing stress associated with foster care. Initially, interventions might prioritize strengthening the child's family ecology before addressing mental health needs, and then move on to peer competence and preventative efforts to address healthy romantic relationships, adolescent pregnancy and substance misuse.

Any effective intervention also will consider the cultural contexts of children's development. Cultural relevance is an important issue in interventions for physical aggression, especially considering wide variations in norms for regulating aggression (Dodge, et al, 2009). Many children in this study were exposed to extensive violence in their immediate and, many times, extended families as well as their parents' social network of substance-involved adults. In this context, the development of children's physical aggression may reflect normative survival skills, and function as a form of proactive or reactive self defense. Over time, as children experience safer environments, they may become receptive to other less hostile interpretations and responses to perceived or actual threats.

In addition, most of the rural families in this study had very few positive contacts with helping professionals. Contact with professionals occurred primarily during investigations by child protective services which most experienced as highly stressful and threatening (Haight et al., 2009). Prior to involvement with DCFS, few had sought help from professionals. Thus, practices routine to the “culture” of professional intervention, for example, explicit discussion of emotions or family problems with an outsider, may require careful negotiation.

Further, in isolated rural communities, prevention and intervention efforts must be accessible for children and their families. Families in the present study lived many miles away from mental health facilities. Some rural schools, however, did provide multiple, informal services to children. For example, educators reported keeping children from methamphetamine-involved families after school to “help” with various projects, slipping food into their backpacks, and even providing warm, clean clothes (Haight et al., 2005, 2009). These efforts could be strengthened and systematized through community support.

Effective interventions also are likely to be gender sensitive (Snethen & Puymbroeck, 2008). Although the needs of physically aggressive boys and girls are likely to overlap, they are not identical. Effective interventions to reduce physical aggression in preschool-aged girls and boys target the development of social skills with peers, empathy and emotion regulation (Bierman et al., 2004). As children move through middle childhood and approach adolescence, however, gender sensitive interventions will target the unique needs of girls and boys. Physically aggressive girls face the same risks as boys, but in addition are at risk for a cascading set of negative outcomes in adolescence and adulthood including involvement with anti social men, becoming adolescent mothers, engaging in physical aggression against romantic partners and having children with health and behavioral problems. (See Underwood, 2009; Capaldi, Kim & Shortt, 2004; Zoccolillo, Paquette, Azar, Cote & Tremblay, 2004; Serbin, Stack, De Genna, Grunzweig, Temcheff, Schwartzman & Ledingham, 2004). These many issues need to be addressed to avoid the perpetuation of problems into successive generations.

Given their high risk for substance misuse, effective interventions for girls and boys from methamphetamine-involved families will have strong preventative components. The majority of children in the present study were from families who had substance misuse problems documented at least back to their grandparents’ generation. Ecological-systems theory, of which our sociocultural perspective is a variant, has provided a framework for the development of a number of empirically-validated, family based prevention interventions (e.g., see Etz, Robertson & Ashery, 1998). Family strengthening interventions are a critical component of any effective approach to the prevention of youth substance abuse (e.g., Dishion, 1996; Kumpfer, Alverado, Smith & Bellamy, 2002). For example, the NIDA-funded Strengthening Families Program was developed as a selective prevention program for children from substance-involved families (e.g., Kumpfer et al., 2002; Kumpfer, Alvarado & Whiteside, 2003). It is important to elaborate generic, family-centered prevention interventions to culturally-sensitive prevention interventions for distinct, high risk groups. Although much progress has been made in family-centered prevention research over the past two decades, challenges remain regarding the implementation of effective interventions for culturally diverse families (see Spoth, Kavanagh & Dishion, 2002; Turner, 2000). The limited research with culturally adapted prevention programs suggests that these adaptations can enhance effectiveness with non mainstream families (Kumpfer et al., 2002). Existing cultural adaptations, however, have been criticized as superficial, e.g., changing photos to depict the targeted group. Data from the current study may provide a deeper understanding of cultural context of rural, methamphetamine-involved families that will lead to even stronger outcomes.

Conclusion

Some rural girls from methamphetamine-involved families have problematic levels of physically aggressive behavior putting them at risk for a negative developmental trajectory. Existing research suggests characteristics of interventions likely to be effective. Given the multiple and serious challenges faced by children from methamphetamine-involved homes, effective interventions will likely be sustained over an extended period (Haight et al., 2009). Such sustained intervention will require community support and financial resources. Unfortunately, negative stigma towards methamphetamine-involved families may be pervasive in rural communities. Intervention efforts will only be as effective as the support sustained by communities and their stakeholders. If support for programming is lacking, then interventions may not be well received or efficient. Programming development, implementation, and evaluation that are sensitive to the special needs of at-risk girls and rural communities can only be enforced and maintained by social welfare policy efforts. At present policies that address these needs are lacking. Hopefully, with continued research and public discourse such policies will gain support.

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References

- Achenbach, TM. Integrative guide to the 1991 CBCL/4-18, YSR, and TRF profiles. Burlington, VT: University of Vermont, Department of Psychology; 1991.
- Achenbach, TM.; Rescorla, PJ. Manual for ASEBA school-age forms and profiles. Burlington, VT: University of Vermont, Research Center for Children, Youth, and Families; 2001.
- Adams N. Fighting to be somebody: Resisting erasure and the discursive practices of female adolescent fighting. *Educational Studied* 1999;30(2):115–139.
- Adrian M. Meth cases impact area's children. *Charleston Illinois Times-Courier*. Friday, September 12;2003
- Anglin MD, Burke C, Perrochet B, Stamper E, Dawad-Noursi S. History of the methamphetamine problem. *Journal of Psychoactive Drugs* 2000;32(2):137–141. [PubMed: 10908000]
- Artz S. Where have all the school girls gone? Violent girls in the school yard. *Child and Youth Care Forum* 1998;27(2):77–109.
- Asanbe C, Hall C, Bolden C. The methamphetamine home: Psychological impact on preschoolers in rural Tennessee. *The Journal of Rural Health* 2008;24(3):229–235. [PubMed: 18643799]
- Becker-Blease, K.; Cheit, R.; Freyd, J. Sexual abuse. In: Shweder, R., editor. *The child: An encyclopedic companion*. Chicago: University of Chicago Press; 2004.
- Bierman, K.; Bruschi, C.; Domitrovich, C.; Fang, G.; Miller-Jimson, S. and the Conduct Problems Prevention Research Group. Early disruptive behaviors associated with emerging antisocial behavior among girls. In: Putallaz, M.; Bierman, K., editors. *Aggression, Antisocial Behavior, and Violence among Girls*. New York: The Guilford Press; 2004.
- Black J, Haight W, Ostler T. Mental health issues of children of methamphetamine abusers. *Psychiatric Times* 2006;24(14):18–19.
- Briere, J. *Psychological assessment of adult posttraumatic states*. Washington, DC: American Psychological Association; 1997.
- Caldwell, B.; Bradley, R. *Home Observation for Measurement of the Environment*. Little Rock, AR: University of Arkansas at Little Rock; 1984.

- Capaldi, D.; Kim, H.; Shortt, J. Women's involvement in aggression in young adult romantic relationships: A developmental systems model. In: Putallaz, M.; Bierman, K., editors. *Aggression, antisocial behavior, and violence among girls*. New York: The Guilford Press; 2004.
- Cicchetti, D.; Toth, S.; Maughan, A. An ecological-transactional model of child maltreatment. In: Sameroff, A.; Lewis, M.; Miller, S., editors. *Handbook of developmental psychopathology*. 2. New York: Kluwer Academic/Plenum; 2000. p. 689-722.
- Clausen J, Landsverk Ganger M, Chadwick D, Litrownik A. Mental health problems of children in foster care. *Journal of Child and Family Studies* 1998;7(3):283-296.
- Cohen JB, Dickow A, Homer K, Zweben JE, Balabis J, Vanderstoot D, et al. Abuse and violence history of men and women in treatment for methamphetamine dependence. *American Journal on Addictions* 2003;12(5):377-385. [PubMed: 14660152]
- Coie, J.; Dodge, K. Aggression and antisocial behavior. In: Eisenberg, N., editor. *Handbook of Child Psychology*. 3. New York: Wiley; 1998. p. 779-862.
- Cretzmeyer M, Sarrazin MV, Huber DL, Block RI, Hall JA. Treatment of methamphetamine abuse: Research findings and clinical directions. *Journal of Substance Abuse Treatment* 2003;24:267-277. [PubMed: 12810148]
- Crick N. The role of relational aggression, overt aggression, and prosocial behavior in the prediction of children's future social adjustment. *Child Development* 1996;67:2317-2327. [PubMed: 9022243]
- Crick N, Grotpeter J. Relational aggression, gender, and social-psychological adjustment. *Child Development* 1995;66:710-722. [PubMed: 7789197]
- Dishion, TJ. Advances in family-based interventions to prevent adolescent drug abuse. Plenary Session; National Conference on Drug Abuse Prevention Research: Presentations, Papers, and Recommendations; September 19-20; Washington, DC. 1996.
- Dodge, K. Public policy and the "discovery" of girls' aggressive behavior. In: Putallaz, M.; Bierman, K., editors. *Aggression, antisocial behavior, and violence among girls*. New York: Guilford; 2004.
- Dodge K. Mechanisms of gene-environment interaction effects in the development of conduct disorder. *Perspectives on Psychological Science* 2009;4(4):408-414. [PubMed: 19779577]
- Dodge, K.; Coie, J.; Lynam, D. Aggression and Antisocial Behavior in Youth. In: Eisenberg, N., editor. *Handbook of child psychology: Volume 3. Social, emotional, and personality development*. Hoboken, New Jersey: Jim Wiley and Sons; 2006.
- Dunn, L.; Dunn, L. Peabody Picture Vocabulary Test. 3. 1997.
- Ebert L, Fairbank JA. The Trauma Symptom Inventory: Assessing the spectrum of symptoms associated with traumatic stress. *American Psychology Law Society News* (Division 41 of the American Psychological Association) 1996 Fall;:21-23.
- Egeland, B. Mediators of the effects of child maltreatment on developmental adaptation in adolescence. In: Cicchetti, D.; Toth, S., editors. *Rochester symposium on developmental psychopathology: Vol 7. The effects of trauma on the developmental process*. Rochester, NY: University of Rochester; 1997. p. 403-434.
- Eschenbeck H, Kohlman C, Lohaus A. Gender differences in coping strategies in children and adolescents. *Journal of Individual Differences* 2007;28(1):18-26.
- Espelage, D.; Mebane, S.; Swearer, S. Gender differences in bullying: Moving beyond mean level differences. In: Espelage, D.; Swearer, S., editors. *Bullying in American schools: A social-ecological perspective on prevention and intervention*. Mahwah, NJ: Lawrence Erlbaum; 2004. p. 15-35.
- Etz, KE.; Robertson, EB.; Ashery, RS. Drug abuse prevention through family-based interventions: Future research. Rockville, MD: National Institute on Drug Abuse; 1998. (NIDA Research Monograph No. 177)(NTIS No PB 99-124315/LL)
- Federal Bureau of Investigation. Semi-Annual Uniform Crime Report. 2006 [accessed December 20, 2006]. <http://www.fbi.gov/ucr/ucr.htm>
- Finzi R, Ram A, Har-Even D, Shnit D, Weizman A. Attachment styles and aggression in physically abused and neglected children. *Journal of Youth and Adolescence* 2001;30(6):769-786.
- Franke T, Huynh-Hohnbaum A, Chung Y. Adolescent violence: With whom they fight and where. *Journal of Ethnic & Cultural Diversity in Social Work* 2002;11(304):133-158.

- Goodkind S, Wallace J, Shook, Bachman, O'Malley. Are girls really becoming more delinquent? Testing the gender convergence hypothesis by race and ethnicity. *Children and Youth Services Review* 2009;31:885–895. [PubMed: 20161168]
- Greene, JC. *Mixed methods in social inquiry*. San Francisco: Jossey-Bass; 2007.
- Haight WL, Jacobsen T, Black J, Kingery L, Sheridan K, Mulder C. “In these bleak days”: Parent methamphetamine abuse and child welfare in the rural Midwest. *Children and Youth Services Review* 2005;27:949–971.
- Haight, W.; Ostler, T.; Black, J.; Kingery, L. *Children of methamphetamine-involved families: The case of rural Illinois*. New York: Oxford University Press; 2009.
- Haight W, Ostler T, Black J, Sheridan K, Kingery L. A child's eye view of parent methamphetamine abuse: Implications for helping foster families to succeed. *Children and Youth Services Review* 2007;29(1):1–15.
- Heflinger C, Simpkins C, Combs-Orme T. Using the CBCL to determine the clinical status of children in state custody. *Children and Youth services Review* 2000;22(1):55–73.
- Himelstein P, Hernon JD. Comparison of the WISC and Peabody Picture Vocabulary Test with emotionally disturbed children. *Journal of Clinical Psychology* 2006;18(1):82. [PubMed: 13907488]
- Hoffman J, Su S. The conditional effects of stress on delinquency and drug use: A strain theory assessment of sex differences. *Journal of Research in Crime and Delinquency* 1997;34:46–78.
- Hohman M, Oliver R, Wright W. Methamphetamine abuse and manufacture: The child welfare response. *Social Work* 2004;49(3):373–381. [PubMed: 15281692]
- Huesmann, LR.; Eron, LD. Childhood aggression and adult criminality. In: McCord, J., editor. *Facts, figures, and forecasts: Advances in criminal theory*. Vol. 3. New Brunswick, NJ: Transaction; 1992. p. 137-156.
- Hutchison, L.; Blakely, C. Substance abuse trends in rural areas. *Rural Healthy People 2010: A companion document to Healthy People 2010*. Vol. 1. College Station, TX: The Texas A&M University System Health Science Center, School of Rural Public Health, Southwest Rural Health Research Center; 2003.
- Illinois Criminal Justice Information Authority (ICJIA). *Assessing Illinois' Metropolitan Enforcement Groups and Task Forces*. Mar. 2004 Retrieved December 16, 2004, from <http://www.icjia.state.il.us/public/pdf/ResearchReports/2004MEGTFSummary.pdf>
- Ireland T, Widom C. Child victimization and risk for alcohol and drug arrest. *The International Journal of the Addictions* 1994;29:122–133.
- Jonson-Reid M, Barth RP. From placement to prison: The path to adolescent incarceration from child welfare supervised foster or group care. *Children and Youth Services Review* 2000;22(7):493–516.
- Kilpatrick, D.; Saunders, B.; Smith, D. Youth victimization prevalence and implications. National Institute of Justice; 2003. p. 1-14.
- Kumpfer KL, Alvarado R, Smith P, Bellamy N. Cultural sensitivity and adaptation in family based prevention interventions. *Prevention Science* 2002;3(3):241–246. [PubMed: 12387558]
- Kumpfer KL, Alvarado R, Whiteside HO. Family-based interventions for substance use and misuse prevention. *Substance Use & Misuse* 2003;38(11–13):1759–1787. [PubMed: 14582577]
- Leadbeater B, Blatt S, Quinlan D. Gender-linked vulnerabilities to depressive symptoms, stress, and problem behaviors in adolescents. *Journal of Research on Adolescence* 1995;5:1–29.
- Lincoln, Y.; Guba, E. *Naturalistic inquiry*. London: Sage; 1985.
- Manning T. Drug labs and endangered children. *FBI Law Enforcement Bulletin* 1999;68(7):10–15.
- Maschi T, Morgan K, Bradley C, Hatcher S. Exploring gender differences on internalizing and externalizing behavior among maltreated youth: Implications for social work action. *Child and Adolescence Social Work Journal* 2008;25:531–547.
- Muskie School of Public Service. *Research & Policy Brief- Substance abuse among rural youth: A little meth a lot of booze*. Maine Rural Health Research Center, University of Southern Maine; Jun. 2007

- National Center on Addiction and Substance Abuse at Columbia University (CASA). No Safe Haven: Children of Substance Abusing Parents. New York: The National Center of Addiction and Substance Abuse; 1999.
- National Drug Intelligence Center. National Drug Threat Assessment 2009. 2009. Available at <http://www.justice.gov/ndic/pubs31/31379/31379p.pdf>
- Ness C. Why girls fight: Female youth violence in the inner city. *ANNAL, AAPSS* 2004;595:32–48.
- Ostler T, Haight W, Black J. Mental health outcomes and perspectives of rural children raised by parents who abuse methamphetamine. *Journal of American Academy of Child and Adolescent Psychiatry* 2007;46(4):500–507.
- Parker J, Asher S. Peer relations and later personal adjustment: Are low accepted children at risk? *Psychological Bulletin* 1987;102:357–389. [PubMed: 3317467]
- Putallaz, M.; Bierman, K. *Aggression, Antisocial Behavior and Violence among Girls*. New York: Guilford; 2006.
- Rawson RA, Gonzales R, Brethen P. Treatment of methamphetamine use disorders: An update. *Journal of Substance Abuse Treatment* 2002;23:145–150. [PubMed: 12220612]
- Rogoff, B. *The cultural nature of human development*. New York: Oxford University Press; 2003.
- Rosen LH, Underwood MK, Beron KJ, Gentsch JK, Wharton ME, Rahdar A. Persistent versus periodic experiences of social victimization: Predictors of adjustment. *Journal of Abnormal Child Psychology* 2009;37(5):693–704. [PubMed: 19263212]
- Ryan JP, Testa MF. Child maltreatment and juvenile delinquency: Investigating the role of placement and placement instability. *Children and Youth Services Review* 2005;27:227–249.
- Serbin, L.; Stack, D.; De Genna, N.; Grunzeweig, N.; Temcheff, C.; Schwartzman, A.; Ledingham, J. When aggressive girls become mothers: Problems in parenting, health, and development across two generations. In: Putallaz, M.; Bierman, K., editors. *Aggression, antisocial behavior, and violence among girls*. New York: Guilford; 2004.
- Shillington A, Hohman M, Jones L. Parenting women in substance use treatment: Are those involved with the child welfare system different? *Journal of Social Work Practice in the Addictions* 2002;1(4):24–46.
- Shweder, R.; Goodnow, J.; Hatano, G.; LeVine, R.; Markus, H.; Miller, P. The Cultural Psychology of Development: One Mind, Many Mentalities. In: Lerner, R., editor. *Handbook of child psychology: Volume 1. Theoretical models of human development*. Hoboken, New Jersey: Jim Wiley and Sons; 2006.
- Smith C, Thornberry T. The relationship between childhood maltreatment and adolescent involvement in delinquency. *Criminology* 1995;33:451–461.
- Smith G, Palmieri P. Risk of psychological difficulties among children raised by custodial grandparents. *Psychiatric Services* 2007;58(10):1303–1310. [PubMed: 17914007]
- Snethen G, Puymbroeck M. Girls and physical aggression: Causes, trends, and intervention guided by Social Learning Theory. *Aggression and Violent Behavior* 2998;(13):346–354.
- Snyder, HN.; Sigmund, M. *Juvenile offenders and victims: 2006 national report*. Washington, DC: Office of Juvenile Justice and Delinquency Prevention; 2006.
- Spoth RL, Kavanagh KA, Dishion TJ. Family-centered prevention intervention science: Toward benefits to larger populations of children, youth, and families. *Prevention Science* 2002;3(3):145–152. [PubMed: 12387551]
- Steffensmeier D, Schwartz J, Zhong H, Ackerman J. An assessment of recent trends in girls' violence using diverse longitudinal sources: Is the gender gap closing? *Criminology* 2005;43:355–405.
- Stiles B, Liu X, Kaplan H. Relative deprivation and deviant adaptations: The mediating effects of negative self feelings. *Journal of Research in Crime and Delinquency* 2000;37:64–90.
- Substance Abuse and Mental Health Services Administration (SAMSHA), Center for Substance Abuse Treatment. *Treatment for Stimulant Use Disorders*. Rockville, MD: U.S. Department of Health and Human Services; 1999. (Treatment Improvement Protocol Series #33), (DHHS Publication No. 02-3745)
- Tarren-Sweney M. Retrospective and concurrent predictors of the mental health of children in care. *Children and Youth Services Review* 2008;30:1–25.

- Tarren-Sweeney M, Hazell P. The mental health of children in foster and kinship care. *Journal of Pediatric Child Health* 2006;42:91–99.
- Testa, M. New permanency strategies for children in foster care. In: Lindsey, D.; Shlonsky, A., editors. *Child welfare research: Advances for practice and policy*. New York: Oxford University Press; 2008.
- Thornberry, TP.; Smith, CA.; Rivera, C.; Huizinga, D.; Stouthamer-Loeber, M. *Juvenile Justice Bulletin*. Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice; Washington, DC: 1999. Family disruption and delinquency.
- Trickett, P.; Gordis, E. Aggression and antisocial behavior in sexually abused females. In: Putallaz, M.; Bierman, K., editors. *Aggression, antisocial behavior, and violence among girls*. New York: Guilford; 2004.
- Underwood, M.; Coie, D. Future directions and priorities for prevention and intervention. In: Putallaz, M.; Bierman, K., editors. *Aggression, antisocial behavior, and violence among girls*. New York: Guilford; 2004.
- U.S. Census Bureau. County population estimates. 2009. Retrieved from <http://www.census.gov/popest/counties/CO-EST2008-01.html>
- U.S. Department of Justice. DEA Fact Sheet: Illinois. 2008. Available at <http://www.justice.gov/dea/statistics.html>
- Wermuth L. Methamphetamine use: Hazards and social influences. *Journal of Drug Education* 2000;30:423–433. [PubMed: 11221576]
- West, K.; McKenna, JJ.; Stuntz, S.; Webber-Brown, S. Drug endangered children & clandestine methamphetamine labs. In: West, K.; Stuntz, S., editors. *The drug endangered children response team: Training for trainer's curriculum (Unit 2)*. Los Angeles, CA: The Drug Endangered Children Resource Center; 2000.
- Zahn, M.; Brumbaugh, S.; Steffensmeier, D.; Feld, B.; Morash, M.; Chesney-Lind, M.; Miller, J.; Payne, A.; Gottfredson, D.; Kruttschnitt, C. U.S. Department of Justice; 2008. Violence by teenage girls: Trends and context. www.ojp.usdoj.gov
- Zoccolillo, M.; Paquette, D.; Azar, R.; Cote, S.; Tremblay, R. Parenting as an important outcome of conduct disorder in girls. In: Putallaz, M.; Bierman, K., editors. *Aggression, antisocial behavior, and violence among girls*. New York: Guilford; 2004.

Mean (Standard deviation) of selected TSCC and CBCL scales and percentage of girls and boys scoring in the clinical range¹

Table 1

	Girls		Boys	
	Mean (SD)	% clinical range	Mean (SD)	% clinical range
TSCC (n= 13 girls, 17 boys)				
Anger (Raw score)	10.3 (6.9)	15	9.5 (10.6)	6
CBCL (n= 16 girls, 22 boys)				
Rule breaking (Raw score)	5.8 (4.1)	44	4.4 (4.5)	23
Aggression (Raw score)	14.3 (9.8)	31	10.6 (8.1)	23
Externalizing (T score)	65.3 (11.7)	75	59.1 (13.0)	32 ²
Internalizing (T score)	61.3 (12.6)	44	56.9 (11.2)	32
Total (T score)	65.5 (11.6)	75	60.5 (12.5)	41 ²

¹ Note that Pearson Product Moment Correlations revealed no significant relations between TSCC-A and CBCL scores.

² p≤.05,

Table 2

Summary Profiles Percentages of Children with CBCL Scores and Interviews

	<u>Narratives of physical aggression</u>		<u>No narratives of physical aggression⁴</u>	
	<u>Girls (n=10)</u>	<u>Boys (n=7)</u>	<u>Girls (n=6)</u>	<u>Boys (n=12)</u>
Clinical externalizing ¹	90	29	50	33
Clinical aggression ¹	40	14	17	17
Child initiates physical aggression ²	70	43		
Clinical internalizing ¹	50	0	50	47
Child target of physical aggression ²	100	57		
Clinical total problems ¹	80	29	67	42
Children clinicians most concerned about ³	60	0	0	17
Child describes parents' intimate partner violence ²	80	43		
Child portrays violence as appropriate retaliation ²	50	14		
Child portrays violence as emotionally positive/gratifying ²	50	14		

¹ CBCL data, clinical range scores of 98th percentile or above.

² Children's spontaneous narratives of physical aggression.

³ Clinical judgment

⁴ All boys and girls in this cluster produced narratives on topics other than physical aggression.