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Pregnancy Outcomes among Girls Impacted by Commercial Sexual Exploitation

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Abstract

OBJECTIVE—We measured pregnancy rates and pregnancy outcomes among girls with histories of commercial sexual exploitation (CSE), and then quantified the associations between the outcome of pregnancy with: a) girls' exposure to childhood adversity, and b) their behavioral health. This is the largest study of pregnancy outcomes and associated factors among girls impacted by CSE in the United States.

METHODS—We reviewed court files of participants in a juvenile specialty court for youth impacted by CSE, between 2012 and 2016. We collected data on pregnancy, health, and social factors. Data were updated through 2018 and descriptive statistics were calculated. Two-sample

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tests for equality of proportions explored associations between pregnancy with adverse childhood experiences and the girls' behavioral health profiles.

RESULTS—Among the 360 biological females, 31% had ever been pregnant. Of the girls ever pregnant, 18% had multiple pregnancies. Outcomes for the 130 reported pregnancies were: 76% live births; 13% therapeutic abortions; 5% miscarriages or stillbirths; and 6% of pregnancies were ongoing at case closure. Parental incarceration and histories of maternal substance abuse were both associated with pregnancy.

CONCLUSIONS—High pregnancy rates among girls with histories of CSE suggest the importance of applying a reproductive justice approach to deliver reproductive education, family planning services, pre-natal care, and parenting support to girls impacted by CSE.

Keywords

commercial sexual exploitation of children; child sex trafficking; commercial sexual exploitation of youth; pregnancy

INTRODUCTION

Adolescent girls with histories of commercial sexual exploitation (CSE), defined as the exchange of sexual activity for anything of value,¹ are at heightened risk for unplanned pregnancy.² CSE of children and adolescents less than age 18 signifies a severe form of childhood sexual abuse.² CSE can increase an individual's risk of pregnancy, including unplanned or unintended pregnancy, by increasing the number of sexual encounters. Additionally, exploited girls and young women may lack access or choice regarding contraceptive use³ and may use illicit substances during their exploitation as a means of coping, both of which can increase rates of unprotected sex and subsequent unplanned pregnancy.⁴ Further, the extreme physical, sexual, and psychological trauma associated with CSE and the social networks youth become exposed to may also increase subsequent risk of unplanned pregnancy.^{3,5} Prior studies have documented high pregnancy rates and high risk of unplanned pregnancy among commercially sexually exploited women; however, samples are predominately small or exclude adolescents.^{6,7} One cross-sectional study of 25 girls with identified CSE found that 32% had been pregnant.⁸ In addition to the small sample size, the study was limited to the emergency room setting, relied on self-report, and did not report the outcomes of the pregnancies.⁸ Despite the high risk, there remains a paucity of empirical evidence describing pregnancy risks and outcomes for adolescent girls with CSE histories.

Girls impacted by CSE have high rates of exposure to prior child abuse, neglect, and other adverse childhood experiences (ACEs).^{6,9,10} In addition to contributing to CSE, ACEs increase risks for mental health disorders, adolescent substance use, and involvement in the juvenile justice system.^{11,12} ACE exposure and behavioral health conditions also increase teen's unplanned pregnancy risk.^{6,12} Yet, the association between ACEs and behavioral health conditions with pregnancy outcomes of girls who have experienced CSE remains unexplored.¹³ We therefore sought to measure pregnancy rates and pregnancy outcomes among adolescent girls with histories of CSE. Our secondary objective was to quantify the association between the girls' personal and family factors, namely exposure to childhood

adversity (i.e. abuse/neglect, parental drug use, parental justice involvement, or parental death) and girls' behavioral health conditions (i.e. mental health disorder or substance use), with the outcome of pregnancy.

METHOD

We reviewed the case files of a juvenile specialty court serving youth with histories of CSE in the southwestern United States. The multi-disciplinary court conducts ongoing assessments of rehabilitative, educational, and health-related needs and provides referrals, including for reproductive and mental health services, and assistance accessing services as needed. Youth served by the court receive reproductive care when residing in detention facilities through the correctional healthcare system. When residing in the community (i.e., in caregivers' homes or in congregate care placements) youth receive ambulatory reproductive care in primary care settings and specialty clinics, such as Planned Parenthood.

Our team extracted sociodemographic, family history, and health-related data of all youth participating in the court from 2012 through 2016, with data extraction updated through 2018.

Court case files contained records from the juvenile court, child welfare system, probation department, correctional mental health system, and education system. Of the 364 participants in the court, 360 were biologically female; our analyses focused on the biological females. Mental health data were obtained from clinical assessments in psychiatric evaluations and reports from the county department of mental health that took place before and during court participation. These data included DSM diagnoses and medications. Youth substance use data were collected via court record documentation of positive drug screening, adolescent self-report, and probation officer report. The family factors of parental substance use and incarceration status were collected using information extracted from narrative court intake assessments and probation reports.

Data were stored in a HIPAA-compliant electronic database (REDCap). We summarized the data using descriptive statistics. Two-sample tests for equality of proportions were conducted in R software. All research activities were approved by our university's institutional review board and by the county juvenile court.

RESULTS

Participant Characteristics (Table 1)

The majority of participants in the court were from racial/ethnic minority groups. On average, girls entered the specialty court at the age of 16 years (range 12 to 19 years). In total, 72% of all girls had a documented mental health disorder. Depression was the most common diagnosis for all girls (49%). Regardless of pregnancy history, 90% of the girls reported ever using illicit substances, with the most commonly reported substances being marijuana (87%), alcohol (54%), and amphetamines (33%). A total of 62% of the girls had at least one prior substantiated allegation of child abuse or neglect.

Pregnancy History

Of the 360 biological females, 31% had ever been pregnant. Of the girls ever-pregnant, 18% had two or three pregnancies. The average age at first pregnancy was 16 years old. Youngest age at first pregnancy was 12 years old. Of the 130 reported pregnancies, 76% were live births, 13% were terminated through therapeutic abortions, 5% resulted in miscarriages or stillbirths, and 6% were ongoing at the time of case closure. Nearly half (49%) of the ever-pregnant girls became pregnant during court supervision. Among girls who experienced pregnancy during court supervision, nearly 25% of girls were pregnant by 16 years old and nearly 75% of girls were pregnant by 17 years old. Of those who became pregnant during court supervision, 50% became pregnant during the first 9 months of supervision; 75% became pregnant by 18 months of supervision. There were no significant demographic differences among girls with pregnancy histories compared to those without pregnancy histories (Table 1).

Family and Behavioral Health Factors (Table 1)

Significant differences in the prevalence of family risk factors were observed between ever-pregnant versus never-pregnant girls. Compared to girls with no histories of pregnancy, significantly higher proportions of ever-pregnant girls had mothers with documented drug use (35% vs 22%; $p=0.009$), or had a parent that was incarcerated when the youth entered court supervision (maternal incarceration: 9% vs 4%, $p=0.03$; paternal incarceration: 20% vs 12%, $p=0.04$). In contrast, no significant difference in child maltreatment was observed between ever-pregnant and never-pregnant girls (63% and 62%, respectively). Compared with ever-pregnant girls, girls without known pregnancies had higher rates of having any documented substance use (91% vs 87%) and any mental health disorder (74% vs 70%), although these differences were not significant. Ever-pregnant girls were significantly less likely than never-pregnant girls to have an attention deficit hyper-activity disorder (ADHD) diagnosis (15% vs 26%, $p=0.02$).

DISCUSSION

To our knowledge, this is the largest study reporting pregnancy rates and outcomes of adolescent girls impacted by CSE. Several salient findings emerge. First, the rate of pregnancy observed in this sample (31%) is consistent with the documented rate of pregnancy among a study of 25 girls with histories of CSE presenting for care in an emergency department setting (32%).⁸ The high observed pregnancy rate also aligns with the broader juvenile justice literature, which indicates that one-third of incarcerated girls have been pregnant.¹⁴ Second, findings support that girls impacted by CSE have high rates of substance use, mental health disorders, and pregnancy.^{2,9} The significant association between ADHD diagnosis and not becoming pregnant, and the overall trend towards higher rates of mental health disorders among the never-pregnant girls, may indicate that accessing mental health services can create useful connections to pregnancy prevention resources. Further research is needed to clarify these associations. Third, the ACEs of parental incarceration and maternal drug use demonstrated strong associations with pregnancy. This finding aligns with a prior study linking ACE exposure with CSE among a similar population of judicially-involved adolescents.¹⁰ In our sample, the rates of current parental

incarceration were high—20% of the girls with at least one pregnancy had a father currently incarcerated—suggesting an inter-generational family risk factor linked to pregnancy, as well as inter-generational involvement in the judicial system.

Our findings call attention to the increased reproductive health needs of girls impacted by CSE, many of whom have histories of child maltreatment, high mental health needs, and are currently involved or have been involved in the juvenile justice and child welfare systems.³ The same southwestern region has recently received attention for high pregnancy rates among girls involved in foster care.¹⁵ Children of adolescent mothers with histories of maltreatment are 2.5 times more likely to be reported to child protective services, compared to children of adolescent mothers without maltreatment histories.¹⁶ Thus, the experiences of the adolescent girls impacted by CSE can lend insight into the interrelated factors impacting pregnancy risk for all systems-involved adolescent girls and may suggest a mechanism for intergenerational transmission of risk.

An opportunity exists to increase reproductive justice by reducing barriers and enabling access to reproductive healthcare and resources for girls impacted by CSE.¹⁷ The term “reproductive justice,” developed in 1994 by women of color responding to the women’s rights movement, refers to the right to have autonomy, have children, not have children, and parent in safe and sustainable communities.¹⁷ Extending to healthcare, reproductive justice includes appropriate access to reproductive and family planning services¹⁸—care access needs that are particularly critical for girls impacted by CSE.³ The observed interrelationship between pregnancy and ACEs presents opportunities for health providers and systems of care to address adversity and trauma sequelae—and meet girls’ reproductive healthcare needs—thereby promoting the reproductive justice of girls impacted by CSE. Over 80% of adolescent females impacted by CSE reported seeing a reproductive health provider in the prior year,¹⁹ yet pregnancy rates are high—and most of these pregnancies are likely unplanned.³ Effectively addressing the intersectionality of ACEs, substance use, mental health disorders, and reproductive health disparities warrants multidisciplinary collaboration and community-developed solutions, both in practice and in future research.²⁰

The high rate of pregnancy occurring during court supervision, particularly in the earlier months of court supervision, underscores the need for reproductive health education and contraceptive care at the onset of judicial systems involvement. The call for more reproductive health education and contraceptive care, including in detention facilities, aligns with girls’ identified preferences demonstrated in qualitative studies on contraception and family planning services among youth impacted by CSE²¹ and judicially-involved girls.²² Further, a high proportion of pregnancies resulted in live births—99 live births among the 360 girls—suggesting that the teen birth rate among girls impacted by CSE likely far exceeds the U.S. national teen birth rate of 2 live births per 100 adolescent girls.²³ The observed high live birth rate in this study highlights the need for health professionals to ensure that girls impacted by CSE also receive high-quality prenatal care and socioemotional resources to promote positive parenting practices.

Our study approach raises several limitations. First, the study lacks a comparison group. All participants were juvenile justice-involved in a large, urban county, which limits the

generalizability. Additionally, information on pregnancy was not systematically recorded within court files, so the data likely underestimate true pregnancy prevalence as well as miscarriage and abortion rates. Early pregnancies were especially likely to have been omitted from courts records (whereas data on term pregnancies and live births is expected to be accurately captured). Data on whether pregnancies were caused by the exploitation, whether pregnancies were planned or unplanned, whether births were pre-term, and specific reproductive care utilization information were not collected. Measures related to substance use and mental health disorders may also be underreported. These limitations underscore the need for increased multidisciplinary and multi-agency collaboration to ensure that the full range of health needs and treatment receipt of youth involved in systems of care are systematically documented and addressed.

CONCLUSION

High pregnancy rates among girls with histories of CSE underscore the importance of applying a reproductive justice approach to deliver reproductive education, family planning services, pre-natal care, and parenting support to girls impacted by CSE. By improving the delivery of specialized reproductive education and care to girls who have experienced CSE, health providers and systems of care have the opportunity and responsibility to interrupt the intergenerational transmission of risk and reduce reproductive health disparities. Collaboration between health, child welfare, and juvenile justice providers may enable improved reproductive health education and care delivery to a sizeable portion of girls impacted by CSE.

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What's New

This study, the largest study of pregnancy outcomes among girls in the U.S. impacted by commercial sexual exploitation (CSE), reports a teen pregnancy rate of 31%. For girls impacted by CSE, pregnancy was associated with parental incarceration and maternal substance use.

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Table 1:

Sociodemographic, Family, and Behavioral Health Characteristics by Pregnancy History Among Girls Impacted by Commercial Sexual Exploitation (n=360)

	All Girls No. (%)	Ever Pregnant No. (%)	Never Pregnant No. (%)
Total	360 (100)	110 (31)	250 (69)
Race / Ethnicity			
African-American	252 (70)	82 (75)	170 (68)
Latina	83 (23)	22 (20)	61 (24)
Caucasian/ Other	21 (6)	6 (6)	15 (6)
Age at entry (years), \bar{x}			
	16.4	16.5	16.4
Childhood Adversity			
Substantiated Allegation of Child Abuse or Neglect	223 (62)	69 (63)	154 (62)
Mother is living	314 (87)	102 (93)	212 (85)
Mother abused drugs **	92 (26)	38 (35)	54 (22)
Mother has a criminal record	93 (26)	34 (31)	59 (24)
Mother incarcerated *	19 (5)	10 (9)	9 (4)
Father is living	190 (53)	60 (55)	135 (54)
Father abused drugs	49 (14)	14 (13)	35 (14)
Father has a criminal record	102 (28)	35 (32)	67 (27)
Father incarcerated *	52 (14)	22 (20)	30 (12)
Mental Health Disorder (ever)			
Any	262 (72)	77 (70)	185 (74)
Depression	178 (49)	50 (45)	128 (51)
Mood disorder	129 (36)	38 (35)	91 (36)
Disruptive behavior disorder	106 (29)	36 (33)	70 (28)
ADHD *	81 (23)	16 (15)	65 (26)
Bipolar	79 (22)	24 (22)	55 (22)
Substance Use (ever)			
Any	323 (90)	96 (87)	227 (91)
Marijuana	321 (87)	93 (85)	219 (88)
Alcohol	194 (54)	52 (47)	142 (57)
Amphetamines	117 (33)	29 (26)	88 (35)

* Indicates P-value less than 0.05

** indicates p-value less than 0.01