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Pregnancy and Mental Health of Young Homeless Women

Devan M. Crawford, Emily C. Trotter, Kelley J. Sittner Hartshorn, and Les B. Whitbeck
University of Nebraska-Lincoln

Pregnancy rates among young women who are homeless are significantly higher than rates among housed young women in the United States (J. M. Greene & C. L. Ringwalt, 1998). Yet, little research has addressed mental health or risk and resilience among young mothers who are homeless. Based on a sample from the Midwest Longitudinal Study of Homeless Adolescents, this study explores pregnancy and motherhood in unaccompanied homeless young women over a period of 3 years. The data are supplemented by in-depth interviews with a subset of young women. Results show that almost half (46.4%) of sexually active young women who are homeless ($n = 222$, $M_{age} = 17.2$) had been pregnant at baseline. Among those who stated they had children between Waves 2 and 13 ($n = 90$), only half reported caring for their children consistently over time, and one fifth reported never seeing their children. Of the participants with children in their care at the last interview (Wave 13), almost one third met criteria for lifetime major depressive episode, lifetime posttraumatic stress disorder, and lifetime drug abuse, and half met criteria for lifetime antisocial personality disorder. Twelve-month diagnoses are also reported. The impacts of homelessness on maternal and child outcomes are discussed.

Although rates of homelessness among young people are difficult to assess because the population is often hidden and transient (Ringwalt, Greene, Robertson, & McPheeters, 1998), statistics from the Office of Juvenile Justice and Delinquency Prevention indicate that there were approximately 1.6 million homeless runaway and thrown-away young women under 18 years of age in 1999 (Hammer, Finkelhor, & Sedlak, 2002). Of particular concern is the number of young females who become pregnant while homeless. This number has been steadily growing over the last 30 years. Recent estimates show that between 6% and 22% of young women who are homeless may be pregnant (U.S. Department of Health and Human Services, Health Resources and Services Administration, 2001), whereas pregnancy rates in the general population for ages 18 and 19 are just above 12% (Guttmacher Institute, 2006).

The physical and mental stresses of pregnancy and the pressures of caring for young children can complicate the process of extricating oneself from homelessness (Webb, Culhane, Metraux, Robbins, & Culhane, 2003). Mental health problems are prevalent among homeless mothers (Bassuk, Buckner, Perloff, & Bassuk, 1998) and are exacerbated by time spent living on the street (Cauce et al., 2000). Moreover, homelessness during pregnancy is associated with higher risk for birth complications, low birth weight, and nutritional or substance abuse-related physical and neurological effects on newborns (Chapman, Tarter, Kirisci, & Cornelius, 2007; Little et al., 2005; Stanwood & Levitt, 2004; Stein, Lu, & Gelberg, 2000).

Despite the high rates of pregnancy among young females who are homeless, we know little about their pregnancies or what happens to their children; to date, there are no studies that have followed them through their pregnancies and beyond or that have provided diagnostic information regarding their mental health and substance use. For this study, we followed a sample of young females (aged 16–19 years at baseline) over a 3-year period as they moved from late adolescence into early adulthood. We report on their pregnancy outcomes and the results of diagnostic screenings for mental and substance use disorders at baseline and at Year 3 of the study. The findings are informed by in-depth interviews with a subsample of these young women.

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Correspondence concerning this article should be addressed to Devan Crawford, Department of Sociology, 209 Benton Hall, University of Nebraska-Lincoln, Lincoln, NE 68588-0623. Electronic mail may be sent to dcrawfrd@unlserve.unl.edu.

Background

Approximately 1% of the homeless population is comprised of unaccompanied young people who have left home (U.S. Conference of Mayors, 2007) due to family problems, economic

disadvantage, or residential instability (Duffield, 2001). Homeless episodes interrupt typical adolescent development and the transition to adulthood by disrupting education and substituting exposure to conventional peers and adult caretakers with largely nonconventional support groups (Hagen & McCarthy, 1997; Markos & Lima, 2003; Powers & Jaklitsch, 1993; Whitbeck & Hoyt, 1999). Homeless young people engage in the street economy in an effort to support themselves, reduce the risk for victimization, and reduce the likelihood of involvement in the criminal justice system (Hagen & McCarthy, 1997; Whitbeck, 2009; Whitbeck & Hoyt, 1999). Additionally, homeless young people tend to be sexually active and often engage in unprotected sex, which results in high rates of sexually transmitted infections (STIs; Noell, Rohde, Seeley, & Ochs, 2001). Furthermore, homeless young women have high rates of pregnancy and early parenthood (Greene & Ringwalt, 1998; Haley, Roy, Leclerc, Boudreau, & Boivin, 2004). Pregnancy and early parenthood, in turn, compromise their educational opportunities and result in the loss of opportunities for successful adult adjustment (Nunez & Fox, 1999).

Most women who are homeless have been pregnant at some point in their lives. Halcón and Lifson (2004) reported that among homeless females (age range: 15–22 years) in Minneapolis, more than half had been pregnant at least once. This is in comparison to just over 12% in the general population aged 18–19 years (Guttmacher Institute, 2006). Furthermore, young women who are homeless may be at increased risk for multiple pregnancies: Halcón and Lifson (2004) reported almost 30% of the young women in their sample had been pregnant two or more times. Becker, Robinson, Gortmaker, Weinreb, and Bassuk (1992) reported that half of all women in a New York City homeless sample had experienced pregnancy four or more times (cited in Bassuk & Weinreb, 1993).

These statistics are not surprising when one looks at contraception use among homeless young women. In a recent study by Arangua, Andersen, and Gelberg (2005), 42% of sexually active homeless (fertile) women did not use any form of birth control when engaging in vaginal sex in the past 12 months. Of those who used birth control, the most common method was condoms (Arangua et al., 2005; Gelberg et al., 2008), and only one third of those who said they used condoms said they did so consistently (Gelberg et al., 2008). Females in stable relationships were two times more likely to forgo contraceptive use than females with multiple partners (Gelberg et al., 2008), which places them at increased risk for unintended pregnancy.

For females who are homeless and carry their pregnancies to term, many end up relinquishing their children either voluntarily or involuntarily to family members or to the child welfare system. This is particularly true of younger females, who tend to have fewer resources. Although the results were not broken down by mothers' age, a recent 5-year study of child welfare involvement and foster care placement indicated that 37% of children with mothers experiencing homelessness were involved with the child welfare system (Culhane, Webb, Grim, Metraux, & Culhane, 2003). Among homeless families in New York City, 35% had child welfare supervision (Nunez, 1994). A survey of 195 children in foster care indicated that approximately one half of their birth parents had been homeless at some point (Zlotnick, Kronstadt, & Klee, 1999).

For women who are homeless and who care for their children, the challenges are formidable. Much of what we know about being a parent comes from the ways we have been parented. There is extensive research documenting that homeless young people leave or drift out of disorganized and often abusive families (Janus, Archambault, Brown, & Welsh, 1995; Kaufman & Widom, 1999; Kennedy, 1991; Kurtz, Kurtz, & Jarvis, 1991; Molnar, Shade, Kral, Booth, & Watters, 1998; Mounier & Andujo, 2003; Noell et al., 2001; Pennbridge, Yates, David, & MacKenzie, 1990; Rotheram-Borus, Mahler, Koopman, & Langabeer, 1996; Ryan, Kilmer, Cauce, Watanabe, & Hoyt, 2000; Sullivan & Knutson, 2000; Tyler, Hoyt, Whitbeck, & Cauce, 2001; Tyler, Whitbeck, Hoyt, & Cauce, 2004; Whitbeck & Simons, 1993). Patterson, Dishion, and Bank (1984) argue that such families are *basic training* for antisocial behaviors. Coercive or aggressive communication patterns learned in dysfunctional families are carried into new situations, such as school and peer groups, where they elicit coercive or aggressive responses from teachers and peers. The results are academic problems and rejection by conventional peers, which leads to support-seeking from nonconventional peer groups that tolerate and reciprocate this style of interaction.

If dysfunctional families are basic training for antisocial behaviors, certainly homeless episodes provide advanced training. There are few opportunities to learn conventional interactive skills and great pressure to learn survival skills for protection and for making one's way economically. Moreover, dysfunctional families and street experiences take an emotional toll. Indeed, homelessness may have serious negative consequences for the health of those who are pregnant regardless of age at which they become pregnant. These effects may be more pronounced, however, among young women. Pregnancies in young women tend to be difficult physically and emotionally even among those who are housed and have intact support systems. Bassuk and Weinreb (1993) pointed out that most of those who are homeless and become pregnant are young. These women are also likely to suffer from acute and chronic health problems (Wagner & Menke, 1992; Weinreb, Goldberg, & Perloff, 1998) and often report poor nutritional intake (Oliveira & Goldberg, 2002). Regardless of age, mothers who are homeless have high rates of depression and stress (Meadows-Oliver, 2002; Tischler, Rademeyer, & Vostanis, 2007) as well as posttraumatic stress disorder (PTSD) and comorbid mental disorders (Bassuk et al., 1998).

Women who are homeless report high rates of alcohol consumption while pregnant. Wagner and Menke (1992) estimated that 38% of the homeless women in their sample drank alcohol while pregnant. Substance abuse may further reduce already low rates of prenatal care (Stein et al., 2000). Furthermore, alcohol use while pregnancy is associated with neurological effects among offspring, including fetal alcohol spectral disorders (Chapman et al., 2007; Stanwood & Levitt, 2004). Substance use also increases the risk of miscarriage: Recent estimates put the rate of miscarriage among women who are homeless at between 35% and 70% (Gelberg, Andersen, Wenzel, Leake, & Sumner, 1999; Halcón & Lifson, 2004).

Many young people who are homeless also meet criteria for mental health and substance use disorders. Couple this with the higher risk of low birth weight babies of difficult temperament,

unstable housing, poverty, and few sources of social support, and you have young parents who are poorly prepared for the stresses of parenthood. It is difficult for any young woman to become a parent, but the risk for young people who are homeless is amplified by their history and current situation. Rutter, Quinton, and Hill (1990) showed that young women from abusive families can learn good parenting skills; however, they must reject negative family experiences and choose alternative ways of bringing up their children. This involves consciously learning new parenting skills. Many young women who become pregnant while homeless will lack the necessary support and opportunities to learn these important skills.

Summary

Young women who are homeless and pregnant face many barriers to adequate health care and housing. Many lack a high school degree and have few references to obtain employment. Often, once employment is obtained, it is minimum wage work with few health care benefits and little access to upward mobility. Economic instability limits access to adequate nutrition, and a lack of prenatal care puts pregnant young women who are homeless at increased risk for gestational problems. Furthermore, many young women who are homeless are dealing with a lifetime of trauma and abuse as a result of disorganized families and involvement with nonconventional peers. These factors, coupled with increased mental health concerns, may ultimately impact their ability to care for their children. With significantly fewer resources, homeless young women and their children often come into contact with the welfare system. Understanding the characteristics of young people who are homeless and pregnant or experiencing motherhood is necessary to provide better and more comprehensive services at a national and local level.

Method

The data used for this report are from the Midwest Longitudinal Study of Homeless Adolescents (MLSHA), a 13-wave, 3-year study of young women in four Midwestern states who have experienced homelessness. To be eligible to participate, young women had to be between the ages of 16 and 19 and homeless at the time of the baseline interviews. To be considered *homeless*, young women had to reside in a shelter, on the street, or be living independently (e.g., friends, transitional living) because they had run away, been pushed out, or drifted out of their families of origin.

We designed a sampling strategy for the current study that incorporated fixed and natural sites and included a year-long window of sampling to capture the time dimensions (this design is similar to that used by Kipke, O'Connor, Nelson, and Anderson, 2000, in the Los Angeles study of homeless young women). The design involved repeatedly checking locations where young women experiencing homelessness were likely to be found in each of the target cities, such as shelters and outreach programs, drop-in centers, and various street locations frequented by young people who are homeless. Research has demonstrated that using sampling designs that involve multiple points of entry to homeless populations are most effective in generating a diverse sample (Burt, 1996a,b; Koegel, Burnam, & Morton, 1996).

The interviewers all had prior experience in their respective cities as young women outreach workers and brought considerable knowledge regarding optimal areas of the city for locating potential study participants. The sampling protocol included going to these locations in the cities at varying times of the day on both weekdays and weekends over the course of 12 months.

The interviewers underwent 2 weeks of intensive training on the following: (a) computer-assisted personal interviewing procedures, (b) administering the four University of Michigan Composite International Diagnostic Interview indices (i.e., major depressive episodes, PTSD, alcohol use or abuse, and drug use or abuse), and (c) one Diagnostic Interview Schedule for Children-Revised index (i.e., conduct disorder). They then returned to their shelters and administered several practice interviews with staff and participants who were at least 20 years of age. After completing their practice interviews, the interviewers returned to the university for a 2nd week of training. All interviews were conducted on laptop computers and downloaded electronically to a secure university server.

The young women were informed that this was a longitudinal study, and the tracking protocols were explained. Informed consent was a two-stage process: The study was explained, and informed consent was obtained. They were assured that refusal to participate in the study, refusal of any question, or stopping the interview process at any time would have no effect on current or future services. If the young women were sheltered, we followed shelter policies of parental permission for placement and guidelines concerning such permissions. These policies were always based on state laws. In the few cases where a young woman was under 18 years, not sheltered, and refused permission to contact parents, that person was treated as an emancipated minor in accordance with U.S. Department of Health and Human Services, Office for Human Research Protection (2005) guidelines. The consent process and questionnaires were approved by the University of Nebraska-Lincoln Institutional Review Board (#2001-07-333 FB). A National Institute of Mental Health Certificate of Confidentiality was obtained to protect the participants' statements regarding potentially illegal activities (e.g., drug use).

The baseline interview consisted of social history and symptom scales. In addition, the respondent was asked to meet for a second interview during which the diagnostic interviews were conducted. These two interviews made up the baseline assessment for the study and usually were completed within 1 or 2 days so that no significant time lapse occurred between the baseline interview and the diagnostic interview. The participants were paid $25 for each interview. Interviewers attempted to contact participants every 3 months. Because of the transient nature of the population, participants who missed a follow-up interview were not eliminated from the study. At each wave, attempts were made to contact all of the baseline participants. The result was variation in the number of waves completed by each respondent (for a full description of our quantitative data, see Whitbeck, 2009).

The qualitative portion of the study was supported by a University of Nebraska-Lincoln Faculty Seed Grant. These funds supported semi-structured interviews with a subsample of

40 (16 males and 24 females) MLSHA subjects. Project staff conducted and transcribed the interviews, which were audiotaped. All identifying information was removed from the transcript files and demographic information was tracked using subject identification numbers. The interviews lasted an average of 1 hr. Transcripts were thematically coded by authors, who focused on any discussion of pregnancy, birth, babies, children, or motherhood. The results were compared across coders for interreliability and included in this article to illustrate the unique experiences homeless mothers face. The first names used in this report are fictional.

Samples

Our sample consisted of the 241 young females who were interviewed at baseline. Because of the nature of our sampling design, we have provided results from three separate subsamples: (a) baseline interviews, (b) longitudinal interviews (Waves 2–13), and (c) the final contact interview (Wave 13).

At baseline, 222 of the participants were sexually active, and, of those, 103 young women had experienced at least one pregnancy. These young women answered subsequent questions on pregnancy and childbirth. Thus, our first subsample consisted of the 103 women who had experienced a pregnancy at the time of the initial interview (see Table 1).

Our longitudinal sample consisted of 171 of the original 241 participants interviewed at baseline. All the individuals included in the longitudinal sample had viable data from baseline contact and at least one follow-up wave. Longitudinal data from Kansas City was deleted from this subsample because of the termination of the interviewer at that location, which resulted in loss of multiple waves of data after baseline data collection (Kansas City was included in the baseline subsample). In total, 41 women were deleted from longitudinal data because they were from the Kansas City sampling frame. In addition, 29 individuals were deleted in our longitudinal analyses because they only had viable data at baseline.

Of the 171 young women participating in the longitudinal sample, 83 of them answered in the affirmative to the question, "Are you pregnant?" Thus, these young women were pregnant at some point between Waves 2 and 13 (see Table 2). It is important to note that not all pregnancies went to term, and we were unable to assess pregnancy outcomes across time. In total, 90 women answered in the affirmative to the question indicating that they had children at some point between Waves 2 and 13 (see Table 3). These 90 women include those who may have already had children at baseline. This is our best indicator of the number of pregnancies that went to term across all waves.

Our final subsample of 114 women comes from our final contact at Wave 13. In all, 114 women (excluding Kansas City) were interviewed at Wave 13, and, of those, 68 reported ever having had children. Almost half of these 68 young women reported having custody of their children (see Table 4).

Data Analysis

Baseline descriptives are a compilation of time-concurrent questions and retrospective questions about life histories. In order to assess pregnancy across time, we performed a case analysis on the question, "Are you pregnant?" If participants answered yes to this question during up to four concurrent interviews, we counted this as a single pregnancy. There were two cases where a respondent stated she was pregnant at more than five follow-up waves, and we counted these as two separate pregnancies.

In order to assess custody, we did a case analysis on the questions regarding where the child was living and how often the mother spent time with her child. If the respondent reported that her child was living with her during each interview, we considered this a *constant custody*. If the respondent reported her child never lived with her, we considered her *never had custody*. There was an apparent pattern of young women who had custody, *lost custody*, and then *regained custody*. Young women often reported their child living with them during some waves and not with others, and this situation was considered *unstable custody*. Young women who stated they did not have custody of their children were asked if they helped care for their children. We identified three patterns of responses for assessing if non-custodial mothers helped care for their children: (a) participants who consistently answered in the affirmative, (b) those who consistently answered in the negative, and (c) those who helped care for their children intermittently. These young women were also asked how often they saw their child. We uncovered three patterns among the participants: (a) saw their children every day, (b) saw their children on a weekly-to-monthly basis, and (c) saw their children less than monthly or never.

Results

Homeless Women With Histories of Pregnancy

Of the 222 sexually active young women asked if they were pregnant at baseline (Wave 1), approximately half (46.4%) stated they had ever been pregnant (n = 103; Table 1 provides descriptive statistics for the baseline sample of young women who had experienced pregnancy). Of these 103 young women, 55.3% had been pregnant once, 31.1% had been pregnant twice, and 13.5% had been pregnant three or more times. The participants stated they were between the ages of 12 and 18 years when they first became pregnant, with a mean age of 15.25 years at first pregnancy.

Half of the young women who were pregnant at baseline were White and almost 20% were Black. Fifteen percent identified themselves as biracial, 8.7% as Latino, and the remaining self-identified as American Indian. The majority of the young women self-identified as heterosexual (82.5%). Eleven young women identified themselves as bisexual (10.7%); six as confused, unsure, or never thinking about their sexual orientation (5.8%); and one young woman identified as lesbian (not shown on table). Over half of these participants (55.3%) left home before age 14 (not shown on table). Interestingly, the majority of the young women who became pregnant reported school was easy or very easy (54.4%), yet most (71.3%) had dropped out of school by Wave 1. Approximately 35% of the participants told us they had been diagnosed with a learning disability. Almost 40% reported being suspended three or more times and a third reported being expelled at some point during their educational careers.

Table 1. *Baseline Pregnancy Descriptives (N = 103)*

	n	%		*n*	%
Number of pregnancies			Leaving characteristics		
Once	57	55.3	Kicked out	66	64.1
Twice	32	31.1	Stopped from going home	37	35.9
Three or more	14	13.5			
			Caretaker abuse		
Age at first pregnancy			Severe physical	59	57.3
12	7	6.9	Sexual	41	40.2
13	10	9.8			
14	11	10.8	Living situations since on street		
15	28	27.2	Shelter	69	67.0
16	27	26.5	Group home	60	58.3
17	10	9.8	Foster home	46	44.7
18	10	9.8	Juvenile detention	36	35.0
			Substance use treatment	17	16.5
Race and ethnicity			Mental health treatment	42	40.8
White	52	50.5	Street	48	46.6
Black	20	19.4			
Biracial	15	14.6	Victimization		
Latina	9	8.7	Physical	70	68.0
Native	7	6.8	Sexual	55	53.4
Education			Outcomes		
School was easy	55	54.4	Still pregnant	13	12.6
Dropped out	72	71.3	Abortion	11	10.7
Learning disability	35	34.7	Miscarriage	42	40.8
Suspended 3+ times	39	38.6	Adoption	7	6.8
Expelled	24	33.8	Went to term	30	29.1

Three fourths of the young women left their parents' homes when they ran away for the first time, as opposed to foster care or other living situations (not shown on table). Just over 60% of the young women reported living in a big city (over 100,000 people) when they left home, and approximately a quarter reported leaving from a small city, town, or country setting (not shown on table). The circumstances surrounding their leaving home were diverse. The majority of young women reported leaving because of abuse or conflict. When asked about the circumstances, 64.1% of the participants reported being kicked out at some point by a caretaker, and 35.9% reported they had been stopped from going home by a parent or other adult. Three young women reported they were kicked out because of pregnancy (not shown on table). The majority reported histories of severe physical abuse (57.3%) characterized by being beaten with fists, threatened, or wounded with a weapon. A high number of young women also reported histories of sexual abuse (40.2%) characterized by solicitation or forced sexual contact.

Of the 35 participants who reported that they could go home to live with their parents if they wanted, only 10 reported they would do so (not shown on table). The difficulties of moving back home were apparent in Allison's in-depth interview. She told us that moving back home was difficult because "of the rules and stuff," but she did so anyway for her baby. Not only was independence an issue for many of the young women, but prior and current abuse at the hands of caretakers played an important role in whether or not young mothers returned home after giving birth. Amy stated:

> My mom, I don't care for her too much . . . when I first got pregnant with my son, I tried to move in there with her and she would come back at three [or] four in the morning drunk, and I'd have to be to work at five, and she would hit me and stuff . . . . It almost made me lose [my son]. . . .

For the young women who reported pregnancy at baseline, their living situations since leaving home had been tumultuous (see Table 1). Sixty-seven percent reported having ever lived in a shelter, almost 60% reported having ever lived in a group home, and 45% reported having ever lived in a foster home. Over a third reported spending time in juvenile detention, and 16.5% reported staying in a hospital or other facility for substance use. Forty percent of the young women reported staying in a hospital or facility for mental health treatment. Almost half (46.6%) had spent time directly on the street, and, of those, over one fourth had done so by age 13, one third had spent at least a week on the street, and half had experienced multiple episodes of living on the street (not shown on table). Two thirds of these young women had, during homelessness, experienced physical victimization (68.0%) and half had experienced sexual victimization (53.4%) at the baseline interview.

The violence experienced spilled over into their personal relationships. Although we did not assess partner violence in the quantitative questionnaire, there were several accounts of intimate partner violence in the in-depth interviews. These accounts are important in understanding the difficulties many of these young women faced during their pregnancy. Mary told us that:

> . . . he'd come home from work and accuse me of going somewhere, and then he'd start hitting me, or 'cause at that time I had an infant, plus I was pregnant and so sometimes the house would be messy and he'd come home and start yelling and then he'd end up hitting me, or he'd come home drunk and start hitting me . . . I

> went to the hospital quite a few times . . . I mean I was pregnant, and they were concerned about the baby . . .

Sarah also described how her boyfriend physically abused her during her pregnancy:

> He had me by the throat, up against the wall . . . I had choke marks on my neck and he almost broke, he had dislocated my ankle by putting me in an ankle lock. I just had bruises all over me . . . he ended up putting his knee right here on my neck [by] the vein, and pinned me on the ground and said that he was going to kill me.

Sarah's son was born with many health problems, including blindness, possible mental retardation, heart and kidney problems, and multiple sclerosis. Amy also stated that her boyfriend abused her: "He used to hit me all the time . . . and he's tried to kill me . . . and he would just do things that would hurt me emotionally."

Among the 103 young women who stated they had been pregnant at baseline, 13 were still pregnant at baseline, 11 reported having an abortion, 42 reported a miscarriage, and 7 reported giving their child up for adoption (see Table 1). In all, 37 participants went to term with their pregnancy, 7 of whom reported giving their child up for adoption. Among these young women, almost all reported their child went to live with family members (not shown in tables): half (n = 15) said their baby lived with their or their partners' parents (e.g., mothers, fathers, stepmothers, mothers-in-law), four reported that their baby lived with their grandmother, and three said that their baby lived with another family member (i.e., aunt, uncle, sibling). Two young women reported their children had been placed in foster care; we were unable to ascertain if these were voluntary or involuntary placements. Four participants reported that their children lived with them, and two participants had their children with them in a group home or shelter.

The uncertainty surrounding living arrangements for homeless young mothers and their children was evident in the in-depth interviews. Allison (a 20-year-old new mother) told us that she had moved back home with her mother after her baby was born. Katie (19 years old and pregnant) stated she and her two children had moved back in with her mother, and Rachel (20 years old and pregnant) was staying with family. Lindsey (age 19 and pregnant) was staying at her boyfriend's uncle's house where she was paying rent. Amy (19 years old) told us that she had an apartment: "The only way I got an apartment was because I went through Section 8. Section 8 is paying my rent, and the only reason why I was able to get on Section [8] was because I have a son."

The impacts of living apart from children were discussed as well. Sarah (age 20) spoke at length about her 1-year-old son, who was living with her mother in Minneapolis. Mary (21 years old and pregnant) talked extensively about losing her children because of an abusive relationship and trouble with the law. When asked why she did not have her children with her, she stated:

> Because some guy I was dating . . . was watching my kids and I got a call . . . saying that my son was hurt, and I had to go home and get him and take him to the hospital and found out he broke my son's arm, and the next day they took the, my two kids away, and they've been gone ever since.

She also stated her infant son was taken away only a few months earlier because she was ordered to serve time in jail for an outstanding warrant.

Almost 40% of the young women with histories of pregnancy reported receiving public assistance, and 40% reported they had a job at the time of the baseline interview (not shown in tables). Rachel discussed the difficulty of qualifying for assistance in detail. She told us that she was on Medicaid to help with medical expenses while pregnant and that she was waiting to be approved for nutritional help from the Women, Infants, and Children Program. To be eligible, she had forged her address because her mother was receiving assistance as well.

Sarah told us about the difficulties of employment when pregnant. She had worked at an adult book store until 2:30 in the morning while 6 months pregnant. Mary, who had lost custody of her children because of events that happened while she was at work, was pregnant again at the time of her interview. She was not currently employed because of past pregnancy complications (premature labor at 5 months).

Pregnancies Across Time

Over the 3 years of data collection, we saw 171 different participants at least once after baseline interview (Waves 2–13). Of the 171 young women contacted after baseline, 83 reported being pregnant at some point between Waves 2 and 13. Five of them had also stated they were currently pregnant during the baseline interview. Nineteen participants reported becoming pregnant twice and one reported she had been pregnant three times. Nearly all of these 83 young women planned on keeping and raising their babies, either alone or with partners. Only one person planned to have an abortion, and only three mentioned planning on an adoption (longitudinal data indicates that two of these women may have kept their babies). One young woman stated that her family would care for the baby. Five of the participants had not made a decision on the outcome for the pregnancy during the last interview of their stated pregnancy. None of the young women who were part of the in-depth interviews discussed abortion or adoption as options for their most recent pregnancy. By the final wave of the study, almost 70% of the 171 young women had been pregnant at some point in their lives (reported at either baseline or during Waves 2–13).

Mental Health and Pregnancy

The mental health of the young women in our study was assessed at baseline. Table 2 provides descriptive information

Table 2. *Mental Health at Baseline for Young Women Who Were Pregnant Over Time (n = 83)*

	n	%
Major depressive disorder	27	32.5
Conduct disorder	54	65.1
Posttraumatic stress disorder	43	51.8
Drug abuse	29	34.9
Alcohol abuse	17	20.5
Alcohol dependence	19	22.9

about the mental health of those who experienced pregnancy across time. A majority of those who became pregnant during the 3 years of our study met criteria for lifetime mental or substance use disorders at baseline. Of the 83 young women who reported becoming pregnant at least once after baseline, approximately one third (32.5%) had a history of a major depressive episode. Almost two thirds of the participants who became pregnant during the 3 years of the study had histories of conduct disorder at baseline (65.1%), and over half (51.8%) had histories of PTSD. Some of the participants discussed mental health issues in their in-depth interviews. For example, Sarah told us that: ''[I have] continue[ed] with my counseling . . . I've continued taking my anti-depressants . . . and I've been trying to keep away from the people that have you know brought me down when I first came [here].'' Mary said she struggles with depression sometimes because she does not have custody of her children.

Over one third of the young women who became pregnant met lifetime criteria for drug abuse at baseline (34.9%). Sarah stated she was using pot every day and crank at least three or four times a week, but she says her drug use ''continued for like a year until I found out I was pregnant. Then I stopped completely.'' Lindsey, a former crack user, stated:

> Once I found out I was [pregnant] I was like forget it, and I stopped [using]. I stopped smoking anyway because I don't want to lessen no baby's life because of what I do. . . I've seen how a lot of babies end up when their mom is gone off of drugs when their mom is pregnant and stuff like that, and I don't want my baby, I want my baby to be healthy, and I don't want my baby taken away from me.

Over 20% of the participants met lifetime criteria for alcohol abuse (no dependence), and almost one fourth of them met lifetime criteria for alcohol dependence (22.9%) at baseline. Rachel stated that she used alcohol while pregnant only once:

> They were all getting drunk and stuff and I went to leave, he was trying to make me drink and stuff and I did drink, I had to drink, I drank a little bit. I drank like one shot and then they kept getting me to drink some more and then finally I think I had two and a half shots that whole night because they kept on pressuring me into doing it and I did it and then finally I was like I can't do it no more I need to go home I need to go to sleep, my stomach hurts and stuff like that. I was pregnant then so that's why my stomach was hurting but I was only like a month or something then like a month and a half.

Custody and Visitation

Table 3 provides descriptive information of the participants' relationships with their children. Of the 171 young women whom we interviewed at least once after baseline, 90 (52.6%) reported having children (not shown in tables). Of those, 50 told us they had custody of their children through the last time they were interviewed, 17 reported never having custody of their children, and 12 reported losing custody of their children during the course of the study. Ten of the young women sporadically had custody of their children and had multiple encounters with the child welfare system. Only one of the young women who had lost custody of her children regained it.

Mary discussed her involvement with the child welfare system in detail during the in-depth interviews. When asked what she needed to do to get her children back she stated:

Table 3. *Children and Motherhood Across Time ($n = 90$)*

	n	%
Constant custody	50	55.6
Never had custody	17	18.9
Lost custody	12	13.3
Unstable custody	10	11.1
Regained custody	1	1.1
Among young mothers without custody ($n = 40$)		
Help to care for children not living with you?		
Consistently care for children	20	50.0
Never care for children	10	25.0
Occasionally care for children	10	25.0
How often do you see your child?		
See children every day	4	10.0
Weekly to monthly	30	75.0
Almost never see children	6	15.0

> I have to go to counseling . . . I have to take domestic violence classes, due to [a] previous, uhm, domestic relationship . . . have to visit my kids . . . individual therapy . . . I am doing the things I am supposed to be doing and, I mean everybody sees that. You know there is no reason why I can't get them back. . . .

Among the 40 participants who ever reported not having custody of their children, about one half said they consistently helped care for their children over the course of the study. Ten participants stated they never helped care for their children at any wave of data collection, and 10 reported they helped care for their children at intermittent waves. When asked how often they saw their children, only 4 of the 40 noncustodial young mothers said they saw their children nearly every day. Six young women told us they almost never saw their children. The remaining 30 participants saw their children irregularly or sometimes daily, weekly, and monthly.

Losing custody of their children had emotional consequences for these young mothers. When asked about negative things in her life, Mary stated that not getting to see her children every day was difficult and that she was ''working on that right now, to get all the things done that I need to get done so I can start seeing them more so I have more time for them.'' Sarah, whose son lived in Minneapolis with her mother, stated that something positive in her life was that she finally got into the YWCA, and she would be able to have her son move in with her.

Mental Health and Motherhood at Final Contact

To further investigate mental health, we looked at lifetime and 12-month mental and substance use disorders among the participants at the final wave (Table 4). In total, 114 participants were interviewed, and, of these, 68 reported having ever had children. Of these, one fourth (26.5%) met criteria for both lifetime and 12-month major depressive disorder at Wave 13. Two thirds of the young mothers (66.2%) met criteria for lifetime antisocial personality disorder, and more than one half (57.4%) met criteria for 12-month antisocial personality disorder. Approximately 40% met lifetime criteria for PTSD, and 16.2% met 12-month criteria for PTSD. Over a quarter of the young women (27.9%) met lifetime criteria for drug abuse, and 13.2% met 12-month criteria for drug abuse. Just over 10% of

Table 4. *Mental Health and Motherhood Among Young Women at Final Contact (n = 114)*

	Lifetime		12 months	
	n	%	*n*	%
Have had children (*n* = 68)				
Major depressive disorder	18	26.5	18	26.5
Antisocial personality disorder	45	66.2	39	57.4
Posttraumatic stress disorder	27	39.7	11	16.2
Drug abuse	19	27.9	9	13.2
Alcohol abuse	8	11.8	7	10.3
Alcohol dependence	9	13.2	9	13.2
Have custody of children (*n* = 36)				
Major depressive disorder	11	30.6	11	30.6
Antisocial personality disorder	21	58.3	17	47.2
Posttraumatic stress disorder	13	36.1	4	11.1
Drug abuse	11	30.6	2	5.6
Alcohol abuse	5	13.9	4	11.1
Alcohol dependence	3	8.3	3	8.3

the young women met either lifetime (11.8%) or 12-month (10.3%) criteria for alcohol abuse (no dependence). Nine young women (13.2%) met criteria for either lifetime or 12-month alcohol dependence.

Because so many of the participants who had given birth met criteria for mental health disorders, we decided to investigate the prevalence of disorders among the young women who reported having custody of their children at Wave 13. Of the 68 participants who had ever had children, only 36 reported having custody of their children at the final wave. Almost one third (30.6%) of the young mothers with children living with them met criteria for either lifetime or 12-month major depressive episode. Fifty-eight percent met lifetime criteria for antisocial personality disorder, and 47.2% met 12-month criteria for antisocial personality disorder. A third of the young women caring for children (36.1%) met lifetime criteria for PTSD, with 11.1% meeting 12-month criteria for PTSD. Almost one third (30.6%) met lifetime criteria for drug abuse but only two young women met criteria for 12-month drug abuse (5.6%). Less than 15% met criteria for lifetime (13.9%) or 12-month (11.1%) alcohol abuse (no dependence). About 10% met either lifetime or 12-month criteria for alcohol dependence (8.3%).

Thoughts About the Future

Many of the young women viewed their pregnancies as a chance to make positive changes. For example, Allison told us:

> If it wasn't for my son I'd probably be out on the streets right now getting high, not caring what I was doing. 'Cause then I didn't care. If I died I didn't care. . . . Now I care cause now I have him . . . I could stay focus[ed] now . . . for my baby. I think I am pretty satisfied [with my life] because I think I'm gonna do something good. . . .

Katie said that she was proud of her son and said that they are a "package deal." Lindsey said, "Well I know that getting pregnant changed me. . . . I want my baby to be healthy . . . [I have to] take care of myself and the baby . . . ." When asked about positive things in her life, Sarah stated that being able to have her son move in with her and having a safe place for him to live were good things. When asked who she spends time with now, Amy said: "My son, he's one years old and we have fun, we play, and we cry, and we take walks and everything. . . ." The impact of sustaining a pregnancy and raising children was seen as a positive challenge that improved the mothers' lives. As Rachel put it: "[I want to] help out people, to be different than what I was when I was younger . . . I think I'd be good with kids, talking about their problems and stuff now that I have had so many."

Discussion

By the last interview, more than two thirds (68%) of the 171 young women with whom we had contact at least once after baseline had been pregnant at some point during their lifetimes. This is more than 5 times the U.S. pregnancy rate (12.6%) for 18- to 19-year-olds (Guttmacher Institute, 2006). There has been very little research that addresses pregnancies specifically among young women who are homeless, so in discussing our findings, we draw on research regarding pregnancies among homeless females without regards to age. We believe that the risks are likely very similar or exacerbated among adolescents and young adults who are homeless and pregnant as for those who are somewhat older.

A child born to a homeless mother may be subject to the revolving door lifestyle of being housed, doubling up, living in shelters, or even episodes of living directly on the streets (Whitbeck, 2009; Whitbeck & Hoyt, 1999). Without welfare support, the mother is unlikely to be able to obtain stable housing. Even prior to the subprime mortgage crisis, the National Low-Income Housing Coalition concluded that our country is experiencing a prolonged shortage of affordable housing. A full-time worker at minimum wage cannot afford a one bedroom unit at Fair Market Rent anywhere in the United States (Wardrip, Pelletiere, & Crowley, 2009). The recent subprime mortgage crisis heightened risks for housing instability among low-income women, particularly single mothers who are renters. According to CBS News reports based on Realty-Trac Data, 38% of foreclosures nationwide involve rental properties (cited in Erlenbusch, O'Connor, Downing, & Watlov-Phillips, 2008). Existing affordable rental properties cannot meet the current demand for housing.

In addition to the struggle for housing, our findings suggest that many of these young mothers will have difficulty parenting as a result of mental health issues (Whitbeck, Johnson, Hoyt, & Cauce, 2004). Symptoms of depression, PTSD, histories of externalizing behaviors, and substance abuse decrease the likelihood that these young mothers will be able to provide positive parenting and a stable environment. Research suggests that mothers who are homeless may be significantly less likely than mothers who are housed to provide their children with structure, academic stimulation, and warmth and acknowledgment (Koblinsky, Morgan, & Anderson, 1997). The lack of routine and lack of supervision related to being homeless may add to the high levels of externalized behaviors exhibited by homeless children (Rabideau & Toro, 1997).

Furthermore, research indicates that the mental health problems of parents may transmit to their children. Parental antisocial behavior is indicative of conduct problems among their

offspring (Lahey et al., 1988; Rhule, McMahon, & Spieker, 2004). Yehuda, Halligan, and Bierer (2002) found that children are more likely to develop PTSD if they had a parent who suffered from chronic PTSD, which suggests that children of traumatized parents are at high risk for developing symptoms when exposed to traumatic events. Research has consistently shown maternal depression influences the psychological well-being of children (see reviews by Cummings & Davies, 1999; Elgar, McGrath, Waschbusch, Stewart, & Curtis, 2004).

Limitations

Although these findings represent unique data pertaining to pregnancies among young women who are homeless, there are some limitations to the current study that should be taken into consideration. First, our sample is not a random sample of homeless young women and results may not be generalizable to *all* homeless young women, especially those residing outside the Midwest. Second, we rely on self-report data, and there may be a tendency to underreport undesirable behaviors such as substance use during pregnancy. In addition, baseline data are retrospective and may suffer from problems of recall of specific events; not recalling something as life changing as an early pregnancy, however, is unlikely. Third, the wording of the pregnancy question was, "Are you pregnant?" This wording could have resulted in the loss of participants who had been pregnant since the prior 3-month interview but who had miscarried or sought an abortion. Fourth, we were unable to ascertain if some of the behaviors reported occurred while the participants were cognizant of their pregnancies or if they occurred during early gestation; it is also possible that behaviors occurred prior to the pregnancy. Fifth, we were unable to link the qualitative participants to those in our larger quantitative study because the identification numbers in the two separate data collections did not match. Sixth, these findings are limited to young women who were aged approximately 22 years or younger when pregnant and may not reflect the characteristics and experiences of older homeless women who become pregnant. Finally, our attrition rate by Wave 13 was approximately 50% (we structured our longitudinal data analysis so that participants needed two waves of data at any point during the 3 years to maximize information). Attrition analyses have shown that there were few significant differences between individuals who dropped out of a study and those who stayed: Those who left the study after the baseline interview were younger, spent less time on their own, and were less likely to have experienced severe trauma (Whitbeck, 2009).

Conclusions and Implications for Practice

These findings describe the most at-risk young mothers in our society. This subpopulation of young mothers suffers from mental health problems, and the rate of mental disorders among them may be increasing (Weinreb, Buckner, Williams, & Nicholson, 2006). Programs through shelters and outreach agencies that address mental health needs are necessary to help these young women to establish stability (Bassuk et al., 1998). It is important, however, for service providers to acknowledge that mental health problems are not necessarily a cause but a consequence of homelessness (Bogard, McConnell, Gerstel, & Schwartz, 1999). It is also important to recognize that providing services alone cannot ameliorate mental health issues when the trauma and stress of homelessness persist; it all comes back to providing safe and stable housing.

Becoming pregnant is a tremendous stressor for young women who lack family and peer support, access to prenatal care, and a supportive partner. These young women lack even a stable place to live. The likelihood of birth complications, low weight infants, problems with parenting, and long-range developmental problems are great. Although many street outreach workers are already working closely with young women who are homeless on issues of contraception and risk for STIs, the need for family planning and sexual health programs is tremendous. With the tumultuous living situations many of these young women encounter day to day, acquiring, storing, and utilizing birth control may be difficult. Among pregnant young women who are homeless, early detection is an important first step. There are many innovative ideas, such as including home pregnancy test kits as part of *survival kits* or making the testing packets available at drop-in centers and shelters free of charge, that could serve as important and simple policy considerations. Indeed, many of the young women told us that once they knew they were pregnant, they changed their substance use behaviors.

Besides early detection, immediate referral for existing welfare programs that provide prenatal care and nutrition is also important. It is possible that pregnant young women go through months without medical care and adequate diets for optimal fetal development due to lack of knowledge that they were pregnant. Welfare support may be the only way to get them off the streets and out of shelters into subsidized housing. In addition to finding permanent supportive housing, programs that provide child care while promoting employment opportunities and educational training, such as a general equivalency diploma (GED) and college placement, are keys to keeping homeless mothers off the street. Finally, innovative mentoring programs that bring together supportive older women and pregnant young women who are homeless are needed.

Pregnancy is scary for young women who are homeless. Just being homeless is incredibly stressful and becoming pregnant greatly exacerbates this stress. They have very few resources and many have nowhere to turn. Young women who are homeless often have a history of not making the best decisions, many have mental health problems, such as depression and externalizing behaviors, and some are responding to the effects of trauma. Many have lost ties to mentoring adults (Whitbeck, 2009) who could have served as critical sources of information, support, and reassurance during pregnancy and birth. Mentorship programs would fill the important social role of mentoring from older females who have experienced pregnancy and birth. These programs could be linked to existing nutrition and medical care programs, could be largely volunteer based, and may increase levels of compliance with prenatal care. The cost benefits of such comparably inexpensive interventions could greatly exceed the expense of such programs in terms of long-term service burden for mothers and children.

Keywords: homeless young women; pregnancy; parenting; motherhood; mental health; substance use; Midwest; Midwest Longi-

tudinal Study of Homeless Adolescents; major depressive episode; posttraumatic stress disorder; lifetime antisocial personality disorder

References

Arangua, L., Andersen, R., & Gelberg, L. (2005). The health circumstances of homeless women in the United States. *International Journal of Mental Health*, *34*, 62–92.

Bassuk, E. L., Buckner, J. C., Perloff, J. N., & Bassuk, S. S. (1998). Prevalence of mental health and substance use disorders among homeless and low-income housed mothers. *American Journal of Psychiatry*, *155*, 1561–1564.

Bassuk, E. L., & Weinreb, L. (1993). Homeless pregnant women: Two generations at risk. *American Journal of Orthopsychiatry*, *63*, 348–357.

Becker, J., Robinson, A., Gortmaker, S., Weinreb, L., & Bassuk, E. (1992). *Reproductive health status of homeless pregnant women*. Paper presented at the National Conference of American Public Health Association, Washington, DC.

Bogard, C., McConnell, J., Gerstel, N., & Schwartz, M. (1999). Homeless mothers and depression: Misdirected policy. *Journal of Health and Social Behavior*, *40*, 46–62.

Burt, M. R. (1996a). Homelessness: Definitions and counts. In J. Baumohl (Ed.), *Homelessness in America* (pp. 15–23). Phoenix, AZ: Oryx.

Burt, M. R. (1996b). *Practical methods for counting homeless people: A manual for state and local jurisdictions* (2nd ed.). Washington, DC: Urban Institute.

Cauce, A. M., Paradise, M., Ginzler, J. A., Embry, L., Morgan, C. J., Lohr, Y., & Theofelis, J. (2000). The characteristics and mental health of homeless adolescents. *Journal of Emotional and Behavioral Disorders*, *8*, 230–239.

Chapman, K., Tarter, R. E., Kirisci, L., & Cornelius, M. D. (2007). Childhood neurobehavior disinhibition amplifies risk of substance use disorder: Interaction of parental history and prenatal alcohol exposure. *Journal of Developmental and Behavioral Pediatrics*, *28*, 219–224.

Culhane, J. F., Webb, D., Grim, S., Metraux, S., & Culhane, D. (2003). Prevalence of child welfare services involvement among homeless and low-income mothers: A five-year birth cohort study. *Journal of Sociology and Social Welfare*, *30*, 79–96.

Cummings, E. M., & Davies, P. T. (1999). Depressed parents and family functioning: Interpersonal effects and children's functioning and development. In T. Joiner & J. Coyne (Eds.), *The interactional nature of depression* (pp. 299–327). Washington, DC: American Psychological Association.

Duffield, B. (2001). The educational rights of homeless children: Policies and practices. *Educational Studies*, *32*, 324.

Elgar, F. J., McGrath, P. J., Waschbusch, D. A., Stewart, S. H., & Curtis, L. J. (2004). Mutual influences on maternal depression and child adjustment problems. *Clinical Psychology Review*, *24*, 441–459.

Erlenbusch, B., O'Connor, K., Downing, S., & Watlov-Phillips, S. (2008). *Foreclosure to homelessness: The forgotten victims of the subprime crisis. A national call to action*. Washington, DC: National Coalition for the Homeless.

Gelberg, L., Andersen, R., Wenzel, S., Leake, B., & Sumner, G. (1999). Homeless women's use of birth control and women's health services. *Abstract book of the Association for Health Services Research Meeting*, *16*, 150–151. Abstract retrieved from http://gateway.nlm.nih.gov/MeetingAbstracts/ma?f=102194560.html.

Gelberg, L., Lu, M. C., Leake, B. D., Andersen, R. M., Morgenstern, H., & Nyamathi, A. M. (2008). Homeless women: Who is really at risk for unintended pregnancy? *Maternal Child Health Journal*, *12*, 52–60.

Greene, J. M., & Ringwalt, C. L. (1998). Pregnancy among three national samples of runaway and homeless young women. *Journal of Adolescent Health*, *23*, 370–377.

Guttmacher Institute. (2006). *U.S. teenage pregnancy statistics: National and state trends and trends by race and ethnicity*. New York, NY: Author.

Hagen, J., & McCarthy, B. (1997). *Mean streets: Young women, crime, and homelessness*. New York, NY: Cambridge University Press.

Halcón, L. L., & Lifson, A. R. (2004). Prevalence and predictors of sexual risks among homeless young women. *Journal of Young Women and Adolescence*, *33*, 71–80.

Haley, N., Roy, E., Leclerc, P., Boudreau, J. F., & Boivin, J. F. (2004). Characteristics of adolescent street young women with a history of pregnancy. *Journal of Pediatric Adolescent Gynecology*, *17*, 313–320.

Hammer, H., Finkelhor, D., & Sedlak, A. J. (2002). Runaway/thrownaway children: National estimates and characteristics. *National Incidence Studies of Missing, Abducted, Runaway and Thrownaway Children (NISMART Bulletin Series)*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Janus, M. D., Archambault, F. X., Brown, S. W., & Welsh, L. A. (1995). Physical abuse in Canadian runaway adolescents. *Child Abuse & Neglect*, *19*, 433–447.

Kaufman, J. G., & Widom, C. S. (1999). Childhood victimization, running away, and delinquency. *Journal of Research in Crime and Delinquency*, *36*, 347–370.

Kennedy, M. R. (1991). Homeless and runaway young women's mental health issues: No access to the system. *Journal of Adolescent Health*, *12*, 576–579.

Kipke, M. D., O'Connor, S., Nelson, B., & Anderson, J. (2000). A probability sampling for assessing the effectiveness of outreach for street young women. In J. Greenberg & M. Neumann (Eds.), *What we have learned from the AIDS evaluation of street outreach projects: A summary document* (pp. 17–29). Atlanta, GA: Centers for Disease Control and Prevention.

Koblinsky, S. A., Morgan, K. M., & Anderson, E. A. (1997). African American homeless and low income housed mothers: Comparison of parenting practices. *American Journal of Orthopsychiatry*, *6*, 37–47.

Koegel, P., Burnam, M. A., & Morton, S. C. (1996). Enumerating homeless people: Alternative strategies and their consequences. *Evaluation Review*, *20*, 378–403.

Kurtz, P. D., Kurtz, G. L., & Jarvis, S. V. (1991). Problems of maltreated runaway young women. *Adolescence*, *26*, 544–555.

Lahey, B. B., Piacentini, J. C., McBurnett, K., Stone, P., Hartdagen, S. E., & Hynd, G. W. (1988). Psychopathology and antisocial behavior in the parents of children with conduct disorder and hyperactivity. *Journal of the American Academy of Child and Adolescent Psychiatry*, *27*, 163–170.

Little, M., Shah, R., Vermeulen, M. J., Gorman, A., Dzendoletas, D., & Ray, J. G. (2005). Adverse perinatal outcomes associated with homelessness and substance use in pregnancy. *Canadian Medical Association Journal*, *173*, 615–618.

Markos, P. A., & Lima, N. R. (2003). Homelessness in the United States and its effect on children. *Guidance and Counseling*, *18*, 118–124.

Meadows-Oliver, M. (2002). Mothering in public: A metasynthesis of homeless women with children living in shelters. *Journal for Specialists in Pediatric Nursing*, *8*, 130–136.

Molnar, B. E., Shade, S. B., Kral, A. H., Booth, R. E., & Watters, J. K. (1998). Suicidal behavior and sexual/physical abuse among street young women. *Child Abuse & Neglect*, *22*, 213–222.

Mounier, C., & Andujo, E. (2003). Defensive functioning of homeless young women in relation to experiences of child maltreatment

and cumulative victimization. *Child Abuse and Neglect*, *27*, 1187–1204.

Noell, J., Rohde, P., Seeley, J., & Ochs, L. (2001). Childhood sexual abuse, adolescent sexual coercion, and sexually transmitted infection acquisition among homeless female adolescents. *Child Abuse & Neglect*, *25*, 344–353.

Nunez, R. (1994). *Hopes, dreams and promise: The future of homeless children in America*. New York, NY: Homes for the Homeless.

Nunez, R., & Fox, C. (1999). A snapshot of family homelessness across America. *Political Science Quarterly*, *114*, 289–307.

Oliveira, N., & Goldberg, J. (2002). The nutrition status of women and children who are homeless. *Nutrition Today*, *37*, 70–77.

Patterson, G. R., Dishion, T. J., & Bank, L. (1984). Family interaction: A process model of deviancy training. *Aggressive Behavior*, *10*, 253–267.

Pennbridge, J. N., Yates, G. L., David, T. G., & MacKenzie, R. G. (1990). Runaway and homeless young women in Los Angeles County, California. *Journal of Adolescent Health Care*, *11*, 159–165.

Powers, J. L., & Jaklitsch, B. (1993). Reaching the hard to reach: Educating homeless adolescents in urban settings. *Education and Urban Society*, *25*, 394–409.

Rabideau, J. M. P., & Toro, P. A. (1997). Social and environmental predictors of adjustment in homeless children. *Journal of Prevention and Intervention in the Community*, *15*, 1–17.

Rhule, D. M., McMahon, R. J., & Spieker, S. J. (2004). Relation of adolescent mothers' history of antisocial behavior to child conduct problems and social competence. *Journal of Clinical and Adolescent Psychology*, *33*, 524–535.

Ringwalt, C. L., Greene, J. M., Robertson, M., & McPheeters, M. (1998). The prevalence of homelessness among adolescents in the United States. *American Journal of Public Health*, *88*, 1325–1329.

Rotheram-Borus, M. J., Mahler, K. A., Koopman, C., & Langabeer, K. (1996). Sexual abuse history and associated multiple risk behavior in adolescent runaways. *American Journal of Orthopsychiatry*, *66*, 390–400.

Rutter, M., Quinton, D., & Hill, J. (1990). Adult outcome of institution-reared children: Males and females compared. In L. Robbins & M. Rutter (Eds.), *Straight and deviant pathways from childhood to adulthood* (pp. 135–157). Cambridge, England: Cambridge University Press.

Ryan, K. D., Kilmer, R. P., Cauce, A. M., Watanabe, H., & Hoyt, D. R. (2000). Psychological consequences of child maltreatment in homeless adolescents: Untangling the unique effects of maltreatment and family environment. *Child Abuse & Neglect*, *24*, 333–352.

Stanwood, G. D., & Levitt, P. (2004). Drug exposure early in life: Functional repercussions of changing neuropharmacology during sensitive periods of brain development. *Current Opinion in Pharmacology*, *4*, 65–71.

Stein, J. A., Lu, M. C., & Gelberg, L. (2000). Severity of homelessness and adverse birth outcomes. *Health Psychology*, *19*, 524–534.

Sullivan, P. M., & Knutson, J. F. (2000). The prevalence of disabilities and maltreatment among runaway children. *Child Abuse & Neglect*, *24*, 1275–1288.

Tischler, V., Rademeyer, A., & Vostanis, P. (2007). Mothers experiencing homelessness: Mental health, support, and social care needs. *Health and Social Care in the Community*, *15*, 246–253.

Tyler, K. A., Hoyt, D. R., Whitbeck, L. B., & Cauce, A. M. (2001). The impact of childhood sexual abuse on later sexual victimization among runaway young women. *Journal of Research on Adolescence*, *11*, 151–176.

Tyler, K. A., Whitbeck, L. B., Hoyt, D. R., & Cauce, A. M. (2004). Risk factors for sexual victimization among male and female homeless and runaway young women. *Journal of Interpersonal Violence*, *19*, 503–520.

U.S. Conference of Mayors. (2007). *A status report on hunger and homelessness in America's cities: A 23-city survey*. Retrieved from http://www.usmayors.org/.

U.S. Department of Health and Human Services, Health Resources and Services Administration. (2001). *Program assistance letter: Understanding the health care needs of homeless young women*. Retrieved from http://bphc.hrsa.gov.

U.S. Department of Health and Human Services, Office for Human Research Protection. (2005). *Code of Federal Regulations Title 45, Public Welfare. Part 46—Protection of Human Subjects (45 CFR 46.117)*. Retrieved from http://www.hhs.gov.

Wagner, J. D., & Menke, E. M. (1992). Substance use by homeless pregnant mothers. *Journal of Health Care for the Poor and Underserved*, *3*, 1049–2089.

Wardrip, K., Pelletiere, D., & Crowley, S. (2009). *Out of reach 2009: Persistent problems, new challenges for renters*. Washington, DC: National Low Income Housing Coalition.

Webb, D. A., Culhane, J., Metraux, S., Robbins, J. M., & Culhane, D. (2003). Prevalence of episodic homelessness among adult childbearing women in Philadelphia, PA. *American Journal of Public Health*, *93*, 1895–1896.

Weinreb, L., Buckner, J., Williams, V., & Nicholson, J. (2006). A comparison of the health and mental health status of homeless mothers in Worcester, Mass: 1993 and 2003. *American Journal of Public Health*, *96*, 1444–1448.

Weinreb, L., Goldberg, R., & Perloff, J. (1998). Health characteristics and medical service use patterns of sheltered homeless and low-income housed mothers. *Journal of General Internal Medicine*, *13*, 389–397.

Whitbeck, L. B. (2009). *Mental health and emerging adulthood among homeless young people*. New York, NY: Psychology Press.

Whitbeck, L. B., & Hoyt, D. R. (1999). *Nowhere to grow: Homeless and runaway adolescents and their families*. Hawthorne, NY: Aldine de Gruyter.

Whitbeck, L. B., Johnson, K. D., Hoyt, D. R., & Cauce, A. M. (2004). Mental disorder and comorbidity among runaway and homeless adolescents. *Journal of Adolescent Health*, *35*, 132–140.

Whitbeck, L. B., & Simons, R. L. (1993). A comparison of adaptive strategies and patterns of victimization among homeless adolescents and adults. *Violence and Victims*, *8*, 191–204.

Yehuda, R., Halligan, S. L., & Bierer, L. M. (2002). Cortisol levels in adult offspring of holocaust survivors: Relation to PTSD symptom severity in the parent and child. *Psychoneuroendocrinology*, *27*, 171–180.

Zlotnick, C., Kronstadt, D., & Klee, L. (1999). Essential case management services for young children in foster care. *Community Mental Health Journal*, *35*, 421–430.

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