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Pregnancy and Childbearing among Young Adults who Experienced Foster Care

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Abstract

This study explores rates of early pregnancy and parenthood among a sample of young adults ($N=215$), ages 18 to 22, with a history of foster care. The study also compares the educational attainment, financial resources, and homelessness experiences of young adults who became parents to those who did not. By age 21, 49% of the young women became pregnant, and 33% of young men reported getting someone pregnant. Over a quarter of participants experienced parenthood, which was associated with lower educational attainment, less employment, not having a checking or savings account, and a history of homelessness. Gender moderated the association between parenthood and employment such that males who were parents were more likely than female parents to be employed. Given that these young adults were at risk of early pregnancy and parenthood regardless of emancipation status and across several racial/ethnic groups, the results suggest a need for early pregnancy prevention efforts for all youth with child welfare involvement as well improving resources and support for those who become young parents.

Keywords

foster care; teenage pregnancy; early parenting; sexual health; gender differences

Introduction

Teenage pregnancy and birth rates in the United States have declined for all races and ethnicities since their peak in the 1990s (Martin, Hamilton, Osterman, Curtin, & Matthews, 2015). Yet, teenage pregnancy and birth rates in the U.S. remain higher than in any other

developed country, and notable disparities exist across demographic groups (Martin et al., 2015). In 2011, the national teenage pregnancy rate was 52.4 pregnancies per 1,000 females aged 15 – 19. Thus, roughly 5% of females in this age group became pregnant (Kost & Maddow-Zimmet, 2016). Teenage pregnancy rates vary dramatically by race, as the rate for Black (92.6 per 1,000) and Hispanic/Latino (73.5 per 1,000) female teenagers is more than two times the rate for White females (35.3 per 1,000). In 2011, approximately 60% of teenage pregnancies resulted in a live birth, 30% ended in abortion, and 10% in miscarriage or stillbirth (Kost & Maddow-Zimmet, 2016). Less is known about teenage fatherhood, as birth certificates for children born to teenage mothers often contain little information on birth fathers. Moreover, there is a surprising paucity of research on young men's teenage pregnancy involvement. This limits most discussions of teen pregnancy to the outcomes and experiences of young women.

In addition to racial and ethnic differences, other socio-demographic factors that are associated with higher rates of teenage pregnancy include poverty, low parental education, and family disruption such as divorce or transition to a single parent household (Beers & Hollo, 2009). A history of child maltreatment has also been shown to contribute to the risk of teenage pregnancy, over and above other sociodemographic risk factors, such as poverty and race (Garwood, Gerassi, Jonson-Reid, Plax, & Drake, 2015; Putnam-Hornstein, Cederbaum, King, Cleveland, & Needell, 2013; Noll & Shenk, 2013). One study found that adolescent females who were maltreated were twice as likely to give birth between the ages of 14 and 19 than non-maltreated adolescent females, after controlling for family income and minority status (Noll & Shenk, 2013). Another prospective study following female youth living in families experiencing poverty found that those with a single child protective services report had a 66% increased risk of pregnancy compared to those with no child protective services report, even after controlling for neighborhood disadvantage, caregiver education levels, and emotional and behavioral problems (Garwood et al., 2015).

Youth in foster care typically have an accumulation of factors that increase the risk of teenage pregnancy. By definition, almost all youth in foster care have experienced maltreatment and all have experienced some form of family disruption. In addition, youth of color, as well as those of very low socioeconomic status, are overrepresented in foster care (Child Welfare Information Gateway, 2016). Thus, it is not surprising that research has documented exceptionally high rates of teenage pregnancy and childbirth among this group (Dworsky & Courtney, 2010; Svoboda, Shaw, Barth, & Bright 2012; Winter, Brandon-Friedman, & Ely, 2016). Two seminal studies, one in California (the CalYOUTH study) and one in the Midwest (the Midwest study), followed youth emancipating from foster care into young adulthood. In both of these samples, approximately one-third of female respondents reported a pregnancy before 18 years of age. By age 19, this percentage increased to almost half of all females (Dworsky & Courtney, 2010). This was more than two times greater than rates in a national sample of youth of similar age and racial composition (Courtney, Dworsky, Havlicek, Perez, & Keller, 2007). As is true of the general literature on teenage pregnancy, less research has been conducted on teenage pregnancy among males in foster care. However, the California study found that 20% of males reported getting a partner pregnant by age 19 (Courtney et al., 2016).

The majority of teenagers in foster care who become pregnant go on to give birth. In the Midwest and CalYOUTH studies of 19-year-olds emancipating from care, two-thirds of the females' last pregnancy ended in live birth, 18–24% in miscarriage, and 12–15% in abortion (Courtney, Ruth, Keller, Havlicek, & Bost, 2005; Courtney et al., 2016). More than 90% of the offspring of teens in foster care live with their teen parent or the teen parent's biological family (Courtney et al., 2005; Courtney et al., 2016). Whereas several studies have explored teenage pregnancy and childbearing among youth emancipating from foster care, little is known about teenage pregnancy and parenting in young adults with a history of foster care who did not emancipate from care. Each group may have different risk and protective factors; for example, youth who emancipate from care may experience more placement changes and disrupted attachments (which predict pregnancy), and youth who achieve earlier permanency may receive fewer services and support. Unfortunately, given that this is an understudied population, no known studies have examined differences in risk and protective factors among these two groups.

Teenage Pregnancy and Parenthood Outcomes

Teenage parents often face a myriad of challenges, and much attention has been given to their educational and economic outcomes. They are more likely than other adolescents to drop out of high school, to evidence more adverse behavioral and physical health outcomes, and to experience poverty as adults (U.S. Department of Health and Human Services, 2015). About half of females who begin parenting in their teenage years (under age 20) obtain a high school diploma by the age of 22, compared to 89% of those who do not become a parent. Even fewer females (38%) reach high school graduation if they give birth before the age of 18 (Perper, Peterson, & Manlove, 2010). In addition, less than 2% of young women who become parents in their teenage years attain a college degree by age 30 (Ng & Kaye, 2013). This is in stark contrast to the one-third of women ages 25 and older who have a college degree (Ryan & Baumann, 2016). In addition, one-third of teenage mothers report that parenting was a primary reason for dropping out of school (Ng & Kaye, 2013). Though less research has been conducted with teenage fathers, a longitudinal study using a nationally-representative sample found that teenage fathers complete fewer years of schooling and are less likely to obtain a high school diploma than are males who did not become fathers as teenagers (Fletcher & Wolfe, 2012).

Fewer economic opportunities and earnings seem to follow this disparity in educational attainment. Whereas a causal relationship between teenage pregnancy and educational or economic opportunity has not been established, research suggests that teenage parenthood has a negative impact on young adults' employment and finances, after controlling for other demographic and environmental factors that may impact these opportunities, such as race and socioeconomic status (Fletcher & Wolfe, 2009; Fletcher & Wolfe, 2012; Lee, 2010). According to an analysis of data from 2009 and 2010, the National Campaign to Prevent Teen Pregnancy, found 48% of mothers aged 15 to 19 were living in poverty. Family support appears to ameliorate the negative impact of teenage pregnancy; 34% of parenting mothers who lived with their families were below the poverty line, compared to 63% of those who did not live with their families (Ng & Kaye, 2013). A link between teenage parenting and homelessness has also been documented. In a survey of 4,439 pregnant and parenting teens

in Massachusetts, one-third experienced homelessness during the prior year (Massachusetts Alliance on Teen Pregnancy, 2013). Family conflict, abuse, and neglect were the primary reasons that led to homelessness for these pregnant and parenting youth (Massachusetts Alliance on Teen Pregnancy, 2013).

Foster Care and Adverse Outcomes

Young adults who have experienced foster care are more likely to evidence these adverse life outcomes, regardless of pregnancy or parenting status (Taussig, Harpin, Betts, Melnicoe, & Russo, 2016). For example, only 67% of young adults in the aforementioned Midwest Study reported that they had a high school diploma, and 52% indicated that they had current employment at age 21 (Courtney et al., 2007). Compared to a national sample of young adults, those who emancipated from foster care were less than half as likely to have a high school diploma or General Education Diploma (GED) (Courtney et al., 2007). Additionally, a recent study found that 46% of youth who aged out of foster care became homeless at least once by age 26 (Dworsky, Napolitano, & Courtney, 2013).

Though there has been substantial focus on key outcomes (i.e., education, employment, housing) for youth emancipating from foster care, no studies have examined how early parenthood may differentially affect the trajectories of young adults with an earlier history of foster care. In addition, there are no known studies examining the educational and financial resources of young adults with a history of foster care who became teen parents. Given that this is a vulnerable group, which often lacks essential services and supports and faces challenges that make educational attainment and economic opportunity difficult, it is feasible that early pregnancy may confer different risk or even protective factors among young adults with a history of foster care. A pregnancy may trigger attention and focus to the youth's increased need for services and support, and increase the likelihood of receiving instrumental support (housing, WIC, food stamps) and also bring family support back into their life. Extant research is limited regarding how early pregnancy and parenting may be associated with young adult functioning among this population. Considering the many challenges faced by young adults with a history of foster care, this study sought to investigate the relationship between early parenthood and educational, economic, and financial outcomes.

The Current Study

The current exploratory study examines the rates of early pregnancy and parenthood among male and female young adults (age 18–22) with a history of foster care placement. The study also compares young adults who experienced parenthood to those who did not on educational attainment, financial resources, and history of homelessness. Gender was examined as a potential moderator. Specifically, the study sought to contribute to the burgeoning literature by:

- 1) examining the rates of pregnancy and results of those pregnancies (i.e., live birth, miscarriage, or abortion) among a sample of young men and women who experienced placement in foster care between 9 to 11 years of age;

- 2) examining whether rates of pregnancy and parenting differed for young adults by gender, ethnicity, race, and emancipation status;
- 3) examining whether early parenthood is related to receipt of a high school diploma/GED, current employment, financial resources, and/or history of homelessness; and
- 4) investigating whether gender moderates the relationship between early parenthood and receipt of a high school diploma/GED, current employment, financial resources, and/or homelessness.

Method

Participants

Eligible participants included eight cohorts of youth who were enrolled in the Fostering Healthy Futures (FHF) study between 2002–2009 during pre-adolescence. Participants were recruited for the original study if they met the following inclusion criteria at baseline: (1) they were 9–11 years old, (2) had been court-ordered into out-of-home care within the preceding 12 months by participating county child welfare departments, and (3) they were living in out-of-home care at the baseline assessment. FHF enrolled 91% of all eligible children at this baseline interview. For the current study, 243 participants from the original FHF study who were between the ages of 18 and 22 were recruited as young adults. Of the 243 participants recruited, 215 (88.5%) were re-interviewed. Of those not interviewed, seven refused to participate, eight aged out of the eligibility criteria before they were able to be interviewed, and 13 were unable to be located or recruited. Six participants who were interviewed were excluded from the analyses because they were 18 years old, living with a parent, and still in high school, and therefore the questions regarding financial resources, high school graduation, and homelessness (while living on one's own) were not applicable. Thus, 209 participants were included in these analyses.

Nearly half ($n = 100$, 48.7%) of the study participants identified as female, 54.1% as Latino/Hispanic, 48.8% as White, 28.7% as American Indian, and 26.8% as Black. Approximately half of participants identified as one race/ethnicity, 30% identified as two, and 20% identified as belonging to three or more groups. The most highly overlapping categories were American Indian and Hispanic/Latino. Of the 60 American Indian participants, 68.3% also identified as Hispanic/Latino. Given the extent of multiple racial/ethnic identities, we examined race/ethnicity using non-exclusive categories (i.e., each participant was coded as belonging/not belonging to each racial/ethnic category).

Participants' mean age was 19.8 years old ($SD = .91$). The majority (89.0%) identified as heterosexual/straight. Over one-third (36.8%) of the participants were living in their own place, 18.7% were living with one or more biological parents, 15.3% were living in a relative's home, and 15.4% were living in the home of another adult (i.e. adoptive parent, family friend, significant other's parent). Most participants (71.2%) did not emancipate from foster care, whereas about one-quarter did. Emancipation status was determined by the youth's description of their living placement at age 18. Youth were considered to have emancipated if their child welfare case was open and the youth was in out-of-home care

when the youth turned 18. At the time of the interview, two-thirds of the participants ($n = 137$, 65.6%) indicated they were fully financially responsible for themselves and one-quarter ($n = 58$, 27.8%) were partially financially responsible for themselves. Only 6.7% were not providing for themselves financially.

Procedures

All participants provided written consent for their participation in this IRB-approved study, and were paid \$100 for participating. Interviews were conducted by graduate student research assistants in convenient locations with private rooms (e.g. libraries, recreational centers) or by phone for those who lived out of the area. The data reported in this study are a subset of the data collected in the young-adult interviews.

Measures

This study utilized self-reported responses to questions regarding pregnancy, parenthood, education, employment, financial resources, and homelessness. Some items were project-designed and others were drawn from large-scale national surveys of young adults with a history of maltreatment and/or placement in foster care. These included *The Midwest Evaluation of the Adult Functioning of Former Foster Youth* (Midwest; Courtney, Terao, & Bost, 2004), *The Longitudinal Studies of Child Abuse and Neglect* (LONGSCAN; Knight, Smith, Martin, & Lewis, 2008), and *The National Youth in Transition Database* (NYTD) study.

Pregnancy and parenthood items—Pregnancy and parenthood items were measured with project-designed measures. Pregnancy items included: (1) Whether the participant had ever been pregnant/gotten someone pregnant, (2) Number of times they had been pregnant/gotten someone pregnant, (3) Whether or not they were (or their partner was) currently pregnant, (4) How old they were the first time they became pregnant/got someone pregnant, and (5) How many of their pregnancies ended in live birth, miscarriage, abortion, or stillbirth. Participants were also asked to report on the number, gender, age, and living situation of their biological offspring as well as whether or not they were providing financial support for their child(ren). They were also asked whether their child(ren) had ever been removed from their care by social services.

Educational attainment/Employment—Educational attainment was measured by asking the participant to indicate the highest level of degree or certification that they had received. Responses were recoded into a dichotomous variable: having at least a high school diploma, including a GED (yes/no). Employment was measured by asking participants if they currently had one or more paying jobs.

Financial resources/Homelessness—Participants were asked if they were fully, partially, or not providing for themselves financially. Of those who were fully or partially providing for themselves, financial resources were assessed in two ways: 1) reports of having a current checking or savings account, and 2) ability to pay for necessities. An eight-item scale was used to assess the ability to pay for necessities such as rent/housing, clothing, utilities, phone, food, medical care, transportation, and any other necessities. These eight

items were drawn from the Midwest Study (Courtney et al., 2004) and used a three-point Likert response scale: not very often (0), sometimes (1), most of the time (2). The average score on this eight-item financial resources scale was 1.63 ($SD = .45$), and the Cronbach's alpha was .87, indicating high internal consistency. Analyses using this scale included only participants who reported fully or partially providing for themselves ($n = 195$), as the purpose was to assess financial resources of young adults who were somewhat or completely financially independent. To assess homelessness, participants were asked, "Since you have been providing for yourself financially, have you ever had to couch surf or moved from house to house because you didn't have a place to stay?" and "Since you have been providing for yourself financially, have you ever been homeless?" If a participant answered yes to either or both of these questions, they were considered to have a history of homelessness.

Analysis

Descriptive analyses were used to explore pregnancy-related items (number of pregnancies, age of first pregnancy, and the pregnancy outcomes) and information on children of study participants. To examine differences in rates of pregnancy and parenthood by gender, race, ethnicity, and emancipation status, we conducted chi-square tests. Chi-square analyses and t -tests were also used to examine whether parenthood was associated with educational attainment, employment, homelessness, and financial resources. To examine the potential moderating effect of gender on each dichotomous outcome, we conducted four logistic regressions (one for each dependent variable) that included interactions between gender and parenthood. A linear regression examined whether gender moderated the association between parenthood and the financial resources scale.

Results

Pregnancy by Gender, Emancipation, and Race/Ethnicity

Of the 100 young women, 43.0% experienced one or more pregnancies during their teenage years. This increased to 49.0% when including women's pregnancies occurring by the age of 21. Of the 109 young men, 27.5% reported causing a pregnancy during their teenage years, which rose to 33.0% by age 21 (Table 1). The mean age of first pregnancy for the total sample was 17.5 years ($SD = 1.9$), with the mean age for young women at 17.2 ($SD = 2.1$) and the mean age for young men at 18.0 ($SD = 1.6$; see Table 1). As also shown in Table 1, over a quarter of the sample who had a pregnancy reported repeat pregnancies. Of the 49 young women reporting a pregnancy, 20.4% had been pregnant two times, 8.2% three times, and 8.1% had been pregnant four or five times. Of the 36 young men involved in a pregnancy, 22.2% reported causing more than one pregnancy, and 2.8% reported more than two pregnancies. Overall, young women were more likely than young men to report a pregnancy, $X^2 = 5.51$, $p < .02$, but age at first pregnancy, $t(83) = -1.90$, $p = .06$, and having a repeat pregnancy, $X^2 = 1.32$, $p = .25$ were not significantly different by gender. Additionally, participants who emancipated from care reported similar rates of pregnancy as those who did not emancipate from care (42.1% versus 39.7%, respectively).

Table 2 details pregnancy and parenting rates by race/ethnicity. Young adults identifying as American Indian had statistically higher rates of pregnancy compared to young adults who did not identify as American Indian, $X^2(1) = 4.71, p = .03$. In addition, Latinas had significantly higher rates of pregnancy than non-Latinas, $X^2(1) = 4.81, p = .03$, though rates for Latino men and non-Latino men were similar. Given that 68.3% of American Indians also identified as Hispanic/Latino(a), and that Hispanic/Latino(a)s showed relatively high rates of pregnancy, we examined this overlapping group and found no significant differences in rates of pregnancy for those identifying as both American Indian and Hispanic/Latino(a) in comparison to individuals who did not identify with both of these races/ethnicities.

Parenthood by Gender, Emancipation, and Race/Ethnicity

Of the 85 participants who ever became pregnant/caused a pregnancy, 64.7% ($n = 55$) became parents by age 21. This was over a quarter ($n = 55, 26.3\%$) of the total sample with 32.0% of young women and 21.1% of young men experiencing parenthood. The 55 participants reporting biological children had a total of 74 children (two participants had twins, thus 72 live births resulted in 74 children). The percentage of young men and young women reporting a birth was not statistically different. Young adults who emancipated also had nearly identical rates of parenthood as young adults who did not emancipate (26.3% versus 25.5%). American Indian participants had significantly higher rates of parenthood than non-American Indian participants, $X^2(1) = 3.92, p < .05$ (Table 2). There were no other racial/ethnic differences in the total sample. Whereas Hispanic/Latina and American Indian women had significantly higher rates of parenthood than women who did not identify with these racial/ethnic groups, rates for men were similar by race/ethnicity (Table 2).

Living Experiences of Participants' Children

Three-quarters ($n = 74$) of the study participants' children lived with the study participant full-time (56.9%) or part-time (11.1%), whereas 22.2% lived with the other parent; and 5.6% were in a kinship or foster care placement. By gender, 83.7% of female participants' children lived with them, and 44.8% of male participants' children lived with them (full- or part-time). Most study participants financially supported their children either fully (50.0%) or partially (33.3%), with only 16.7% providing no financial support. The majority of children of male participants (86.2%) were financially supported (either partially or fully) by the participant, and 81.4% of children of female participants were financially supported by the participant. Seven children (10.8%) had been removed from participants' care by social services at some point; two participants reported termination of parental rights. Four of the participants' children were currently living in out-of-home care (all of which were children of male participants).

Young Adult Outcomes by Parenthood Status

Among the entire sample, 60.8% of participants had obtained a high school diploma or equivalent, 53.6% had a checking or saving account, 69.9% were currently employed, and 41.0% had experienced homelessness. As shown in Table 3, young adults who reported having biological children evidenced poorer outcomes than those who did not have children on four of the five dependent measures: they were less likely to have a high school diploma or equivalent, less likely to be currently employed, less likely to have a checking or savings

account, and more likely to have a history of homelessness. The groups' financial resource scores, however, did not differ, $t(98.8) = .23, p = .82$.

The interaction between gender and parenthood was significant in predicting employment ($B = 2.37, SE = .88, OR = 10.73, p = .004$). The majority of males with children (87.0%) were currently employed, whereas only 31.3% of females with children were employed, $X^2(1) = 16.75, p < .001$. Among young adults without children, 77.9% of males and 72.1% of females had current employment. The interaction between gender and parenthood was not a significant predictor of educational attainment, having a checking or savings account, financial resources scale, or a history of homelessness.

Discussion

This is one of the first known studies to examine pregnancy and childbearing among both young men and women with an early history of foster care and to explore differences by gender, race, and emancipation from care. It is also one of the first to investigate the relationship between early parenting and young adulthood functioning for individuals who experienced foster care. Results suggest that pregnancy at a young age is common for both young men and women with histories of out-of-home care. Across gender, those who go on to parent experience more adverse functioning in young adulthood on the observed outcomes. This sample, which was primarily comprised of individuals who had a history of foster care, but who did not emancipate from care, had rates of pregnancy that were similar to young adults emancipating from care in the CalYOUTH and the Midwest studies (Courtney et al., 2016; Dworsky & Courtney, 2010). Additionally, in this sample, 32% of young women gave birth before the age of 21, which is similar to the rate of childbearing (35.2%) found in the state of California for females who were in foster care at age 17 (Putnam-Hornstein & King, 2014; Putnam-Hornstein, Hammond, Eastman, McCroskey, & Webster, 2016). This comparison is important because this is also the first known study to assess rates of early pregnancy and childbearing among young adults in the U.S. with a history of foster care outside of the Midwest or California.

Emancipating youth may differ from young adults who experienced foster care at earlier ages but then achieved permanency. Emancipating youth could be more vulnerable, as they likely experienced more placements and disruptions, experiences that are known to predict pregnancy and other sexual health risks (Winter et al., 2016). On the other hand, emancipating youth who had longer stays in care may have had access to more resources, due to longer system involvement. In this sample, it is of note that rates of pregnancy and parenthood among youth emancipating from care and those who had closed cases at age 18 were nearly identical. This suggests that individuals with early histories of out-of-home care who do not remain in foster care show similarly heightened risks for early pregnancy, indicating that prevention efforts should be implemented, and perhaps delivered at younger ages, for all youth who enter foster care.

Pregnancy outcomes and young adult involvement in their children's lives in this sample also mirrored the pattern seen in prior studies of emancipating youth. In the samples of young women who were 19 years old in California and the Midwest, roughly two-thirds

reported continuing their last pregnancy to a live birth and about one-sixth opted for abortion. This study also found that 69.2% of pregnancies reported by both young women and men were continued to live births, 18.3% ended in miscarriage, and 12.5% ended in abortion (excluding those who were pregnant at the time of the interview). This is a somewhat different pattern than observed in the general population in 2011, when roughly one-third of teenage pregnancies ended in abortion (Kost & Maddow-Zimet, 2016). Although this difference could be related to comparing data from different years, a more likely explanation is that youth with experience in foster care experience greater barriers to reproductive healthcare options, such as abortion. Indeed, youth in foster care are known to have less access to healthcare in general (Taussig et al., 2016). Moreover, the young parents in this study were largely involved in their children's lives. Over 80% supported their children financially and over 70% of participants' children lived with them full or part-time.

Research on early pregnancy and parenting has primarily focused on females (Beers & Hollo, 2011; Fletcher & Wolfe, 2012; Svoboda et al., 2012). A strength of this study is the inclusion of both young men and women. Though fewer young men in this sample reported causing a pregnancy (33.0% of males versus 49.0% of females) or having a biological child (21.1% of males versus 32.0% of females) than did young women, such rates are nonetheless quite high, especially as they are likely to be underestimates. Rates for young men are likely to be underreported, as they may not know if they caused a pregnancy (especially in cases of abortion or miscarriage) or if an intimate relationship ended before pregnancy status was realized.

The current study's findings also underscore the gendered nature of pregnancy and parenting, experiences that clearly impact—albeit differentially—both young women and men with histories of foster care. For example, the current study found that young men with children were significantly more likely than young women with children to be employed (87.0% vs. 31.3%). Young men with children had the highest percentage of current employment, with rates above those for both young men (77.9%) and young women (72.1%) without children. Whereas we do not know if this greater rate of employment is caused by the desire to provide for one's child, it does challenge stereotypes of young fathers as uninvolved, unaccountable, and simply not present in the lives of their children. Moreover, young women with children were the least likely sub-group to have current employment, which suggests the negative impact that childbearing may have on young women's opportunities to secure stable employment. In addition, almost all male parents (86.2%) were providing financial support for their children, whereas more children were living with female parents than male parents. This seems to reflect a tendency of fathers to be “breadwinners” and mothers to be “caregivers.” Future research efforts would benefit from examining how gender influences longer-term health, economic, and educational outcomes of both male and female parents with a history of foster care.

This study found that having a child was associated with lower educational attainment, less employment (for females only), not having a checking or savings account, and a history of homelessness. Given that the relationship between early parenthood and lower educational and economic outcomes is well established in the general population (Beers & Hollo, 2011; Fletcher & Wolfe, 2009, 2012; Lee, 2010; Ng & Kaye, 2013), as is a history of foster care

and outcomes in young adulthood (Taussig et al., 2016), these results are not entirely surprising. However, findings in this sample differed in several areas from research on teen pregnancy and parenting in the general population.

For example, national statistics regarding racial and ethnic differences in early pregnancy and parenting demonstrate that female Black and Hispanic/Latina teenagers have higher rates of pregnancy and childbearing (Martin et al., 2015). Although there has been limited research on racial/ethnic differences in rates of early pregnancy in foster care samples, a study in California found differences in pregnancy rates that mirrored national statistics, with Hispanic/Latino and Black female teenagers in foster care having higher rates of childbearing than non-Hispanic/Latina, White youth (Putnam-Hornstein et al., 2016). However, in the Midwest study, and in a study drawing from eight counties in Missouri, race/ethnicity (dichotomized as White and non-White) was not significantly associated with pregnancy (Dworsky & Courtney, 2010; Oshima, Narendorf, & McMillen, 2013). In the current study, non-exclusive racial/ethnic categories were used, as nearly half of the sample identified as more than one race/ethnicity. This difference in the operationalization of race/ethnicity may contribute to differences observed across studies, but also points to the shortcomings of “forced” or “discrete” identity categories that are often used among highly diverse samples. Results by race/ethnicity in this study were nuanced. Young adults who identified as American Indian had significantly higher rates of pregnancy and parenthood compared to participants who did not identify as American Indian. Whereas Hispanic/Latino(a) participants were not more likely than non-Hispanic/Latino(a) participants to have experienced a pregnancy or be parenting when rates were examined within the total sample, Hispanic/Latina females were more likely to have experienced these outcomes. In fact, when examining pregnancy/parenting within males only, no significant differences emerged by race/ethnicity, though this could be a product of small cell sizes. In direct contrast to national rates, however, Black young adults actually had a trend towards lower rates of parenthood (though not reaching traditional thresholds of statistical significance) and Black females were less likely to report a pregnancy. In addition, rates for young adults identifying as White were not lower than rates for those who did not identify as White. Such findings suggest that race may play less of a role, or simply a different role, in the pregnancy and parenting experiences of unique, highly marginalized groups of young people. Moreover, race and ethnicity may differentially influence these experiences and outcomes when considering potentially nuanced social norms and cultural values that may be present in different geographic areas. Similarly, these complexities highlight the need for further investigation of differences beyond just White and non-White groups, and the exploration of more culturally responsive ways to measure outcomes by race/ethnicity among diverse samples.

Limitations and Future Directions

The major limitation of this cross-sectional study is that the temporal order of parenting relative to the outcomes examined, is unknown. We cannot infer that young parenthood caused the observed educational, employment, financial, or housing disparities. For example, it is possible that dropping out of high school and being homeless are precursors to early parenthood. It is also possible that young adults with children are simply a “riskier”

group, and that their risk behaviors led both to young parenthood and the other negative outcomes observed. Future longitudinal analyses will help disentangle the trajectories and identify risk and protective factors for young adult functioning.

Though a major strength of this study is the high rates of recruitment and retention, participants were all recruited from a single metropolitan area in the western United States. Thus, we cannot assume that it is representative of all young adults with histories of foster care, and particularly those in rural areas or other areas of the country. Although an advantage of this study is that we could compare rates between youth who did and did not emancipate from care, we could not ascertain at what age the young adults exited care or the length of time they spent in care. In addition, the data collected do not provide information on how many pregnancies occurred while youth were in county care. Furthermore, the sample was relatively small, which precluded conducting moderation analyses by emancipation status or race/ethnicity. The study also did not ask about pregnancy/parenting intentions, which is one hypothesis for the higher rates of pregnancy/parenthood in youth with a history of foster care. Finally, this study relied solely on self-reports, which are subject to reporting, recall, and social desirability biases.

Conclusion

This study's findings emphasize the need for sexual health education and prevention efforts to reach *all* males and females who enter foster care. Even youth who do not remain in out-of-home care appear to be at elevated risk for early pregnancy, with similar rates to youth who emancipate from care. In fact, the burgeoning evidence suggests that all youth with child welfare involvement are at risk of early pregnancy and parenting, which appears to lead to even more challenges in young adulthood. A recent study examining birth rates among a cohort of child welfare involved adolescent girls in California found that girls who were removed from their homes had similar rates of childbearing compared to girls who remained in their caregiver's home (King, 2017). Thus, the child welfare system is a prime place to reach the most vulnerable and marginalized youth who are still disproportionately carrying the burden of early pregnancy and parenting.

There has been great progress on teenage pregnancy prevention in the U.S.; however, the effectiveness of prevention strategies for youth who have experienced foster care is unknown, as teenage pregnancy among this group seems to be stagnant (Dworsky & Courtney, 2010; Svoboda et al., 2012; Winter et al., 2016). Continuing to "move the needle" on early pregnancy and parenting and its adverse outcomes will require targeted efforts. Future research and interventions should utilize the central position and proximity of the child welfare system to most effectively reach these youth, particularly as their lives are often far from "static." As youths' placements/locations may shift, so too may their engagement with institutions that most often provide pregnancy prevention education and outreach, such as schools and community-based organizations. In addition to the prevention of unintended pregnancy, this study highlights the need for supporting young parents in continuing their education, finding childcare and employment, and connecting them with housing services in order to address systemic disparities for youth with a history of foster care.

Prior studies with maltreated youth call for partnerships between child welfare and pregnancy prevention efforts (Garwood et al., 2015; National Campaign to Prevent Teen and Unplanned Pregnancy, 2016; Noll & Shenk, 2013; Winter et al., 2016). They also argue that: (1) child welfare has a “golden opportunity” to educate youth and facilitate access to needed health care services, (2) caseworkers should be trained in sexual and reproductive health education and services, and (3) research needs to be conducted on the strategies used by child welfare systems to address early pregnancy and parenting (Winter et al., 2016). Results of the current study reinforce such conclusions, and call for further research to investigate innovative methods to successfully engage this population in culturally-responsive programs tailored to their unique life experiences. It also highlights the need for supporting child welfare professionals in playing key roles in such outreach and intervention efforts to ensure reproductive health for youth involved in the child welfare system.

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Table 1

Descriptive Statistics of Age at First Pregnancy, Number of Pregnancies, and Result of Pregnancies among Young Women and Men with Pregnancy Involvement

	Total (n=85)	Females (n=49)	Males (n=36)
Age at first pregnancy			
16 years and under	25 (29.4%)	17 (34.7%)	8 (20.0%)
17 – 19 years	48 (56.5%)	26 (53.1%)	22 (61.1%)
20–21 years	12 (14.1%)	6 (12.2%)	6 (16.7%)
Repeat pregnancies			
1 Pregnancy	58 (71.6%)	31 (63.3%)	27 (75.0%)
2+ Pregnancies	27 (28.4%)	18 (36.7%)	9 (25.0%)
Total # of pregnancies	126	80	46
Pregnancy outcomes			
Live births	72 (57.1%)	43 (53.8%)	29 (63.0%)
Miscarriage	19 (15.1%)	19 (23.8%)	0 (0.0%)
Abortion	13 (10.3%)	7 (8.8%)	6 (13.0%)
Pregnant at interview	22 (17.5%)	11 (13.8%)	11 (23.9%)

* Two participants had twins, however, these pregnancies were still counted as an outcome of 1 live birth to indicate results of each pregnancy. Whereas there were 72 live births, there were a total of 74 children born to participants. When reporting on children of participants, we included all 74 children.

Table 2

Pregnancy and Parenting by Race/Ethnicity

	Pregnancy			Parenting		
	Total % (n)	Female % (n)	Male % (n)	Total % (n)	Female % (n)	Male % (n)
Hispanic/Latino						
Yes (n = 113)	46.0% (52) *	60.4% (29) **	35.4% (23)	31.0% (35) *	41.7% (20) **	23.1% (15)
No (n = 96)	34.4% (33) *	38.5% (20) **	29.5% (13)	20.8% (20) *	23.1% (12) **	18.2% (8)
White						
Yes (n = 102)	37.3% (38)	48.0% (24)	26.9% (14)	23.5% (24)	28.0% (14)	19.2% (10)
No (n = 107)	43.9% (47)	50.0% (25)	38.6% (22)	29.0% (31)	36.0% (18)	22.8% (13)
American Indian						
Yes (n = 60)	51.7% (31) **	60.6% (20) *	40.7% (11)	35.0% (21) **	42.4% (14) *	25.9% (7)
No (n = 147)	35.4% (52) **	42.4% (28) *	29.6% (24)	21.8% (32) **	25.8% (17) *	18.5% (15)
Black						
Yes (n = 56)	32.1% (18)	35.7% (10) *	28.6% (8)	17.9% (10) *	21.4% (6)	14.3 (4)
No (n = 153)	43.8% (67)	54.2% (39) *	34.6% (28)	29.4% (45) *	36.1% (26)	23.5 (19)
Hispanic and AI						
Yes (n = 41)	48.8% (20)	65.0% (13)	33.3% (7)	31.7% (13)	45.0% (9)	19.0% (4)
No (n = 168)	38.7% (65)	45.0% (36)	33.0 (29)	25.0% (42)	28.8% (23)	21.6% (19)

* $p < .10$,** $p < .05$

Table 3

Outcomes Between Young Adults Who Had a Biological Child(ren) and Those Who Did Not.

	Has a bio child(ren) (<i>n</i> =55)	Does not have bio child(ren) (<i>n</i> =54)	χ^2
Has high school diploma or equivalent	36.4%	69.5%	18.64 **
Has a paying job	54.5%	75.3%	8.31 **
Has a checking or savings account	34.5%	60.4%	10.88 **
Has been homeless or couch surfed	58.8%	34.7%	9.04 **

Note.

*
 $p < .05$,

**
 $p < .01$