Poly-victimization Among Girls in the Juvenile Justice System:

Manifestations & Associations to Delinquency

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ABSTRACT

There is considerable evidence that victimization is pervasive in the backgrounds of delinquent girls. This study collected lifespan data on girls' victimization and juvenile offending to: 1) examine range, diversity, and co-occurrence of different types of violence over the course of girls' lives, identifying strength and dynamics of relationships between forms of exposure; 2) examine independent, relative, and cumulative trajectories of risk for varied types of victimization over the lifespan, including critical periods of risk; 3) examine additional ecological factors as these relate to victimization; and 4) examine relationship of victimization to nature and chronicity of girls' offending. Life History Calendars were used in conjunction with the Juvenile Victimization Questionnaire to examine co-occurrence of multiple forms of abuse and develop a comprehensive view of girls' experiences. Our sample consisted of 100 girls adjudicated delinquent through the South Carolina Department of Juvenile Justice and up to one primary caregiver for each girl. Risk trajectories indicated girls' susceptibility to caregiver violence and witnessed violence starting prior to school age, with a second peak in risk during adolescence. In contrast, risk for gang or group attacks began rising just before pubescence, and dating violence risk logically escalated after pubescence. Sexual violence was a risk for girls throughout their lives but was particularly prevalent during adolescence. In predicting substance use, caregiver violence displayed the greatest stability followed by sexual violence and witnessing violence. Examination of qualitative accounts revealed that use of alcohol and drugs as a means of coping was an underlying theme in girls' lives. Corruption was also evident, usually involving parents or adult sexual partners who enabled girls' substance abuse. Findings illuminate the need for education and services addressing alcohol and drug use among traumatized girls, as well as need for skill-building to develop alternative coping mechanisms to address violence, loss, and other stressors in girls' lives. Project findings have theoretical implications regarding range and consequences of violence exposure for at-risk girls, as well as applied utility for service interventions, justice interventions to promote rehabilitation and accountability, and efforts to increase ecological safety for delinquent girls through work with families and communities.

EXECUTIVE SUMMARY

Introduction

There is considerable evidence that victimization is pervasive in the backgrounds of delinquent girls. Violence exposure within this population is of particular interest not only because these girls experience numerous other health risks, but also because of the behavioral risk that victimization may pose according to emerging theory on girls' and women's crime. Finkelhor and associates (2005) examined "poly-victimization"—simultaneously experiencing several different kinds of victimization in separate incidents—and found that sheer number of victimization types predicted outcomes better than any single type of victimization. If, indeed, children who experience high levels of exposure to violence also carry the bulk of emotional and behavioral symptomatology, this may lend insight to the recurring social question of why some abused individuals commit crimes while others do not. Given such considerations regarding aggregate impact of victimization, the field would benefit from an understanding that takes into account not only different types of exposure, but also factors such as trajectory of risk over the lifespan, dependence of different forms of exposure, and ways that cumulative impacts influence life outcomes.

This study used lifespan data on girls' victimization and juvenile offending to:

- Examine range, diversity, and co-occurrence of different types of violence over the course of girls' lives, identifying strength and dynamics of relationships among forms of exposure.

- Examine independent, relative, and cumulative trajectories of risk for varied types of victimization over the lifespan, including critical periods of risk.

- Examine additional ecological factors (e.g., family conflict, parental addiction) as these relate to victimization.

- Examine relationship of victimization to nature and chronicity of girls' offending.

Method

Life History Calendars were used in conjunction with the Juvenile Victimization Questionnaire, one of the most rigorously constructed measures of exposure to violence. This approach was particularly useful in examining co-occurrence of multiple forms of abuse and developing a comprehensive view of girls' subjective experiences. Caregivers

who chose to participate completed the caregiver-report on their girl's experiences. We also accessed archival data through the SC Budget and Control Board's Data Warehouse, an integrated data system tapping legal and safety services, social services, physical and mental health services, claims systems, and education, among others.

Our sample consisted of 100 girls adjudicated delinquent through SCDJJ and up to one primary caregiver for each girl. Key victimization and offending constructs from girls' interviews were conceptualized in several ways, including 1) binary presence/absence coding of whether the girl experienced the event in question, 2) time-to-onset coding to indicate age at which the girl first experienced the event, and 3) duration and frequency coding to indicate number of years or number of incidents of the event. We used nonparametric techniques for binary dependent variables, survival analyses and Cox regression for time-to-onset dependent variables, and standard parametric techniques for continuous duration/frequency dependent variables. Qualitative transcripts were coded and analyzed using ATLAS/ti software.

Results

Sixty-nine percent of girls reported experiencing caregiver violence. Thirty-one percent of girls reported having been attacked by a gang or group of people, and 42% reported experiencing dating violence. Eighty-one percent experienced sexual violence. Ninety percent of girls had witnessed violence. Only 2% of girls reported no victimization.

Of the five major categories of victimization, witnessing violence demonstrated the most consistent associations with other types of violence and gang attacks showed the least consistent associations. As one would expect given the literature on poly-victimization, number of types of victimization was highly correlated with all categories of victimization and with adverse childhood events. Caregivers' perceptions of violence in their girls' lives were most closely aligned with girls' self-reports for experiences of caregiver violence, dating violence, and sexual violence.

Within this sample of delinquent girls, risk trajectories indicated susceptibility to caregiver violence and witnessed violence starting prior to school age, with a second peak in risk during adolescence. In contrast, risk for gang or group attacks began rising just before pubescence, and dating violence risk logically escalated after pubescence. Sexual violence was a risk for girls throughout their lives but was particularly prevalent during adolescence. Trajectories of crime and delinquency over the lifespan showed earliest risk for fighting or assaults, followed by substance use, then stealing and running away, and finally, prostitution.

In predicting substance use, caregiver violence displayed the greatest stability, and both sexual violence and witnessing were significant predictors in two of the three types of analyses. No category of victimization consistently predicted stealing or running away. Fighting was predicted by witnessing violence in two of the three types of analyses. Finally,

dating violence, sexual violence, and witnessing each were significant predictors of prostitution in two of the three types of analyses.

Substance abuse was associated with experiences of caregiver violence, sexual violence, and witnessing. Examination of qualitative accounts revealed that use of alcohol and drugs as a means of coping was an underlying theme across all three associations. Corruption involving parents or other caregivers was also a factor in girls' substance use. Another strikingly common intersection of sexual abuse and corruption was girls' involvement with adult sexual partners who enabled substance abuse. The association between witnessing violence and engaging in fighting or aggression appeared to be largely a function of girls' use of retaliatory or protective violence. Much like substance use, involvement in prostitution was also associated with girls' sexual relationships with adult men. Prostitution activity was, in turn, associated with risk for dating violence from pimps as well as witnessed violence associated with risky situations.

Discussion

Early onset of violence exposure, as well as recurring exposure to risk throughout childhood and adolescence, indicates that assessment for victimization and trauma should occur early and frequently in girls' lives. Furthermore, programs or services to address multiple, co-occurring forms of violence exposure might be implemented during the teen years as likelihood of poly-victimization increases. One prominent theme in girls' accounts involved substance abuse as a form of self-medication used to cope with past caregiver violence, witnessed violence, and sexual violence. This illuminates the need for education and services addressing alcohol and drug use among traumatized girls, as well as need for skill-building to develop alternative coping mechanisms to address violence, loss, and other stressors in girls' lives. Both substance abuse and involvement in prostitution bore associations to these young girls' relationships with criminally involved adults. These findings highlight the importance of examining corruption of girls through social networks, including missocialization by caregivers and sexual exploitation by older men.

Collectively, project findings have theoretical implications regarding range and consequences of violence exposure for at-risk girls, as well as applied utility for service interventions, justice interventions to promote rehabilitation and accountability, and efforts to increase ecological safety for delinquent girls through work with families and communities.

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INTRODUCTION

Background & Significance

Increased awareness among researchers, practitioners, and policymakers regarding violence exposure and its effects has led to a need to explore range and consequences of different forms of exposure for children living in varied contexts of risk. The present project focused on girls adjudicated delinquent—a population plagued by high levels of exposure to a variety of violent events. Exposure within this population is of particular interest not only because these girls experience numerous other health risks (e.g., poverty, mental disorders), but also because of the sociobehavioral risk that victimization may pose according to emerging theory on girls' and women's crime. Because crime and delinquency are among the most feared consequences of violence exposure, and because girls face escalating risk for exposure once involved in delinquency, focusing on this population has great potential for theory as well as practice and policy.

Children Exposed to Violence

Exposure to violence ranges from direct exposure to physical, sexual, or psychological abuse to witnessing violence in the family or community. Although researchers note difficulties in establishing prevalence estimates of childhood exposure to violence (Fantuzzo & Mohr, 1999; Salcido, Welthorn, & Behrman, 1999), they indicate that it is commonplace, particularly for children in urban environments. This includes some children who experience "chronic community violence," or recurrent exposure to weapons, drugs, and violence in their neighborhoods (Osofsky, 1999).

The literature on effects of exposure largely derives from research on direct abuse and witnessing intimate partner violence. Fantuzzo and Mohr (1999) provide an overview of effects of child witnessing, including findings from review articles spanning decades (Fantuzzo & Lindquist, 1989; Kolbo, Blakely & Engleman, 1996; Margolin, 1998). Children from violent (versus nonviolent) homes are said to display greater levels of: externalizing such as aggression and behavior problems in schools and communities; internalizing such as depression, anxiety, fearfulness, suicidal ideation, sleep problems, bedwetting, and low self-esteem; cognitive difficulties including trouble concentrating and lower test scores; and social competence problems including lack of empathy and impaired problem solving. Adverse effects vary across developmental stages and are more likely when witnessing co-occurs with direct abuse or ecological[1] risk factors (e.g., family conflict, parental addiction). Other research indicates that, as children grow older, effects

[1] An ecological model posits that individual, family, community, and cultural factors form a nested context in which exposure to violence occurs, with each level including risk and protective factors which increase or decrease probability of victimization (Cicchetti & Lynch, 1993).

of exposure are more likely to include risky and delinquent behavior such as sexual promiscuity, substance abuse, truancy, running away, and property crime (Osofsky, 1999; Thornberry, Huizinga, & Loeber, 2004; Widom, 1995a/b).

A prominent gap in the literature has to do with relationships between different types of violence exposure. Finkelhor and associates (2005) examined "poly-victimization"—simultaneously experiencing several different kinds of victimization in separate incidents (e.g., bullying at school, witnessing family violence at home, sexual abuse). These researchers examined methods of operationally defining poly-victimization using the Juvenile Victimization Questionnaire (JVQ) and found that, no matter how poly-victimization was operationalized, children who experienced multiple victimizations were at high risk of additional victimization and trauma symptomatology (e.g., anger, depression, anxiety) relative to other children. In fact, sheer number of victimizations was a better predictor of children's symptomatology than any particular type of victimization. These findings are similar to those regarding Adverse Childhood Experiences[2] (ACEs; e.g., Felitti & Anda, 2002), in that they point to a need for greater exploration of intersecting impacts of multiple traumatic experiences so that policy and practice can address cumulative exposure. The Finkelhor study also examined lifetime adversity, finding that poly-victimized children were more likely than other children to have high rates of adverse experiences, as well.

If, indeed, children who experience high levels of exposure to violence also carry the bulk of emotional and behavioral symptomatology, this may lend insight to the recurring social question of why some abused individuals commit crimes while others do not (i.e., different volumes and/or intersecting impacts of victimization). Given such considerations regarding aggregate impact of victimization, the field would benefit from an understanding that takes into account not only different types of exposure, but also factors such as trajectory of risk over the lifespan, dependence of different forms of exposure, and ways that cumulative impacts influence life outcomes.

Examining childhood violence exposure from a methodological viewpoint, Fantuzzo and Mohr (1999) note research limitations including lack of corroboration for incidents of abuse and lack of research that employs a guiding theoretical framework. Perhaps most notably, past research on children's exposure is based largely on adults' perceptions of children's experiences. As users of services, children require interventions tailored to their levels of understanding, developmental capacities, and unique circumstances (Mullender et al., 2002). Researchers and funders are thereby beginning to recognize the need for studies tapping views of children (McGee, 2000; Mullender et al., 2002; OJJDP, 1998), and we

[2] Felitti & Anda outlined ACEs said to contribute to disrupted neurodevelopment, socioemotional and cognitive impairment, health-risk behaviors, disease and disability, and early death. ACEs include growing up in a household with: recurrent physical, emotional, or sexual abuse; an alcohol/drug abuser; incarcerated household member; someone chronically depressed, suicidal, institutionalized, or mentally ill; mother being treated violently; one or no biological parents; and/or emotional or physical neglect.

hoped to ameliorate this deficit in the research literature. Further, most studies of violence exposure focus on past year or lifetime prevalence, without detailed consideration of changing risks and co-occurrence of violence over the lifespan (Yoshihama & Gillespie, 2002). As we will explain, our event-history methods were innovative in this respect.

Finally, Osofsky (1999) notes the need for qualitative data to supplement quantitative data. She argues that studies of children exposed to violence should include family members closest to children. Beyond gaining a corroborating perspective on the child's experiences, she notes the caregiver role in creating stability and supporting resilience for the child. Understanding the caregiver's perspective on a child's experiences may lend insight into family coping and opportunities for risk reduction. She notes that this may be time consuming, requires particular sensitivity, and may be stressful for researchers who lack experience in collecting this type of data. Multi-generational research requires precautions to assure that a caregiver's involvement does not present a threat to the child, and we examined child and caregiver perspectives via a research context that included meticulous attention to safety.

Girls in the Juvenile Justice System

Rates of delinquency are rising among girls, and detention units are struggling with chronic overcrowding (OJJDP, 1998; Snyder & Sickmund, 1999). Experts argue disproportionate growth of the population of girl offenders is, in part, due to "fundamental systemic failure" to understand girls' needs, noting girls' "invisibility" in the justice system with regard to abuse histories, pregnancy, and other gendered issues (ABA & NBA, 2001; Chesney-Lind & Shelden, 1992).

There is considerable evidence that victimization is pervasive in the backgrounds of delinquent girls. In interviews with nearly 100 female juvenile offenders, Cauffman and associates (1998) found over 70% had been exposed to trauma such as molestation or witnessing violence. About three-quarters of those interviewed had been badly hurt or in danger of being hurt, three-quarters had witnessed someone being severely injured or killed, and 60% had been raped or nearly raped. Similarly, Wood and associates (2002a/b) found that, relative to boys, their sample of 100 girls in the juvenile system experienced high levels of physical punishment, sexual violence, exposure to community violence, and psychological distress associated with exposure. In another sample of incarcerated youth, Steiner and associates (1997) also found rates of direct victimization to be higher among girls. Artz (1998) found victimization rates and fear of revictimization to be higher among violent versus nonviolent girls. Finally, in a study of nearly 1000 case files and 193 interviews with girl offenders, Acoca (1998) found strong correlations between violence exposure and risk behaviors such as poly-drug use and gang membership. Once involved in delinquency, girls face heightened risk of re-exposure to violence in association with crime-involved peer networks and high-risk hangouts or activities (Widom, 2000), as well as in group homes and detention settings (Acoca & Dedel, 1998). Such girls may be

reluctant to report or to use services due to their marginalized social position and precarious legal status (Richie, 2000).

Aside from violence exposure, what we know about girls in the justice system indicates they face a number of additional risks, rendering this a particularly important population for risk-reduction and intervention. The profile of delinquent girls includes poverty, family fragmentation, school failure, and physical and mental health problems and is similar to that for adult female offenders (Owen & Bloom, 2000). There is also evidence that females arrested as juveniles, particularly those with victimization histories, are likely to be re-arrested as adults (Widom, 2000). Although there is emerging interest in how intersecting problems faced by delinquent girls may be part of a developmental "pathway" to crime (OJJDP, 1998), there is a lack of research examining the role of poly-victimization as it rests among other risks for delinquency.

Existing studies have provided a valuable foundation regarding prevalence of victimization and other risks among delinquent girls. However, the studies typically employ limited concepts of victimization (e.g., one or two types of exposure) and a focus on identification of mental disorders. There is a lack of research specifically to gather information on frequency and co-occurrence of different forms of violence exposure, its trajectory over the girls' lifespans, and relationship of violence exposure to juvenile offending. The current study addressed these gaps in the literature.

Objectives

This study used lifespan data on girls' victimization and juvenile offending to:

- Examine range, diversity, and co-occurrence of different types of violence over the course of girls' lives, identifying strength and dynamics of relationships among forms of exposure.
- Examine independent, relative, and cumulative trajectories of risk for varied types of victimization over the lifespan, including critical periods of risk.
- Examine additional ecological factors (e.g., family conflict, parental addiction) as these relate to victimization.
- Examine relationship of victimization to nature and chronicity of girls' offending.

Findings were explored with consideration of theory on victimization and etiology of crime, as well as gender-responsive programming for risk-reduction and crime prevention.

Method

The University of South Carolina (USC) Institutional Review Board reviewed and approved the project, and a Privacy Certificate was approved by NIJ. Our methodology involved gathering a group of knowledgeable stakeholders to provide insights on project

logistics, developing research measures, recruiting and interviewing participants, and implementing an analytic strategy.

Advisory Board & Consultation

Research involving children and/or prisoners necessarily involves consideration of multiple interests, including the interests of child advocates, prisoner advocates, victim advocates, and advocates for the community at-large, as well as the interests of various agencies and systems involved in youth services and justice administration. Working with children in correctional settings also requires consideration of ethical issues, mandates that may counter routine confidentiality, and barriers and delays due to unforeseen circumstances. For these reasons, we enlisted the assistance of community experts through development of an advisory board. Board members comprised an ethnically diverse group deriving from multiple disciplinary affiliations, with members committed to child welfare, girls' and women's personal development, equity of opportunity for rehabilitation, and accountability for offenders. Their expertise included specialty in female offenders, correctional programs and populations, impact of violence on women's physical and mental health, addiction among incarcerated women, domestic abuse and sexual assault services, juvenile services, general social services, legislative activism, public policy, research methodology, and victims' rights, among other topics. We also solicited the input of national experts on methodologies to be utilized in the project (Dr. Kristy Martyn, University of Michigan on Life-History Calendars; Dr. Heather Turner, University of New Hampshire on the Juvenile Victimization Questionnaire). Throughout the project, these advisors helped contribute to sound decision making and innovation to meet task demands, and they have been and will continue to be a valuable resource in formatting findings to suit a variety of practice applications.

Research Measures

Triangulation in data collection—including child, caregiver, and archival perspectives—allows cross-validation as well as a more comprehensive picture of victimization and offending. Combined quantitative-qualitative data allow theory building and illustration of concepts via case examples.

Child Interviews

Life History Calendar method. The Life History Calendar (LHC; Freedman, Thornton, Camburn, Alwin & Young-DeMarco, 1988) is an established research tool designed to optimize accuracy in collection of event timing/sequencing data. The LHC method uses a calendar-like matrix, providing visual cues said to enhance both interviewee and interviewer performance. Column headings typically denote years or ages, while row headings denote categories of life events. At the outset of the interview, the interviewer

explains the calendar and—with the respondent's help—maps memorable life experiences (e.g., schools, grades, living arrangements, neighborhoods). These salient cues then provide a temporal context for recalling events that may be less salient in time (e.g., "The abuse happened when I was in third grade living with my aunt"). The LHC's rows and columns encourage recall at both thematic and temporal levels and thereby may increase power of autobiographical memory (Axinn, Pearce & Ghimire, 1999; Belli, 1998). In victimization studies, the LHC method was found to have high test-retest reliability, good construct validity, and to elicit more reports of intimate partner violence than administration using only structured interview prompts (Yoshihama, 2004). Here, as in that research, the LHC was used *in conjunction* with victimization measures as a documentation aid that enhances specificity of timing and sequencing of events, providing insight into the "chronosystem" (e.g., passage of time) which spans nested ecological levels (Bronfenbrenner, 1979). The LHC was particularly useful in examining co-occurrence of multiple forms of abuse and developing a comprehensive view of girls' subjective experiences. A simplified sample of a completed LHC is provided in Appendix A.

Juvenile Victimization Questionnaire. Our measure of exposure to violence was the Juvenile Victimization Questionnaire (Hamby & Finkelhor, 2004). The JVQ is one of the most rigorously constructed measures of exposure to violence. Development included extensive review by experts, focus groups with parents and youth, and cognitive testing to help ensure conceptual integrity and developmental appropriateness for children aged 8 to 17 (Hamby & Finkelhor, 2001). The JVQ includes items on child maltreatment, gang violence, dating violence, sexual victimization, and witnessing/indirect victimization, among other things. For girls' interviews, we used the child self-report version of the JVQ with items orally administered in sequence. Based on input from our expert consultant (Heather Turner, personal communication, January, 2007), we did not use the scale in its entirety given the need to keep interviews at a manageable length with our high-risk sample; thus, we deleted items on property victimization and lesser forms of peer victimization and instead focused on moderate and severe forms of violence. Minor wording changes were made to a few items to render items more suitable for our intended audience of adolescent girls from a variety of home settings (e.g., changing "parents" to "caregivers"). We used lifetime retrospective administration, an option provided in the full manual (Hamby, Finkelhor, Ormrod, & Turner, 2004), with the leading phrase of items modified accordingly (e.g., "*In the last year, did anyone…*" was changed to "*Can you think of a time someone …*"). Girls were asked the first time they remembered each event happening and about subsequent times if it happened more than once. Typical follow-ups on the JVQ address number of times the child was victimized, relationship to perpetrator, whether the child was hurt, and questions specific to the victimization.

Non-victimization adversity and other prompts. Prompts on familial ecological risks were adapted from Turner, Finkelhor, and Ormrod's (2006) measure of non-victimization adversity. We included items on experiencing major natural disasters, accidents requiring hospitalization, illnesses requiring hospitalization, major family illnesses

or deaths, caregiver unemployment, caregiver imprisonment, family addictions, family mental disorders, persistent family conflict, and persistent experiences of bullying. To assess general family history, offense history, contacts with services or systems, and social supports, we adapted additional prompts from our previous NIJ study of incarcerated women (DeHart, 2008). For purposes of this report, we focus on offenses including alcohol and drug use, stealing (e.g., shoplifting, burglary), running away, fighting or physical assaults, and prostitution.

Caregiver Surveys

Caregivers who chose to participate completed the caregiver-report JVQ on their girl's experiences, with items identical to key prompts used in girls' interviews. The caregiver version has been used for children as young as 2, and researchers have concluded that child- and caregiver-report formats yield comparable information (Finkelhor et al., 2005; Hamby et al., 2004).

Archival Data

For each participant, we had access to juvenile justice admissions data including basic demographics, history of criminality among parents and siblings, and offense history with justice contacts and sanctions. We also had access to additional archival data through the SC Budget and Control Board's Data Warehouse, an integrated data system tapping legal and safety services, social services, physical and mental health services, claims systems, and education, among others. This included file-matchable data for each participant from SC State Law Enforcement Division, SC Department of Social Services, SC Department of Mental Health, SC Department of Education, and SC Medicaid/Uniform Billing. These data attest to convergent validity, in that we found few major discrepancies when examining girls' interview accounts in conjunction with major events from the girls' justice files, social service files, and healthcare files. Due to volume and complexity of archival data sets (e.g., multiple files per agency and multiple records per case), we limit quantitative analyses here to key constructs of general interest and will reserve in-depth analyses for subsequent reports.

Recruitment & Interview Procedures

The SC Department of Juvenile Justice (SCDJJ) is responsible for custodial care and rehabilitation of the state's children who are incarcerated, on probation or parole, or in community placement for a criminal or status offense. Juveniles usually enter the justice system after being taken into custody by law enforcement or when a prosecutor or school refers them to SCDJJ. After a child is adjudicated delinquent, the juvenile is either sentenced to probation or committed to a juvenile facility. SCDJJ's primary long-term commitment facility for girls is Willow Lane, a comprehensive facility with its own campus, middle school, high school, and gym. At the same Broad River Road Complex are

two group homes for girls, Gateways for moderate management, and Hope House for high management. These were our sampling sites.

Our sample consisted of 100 girls adjudicated delinquent through SCDJJ and up to one primary caregiver for each girl. Qualitative researchers posit that traditional criteria of external validity or generalizability need reconceptualization in qualitative work (Becker, 1990; Lincoln & Guba, 1985; Schofield, 1990), with good sampling achieving a range or "strategic coverage" of phenomena under exploration (Johnson, 1990; Werner & Bernard, 1994). Swanson (1986) has suggested 20 to 50 interviews, and Lee and Fielding (1996) found a median sample size of 40 in existing studies. In our previous research, we found 60 interviews to produce a manageable dataset with a wealth of information. For the current study, we scaled back the qualitative component in order to accommodate a larger sample of girls from a range of delinquency backgrounds in the interest of statistical power and variability for quantitative analyses.

Prospective participants were identified via the SCDJJ database with frequent updates from intake rosters. Children in SCDJJ custody are considered "in loco parentis," and SCDJJ policy for approved studies is to provide consent when the child provides assent. All committed girls met individually with the interviewer in a private room at SCDJJ. Assent forms were presented both in written form and read aloud to the child. If the child assented, we conducted the interview at that time. Girls who chose to participate received a $20 cash deposit to the SCDJJ spending account. We conducted exhaustive sampling of incoming girls over a multi-year period in order to obtain our sample of 100 girls from the three facilities. We used participant files to identify one primary caregiver (usually female) for each girl who participated in the study. The caregiver was mailed a caregiver survey and could earn a Visa Check gift card for returning the survey via postage-paid envelope. Amount for this caregiver incentive varied over the course of the project (from $35 to $100) due to methodological refinements to be described, and caregivers' receipt of a gift card for returning a survey was not contingent upon girls' participation.

Our sampling methodology was refined midway through the study, in that we had initially planned to sample probationers living in the community as well as committed girls, requiring caregiver consent for probationers and also requiring substantial caregiver time in bringing probationers for in-person interviews. For comparability of subsamples, we had initially abstained from sampling committed girls prior to obtaining consent from their caregivers, although such consent was not needed by law for these girls in SCDJJ custody. We encountered numerous logistical problems in contacting caregivers, in that contact information on record was often outdated, and we were often unable to establish definitive contact with caregivers for about two-thirds of our potential sample. We tracked contact efforts and response rates (detailed below) and eventually refined the project plan to sample only committed girls, with surveys being sent to their caregivers upon scheduling of each girl's interview. A response from caregivers was not necessary for the girl to assent to interviews, and all refinements were approved by university and SCDJJ internal review boards as well as by NIJ.

Data Transfer & Analysis

Documentation of Child Interviews

We chose to use field notes in conjunction with life-calendar mapping to document child interviews. Researchers generally discourage tape recording of interviews in correctional settings (Drs. Angela Browne & Beth Richie, personal communication, November 8, 2000). Audio taping may elevate risk to participants by providing a direct link to identity (voice recognition); audio tapes are not protected from subpoena under the Privacy Certificate, and they require additional confidentiality agreements for transcription services not under control of the research team. Given these considerations and our success with shorthand-style field notes (Easyscript; Levin, 2001), we felt that benefits of audiotaping were outweighed by the elevated risk to participants. Interviewer training included mock interviews with performance to a benchmark of limited errors and omissions. To promote integrity of data, the interviewer transcribed speedwritten notes into interview transcripts and translated life calendar data into electronic format within 24 hours of each interview. Within transcripts, we attempted to be as accurate as possible in representing each girl's thoughts and to use the words and language she used, as well as to honor veracity of her account (i.e., omitting outsider inferences about plausibility). We chose to transcribe using third-person perspective to underscore that these are not direct quotes, in that thoughts have been necessarily filtered through the interviewer in the transcription process.

Quantitative Analyses

SPSS was used to conduct all quantitative analyses. Descriptive statistics were performed to attest to characteristics of our sample and their self-reported experiences of victimization and offending. Key victimization and offending constructs from girls' interviews were conceptualized in several ways, including 1) binary presence/absence coding of whether the girl experienced the event in question, 2) time-to-onset coding to indicate age at which the girl first experienced the event, and 3) duration and frequency coding to indicate number of years or number of incidents of the event.[3] Caregiver survey responses were coded using standard JVQ scoring (frequency codes ranging from zero to five or more times per event). We used nonparametric techniques (e.g., Chi-square, logistic regression) for binary dependent variables, survival analyses and Cox regression for time-to-onset dependent variables, and standard parametric techniques (e.g., Pearson correlation, linear regression) for continuous duration/frequency dependent variables. For

[3] For purposes of these analyses, *number of victimizations* was operationalized using JVQ 6-point scoring ranges of 0 incidents to 5 or more incidents on each subcategory of victimization; subcategory scores were then averaged within categories for equivalent 6-point scale ranges on all major categories. *Duration of victimization* was operationalized as the number of calendar years in each girl's life history that the event was present (e.g., if a girl were abused by a caregiver from ages 5 to 8, caregiver violence duration would be coded as three years within her life history; if she were sexually abused at ages 7, 8, and 13, sexual abuse duration would be coded as three years).

any set of analyses involving multiple comparisons, we adjusted significance thresholds using the Bonferroni method.

Qualitative Analyses

Qualitative interview transcripts were coded and analyzed using ATLAS/ti software, which allows the researcher to mark computerized text passages in a manner akin to underlining in a book. Passages can be tagged with commentary or labeled with codes (e.g., "self-worth,"). Passages, codes, and commentaries can be sorted into hierarchies, and participant files can be grouped into "families" or categories (e.g., "violent offenders"). For purposes of the present report, we used a first-cycle coding method with provisional top-down coding based on categories of items in girls' interviews. This approach allowed us to identify specific exemplars to illustrate findings revealed in quantitative analysis of girls' interview data. In this way, we will bring ATLAS/ti's powerful capabilities to bear upon inferences as these emerge from the quantitative data, which will thereby help us to understand manifest associations between variables.

RESULTS

Findings of the study include descriptive information about our sample, girls' experiences of victimization and adversity, girls' crime and delinquency, and associations of victimization to offending.

Participants

Participation rates were 32% for caregivers and 98% for eligible girls, with rates being somewhat analogous across both the original and the refined sampling methods.[4] Records did not track specific kinship relationship of primary caregivers to girls, but these included biological and adoptive mothers, stepmothers, grandmothers, foster mothers, and in some cases, fathers or other relatives. Exploratory Chi-square analyses using Bonferroni adjustments for number of comparisons indicated no differences between girls whose caregivers responded (n = 45) and those whose caregivers did not respond (n = 55) for key victimization and offending variables including: having ever experienced caregiver violence ($\chi^2 = 0.00$), gang violence ($\chi^2 = 0.17$) , dating violence ($\chi^2 = 1.40$), sexual violence ($\chi^2 = 0.05$), witnessing violence ($\chi^2 = 1.01$), or having ever engaged in alcohol or drug abuse ($\chi^2 = 0.12$), stealing ($\chi^2 = 0.26$), running away ($\chi^2 = 0.55$), fighting or aggression ($\chi^2 = 0.11$), or prostitution ($\chi^2 = 0.17$), *df*s = 1, $N = 100$, all ps *ns* at the 0.005 Bonferroni-adjusted level.

[4] For sampling method #1, 58% of caregivers could not be contacted after repeated phone/mail attempts, 3% of caregivers declined, 39% of caregivers participated, and 96% of invited girls participated. For method #2, repeated contact was not attempted and participation rates were 26% for caregivers and 99% for girls.

Our sample of 100 committed girls ranged in age from 12 to 18, with the mean, median, and modal age being 16 years old. Sixty-three percent of girls were African American, 35% were White, and 2% were Hispanic. Fifty-eight girls were sampled from the long-term commitment facility, and the remaining girls were from the moderate-management (n = 22) and high-management (n = 20) group homes. Exploratory Chi-square analyses using Bonferroni adjustments for number of comparisons indicated no differences between girls sampled from the long-term facility and those sampled from group homes for key victimization and offending variables including: having ever experienced caregiver violence ($\chi^2 = 1.75$), gang violence ($\chi^2 = 1.75$) , dating violence ($\chi^2 = 0.94$) , sexual violence ($\chi^2 = 1.05$), witnessing violence ($\chi^2 = 0.02$), or having ever engaged in alcohol or drug abuse ($\chi^2 = 0.38$), stealing ($\chi^2 = 0.31$), running away ($\chi^2 = 0.13$), fighting or aggression ($\chi^2 = 0.02$), or prostitution ($\chi^2 = 0.00$), *df*s = 1, *N* = 100, all ps *ns* at the 0.005 Bonferroni-adjusted level.

Girls' Experiences of Victimization & Adversity

Prevalence of Victimization

Descriptive statistics were performed to examine frequencies for self-reported and caregiver-reported violence exposure for our sample of girls committed to the juvenile justice system. As can be seen in Table 1, victimization was pervasive. Sixty-nine percent of girls self-reported experiencing caregiver violence, including half of girls self-reporting physical abuse and nearly as many self-reporting psychological abuse from caregivers. It should be noted that within these subcategories, we coded caregivers' provision of alcohol or illicit drugs to girls—behavior sometimes referred to as "missocializing" or "corruption" (APSAC, 1995; Hart, Germaine, & Brassard, 1987)—as a form of psychological abuse. Almost a quarter of girls reported experiencing caregiver neglect. Thirty-one percent of girls reported having been attacked by a gang or group of people, and 42% reported experiencing dating violence. Eighty-one percent reported experiences of sexual violence, including over a third of the sample reporting having been sexually assaulted by a known adult. About one-fifth of girls reported experiencing sexual assaults by peers, and over two-thirds reported that they had engaged in "consensual" sex with adults (e.g., statutory rape)[5]. Ninety percent of girls reported witnessing violence, with roughly half of girls reporting that they had experienced events such as witnessing assault of a caregiver, witnessing an attack with a weapon, having a close friend or family member who was murdered, or being in a place where the girl could see or hear shooting or rioting.

[5] To accommodate variations in age-of-consent from age 14 to 18 across different U.S. states (Norman-Eady, Reinhart, & Martino, 2003), we included events in this category if any girl under the age of 18 engaged in sexual intercourse with an adult 18 or over.

Only 2% of girls reported no victimization. On average, girls experienced about three of these five major categories of violence and about seven of the twenty subtypes of violence within their lifetimes (Ms = 3.13 and 6.72, respectively).

Table 1: Prevalence of Self-Reported & Caregiver-Reported Victimization for Girls

GIRLS' VICTIMIZATION EXPERIENCES	% GIRLS SELF-REPORTING (N = 100)	% CGIVERS REPORTING (N = 45)
Any caregiver violence	**69**	**59**
Physical abuse	50	32
Psychological abuse	46	41
Neglect	23	14
Parental kidnapping or custodial interference	10	27
Gang or group attacks	**31**	**22**
Dating violence	**42**	**16**
Any sexual violence	**81**	**67**
Assaults by known adults	36	32
Assaults by unknown adults	14	11
Assaults by peers	20	21
Attempted rape	20	33
Flashing	14	14
Verbal sexual harassment	11	16
"Consensual" sex with adults	69	48
Any witnessed violence	**90**	**79**
Witnessed assault of caregiver	45	51
Witnessed assault of a sibling by caregiver	23	16
Witnessed a bad attack with a weapon	55	42
Witnessed a bad attack without a weapon	36	46
Had a close friend/family who was murdered	46	26
Witnessed a murder	35	7
Seen or heard community shootings or riots	57	18

Within Table 1, it appears that—among those caregivers who responded to the survey on their girls' victimization—rates of reported victimization for girls were generally lower than those rates reported by girls themselves. The most marked exception to this involves parental kidnapping or custodial interference, which caregivers reported at nearly three times the rate reported by girls. Table 2 shows associations between case-matched caregivers' responses regarding their girls' victimization and the girls' self-reports of victimization, with significance levels adjusted using Bonferroni's method for multiple tests. Caregivers' perceptions of violence in their girls' lives were most closely aligned with their girls' self-reports for experiences of caregiver violence, dating violence, and sexual violence.

Table 2: Associations between Caregivers' & Girls' Responses Regarding Girls' Victimization

	Correlation w/caregiver report of girls' violence exposure
Girl's self-report of caregiver violence	.41*
Girl's self-report of gang violence	.09
Girl's self-report of dating violence	.33*
Girl's self-report of sexual violence	.46*
Girl's self-report of witnessing violence	.06

*$p < .01$ Bonferroni-adjusted, one-tailed criterion.

Non-Victimization Adversity

Table 3 shows prevalence of non-victimization adversity. Nearly every girl self-reported at least one adverse childhood event, with the median number of adverse childhood experiences being three. Girls faced particular risk for death or serious illness of a close friend or family member, followed by incarceration of a caregiver, caregiver substance abuse, and persistent family conflict. It should be noted that a number of girls were hospitalized for incidents of severe self-injury (e.g., overdose, cutting) that may or may not have been intentional (e.g., "I don't know if I was trying to kill myself"); these events were included in our coding of "bad accidents."

Table 3: Prevalence of Self-Reported Non-Victimization Adversity

ADVERSE CHILDHOOD EXPERIENCES	**PERCENT OF SAMPLE (N=100)**
At least one of the following adverse events	**97**
Was in a bad fire, flood, storm, or other disaster	20
Had a bad accident with hospitalization	24
Had a bad illness with hospitalization	12
Death or serious illness of a close friend or family member	84
Caregiver went to jail or prison	54
Caregiver's drug or alcohol use caused problems	48
Caregiver lost job and could not find work	16
Family always argued or fought	44
Household member had mental health problems	20
Was always bullied or teased	41

These data on self-reported adverse events also provide some opportunity for convergent validity with archival data, specifically around readily definable events such as incarceration of a caregiver. SCDJJ records are aligned with girls' self-reports indicating that exactly 54% had caregivers with criminal records.

Table 4 shows Pearson correlation coefficients for associations among different categories of victimization and adverse events. For each of the five categories of victimization, we used a variable indicating number of victimizations within that category. We have included a variable indicating the count of number of subtypes of victimization reported by the girl (poly-victimization) as well as a count of number of self-reported adverse childhood experiences (ACEs). One-tailed significance levels were used based on literature indicating positive associations between various forms of victimization and adverse events (Finkelhor et al., 2005), and significance levels are adjusted using Bonferroni's method for multiple tests.

Consistent with the literature, all associations were positive. Of the five major categories of victimization, witnessing violence demonstrated the most consistent associations with other categories, and gang attacks showed the least consistent associations. As one would expect given the literature on poly-victimization, number of subtypes of victimization was highly correlated with all categories of victimization and with adverse childhood events. Also consistent with logic, number of adverse events—many of which may be based in the household of origin—was highly correlated with caregiver violence and witnessing violence.

Table 4: Pearson Correlations among Victimization Categories and Adverse Events

	Gang	Dating	Sexual	Witnessing	Poly-victimization	ACEs
Caregiver	.34*	.26	.22	.38*	.57*	.50*
Gang		.17	.25	.44*	.47*	.12
Dating			.34*	.35*	.45*	.31*
Sexual				.41*	.64*	.29*
Witnessing					.74*	.62*
Poly-victimization						.58*

*$p < .002$ Bonferroni-adjusted, one-tailed criterion.

Risk Trajectories for Victimization

Survival analyses were used to examine risk trajectories for each category of violence. As can be seen in Table 5, the median time for which girls were exposed to risk (e.g., their age at interview) was 16 years. Median age until onset of each category of violence is also provided in the table; this indicates the age at which at least 50% of the sample had experienced each category of violence (e.g., by age 12, just over 50 girls in our sample of 100 had experienced caregiver violence). The table indicates that girls tend to risk witnessing violence at a much earlier age than other categories of violence, followed by risk for caregiver violence, sexual violence, dating violence, and gang violence, respectively.

Table 5: Median Exposure and Survival Time to Victimization

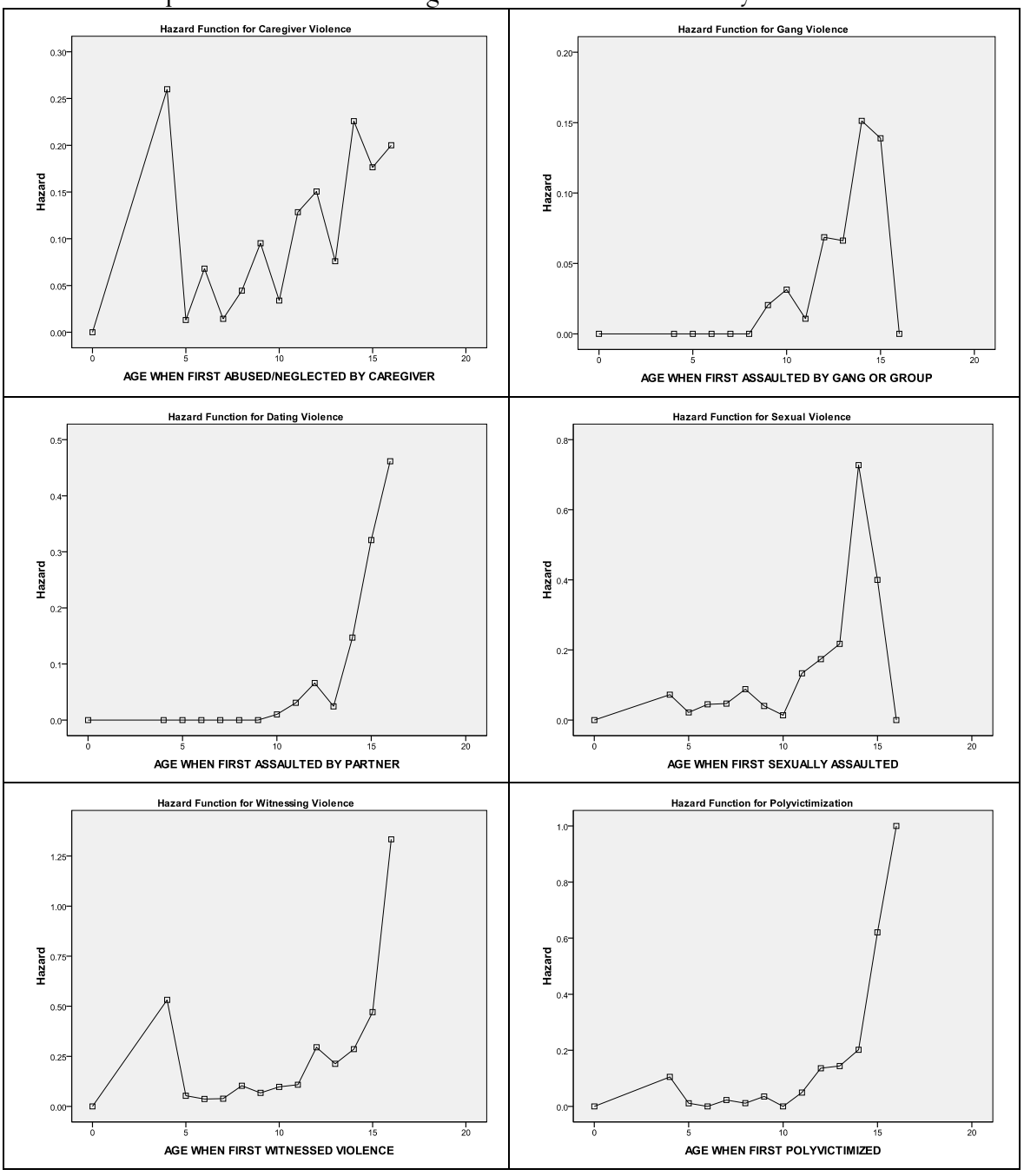
	Median Age
Overall time at risk	16
Onset of caregiver violence	12
Onset of gang violence	17
Onset of dating violence	16
Onset of sexual violence	13
Onset of witnessing violence	8

Table 6 illustrates trajectory of risk for each category of victimization and for poly-victimization. These hazard functions graphically illustrate the proportion of those girls who were exposed to risk and experienced a given event. For example, the hazard function for caregiver violence shows approximately one quarter of the 100 girls experienced caregiver violence by age 4. These girls have "terminated" (experienced onset for this category of violence) and are removed from the remaining calculations. At age 5, another girl experiences caregiver violence and is removed from the sample, five more terminate at age six, one terminates at age 7, three at age 8, and so on. The dots on the graph indicate the number of those terminating relative to the number left in the sample at that step, and this is a measure of the "riskiness" of that particular age. At age 14, for instance, seven of the remaining 34 girls experience caregiver violence—a 20% hazard rate. That is, if a girl had not already experienced violence by this age, she has a 7 out of 34 chance of experiencing it. It should be noted that—because fewer cases remain in analyses at later stages—estimates at these stages might be viewed as less stable than those based on a greater number of cases. For instance, by the final caregiver violence interval representing girls at age 16, only five girls remained in the sample (i.e., exposed to risk), but one of these five experienced caregiver violence, resulting in the relatively high 1-in-5 hazard rate.

As can be seen by the interpolated hazard functions, risk for caregiver violence peaks prior to school age and shows sporadic increases thereafter. Risk for gang attacks begins in pre-pubescence and peaks in early adolescence, with risk declining in later adolescence. Risk for dating violence begins around pubescence and rises dramatically thereafter. Girls face some risk of sexual violence throughout childhood, with risk increasing around pubescence and peaking sharply in early adolescence, then declining thereafter. Risk for witnessing violence begins before school age, rising throughout pubescence and peaking in late adolescence. Poly-victimization (as operationalized by experiencing four or more subtypes of victimization[6]) presents some risk throughout childhood, with risk rising throughout adolescence.

[6] The "cut-off" for classifying someone as a poly-victim has varied across projects depending on items included in the assessment (all JVQ vs. subset), how these are tallied (per act vs. per incident), and the time frame of measurement (e.g., past year vs. life). Using four subtypes is common, and researchers have found that a variety of conceptualizations have similar predictive validity (Finkelhor et al., 2005; Turner, Finkelhor, & Ormrod, 2006).

Table 6: Interpolated Hazard for Categories of Victimization & Poly-victimization

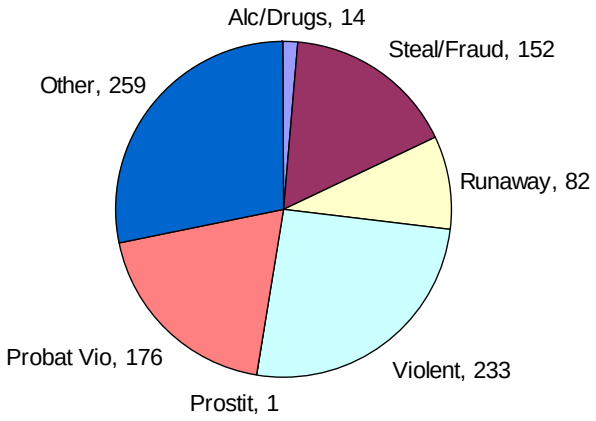


Girls' Crime & Delinquency

Types & Prevalence of Crime & Delinquency

SCDJJ arrest data indicate the girls collectively had accumulated nearly as many different charges as there were girls, with their collective nine-hundred-seventeen offenses and ninety-six distinct charges ranging from minor delinquency (e.g., status offenses, probation violations) to more severe crimes including assaults, burglaries, criminal sexual conduct, fraud, shoplifting, and weapons charges, among others. Figure 1 shows the breakdown of these offenses for the entire sample.

Figure 1: Number of Offenses by Type



A substantial portion of girls' offenses were probation or technical violations, as one might expect in a sample of committed girls. In Figure 1, the "Other" category includes a range of charges such as littering, truancy, and conspiracy. However, the bulk of this category consists of charges for incorrigibility, disturbing school, disorderly conduct, and property damage/trespassing. Girls' accounts of such charges were often more elusive, in that these offenses seemed less salient to girls, who sometimes expressed that they did not understand charges or that charges did not reflect events. Consider the following accounts.

- *Shalena's court date for incorrigibility was earlier this year. She had never done anything illegal until she found out about her charge….Shalena didn't even know incorrigible was a charge. They used everything she had done against her. It wasn't just one event.*

- *The public disorderly conduct was because Cynthia was caught messing with a boy on the football field in the press box.*

For the present report, we chose to focus on five tangible types of offenses explicitly addressed in our interviews: substance use, stealing, running away, fighting or assaults, and prostitution. Table 7 shows girls' self-reported and officially recorded involvement in crime and delinquency.

Table 7: Prevalence of Crime & Delinquency in Self-Reports and Arrest Records

CRIME & DELINQUENCY	PERCENT SELF-REPORTING (N = 100)	PERCENT ARRESTED FOR OFFENSE (N = 100)
Any alcohol or drugs	**83**	**10**
Alcohol	66	
Marijuana	78	
Cocaine, crack, or methamphetamines	31	
Other drugs (e.g., illicit pills, inhalants, heroine)	44	
Shoplifting or stealing	**76**	**39**
Running away from home or placement	**77**	**38**
Fighting or assaults	**90**	**72**
Prostitution	**14**	**1**

Self-report data, viewed in conjunction with SCDJJ official data, indicate that girls' self-reports of offending include offenses not captured in arrest data. The discrepancy between self-reports and arrest data was greatest for alcohol and drug offenses. Examination of additional SCDJJ intake records also indicate that self-reports to officials do not capture substance use analogous to girls' self-reports for our research interviews; that is, intake records list only 59% of girls as ever having used alcohol or drugs. Arrest data was most closely aligned with girls' self-reports for overt, public acts such as assaults.

Obviously, girls were not caught each time they engaged in delinquency over the lifespan, and if they were caught, full charges may not have been levied. Consider the following accounts.

- *When Daphne was in ninth grade, she broke into a house with her cousin. It was a trap house (drug house). It was Daphne's cousin's idea to break in and steal clothes, shoes, and weed. They didn't get caught.*

- *Amber could have been charged with assault because she fought the girl, but Amber lied and said the girl hit her first. Amber's friends backed her up and Amber wasn't charged.*

There is also likelihood that girls' accounts may include self-effacing omissions or embellishments. We conducted case-by-case analyses of interview transcripts in conjunction with multi-agency archival records in order to establish whether excessive misrepresentation might be an issue of concern. For the vast majority of cases, girls'

interview transcripts verified most or all of girls' documented SCDJJ charges, bolstering our confidence in the veracity of girls' accounts with regard to salient life events.

Qualitative data sheds light on the varied events represented in girls' records and self-reports. Alcohol and drug related charges in girls' records were predominated by possession, with several charges for drug manufacture or sales. The following are representative self-reports of substance use from girls' interviews, including use of marijuana, liquor, and inhalants.

- *Alice started smoking weed in eighth grade. She smoked more in ninth grade…like she'd spend her lunch money on weed.*

- *Meleena started drinking in eighth grade. She drank gin and Grey Goose and Petrone. She's had Crown Royal and Jim Beam….It started when she was sitting in the traphouse and people were drinking and smoking. Meleena wanted a shot, and then she kept drinking after that.*

- *Sarah did airduster (huffing) from Wal-Mart in ninth and tenth grade. Her friends were dating marines, and the marines couldn't fail their drug test, so that's what they used to do.*

Many girls stole, with records including acts such as burglary, forgery or transaction card theft, larceny, shoplifting, and use of a vehicle without the owner's permission. Girls' interviews provide examples.

- *Meleena was shoplifting in her first and second years of ninth grade. She was with a girl and Meleena saw a pretty shirt. The girl said, "Why don't you go ahead and get it?" The girl took the shirt and took off the tags and put it in her bag, and they walked out of the store. When they got to the car, Meleena said, "It's that easy?! We're going to another store to do that again!"*

- *Hailey did an armed robbery in seventh grade. She was angry….Someone asked if she wanted to do it, and Hailey said, "Yeah," because she was so mad that day. She used her BB gun and robbed a video store while the other kids waited outside….One of the other kids that had been with her told.*

Many girls described running away from home or placements, with motivations ranging from escaping abuse to avoiding rules to pursuing boys.

- *Hailey ran away once when she was 13. It was because of abuse. Hailey's stepdad was mad at her mom, so he started beating Hailey and her sister…She jumped out the window with her bag and ran three miles to go to the bus station with nothing but a dollar and some change in her pocket. She went to her grandmom's house and stayed for a week.*

- *Alaina ran away about forty times from eighth grade on. She doesn't like listening to her mom and doesn't like rules. She doesn't think she should have to come home at night. She should be able to stay out and have fun.*

- *Alice left her house hundreds of times from fifth grade to seventh grade, and once in seventh grade she ran away for three days….Alice's brother started to run away, and Alice saw that it worked for him, so she tried it because she wanted to be with her boyfriends.*

Examples of fighting included brawls with peers, assaults of family members or teachers, and entanglement in drug disputes. Some girls were charged with assaults on animals, resisting arrest, threats to life of a person, or weapons offenses. Girls' self-reports of violence included those initiated solely by the girl as well as mutual or retaliatory assaults.

- *Willow got in a fight in 6th grade, then fought more often—maybe 12 to 15 times—from 9th to 11th grade….She would have a bunch of anger because she didn't like hanging around people. Someone would say something to her and she'd swing first.*

- *Gabrielle got in a fight with her dad in ninth grade. She was arguing with her stepmom, and her dad came in her room to talk to her. Gabrielle pushed him, and he flipped out and pushed her back. Gabrielle swung at him, and they started fighting.*

- *Daneeka used to fight all the time in eighth and ninth grade….If she was fighting a girl, it was usually over a boy. If she was fighting a boy, it was usually over drugs—like they didn't give her the right money, and she'd beat their ass.*

A sizable minority of girls reported exchanging sex for money or drugs, but only one girl was ever charged with prostitution. According to self-reports, the range of girls' sexual acts and those who colluded varied, ranging from stripping for drugs to more overt commercial exploitation by adults.

- *Jenna used to strip for drugs when she was fifteen. Jenna doesn't think of it as prostitution. She likes to think of it as a "thank you" present. She guesses she's in denial about it, because it's not such a thing to be proud of, that you had sex and they gave you a quarter (bag of marijuana)….God punished her for it by giving her herpes.*

- *Brooke's mom prostituted her when she was 13….It was maybe two or three times in a week. Brooke was afraid, but it was for her mom, and Brooke would do it for her mom. Then when she turned fourteen, Brooke said she wouldn't do it no more….It probably happened seven or eight times all together.*

Risk Trajectories for Delinquency

Survival analyses were used to examine risk trajectories for each category of delinquency as well as for onset of involvement with the justice system. Table 8 shows median age until onset of each category of delinquency and of SCDJJ involvement. The table indicates that girls tend to become involved in fighting slightly before becoming involved in substance use, followed by stealing and running away. Around that same age, girls may come to the

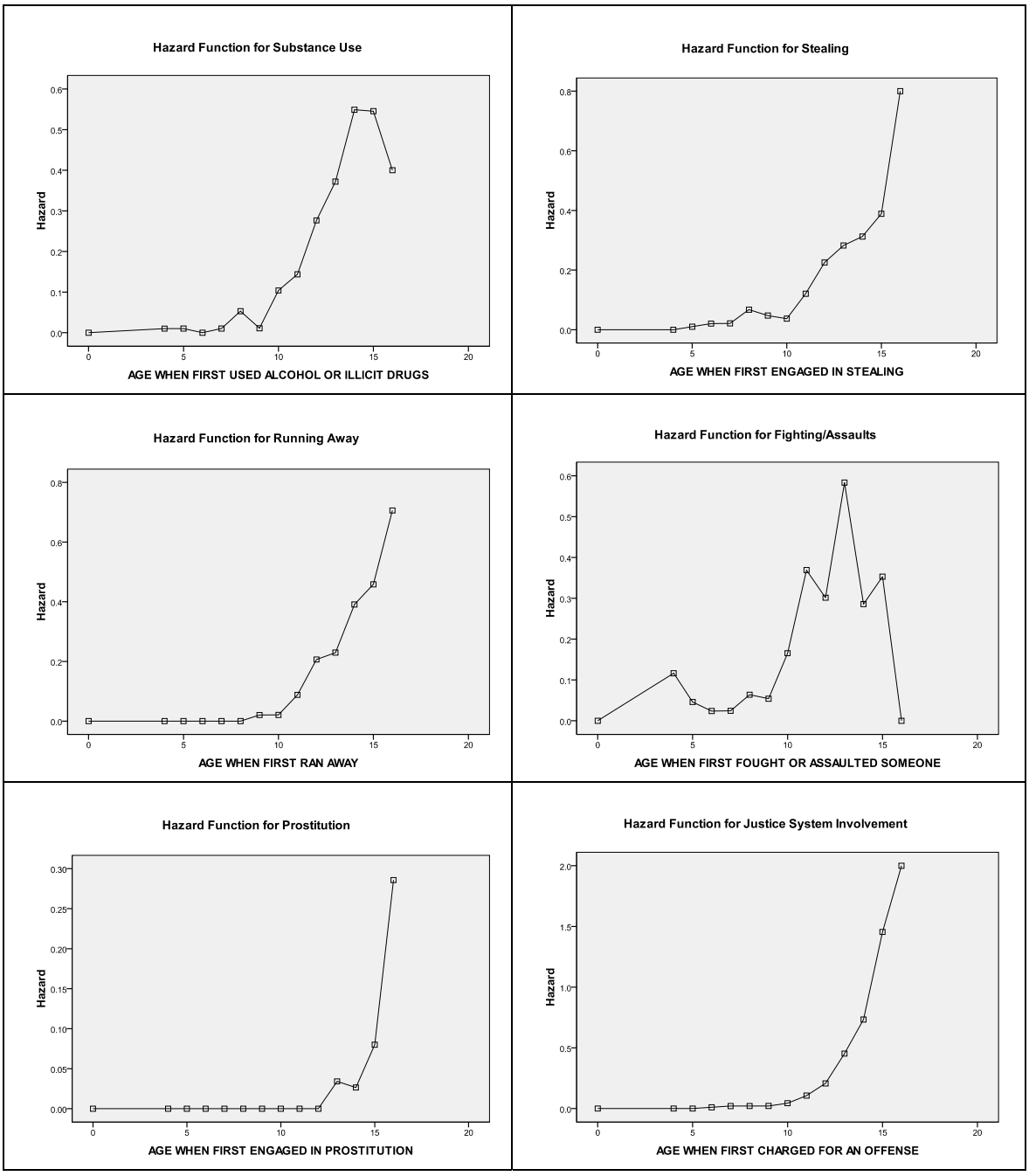
attention of the justice system. Involvement in prostitution tends to occur later in adolescence.

Table 8: Median Survival Time to Delinquency

	Median Age
Onset of alcohol/drug use	13
Onset of stealing	14
Onset of running away	14
Onset of fighting/assaults	12
Onset of prostitution	17
Onset of SCDJJ involvement	14

Table 9 illustrates trajectory of risk for each category of delinquency and for SCDJJ involvement. As can be seen by the interpolated hazard functions, risk for substance use begins prior to school age for a very small number of girls and increases sporadically in prepubescence, then rises steadily throughout most of adolescence. There exists some risk for stealing throughout childhood, with hazard rising markedly throughout adolescence. Risk for running away begins in pre-pubescence and rises sharply throughout adolescence. Fighting shows an early peak in risk prior to school age, followed by multiple subsequent peaks in adolescence. Prostitution risk begins around pubescence and peaks sharply near age fifteen. Finally, first involvement in the justice system shows a gradual slope, with risk beginning as early as school age and escalating throughout adolescence. It is notable that the curve for justice involvement is more closely aligned with those for offenses such as stealing and running away than for those such as substance use or physical assaults.

Table 9: Interpolated Hazard for Self-Reported Delinquency & Recorded SCDJJ Involvement



Association of Victimization & Adversity to Crime & Delinquency

Regression Analyses of Victimization-Delinquency Associations

Regression equations were used to examine association of self-reports for each of the five categories of victimization to each of the five types of crime. To help us assess stability of findings within our sample of 100 girls, we employed both nonparametric and parametric techniques via several types of regression. Logistic regression was used to examine how presence/absence of victimization may predict presence/absence of each type of crime; Cox regression was used to examine how number of victimizations may predict age of onset for each type of crime; and linear regression was used to examine how number of victimizations may predict duration (chronicity) of crime. Each set of regression equations included one of the five crime types as a dependent variable and the five victimization categories entered in one step as independent variables. Trimmed equations were then performed using only those independent variables that met a significance threshold of $p < .10$. For purposes of this report, we will focus only on significant findings.

Association of Having Been Victimized to Having Committed Crime

Logistic regression was used to examine how presence of victimization may predict presence of each type of crime. For presence of substance use, presence of caregiver violence and sexual violence demonstrated a significant overall effect , χ^2 (3, $N = 100$) = 18.27, $p < .001$. Table 10 shows coefficients for these two variables, which accounted for 17% of the variance in girls' substance use.

Table 10: Logistic Regression of Presence of Victimization on Presence of Substance Use

	B	S.E.	Wald	df	Sig.	Exp(B)
Caregiver	1.413	.605	5.453	1	.020	4.108
Sexual	2.084	.623	11.179	1	.001	8.038
(Constant)	-.709	.601	1.392	1	.238	.492
Model Cox & Snell R Square = .167						

For presence of prostitution, presence of gang violence and dating violence met criteria for the trimmed model. The overall model was significant, χ^2 (2, $N = 98$) = 12.77, $p < .01$, accounting for 12% of the variance in prostitution. As can be seen in Table 11, only dating violence was a significant predictor in the trimmed model.

Table 11: Logistic Regression of Presence of Victimization on Presence of Prostitution

	B	S.E.	Wald	df	Sig.	Exp(B)
Gang	-1.495	.829	3.253	1	.071	.224
Dating	2.033	.707	8.273	1	.004	7.635
(Constant)	-2.628	.601	19.154	1	.000	.072
Model Cox & Snell R Square = .122						

Association of Number of Victimizations to Onset of Crime

Cox regression was used to examine how number of victimizations may predict age of onset for each type of crime. For age of first substance use, number of caregiver victimizations and number of witnessing victimizations met criteria for inclusion in the trimmed equation. The overall model was significant, χ^2 (2, N = 100) = 20.75, $p < .001$ and both categories of victimization contributed to prediction of substance use onset (Table 12).

Table 12: Cox Regression of Number of Victimizations on Onset of Substance Use

	B	SE	Wald	df	Sig.	Exp(B)
Caregiver	.241	.102	5.597	1	.018	1.272
Witnessing	.430	.133	10.533	1	.001	1.538

For age of first fight, only number of witnessing victimizations contributed to prediction, χ^2 (1, N = 100) = 4.27, $p < .05$ (Table 13).

Table 13: Cox Regression of Number of Victimizations on Onset of Fighting

	B	SE	Wald	df	Sig.	Exp(B)
Witnessing	.216	.105	4.247	1	.039	1.241

For age of first prostitution, number of sexual victimizations and number of witnessing victimizations contributed to prediction, χ^2 (2, N = 100) = 15.07, $p < .001$ (Table 14).

Table 14: Cox Regression of Number of Victimizations on Onset of Prostitution

	B	SE	Wald	df	Sig.	Exp(B)
Sexual	1.411	.329	18.425	1	.000	4.101
Witnessing	-.635	.268	5.633	1	.018	.530

Association of Number of Victimizations to Duration of Crime

Linear regression was used to examine how number of victimizations may predict duration of crime. For duration of substance use, number of caregiver victimizations, sexual victimizations, and witnessing victimizations contributed to prediction, $F(3, 89) = 26.14$, $p < .001$, accounting for 45% of the variance (Table 15).

Table 15: Linear Regression of Number of Victimizations on Duration of Substance Use

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.745	.331		2.252	.027
Caregiver	.449	.175	.215	2.562	.012
Sexual	1.373	.310	.377	4.435	.000
Witnessing	.733	.211	.312	3.480	.001
Model Adjusted R Square = .450					

For duration of stealing, only number of caregiver victimizations contributed to prediction, $F(1, 94) = 9.28$, $p < .01$, accounting for 8% of the variance (Table 16).

Table 16: Linear Regression of Number of Victimizations on Duration of Stealing

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.604	.321		4.997	.000
Caregiver	.597	.196	.300	3.046	.003
Model Adjusted R Square = .080					

For duration of running away, only number of gang victimizations contributed to prediction, $F(1, 95) = 11.44$, $p < .001$, accounting for 10% of the variance (Table 17).

Table 17: Linear Regression of Number of Victimizations on Duration of Running Away

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.476	.171		8.608	.000
Gang	.452	.134	.328	3.383	.001
Model Adjusted R Square = .098					

For duration of fighting, number of caregiver victimizations, gang victimizations, and witnessing victimizations met criteria for the trimmed model, $F(3, 89) = 6.69$, $p < .001$. Only caregiver victimization and witnessing contributed to prediction, accounting for 16% of the variance (Table 18).

Table 18: Linear Regression of Number of Victimizations on Duration of Fighting

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.621	.584		6.205	.000
Caregiver	-.747	.334	-.238	-2.240	.028
Gang	.621	.347	.196	1.791	.077
Witnessing	1.234	.387	.353	3.188	.002
Model Adjusted R Square = .156					

For duration of prostitution, number of dating victimizations, sexual victimizations, and witnessing victimizations contributed to prediction, $F(3, 90) = 12.48$, $p < .001$, accounting for 27% of the variance (Table 19).

Table 19: Linear Regression of Number of Victimizations on Duration of Prostitution

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.020	.091		-.223	.824
Dating	.067	.028	.238	2.430	.017
Sexual	.434	.092	.474	4.698	.000
Witnessing	-.118	.059	-.201	-2.011	.047
Model Adjusted R Square = .270					

Summary & Qualitative Exploration

As can be seen in Table 20, some findings demonstrated greater stability across the three types of regression analyses than do other findings. In predicting substance use, caregiver violence displayed the greatest stability, and both sexual violence and witnessing were significant predictors in two of the three types of analyses. No category of victimization consistently predicted stealing or running away. Fighting was predicted by witnessing violence in two of the three types of analyses. Finally, dating violence, sexual violence, and witnessing each were significant predictors of prostitution in two of the three types of analyses.

Table 20: Significant Predictors of Crime across Three Types of Regression Analyses

DV: CRIME TYPE	IV: CATEGORY OF VICTIMIZATION		
	LOGISTIC *Presence of Crime by Presence of Victimization*	COX *Age of Crime Onset by Number of Victimizations*	LINEAR *Duration of Crime by Number of Victimizations*
Substance Use	Caregiver violence Sexual violence	Caregiver violence Witnessing violence	Caregiver violence Sexual violence Witnessing violence
Stealing	(none)	(none)	Caregiver violence
Running Away	(none)	(none)	Gang violence
Fighting/Aggression	(none)	Witnessing violence	Caregiver violence Witnessing violence
Prostitution	Dating violence	Sexual violence Witnessing violence	Dating violence Sexual violence Witnessing violence

To delve further into the nature of these more stable associations, we examined girls' narrative accounts of victimization and crime, specifically searching the qualitative data set for examples of victimization-crime linkage. Explication of themes follows.

Substance Use & Victimization

Substance use was associated with experiences of caregiver violence, sexual violence, and witnessing. Examination of qualitative accounts revealed that use of alcohol and drugs as a means of coping was an underlying theme across all three associations. Consider the following accounts.

- *Alice is still going to drink when she's out of here. It makes you forget your problems for just one night--problems like past stuff from when her mom used child abuse and was on drugs…stuff like that never goes away.*

- *Angie saw her mom beaten by her dad all of her life…Every fight there was a bloody nose or busted lip, bruises. Lots of times her mom would have broken bones. Angie didn't like it. Drugs helped her cope.*

- *The drug rape in sixth or seventh grade affected Latanya's self-esteem. Latanya wrote a poem…so that other kids could read it to their parents to help them explain why they do the things they do. Latanya does drugs because she feels pain, to try to hide relationships and people dying, death.*

- *Ella was sexually abused. It happened from the time she was in fifth grade until seventh grade, and then she came out with it when she was fourteen. There was a deposition about it, and Ella had to say everything in detail that happened, on camera…Ella guesses that brought up all the pain, and after that she started doing drugs….she started doing more and more drugs and running away for long periods of time. That got her locked up the first time.*

Corruption involving parents or other caregivers was also a factor in girls' substance use.

- *Jenna did Oxycontin with her mom the first time. That's how Jenna's mom found out that Jenna was doing it and snorting it because they sniffed it when they did it together. It was weird because her mom patted her on the back for snorting it. Like most kids get patted on the back by their moms for playing sports or something, and Jenna's mom patted her on the back for snorting pills. It made Jenna feel like a badass, kinda cool.*

- *Shannon started doing drugs in sixth grade, shooting up cocaine--that was her first drug…Shannon had left her mom's house and was living with [an adult woman]. Shannon saw [them shoot up] and thought that looked alright. The woman and her boyfriend tied a belt around Shannon's arm and shot her up, and Shannon kept doing it ever since…Shannon wasn't but 11, but she thought she was grown.*

- *Cynthia's uncles used to sell drugs and that's how Cynthia got exposed to all that. Her uncles knew that kids at school wanted it, and they asked Cynthia if she wanted to sell and earn some money.*

Another strikingly common intersection of sexual abuse and corruption was girls' involvement with adult sexual partners who enabled substance abuse.

- *When Chastity was 16…she ran away with a 48-year-old man, and he beat her like she was a grown woman. He sold drugs, and Chastity didn't do them, but she had been around them a lot. That led to her smoking weed and drinking and smoking cigarettes.*

- *Sarah's boyfriend in ninth and tenth grade was 19. In the long run, he was bad for Sarah. She followed him doing stuff, stole, and tried to support him. He got Sarah doing drugs, and once he even tried to convince her to go to the police station and turn herself in so he wouldn't get in trouble for something.*

Once involved in substance use, girls' presence in risky situations was sometimes associated with witnessed violence.

- *Jenna saw a murder in tenth grade. Jenna was with the lady to go get drugs…Jenna was in the same room…She saw it…The lady spoke Spanish, and she and the man were arguing in Spanish. He took a gun out of his back pocket…There was brain everywhere. That image…It was terrifying. It takes your breath away, when the life of someone is taken. It's powerful in a weird, creepy way.*

Fighting & Victimization

The association between witnessing violence and engaging in fighting or assaults appeared to be largely a function of girls' use of retaliatory or protective violence, as is illustrated in the following examples.

- *The whole time Sandy lived with her grandmother, she used to see her grandmom beat Sandy's sister. That's when Sandy started beating on her grandmom. Sandy and her sister didn't call DSS because they knew their grandmom would get locked up.*

- *When Alice was 16 she jumped her cousin's baby's daddy because he spit in her face…Alice beat him with her brothers. They were kicking him and all. Alice still has blood on the shoes she was wearing when she came in here to DJJ from that. After they kicked him, Alice robbed him, took the money out of his pockets.*

- *When Rogenia was 11, she saw her mom get jumped over crack, and her mom stabbed the dude. Her mom got jumped more than five times. Sometimes Rogenia had to defend her mom because there wasn't always that knife there. It made Rogenia more paranoid and more aggressive.*

Prostitution & Victimization

Much like substance use, involvement in prostitution was also associated with girls' sexual relationships with adult men.

- *Amber had a sugardaddy in tenth and eleventh grade. She would have sex with him for money and other stuff. He was in his 60s. He was on the news this year because he got busted.*

- *Emily was tricking when she ran away at 16 and 17. She probably did it twenty times. That guy that was a crackhead got her into it…He suggested it as a way they could get money. Emily has lots of flashbacks about it. She wonders why she ever did it, how she even got in that position. She gets pictures of it happening in her head.*

- *Corretta ran away in tenth grade. She went to another state with her cousin….They stayed in motels…The dudes they were with were pimps--they would get dudes to come in, and Corretta and her cousin would perform sex acts on them. They'd make 500 to 800 dollars a night. Corretta and her cousin just met the pimps in the streets, and they were in their 40s and 50s.*

- *Jessica prostituted herself last year. It was her boyfriend's idea--to support drugs. Jessica did it lots. He acted as her pimp. Jessica had about forty adult male sex partners…Jessica still feels bad and nasty to this day about it. Especially if you're having sex with someone that's so old that you just feel nasty doing it.*

Prostitution activity was, in turn, associated with dating violence from pimps as well as witnessed violence associated with risky situations.

- *Corretta was attacked a lot by the dude she was with. He would pistol whip her and drag her down the strip by her hair. He did it to show out, like every other night. He used to say he did it because he loved her. It would happen because Corretta didn't do what she was told, or she'd go outside to talk on the cell phone because she couldn't get reception inside. He'd drag her off the fire escape back inside, beat her, and make her have sex--with him and with other*

people. He'd do it even if she was bleeding--then he'd make her have oral sex. Corretta has dreams about it, and sometimes if she's thinking about it, she'll break down and cry.

- *Rebecca met this girl who had run away from her house. The girl ran into Rebecca at a store, and the girl looked kinda tore up and dirty. Rebecca asked her if she had any money, and she didn't. The girl told Rebecca she had run away because her stepfather raped her. Rebecca bought her some clothes and told her she could help her make some money. The girl brought four of her friends along. Rebecca felt bad for the girl, and it was the guys' idea to sell them. They sold a couple of girls and stopped after one of the little girls got killed. A dude that wanted her for sex shot her in the head because she didn't want to go with him. Rebecca was there. Now she doesn't like the sight of blood.*

Associations of Delinquency to Poly-victimization and Adverse Childhood Experiences[7]

Exploratory analyses indicated that entry of poly-victimization or adverse childhood experiences into regression equations with other victimization variables did not add to prediction and that neither poly-victimization nor adverse experiences emerged as significant predictors in any equation. To elucidate any potential association of these constructs to crime, we conducted bivariate correlations of our continuous operationalizations of each (number of subtypes of victimization, number of adverse experiences) with duration of each of the five types of crime.

Table 21: Pearson Correlations of Duration of Crime with Poly-victimization & ACEs

	Substance Use	Stealing	Running Away	Fighting	Prostitution
Poly-victimization	.57*	.29*	.23	.17	.20
ACEs	.37*	.11	.01	.09	.03

*$p < .005$ Bonferroni-adjusted, two-tailed criterion.

As can be seen in Table 21, the number of subtypes of victimization experienced by girls was most strongly associated with duration of offending for substance use and stealing. There were non-significant trends toward association of poly-victimization with running away and prostitution (both $ps < .05$). Girls' number of non-victimization adverse childhood experiences was associated only with duration of substance use.

[7] We also conducted exploratory analyses on association of offending to several indicators of childhood stability (e.g., number of homes, schools, and caregivers). Detailed discussion of these is beyond the scope of this report, but we have included a summary in Appendix B.

DISCUSSION

These girls committed to the Department of Juvenile Justice reported very high levels of victimization, particularly caregiver violence, sexual violence, and witnessing violence. Many girls might be classified as "poly-victims," having experienced multiple types of violence exposure. Girls' self-reported victimization was most closely aligned with their caregivers' perceptions for categories of violence associated with the family and sexuality, specifically caregiver violence, dating violence, and sexual abuse. It appeared that caregivers may be less privy to girls' experiences of violence exposure regarding gang or group attacks and witnessing violence. Girls in our sample also experienced high rates of other adverse childhood experiences, especially death or illness of a caregiver, caregiver incarceration, caregiver addiction, and persistent family conflict. Although poly-victimization and adverse experiences did not add to prediction of delinquency beyond other categories of victimization, these cumulative and ecological risks were associated with nearly all major categories of violence exposure, underscoring the importance of addressing victimization as it rests among other risks in the context of girls' lives.

Examining the hazard function for different categories of victimization and isolating time periods with steep slope changes is a way to identify risky time periods for girls (Singer & Willett, 1991)—periods during which prevention or risk reduction may take on heightened importance. Within this sample of delinquent girls, risk trajectories indicated susceptibility to caregiver violence and witnessed violence starting prior to school age, with a second peak in risk during adolescence. Thus, early childhood and adolescence may be times to target interventions to specifically address these risks and provide support that may mitigate impacts of violence exposure. In contrast, risk for gang or group attacks began rising just before pubescence, and dating violence risk logically escalated after pubescence. Sexual violence was a risk for girls throughout their lives but was particularly prevalent during adolescence. Thus, early preventative education on such risks might be supplemented with skill-building around adolescence to bolster girls' resilience to these threats. Early onset of violence exposure, as well as recurring exposure to risk throughout childhood and adolescence, indicates that assessment for victimization and trauma should occur early and frequently in girls' lives. Furthermore, programs or services to address multiple, co-occurring forms of violence exposure might be implemented throughout girls' lives, and especially during the teen years as likelihood of poly-victimization increases.

Hazard functions for crime and delinquency evinced assaultiveness and substance use as risks that emerge relatively early in girls' lives, prior to their involvement with justice agencies. Thus, it may be advisable to educate persons who work with children regarding signs and potential early interventions for such behaviors. Offenses such as stealing and running away were more prominent around early adolescence, about the same time girls come to the attention of the justice system. This may be indicative of a tendency to utilize justice responses to address these problems. Because prostitution risk tended to occur later

in adolescence, after the age at which most girls had already entered the justice system, juvenile justice programmers may wish to develop more focused awareness and risk-reduction education around issues of sexual exploitation.

Our findings regarding associations between victimization and girls' offending provide valuable information regarding content for gender-responsive programming to reduce crime and delinquency. One prominent theme in girls' accounts involved substance abuse as a form of self-medication used to cope with past caregiver violence, witnessed violence, and sexual violence. This illuminates the need for education and services addressing alcohol and drug use among traumatized girls, as well as need for skill-building to develop alternative coping mechanisms to address violence, loss, and other stressors in girls' lives.

Our findings indicated that girls' use of violence and aggression frequently occurred in retaliation to witnessed violence in the girls' homes or communities. Thus, enhancing the safety of girls' ecological contexts may be a necessary step in reducing this type of reactive aggression. Again, alternative coping skills may be needed, including non-violent conflict resolution and use of appropriate systemic resources (e.g., law enforcement, social services).

Both substance abuse and involvement in prostitution bore associations to these young girls' relationships with criminally involved adults. These findings highlight the importance of examining corruption of girls through social networks, including missocialization by caregivers and sexual exploitation by older men. This also holds important policy implications for addressing child corruption. For instance, advocates for girls might wish to address guidelines and penalties surrounding issues such as provision of alcohol and drugs to minors, statutory rape, and enticement of youth into criminal activity such as drug dealing and prostitution.

Girls' accounts illustrated how involvement in high-risk activities such as drug use and commercial sex work heightened risk for revictimization, including exposure to drug and gang violence, physical abuse from "johns" and pimps, and sexual assaults by acquaintances and predators. These risks indicate that there may be need for greater presence of confidential community-based services to address victimization that may occur in a criminal context, in that these victims may be unlikely to utilize systemic resources for fear of implicating themselves in criminal conduct.

Collectively, project findings have theoretical implications regarding range and consequences of violence exposure for at-risk girls, as well as applied utility for service interventions, justice interventions to promote rehabilitation and accountability, and efforts to increase ecological safety for delinquent girls through work with families and communities. We plan to work closely with our project advisory board to identify audiences and formats for dissemination so that these findings may be of maximum utility for professionals and lay community members who interact with girls. This might include applications for educators at all levels of schooling, faith-based groups and non-governmental organizations that provide services in community settings, program

developers and social service staff working in juvenile justice settings, and policy makers concerned about well-being of youth and families. Further, our findings provide information for researchers regarding importance of focusing inquiry on issues such as victimization by caregivers and sexual predators and role of social networks in girls' pathways to delinquency. Understanding prevalence and dynamics of these risks is essential for developing effective prevention, risk reduction, and intervention.

The current findings are limited in deriving from a modest sample of girls committed to juvenile facilities. Our participants may have been more criminally involved or experienced higher levels of victimization than delinquent girls who had not penetrated the juvenile justice system. Similarly, these findings may not generalize to girls who were referred to adult youthful offender programs. For particular delinquent activity within our sample (e.g., fighting, stealing, running away), it is possible that ceiling effects of frequent offending or other sample biases may have attenuated associations to victimization. Additional research might examine associations between victimization and delinquency among probationers or less systemically involved girls. Researchers could also investigate ways in which patterns identified here continue into adulthood. Further research is needed to explore how resiliency and mental health outcomes may mediate associations between girls' victimization and delinquency. We plan to explore such constructs through our archival quantitative data, and we will conduct intensive grounded-theory analyses (Strauss, 1987) of qualitative data via subsampling from our dataset. We believe that the rich data amassed here will lend itself to a variety of applications in years to come.

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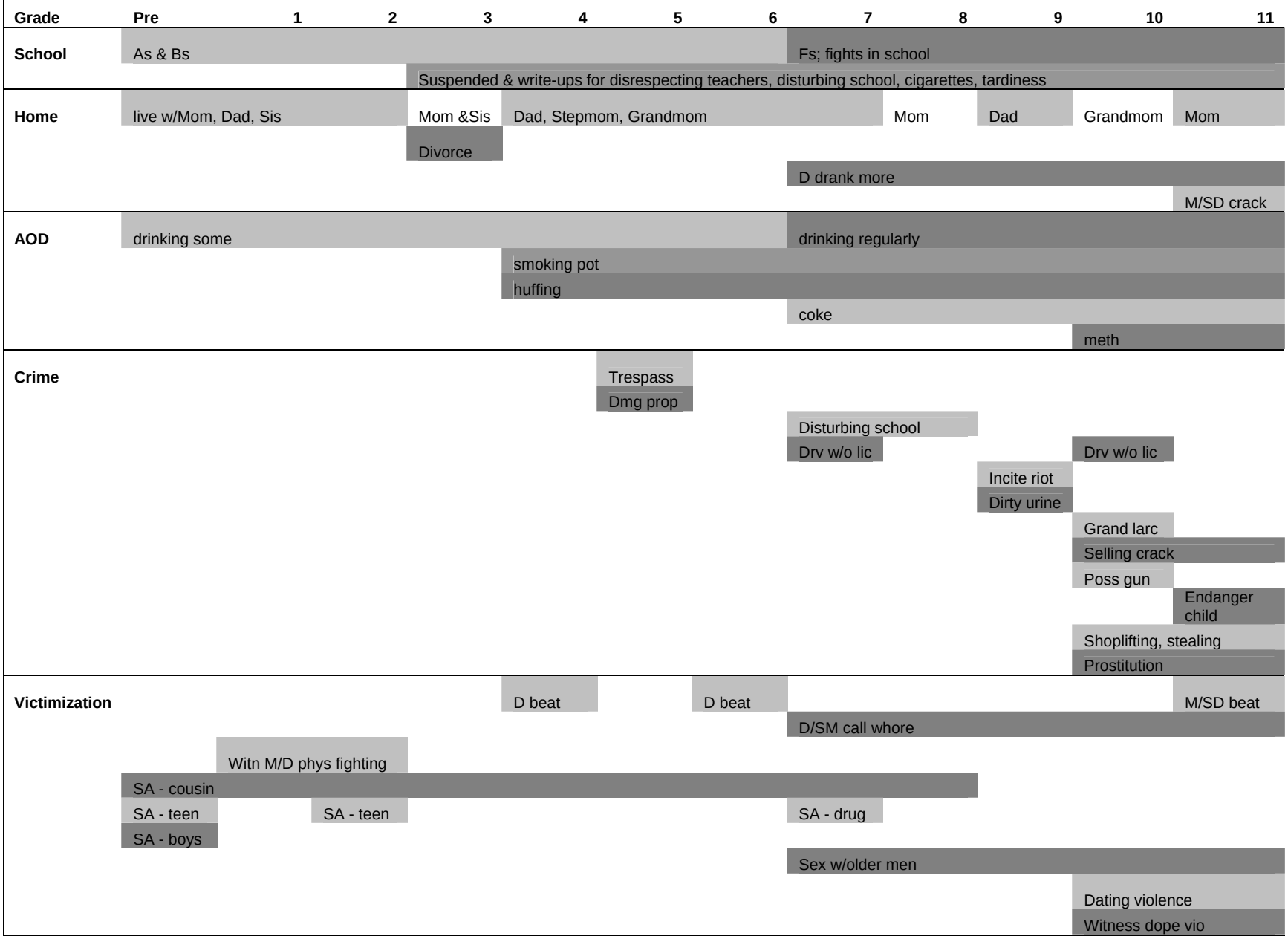
APPENDIX A: SAMPLE LIFE HISTORY CALENDAR (actual sample with some details changed to protect confidentiality)



APPENDIX B:
STATUS OFFENDING & CHILDHOOD STABILITY

Because research literature indicates some association between delinquency and childhood stability factors such as changes in schools, homes, and caregivers, we conducted exploratory analyses of interview and life calendar data to examine relationships within our sample of committed girls. We found significant associations between stability factors and status offenses (substance use, running away) but not between stability and other offenses (stealing, fighting, and prostitution). The following analyses further explore significant associations.

Descriptive Statistics

Using life calendar interview data, we examined associations of duration in years for two types of status offenses—substance use and running away—with stability indicators including number of schools attended, number of homes in which girls lived, and number of different primary caregivers with whom girls resided. In operationalizing number of schools and homes, the first school (or home) was coded '1' on the life calendar and an ongoing count was kept with each move thereafter. In operationalizing number of primary caregivers, we counted only one primary caregiver per household, and we kept an ongoing count when there was a change to a new (nonredundant) caregiver (i.e., moving from mom to dad back to mom would only count as two distinct primary caregivers). Table 1 displays mean, median, and mode for each childhood stability variable.

Appendix Table 1: Mean, Median, & Mode for Childhood Stability Factors

	Mean	**Median**	**Mode**
Number of schools	5.9	5	4
Number of homes	3.94	3	2
Number of primary caregivers	2.38	2	1

Association of Status Offending to Childhood Stability

We performed linear regression analyses to examine prediction of duration of status offending by the three childhood stability factors. Because duration of offending was associated with girls' ages, we controlled for age using forced entry regression entering age in the first step and entering the three stability variables as a second step.

Our first equation included duration of substance use as the dependent variable, age as a control variable entered in the first step, and number of schools, homes, and caregivers as independent variables entered in the second step. Our control variable accounted for 12% of the adjusted variance in duration of substance use, $F(1, 83) = 12.13$, $p < .001$. Stability factors added another 10% of adjusted variance, $F(4, 80) = 6.74$, $p < .001$. As can be seen in Table 2, number of schools

was the only independent variable to reach statistical significance at the $p < .05$ level, indicating that duration of substance use was longer for girls who had many school changes.

Appendix Table 2: Prediction of Substance Use by Childhood Stability Controlling for Age

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-8.831	3.440		-2.567	.012
	AGE	.761	.218	.357	3.483	.001
2	(Constant)	-6.511	3.308		-1.968	.053
	AGE	.495	.220	.232	2.251	.027
	#SCHOOLS	.212	.095	.259	2.232	.028
	#HOMES	.162	.104	.175	1.560	.123
	#CGIVERS	-.025	.147	-.017	-.171	.864

Model Adjusted R-square = .215

Our second equation included duration of running away as the dependent variable, age as a control variable entered in the first step, and number of schools, homes, and caregivers as independent variables entered in the second step. Our control variable accounted for 5% of the adjusted variance in duration of substance use, $F(1, 82) = 5.14$, $p < .05$. Stability factors added another 17% of adjusted variance, $F(4, 79) = 6.90$, $p < .001$. As can be seen in Table 3, all three stability factors reached statistical significance. Findings indicate that duration of running away was longer for girls who changed schools and caregivers often, but—contrary to our expectations—shorter for girls who changed homes often.

Appendix Table 3: Prediction of Running Away by Childhood Stability Controlling for Age

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.362	2.245		-1.497	.138
	AGE	.324	.143	.243	2.267	.026
2	(Constant)	-3.125	2.075		-1.506	.136
	AGE	.277	.138	.208	2.004	.048
	#SCHOOLS	.124	.059	.243	2.094	.039
	#HOMES	-.211	.065	-.367	-3.262	.002
	#CGIVERS	.285	.091	.311	3.119	.003

Model Adjusted R-square = .221

Qualitative Analyses

Examination of qualitative data was used to further examine patterns revealed in quantitative analyses. Case-by-case inspection of life calendar data demonstrates that onset of substance use and running away almost always coincide with or follow (as opposed to proceed) changes in schools and/or homes. We examined girls' qualitative interview transcripts to identify key dynamics of associations between status offending and childhood stability.

Positive Association between Duration of Substance Use and Number of Schools

A prominent theme throughout girls' accounts was use of alcohol and drugs as a means for coping. Examination of girls' stories regarding changes in schools demonstrated that this same dynamic might occur in coping with the stress of moving or the new school setting. One participant, for instance described onset of misuse of prescription drugs as a result of being "very depressed about her situation and about moving and school." After changing schools eight times, another participant describes herself as "not popular" and an "outcast." These moves, and the resulting lack of consistent social relationships, seem to be an integral to the beginning of her use of drugs and alcohol.

> *Courtney began smoking weed and drinking alcohol….That same year she did meth, crack, coke, or X daily. It all started with her friend… Courtney wasn't popular or nothing, and he lived nearby. He took an interest in her. They started hanging out every day. They started smoking cigarettes together. They were both outcasts.*

Others express similar sentiments, including substance use as means of coping with isolation, peer pressure, or attempts to "fit in."

> *From fourth grade through sixth grade, at her new schools, Angela was sort of a loner and only had a couple of friends. She would smoke cigarettes and sneak and drink by herself.*

> *Destiny started smoking cigarettes when she was 14 or 15, just because other people were doing it. Now she does it because it's stress relief….With weed, instead of Destiny getting infuriated because of stuff, it doesn't make her mad no more, because she's in a cool state of mind.*

> *Emily went to a Christian school in another state from kindergarten through ninth grade….Then she moved here and started going to public school, attending ninth grade again. That's when she started getting Fs because she was doing drugs and hanging out with bad friends on weekends.*

In many cases, it is unclear whether substance use was a reaction to a school change or whether the change in schools may have stemmed from substance use, as in cases in which girls were placed in alternative schools following disciplinary actions.

> *Marla attended a different school in seventh grade but was kicked out and attended an alternative school for the end of seventh grade….She was expelled for threatening to throw a chair at the teacher….That was around the same time she started smoking pot and drinking…There was probably a little pressure for her to smoke it as she didn't want to get picked on.*

Thus, girls' accounts indicate substance use may be a means of coping with childhood instability, particularly around quality and consistency of peer relationships. However, directionality of associations is sometimes unclear in the tangle of co-occurring activities and motivations surrounding school changes and substance use.

Associations of Duration of Running Away with Number of Schools, Caregivers, and Homes

Quantitative data indicated positive associations between duration of running away and number of schools and number of caregivers, but a negative association between duration of running away and number of homes. The most salient theme in examining girls' stories of running away concerns escape from conflict at home.

> *Heather ran away a lot from seventh grade on. Usually it was because she was frustrated and mad at her mom—her mom talking and yelling and screaming and not making sense….The longest Heather ever stayed gone was three days, and that was running from her dad, not her mom. She ran from her dad because his kids got on her nerves and she didn't want to be there; he wouldn't let her go, so she left.*

Sometimes, school changes appeared to be part of disciplinary actions for girls' running away, as in cases in which girls were sent to alternative schools.

> *Lori being in DJJ all started with a runaway charge. Her dad was hitting on her (beating) and her brother was hitting on her, so she left….It's not the first time Lori ran away, so when she tried to come home, her dad has all these games he plays on her. He'll lock her out of the house and won't let her in unless he's there. He'll tape the doors. When Lori got home, he wasn't there, so she took a brick and broke the window to get into the house. The neighbor called the police….They sent her to the detention center for three days, then she went to court. Then the ordered her back to go to the detention center before going to a boarding school. Lori ran away from the boarding school because she didn't like it.*

Again, this story illustrates entanglement of status offenses with childhood stability factors, including cyclical or reciprocal relationships between the two.

With regard to the positive association between duration of running away and number of caregivers, moves to kinship care or social service settings were often accompanied by reactance and running away.

In fifth grade, Jessica got taken into DSS custody because her mom abused her…Jessica was put in a foster home for two months before going to live with her dad and her stepmom…and then was in group homes from then on….Jessica ran away to be with her mom. She ran away from every group home she was in. Usually, she turned herself in to do the right thing, but then they'd put her in another group home and she'd do it again.

Marissa ran away a lot from fourth grade on after getting in DSS custody. She usually did it because she was upset and angry. She felt like the placements were trying to take the place of her mom….Every time Marissa would talk to her mom, it would make her sad and cry so she'd leave or walk out of the placement….DSS counts how many places they put you in. This is the 24th or 25th place that she has been in DSS custody.

Closer examination of girls' accounts provides some insight into why girls who had more changes in homes seemed to run away less. For some girls, moving back and forth between a few different primary caregivers seemed to circumvent running away as a means of dealing with family conflict.

The reason Cynthia was always moving was because she was arguing with her mom or with her dad, so she'd move in with the other one. She was disrespecting them and always getting in trouble at school. Cynthia's dad was cool sometimes. Her mom let her do what she wanted. Her grandmom was real strict.

Amber lived with her mom, dad, and sister in a trailer up through second grade…They divorced and Amber moved to a trailer park with her mom and sister. But Amber was fighting with her mom and having problems with her babysitter, so she moved back with her dad and grandmother that same year. The next year her dad began dating Amber's stepmother, and she moved in with them when they married. Amber went to DJJ in seventh grade and moved in with her mom when she got out. It didn't work out so she moved back in with her dad. She went back to DJJ in eighth grade and moved in with her mom in ninth when she got out. But things were rough, so she moved back with her dad again. In tenth grade she lived with her grandmother for a while before going back into DJJ . In eleventh grade she was in DJJ and on the run, then lived with her mom, aunt, grandmother, and dad intermittently between DJJ stints in the twelfth grade.

As the last account illustrates, having an alternative place to live may have provided respite from conflict or reduced frequency of running away, but it did not prevent this girl from getting into trouble all together. Further research that includes girls who are not involved with the justice system may provide insight into effective means for addressing family conflict yet providing more stability in girls' lives. Finally, some girls shared lessons garnered from their own attempts to cope with conflict and instability.

*Jamie wants other kids to know that instead of running away, talk to your mom and compromise about problems. Because when you are running away, you don't know where you're going to sleep at, or where you'll get your food, or wash you're a**, or get clothes, or do your hair. And people will use you, and you get used just to have a place to stay. Jamie cries every night she's here…You don't know what freedom is until somebody takes it away from you….Jail is no place for nobody.*