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ORIGINAL PAPER

Pregnancy and Parenting Among Youth Transitioning from Foster Care: A Mixed Methods Study

Heather L. Rouse[1] · Tera R. Hurt[1] · Janet N. Melby[1] · Maya Bartel[1] · Bethany McCurdy[1] · Emily McKnight[1] · Feng Zhao[1] · Carol Behrer[2] · Carl F. Weems[1]

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Abstract

Background Over 400,000 children and youth are in foster care at any given time in the United States, with nearly one-third exiting care between ages 13 and 20. Pregnancy among women in this population is nearly double national averages, with one-third becoming pregnant by age 17 and nearly half of those experiencing repeat pregnancies by age 19. Research is needed about the sources of formal and informal information and support foster care youth receive about pregnancy and parenting, their access to and use of contraception, and the involvement of fathers/non-custodial parents in raising children.

Objective The purpose of the current study was to better understand the experiences of foster care youth to inform policy and practice recommendations that address the high rate of unintended pregnancies and early parenting among youth transitioning from foster care.

Methods This is a secondary analysis of data from a mixed-method study with a concurrent explanatory design including survey and focus group data. Complete survey responses included 81 participants (female $n=61$; male $n=20$) between the ages of 18–25, and 9 females took part in two focus groups.

Results Sexual experiences were common for foster care youth and they reported few educational opportunities and supportive relationships. Themes that emerged from the focus group discussions centered on socialization about reproduction, social support, and parenting.

Conclusions Access to educational opportunities and supportive personal relationships were lower than what would be expected from national estimates of non-foster care youth. Findings from both the survey and focus group data suggest enhancing programs for foster care youth with a specific focus on education and support for reproductive health, pregnancy, and parenting.

Keywords Transitioning foster youth · Pregnancy · Parenting · Mixed methods

✉ Heather L. Rouse
hlrouse@iastate.edu

[1] Department of Human Development and Family Studies, Iowa State University, 2360 Palmer, Ames, IA 50010, USA

[2] Youth Policy Institute of Iowa, Urbandale, IA, USA

Introduction

Over 400,000 children and youth are in foster care at any given time in the United States, with nearly one-third exiting foster care between the ages of 13 and 20 (Administration for Children and Families 2015). Findings from the Midwest Evaluation of Adult Functioning of Former Foster Youth indicate that over one-third of former foster care women were pregnant by age 17, with nearly half of those experiencing repeat pregnancies by age 19 (Dworsky 2009). This figure is nearly double the rate of non-foster care youth according to other national estimates (Courtney and Dworsky 2006; Curnow 2016; Putnam-Hornstein et al. 2016). These trends are significant and concerning. Becoming a parent before age 21 has been linked to poorer outcomes for both parents and children across numerous domains including physical and mental health, substance abuse, interpersonal relationships, financial stability, homelessness, and involvement with justice enforcement systems (e.g., criminal juststsice, child welfare) (Aparicio 2017; Curnow 2016).

Early Sexual Experiences and Pregnancy Among Foster Care Youth

Though literature consistently highlights the negative outcomes associated with early parenthood for both the young parents and their children, studies of foster care youth suggest that early pregnancies are not necessarily unintended or unwanted among this population. Rather, pregnancies among foster care youth are sometimes interpreted as provisions of relational benefits; in fact, some studies suggest that foster care youth do not proactively utilize contraception in hopes of creating a family or establishing relationship bonds (Boustani et al. 2015; Connolly et al. 2012; Curnow 2016). Other studies suggest that early parenthood for youth who have been involved in the foster care system can be a way to heal childhood wounds and traumas (Schelbe and Geiger 2017). Research further suggests pregnancy and parenthood may be used as an avenue for foster care youth to "prove themselves" as adults, and they may view being a parent as a stabilizing factor in their lives (Dworsky and Courtney 2010).

To further complicate this complex context, foster care youth often receive sex education and contraceptive information after they are sexually experienced. Research suggests that many foster care youth reported their first sexual encounter at or before age 13 (Ahrens et al. 2016; Courtney et al. 2007). Unfortunately, less than half of states in the United States have policies set in place for informing foster care youth about sexual health, development, and family planning (Ahrens et al. 2016; Polit et al. 1989). Such a lack of information, particularly during the time at which foster care youth begin having sexual experiences, may lead some youth to feel powerless over their reproductive choices and outcomes. As such, some adolescents commonly practice less effective contraceptive methods (e.g., withdrawal, rhythm) because they do not have access to consistent health care and these methods do not require medical prescriptions or professional involvement (Curnow 2016).

Research about parenting among foster care youth suggests patterns of inconsistent relationships and feelings of isolation. Youth aging out raising their children were often single mothers who had few role models and little support (Connolly et al. 2012). The compounding stresses of transitioning out of care related to employment, income, and housing provide additional risks for these young parents who are often navigating them alone (Aparicio et al. 2015; Budd et al. 2006; Radey et al. 2016). In the context of these and other

associated risks, parenting foster care youth transitioning out of care are also more likely to be involved with the child welfare system as parents (Courtney et al. 2011; Dworsky 2015).

Pregnancy and Parenting Support for Foster Care Youth

In response to these pressing social issues, some states have developed parenting support programs for youth in foster care to cultivate needed skills and competencies with mixed results. Some studies have demonstrated promising results among mothers (Polit et al. 1989; Curnow 2016); however, fathers are often understudied in these investigations (Schelbe and Geiger 2017). Indeed, scholars have called for more attention to how parenting programs can support both young parents (Aparicio et al. 2015; Boustani et al. 2015; Schelbe and Geiger 2017). Other studies using national data, such as the National Youth in Transition Database (NYTD) did not find significant results on parenting program effectiveness for youth in foster care (Curnow 2016).

In light of these mixed results, and given the large number of foster care youth who remain in care until the time they "age out" of the system, many states have extended child welfare support and resources through age 21. Literature consistently highlights multiple risks associated with foster care youth aging out (e.g., compromised outcomes in education, employment, health, housing) and warrants attention to this important subgroup in the foster care system (Pecora et al. 2006; Putnam-Hornstein et al. 2016). Providing services to support young adult transitions into independence requires attention to concrete needs such as childcare, housing, or employment, as well as intervention programs focused on topics like emotional regulation, pregnancy prevention, parenting support, relationship development, and enrichment (Ahrens et al. 2016; Connolly et al. 2012; Graham et al. 2015; Putnam-Hornstein et al. 2016; Scott et al. 2012). Such services and programs can capitalize on motivations of young parents to find their way, learn how to parent differently to avoid child welfare intervention, reduce isolation, and enhance support networks (Aparicio et al. 2015; Connolly et al. 2012). Cultivating interpersonal relationships and being connected to broader support networks can help youth achieve more positive developmental outcomes as they navigate having limited resources (e.g., money, parenting alone, compromised education).

Risk and Resilience Theoretical Framework

Understanding the socialization context and unique needs and supports related to pregnancy and parenting among foster care youth requires a conceptual framework that acknowledges the complexity of relationships and youth development over time. The current study utilizes a risk and resilience framework, which highlights the importance of social learning and social networks to support youth experiencing risks. It posits that the accumulation of risk experiences over time is related to increased likelihood for poor outcomes including social isolation, risk taking behavior, and inadequate educational opportunities. It also suggests that the accumulation of risks is associated with earlier sexual debut and more sexual partners (Hillis et al. 2001). From this perspective, adverse childhood experiences like foster care placement and early pregnancy or parenthood further increase the risk of long-term developmental challenges (e.g., poorer health outcomes; compromised gains in education, employment, health, and housing) (Amato 1999; Luthar and Cicchetti 2000; Luthar et al. 2000).

Resilience is defined as a process whereby individuals display positive adaptation in spite of experiencing adversity or negative life events (Luthar and Cicchetti 2000; Luthar et al. 2000). This aspect of the framework helps explain why many foster care youth, despite experiencing disproportionate early risk factors, commonly mature to lead successful lives (Murry et al. 2001). Frequently studied protective factors include behaviors, competencies, or attitudes that decrease the effects of risk (Luthar and Cicchetti 2000; Luthar et al. 2000). Social learning theory posits that resilience can be developed through learning in observation of others, noting that healthy functioning is socially interdependent (Bandura 2001).

This perspective guided the current examination of early sexual experiences and socialization to understand sets of risk and protective factors that are related to pregnancy and parenting beliefs and practices of foster care youth. Early risk experiences in this study included being born to a teen parent, having low education or low income, out of home placements, and early or unwanted sexual encounters. This study also collected information about potential protective influences that could support pregnant or parenting foster care youth such as supportive social networks and formal and informal educational experiences. This framework suggests that foster care youth would experience greater accumulation of risk factors and fewer opportunities to develop protective factors resulting in heightened likelihood for risky sexual behaviors. It also suggests that more positive outcomes might be experienced for youth who have supportive social and educational influences that protect against the potential negative effects of early risks.

The Current Study

Current literature is consistent about the early sexual experiences of foster care youth, but much less is known about reproductive and parenting behaviors, attitudes, and social support networks that could inform strategic intervention and prevention through pregnancy and parenting programming (Schelbe and Geiger 2017). Further, studies often focus on foster youth while they are in care, with limited research about the critical transition point when foster care youth are aging out of the system. The purpose of the current study was to examine socialization, pregnancy, and parenting experiences of foster care youth transitioning out of care using a risk and resilience framework. It was specifically designed to identify gaps and missed opportunities for education and support of foster care youth, as well as offer new insights on reproductive health and parenting related issues that could inform intervention strategies.

A mixed-methods approach that combines survey and focus group data was used to understand reproductive and parenthood decisions among foster care youth aging out of care and gain insight into the lived experiences of youth making these decisions (Fetters et al. 2013). While surveys have the potential to provide factual data about participants' experiences, focus groups can allow participants to share relevant information that elaborates on survey data (Creswell and Poth 2018). A combined approach adds to the literature base to help understand the experiences, attitudes, and behaviors of foster care youth and includes data about sources of formal and informal information and supports foster care youth receive about pregnancy and parenting, their access to and use of contraception, and the involvement of non-custodial parents in raising children.

Four primary research questions guided the study: (1) What are the sexual behaviors and beliefs of foster care youth? (2) How do foster youth obtain knowledge and social support about reproductive health, pregnancy, and parenting, including access to and use of

formal parenting or pregnancy classes? (3) How do foster care youth plan and prepare for pregnancy? (4) What are the perceptions and characteristics of foster care youth parenting relationships? In line with prior research and informed by the risk and resilience framework, we hypothesized that sexual experiences would be common among foster care youth with infrequent and inconsistent use of contraception. Second, we hypothesized that foster care youth would report few educational and social supports related to reproduction, pregnancy, and parenting overall, with particularly infrequent support from the public service providers who are charged with their wellbeing while in care (i.e., their foster care parents, social workers, or public education teachers). Third, we hypothesized that pregnancies among foster care youth are disproportionately unplanned, though not necessarily unwanted. Fourth, we hypothesized that foster care youth have inconsistent parenting relationships and would report low levels of preparedness for parenting.

Method

This study reflects a transdisciplinary partnership between non-profit and university stakeholders. It included secondary analysis of survey and focus group data collected for program evaluation purposes by a non-profit organization with dedicated programming for foster youth transitioning out of care (Youth Policy Institute of Iowa; YPII). YPII staff recruited participants from young people known to them who were receiving (or who had recently received) services from YPII programs. Aftercare workers, who meet regularly with such youth, contacted potential applicants, informed them about the program evaluation purpose and subsequent intent to use de-identified data for ongoing study, and asked for participation. Youth were advised that their participation was completely voluntary and independent, with the possibility to withdraw at any time without any negative consequences, including no limitations for usual care and services. YPII staff assumed responsibility for recruitment, obtaining informed consent, and collecting data anonymously. University partners (i.e., faculty, staff, and students from the Child Welfare Research and Training Project team at Iowa State University; ISU) obtained de-identified datasets from YPII for the secondary analysis. The university Institutional Review Board (IRB) determined this study was 'exempt' in accordance per federal regulations (45CFR46.102 and 21CFR56). As such, ISU Institutional Review Board was not required to provide oversight for the project because no one affiliated with the university interacted with human subjects to collect data, obtain informed consent, collect survey or focus group data, or obtain identifiable research data.

Study Design

The original program evaluation data were collected anonymously by YPII to inform improvements in aftercare counseling, networking, and referral services. Data were collected in two parts reflecting a mixed-method approach characterized as a concurrent explanatory design where survey and focus group data were collected at the same time (Creswell 2013). After authors at ISU received de-identified data, survey and focus group data were analyzed separately and compared to formulate insights from different methodological perspectives. This process allowed investigators to confirm and corroborate results and permitted authors to minimize method and source invariance bias to address the research questions.

Survey Participants and Measures

An online anonymous survey was collected by YPII for program evaluation and program improvement purposes. Participants were purposively sampled among youth and young adults aged 18–25 who had recently or were currently receiving services because the young people had emancipated from foster care at or near age 18 and voluntarily chose to participate in aftercare services. To be eligible for this survey, youth and young adults needed to be either currently pregnant or had given birth to or fathered one or more children prior to the age of 21. Complete data included 81 respondents and 78 survey questions covering a range of topics designed to address the four major research questions including early sexual experiences, reproductive health knowledge and behaviors, and planning beliefs and experiences about pregnancy and parenting. All respondents were asked identical demographic questions, except for questions in which wording was tailored to female or male respondents (e.g., appropriate pronouns, differential gendered experiences primarily around birth control use and pregnancy experiences). As presented in Table 1, respondents were mostly female (75.3%, $n=61$) and White (60.5%, $n=49$) with 39.5% ($n=32$) identifying as underrepresented adults (24.7% African American, $n=20$; 14.8%, mixed race, $n=12$). Participants were between the ages of 18–25, with a median age of 20. Of these, 36 (44%) lived in rural counties and 45 (56%) in urban counties as defined by the Office of Rural Health Policy designation of metro and non-metro counties.

Focus Group Participants and Measures

Focus group participants were also recruited and informed consent collected by YPII using a purposive sampling strategy to include young adult women aged 18 to 26 who were previously involved in the Iowa foster care system in discussions to inform program improvement. Participants included nine women across two focus groups. Questions included similar topics as the survey with the intent to uncover the range of foster care youth lived experiences including socialization about sex and reproduction, social support, advice for foster care youth about parenting and reproductive health, and reasons for choosing to become pregnant. Two White female facilitators with Master's level educations affiliated with YPII led the group discussions in a private conference room with no one else present. Facilitators followed the line of focus group questions and did not offer their own personal experiences but rather encouraged group discussion and probed the young women's opinions further, where appropriate. This helped ensure dependability of the data (Guba 1981; Shenton 2004). Seven women attended the first focus group and two women attended the second focus group three months later. All participants were female and the mean age was 19 (range 18 to 20). The women described themselves as White ($n=3$), two or more races ($n=4$), Hispanic/Latino ($n=1$), and American Indian ($n=1$). On average, most women had at least one child (range 0 to 2 children). One woman (11.1%) reported having a deceased child. Other women with live children reported an average child's age of 13 months (range 3 months to 2 years). Five women were pregnant. Only one woman worked full-time, and the remaining women either worked part-time ($n=4$) or were unemployed ($n=4$). Five women were enrolled in educational programs (2 full-time, 3 part-time) including GED or high school, cosmetology, and community college.

Table 1 Demographics and characteristics of survey participants

	All (n = 81)	Female (n = 61)	Male (n = 20)	*p*
Age	19.9 (1.3)	19.9 (1.7)	19.8 (1.5)	0.275
Race: Non-White	30.5%	36.1%	50.0%	0.274
Education < HS degree	21.0%	21.3%	20.0%	0.901
Parent was a teen parent	70.4%	68.9%	75.0%	0.601
Current employment status				< 0.01
> 30 total hours a week	45.6%	35.0%	78.9%	
< 30 total hours a week	21.5%	21.7%	21.1%	
Not employed but looking for work	22.8%	30.0%	0.0%	
Not employed and not looking for work	10.1%	13.3%	0.0%	
Gross monthly income				0.011
$0	1.2%	0.0%	5.0%	
$1–$899	16.0%	13.1%	25.0%	
$900–$1199	17.3%	21.3%	5.0%	
$1200–$1499	33.3%	37.7%	20.0%	
$1500 or more	12.3%	9.8%	20.0%	
Forms of public assistance				< 0.01
Food stamps (SNAP)	64.20%	77.00%	25.00%	
Women, Infants and Children (WIC)	59.30%	73.80%	15.00%	
Health insurance (e.g., medicaid, hawk-i[1])	50.60%	54.10%	40.00%	
Preparation for Adult Living (PAL) stipend	38.30%	36.10%	45.00%	
Child care assistance (state funds)	16.00%	21.30%	0.00%	
Cash assistance (e.g., FIP, TANF)[2]	14.80%	19.70%	0.00%	
Rent subsidy or housing assistance	6.20%	8.20%	0.00%	
Supplemental security income (SSI)	4.90%	4.90%	5.00%	
Other public assistance	1.20%	1.60%	0.00%	
None of these, no public assistance	8.60%	3.30%	25.00%	
Number of public assistances	2.6 (1.5)	3.0 (1.3)	1.3 (1.1)	< 0.01
0	11.1%	4.9%	30.0%	
1	13.6%	9.8%	25.0%	
2	21.0%	16.4%	35.0%	
3 or more	54.3%	68.8%	10.0%	

Numbers in columns represent either percentage or mean (sd) of values. The p values indicate significant gender differences

[1]hawk-i: Healthy and Well Kids in Iowa, (Iowa's SCHIP)

[2]FIP: The Family Investment Program (FIP); TANF: Temporary Assistance for Needy Families

Data Analysis

De-identified data were provided to the ISU study team and stored on a university-controlled and password-protected web-based network. Survey data were analyzed using SPSS 24 and included descriptive statistics, T-tests and chi-square tests to examine potential gender and racial differences. Two authors analyzed the focus group data. We offer a brief

description of these two authors' backgrounds to promote transparency and document a reflexivity statement (Carlson 2010; Saldaña and Omasta 2018). Both authors are Black women who are native-born American citizens. They are heterosexual, married, highly-educated, and middle-class. One woman is a faculty member with an earned doctorate and more than 20 years of research experience; the second is a doctoral student with 10 years of research experience. These two authors received digital audio recordings from YPII, listened to the focus group discussions separately, and developed notes about themes (i.e., audio trails) that emerged from the group discussions using principles of content analysis (Guba 1981; Shenton 2004). After independently listening to the recordings, they met to discuss their impressions of the women's comments. These insights were used to develop data themes; there was consistency between the data presented and the findings.

The authors listened to the facilitator's reflective commentaries about leading the focus group discussions with the women; the facilitators' initial impressions of the focus group discussions provided the authors with a preliminary understanding of the data patterns that are reported in the Results (Shenton 2004). Though the YPII staff's efforts to recruit men for a third focus group were not successful in the timeframe available for this study, no other difficulties occurred during the research process and thus, we are confident in the dependability of the administration of the focus group.

Results

Survey Results

Sample Characteristics

Information about the sample characteristics are presented in Tables 1 and 2. The average (M) and the standard deviation (SD) are shown for continuous variables (e.g., age, age of first sex), and the percentage in each category is shown for categorical variables (e.g., race, living situation in placement) in the table. Over 70% of the sample was born to a teen parent, and 21% had less than a high school education. A majority of respondents reported receiving at least one form of public assistance, with nearly 55% receiving three or more forms of assistance with the most frequent programs including SNAP (64.2%), WIC (59.3%), and Medicaid (50.6%). The majority of respondents (58%) spent two or more years in out-of-home placement prior to exiting foster care, and most (50.6%) were currently living with a partner (i.e., boyfriend/girlfriend or spouse). Chi-square analyses testing group differences identified several significant gender differences including employment status (i.e., more male respondents were working a full-time job, χ^2 (3) = 14.35, $p < 0.01$), income (i.e., females reporting lower income, χ^2 (6) = 16.47, $p < 0.05$), public assistance (i.e., males reporting fewer types and amounts of assistance, χ^2 (4) = 23.17, $p < 0.001$), and the type of out-of-home placement experience (i.e., males more likely to have lived in a group home or state training school, χ^2 (9) = 31.03, $p < 0.001$).

Sexual Experiences (Research Question 1)

There were significant gender and racial differences in youth reports of sexual experiences, and some interactions between the timing and type of first sexual experience and reports of subsequent partner relationships (see Table 3). Findings indicated that 53.2% of

Table 2 Living situation and foster care experiences

	All (n = 81)	Female (n = 61)	Male (n = 20)	*p*
Living situation in placement				< 0.01
Foster home	35.8%	42.6%	15.0%	
Relative's home	6.2%	8.2%	0.0%	
Residential facility	21.0%	23.0%	15.0%	
Psychiatric medical institutes for children (PMICs)	1.2%	1.6%	0.0%	
Group home	12.3%	9.8%	20.0%	
Shelter	8.6%	9.8%	5.0%	
Supervised apartment living (SAL)	1.2%	1.6%	0.0%	
State training school or detention	9.9%	1.6%	35.0%	
Other suitable placement	1.2%	1.6%	0.0%	
Other	2.5%	0.0%	10.0%	
Out of home placement length				0.295
Less than six months	2.5%	1.6%	5.0%	
Six months to one year	16.0%	16.4%	15.0%	
1 to 2 years	23.5%	18.0%	40.0%	
2 to 3 years	13.6%	14.8%	10.0%	
3 to 5 years	21.0%	21.3%	20.0%	
5 years or more	23.5%	27.9%	10.0%	
Current living arrangement				0.375
Partner (boyfriend/girlfriend or spouse)	50.6%	49.2%	55.0%	
Parent(s)	8.6%	8.2%	10.0%	
Grandparent(s)	1.2%	0.0%	5.0%	
Other family member(s)	7.4%	6.6%	10.0%	
Friends/roommates	14.8%	14.8%	15.0%	
Living alone (no other adults)	23.5%	26.2%	15.0%	
Homeless	2.5%	1.6%	5.0%	

The *p* value indicates significance of gender differences

respondents reported having sex for the first time at age 14 or younger. The average number of sexual partners was 7 ($SD = 2.98$), and males indicated more partners than females (8.1 vs. 6.7, respectively, $t = 1.88$, $p < 0.05$). A significant interaction effect was found indicating racial differences in the relationship between age of first sex and number of sexual partners. A significant negative relationship for underrepresented youth indicated that those who had sex at a later age had fewer sexual partners ($r = -- .72$, $p < 0.001$), but this was not true for White youth ($r = -- .19$, $p = 0.19$). A significant interaction effect was also found for youth with a teen parent, indicating that females who were born to a teen parent had sex for the first time at later ages compared to females who were not a child of a teen parent (i.e., 15 vs. 14, $t\,(59) = 2.09$, $p < 0.05$).

As indicated in Fig. 1, the most frequent reasons for foster care youth's first consensual sexual experiences were casual, including "it just happened," or "I wanted to know what it was like." There were no significant gender differences in the reasons for first experience. The majority also reported, however, that they wished they had waited longer before having sex for the first time (67.9% reporting "definitely" or "probably" yes). Significant

Table 3 Description of sexual experiences and attitudes

	All (n = 81)	Female (n = 61)	Male (n = 20)	*p*
Age at first sex	14.5 (1.8)	14.7 (1.7)	14.1 (1.9)	0.177
< 13	13.6%	9.8%	25.0%	
13	19.8%	19.7%	20.0%	
14	19.8%	18.0%	25.0%	
15	18.5%	23.0%	5.0%	
16	12.3%	11.5%	15.0%	
17	9.9%	13.1%	0.0%	
18	6.2%	5.0%	10.0%	
Number of sexual partners	7.0 (3.0)	6.7 (3.1)	8.1 (2.4)	0.290
1–2	10.0%	11.5%	5.3%	
3–4	13.8%	16.4%	5.3%	
5–6	18.8%	21.4%	10.6%	
7–8	13.8%	9.9%	21.1%	
9 +	43.8%	41.0%	52.6%	
Ever forced to have sex	45.7%	57.4%	10.0%	< 0.001
Wished waited longer before first sex				< 0.001
Definitely yes	54.3%	67.2%	15.0%	
Probably yes	13.6%	13.1%	15.0%	
Maybe	8.6%	8.2%	10.0%	
Probably no	9.9%	4.9%	25.0%	
Definitely no	13.6%	6.6%	35.0%	
Believe it is normal for teens to have sex				0.21
Strongly agree	36.3%	31.7%	50.0%	
Agree	42.5%	48.3%	25.0%	
Undecided	16.3%	13.3%	25.0%	
Disagree	3.8%	5.0%	0.0%	
Strongly disagree	1.3%	1.7%	0.0%	
Who is responsible for preventing pregnancy?				0.19
Women	3.8%	4.9%	0.0%	
Mostly women	2.5%	3.3%	0.0%	
Equal responsibility	92.5%	91.8%	94.7%	
Mostly men	0.0%	0.0%	0.0%	
Men	1.3%	0.0%	5.3%	
How often do you or your sexual partner use birth control?				0.07
Always	22.2%	27.9%	5.0%	
Usually	17.3%	18.0%	15.0%	
About half the time	16.0%	16.4%	15.0%	
Seldom	17.3%	11.5%	35%	
Never	27.2%	26.2%	30%	

Numbers in columns represent either percentage or mean (sd) of values. The *p* values indicate significance of gender differences

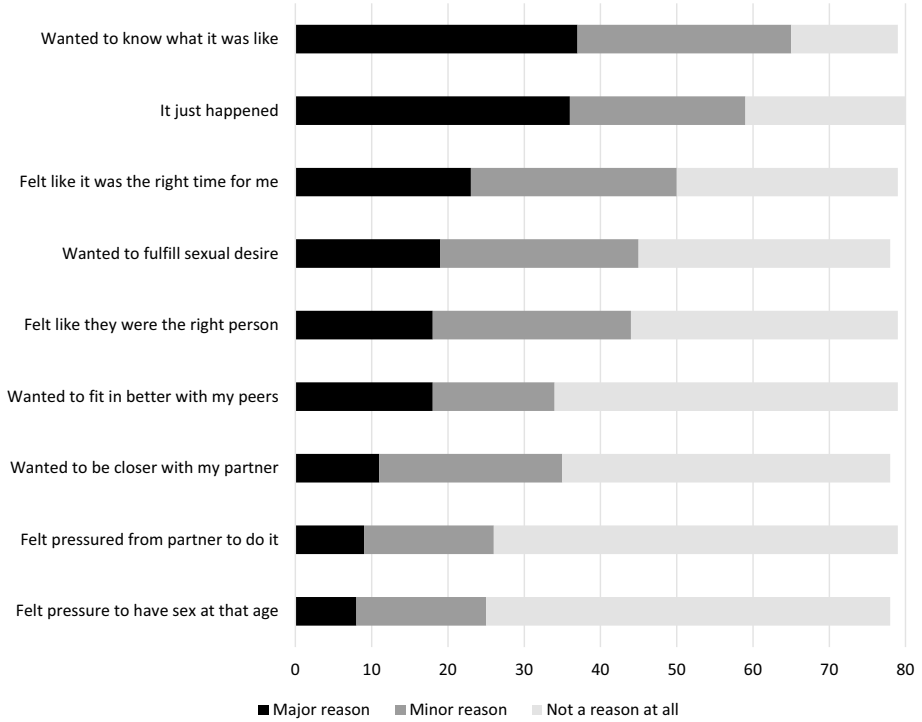

Fig. 1 Major and minor reasons for becoming sexually active

gender differences were found with this subsequent question indicating more females stating they wished they had waited compared to males (χ^2 (4) = 22.78, $p < 0.001$). A large percentage of foster care youth recounted having a forced sexual experience (45.7%), with 95% of these being female. Females with a forced sexual experience also indicated a significantly higher number of sexual partners (7.4 vs. 5.7 for females with no forced sexual experience; $t = 2.27$, $p < 0.05$). No racial or rurality differences were found.

Reproductive Health Knowledge and Behaviors (Research Question 2)

A series of survey questions asked foster care youth about their beliefs and practices related to pregnancy prevention and sources of information about reproductive health. As indicated in Table 3, while 92.5% agreed that both men and women shared equal responsibility for preventing pregnancy, inconsistent use of birth control was reported. The most common type of birth control used by females was the birth control pill; the most common method used by males was condoms. However, findings also suggested that only 22.2% of respondents (including male and female) "always" used birth control, with 27.2% reporting "never" using any method of birth control.

Table 4 summarizes survey results about the nature and extent of information that foster care youth received from other adults about reproductive health. Overall, fewer than half of respondents (49.4%) felt "well" or "very well" informed about reproductive health, and there were no gender or racial differences. Most received some information via classes at

Table 4 Sources of information about reproductive health

	All (n = 81)	Female (n = 61)	Male (n = 20)	*p*
Informed about reproductive health				0.66
Not well at all	11.1%	9.8%	15.0%	
Not well	7.4%	6.6%	10.0%	
Okay	32.1%	36.1%	20.0%	
Well	18.5%	16.4%	25.0%	
Very well	30.9%	31.1%	30.0%	
Seek advice about reproductive health				0.68
Not likely	34.6%	34.5%	25.0%	
Somewhat likely	33.3%	31.0%	40.0%	
Very likely	32.1%	34.5%	35.0%	
Sources of information about sexual and reproductive health				
Class at school	85.7%	89.8%	72.2%	0.62
Medical professional	80.8%	86.7%	61.1%	0.04
Biological parents	67.6%	69.1%	63.2%	0.63
Online sources	59.7%	63.6%	47.1%	0.11
Printed material	59.2%	64.8%	41.2%	0.07
Friends/siblings	57.3%	56.1%	61.1%	0.83
Placement staff	49.3%	51.8%	42.1%	0.38
DHS social worker	42.3%	44.4%	35.3%	0.43
Foster parents	41.7%	48.1%	22.2%	0.13
JCO	26.0%	25.0%	29.4%	0.94
Primary source of information about sexual and reproductive health				0.42
Class at school	29.1%	25.4%	40.0%	
Parent	22.7%	22.0%	25.0%	
Medical professional	19.0%	22.0%	10.0%	
Online sources	10.1%	10.2%	10.0%	
Placement staff	6.3%	8.5%	0.0%	
Foster parent	3.8%	5.1%	0.0%	
Friends or siblings	3.8%	3.4%	5.0%	
Other	3.8%	1.7%	10.0%	
JCO	1.2%	1.7%	0.0%	
Frequency of Aftercare Advocate discussing reproductive health				0.03
Very often	18.5%	23.0%	5.0%	
Often	14.8%	14.8%	15.0%	
Sometimes	34.6%	32.8%	40.0%	
Rarely	16.0%	19.7%	5.0%	
Never	14.8%	9.8%	30.0%	
N/A	1.2%	0.0%	5.0%	

The *p* values indicate significance of gender differences

school (85.7%), which was also the primary source of information for 29.1% of respondents. Less than half of respondents reported receiving any information about reproductive health from their foster care placement staff (49.3%), child welfare worker (42.3%), foster care parents (41.7%), or Juvenile Court Officer (26%). With respect to the specific program at YPII from which youth were recruited for the study, significant gender differences were found about discussing reproductive health with their Aftercare worker whereby more males reported "never" and more females reported "very often" (χ^2 (5) = 12.05, $p < 0.05$).

Pregnancy Experiences (Research Question 3)

Questions regarding pregnancy experiences were framed by gender and are summarized in Table 5 (i.e., questions for females asked about their own experiences, whereas questions for males asked about the experiences of their partners). Questions were asked of both the first pregnancy experience and the most recent or current pregnancy experience. Findings indicate that the majority (68.0%) of the overall sample was not currently pregnant or expecting. Though the average age of first sex was 14.5 years old, most respondents did not experience their first pregnancy until their late teen years. The mean age of first pregnancy, as confirmed by a medical doctor, for the overall sample was 17.9 years ($SD = 1.8$), with most respondents having their first pregnancy between ages 17–20. Most of the overall sample (87.6%) had experienced 1–2 pregnancies ($M = 1.6$, $SD = 0.9$). Thirty percent (30.9%) of respondents were currently pregnant. Of those with prior pregnancies, 65.4% of respondents reported that they delivered and kept their most recent baby, comprising 70.5% of the females and 50.0% of the males. No respondents indicated adoption or abortion as outcomes of their most recent pregnancy.

Respondents in the overall sample were asked about their feelings associated with their first pregnancy (see Table 5). Most respondents (46.9%) said they were open to the possibility of pregnancy but were not purposefully seeking pregnancy. While approximately one third (31.1%) of females reported not wanting to become pregnant at the time of their most recent pregnancy compared to only 5.0% of males, more than a quarter (27.2%) of respondents—26.2% of females and 30.0% of males—indicated they wanted to become pregnant at the time of their most recent pregnancy.

The majority of respondents felt unprepared for their first pregnancy, with 41.3% reporting feeling not at all prepared and 22.5% reporting feeling only somewhat prepared. However, there was a significant gender difference with females less likely to report feeling prepared (χ^2 (4) = 11.62, $p < 0.05$); females were more likely to report feeling not at all prepared (48.3%) than males (20.0%), whereas males were much more likely to report feeling very prepared (35.0%) than females (8.3%).

Friends and family were both sources of support for respondents in the overall sample during pregnancy (see Table 5). Respondents reported that friends "definitely" supported (46.9%) or "somewhat" supported (19.8%) their first pregnancy. Generally, respondents reported receiving support from their families—with 42.5% being "definitely" supported and 28.8% being "somewhat" supported. Most respondents had an ongoing relationship with their romantic partners, with 64.2% indicating romantic involvement on a steady basis. Most participants (52.5%) reported a desire to marry their current partner following their most recent or current pregnancy. For the decision regarding their pregnancy outcome—of whether to deliver and parent the baby or not—most respondents (82.7%) said the father's input was considered.sss

Table 5 Pregnancy experiences, feelings about pregnancy, and prenatal care and support

	All (n=81)	Female (n=61)	Male (n=20)	*p*
Currently pregnant or expecting[1]	32.0%	27.6%	47.1%	0.13
Desire to become pregnant in next year[2]	21.6%	15.0%	54.5%	0.03
Age at first pregnancy or expectancy	17.9 (1.8)	18.0 (1.6)	17.6 (2.4)	0.11
13	1.2%	0.0%	5.0%	
14	3.7%	1.6%	10.0%	
15	8.6%	6.6%	15.0%	
16	3.7%	4.9%	0.0%	
17	17.3%	21.3%	5.0%	
18	33.3%	37.7%	20.0%	
19	12.3%	9.8%	20.0%	
20	13.6%	11.5%	20.0%	
21	4.9%	4.9%	5.0%	
22	1.2%	1.6%	0.0%	
Number of pregnancies				0.01
0	2.5%	0.0%	10.0%	
1	54.3%	52.5%	60.0%	
2	33.3%	37.7%	20.0%	
3	6.2%	8.2%	0.0%	
4 or more	3.7%	1.6%	10.0%	
Pregnancy outcome (most recent)				0.30
Currently pregnant	30.9%	26.2%	45.0%	
Live birth, kept the baby	65.4%	70.5%	50.0%	
Live birth, baby was taken by DHS	2.5%	1.6%	5.0%	
Live birth, baby was adopted	0.0%	0.0%	0.0%	

Table 5 (continued)

	All (n = 81)	Female (n = 61)	Male (n = 20)	*p*
Stillborn or miscarriage	1.2%	1.6%	0.0%	
Abortion	0.0%	0.0%	0.0%	
Feelings about becoming a parent before most recent pregnancy				0.93
Open to the possibility of becoming pregnant, but wasn't trying	46.9%	41.0%	65.0%	
Wanted to become pregnant at that time	27.2%	26.2%	30.0%	
Did not want to become pregnant	24.7%	31.1%	5.0%	
Not sure	1.2%	1.6%	0.0%	
Preparedness to become a parent during first pregnancy				0.02
Not at all prepared	41.3%	48.3%	20.0%	
Rarely	10.0%	10.0%	10.0%	
Somewhat prepared	22.5%	20.0%	30.0%	
Mostly	11.3%	13.3%	5.0%	
Very prepared	15.0%	8.3%	35.0%	
Friend support during first pregnancy				0.81
Definitely supported	46.9%	47.5%	45.0%	
Somewhat supported	19.8%	21.3%	15.0%	
Neither	18.5%	16.4%	25.0%	
Somewhat opposed	3.7%	4.9%	0.0%	
Definitely opposed	3.7%	3.3%	5.0%	
They didn't know about it	7.4%	6.6%	10.0%	
Family support during first pregnancy[3]				0.26
Definitely supported	42.5%	40.0%	50.0%	
Somewhat supported	28.8%	25.0%	40.0%	
Neither	8.8%	11.7%	0.0%	

Table 5 (continued)

	All (n = 81)	Female (n = 61)	Male (n = 20)	*p*
Somewhat opposed	5.0%	6.7%	0.0%	
Definitely opposed	10.0%	10.0%	10.0%	
They didn't know about it	5.0%	6.7%	0.0%	
Relationship status at most recent pregnancy				0.38
Romantically involved steady basis	64.2%	60.7%	75.0%	
Romantically involved on/off again	27.2%	29.5%	20.0%	
Didn't really know each other	4.9%	4.9%	5.0%	
Just friends	2.5%	3.3%	0.0%	
Married	1.2%	1.6%	0.0%	
Desire to marry partner following most recent pregnancy[3]				0.87
Yes	52.5%	56.7%	40.0%	
No	37.5%	35.0%	45.0%	
Didn't care	10.0%	8.3%	15.0%	
Father's input in decision regarding most recent pregnancy outcome[4]				0.11
With his input	82.7%	78.6%	100.0%	
Without his input	17.3%	21.4%	0.0%	
Month of most recent pregnancy when first visiting a doctor or nurse[5]				
Month 1	36.1%	36.1%	N/A	
Month 2	47.5%	47.5%	N/A	
Month 3	14.8%	14.8%	N/A	
Month 6	1.6%	1.6%	N/A	
Number of prenatal care visits during most recent pregnancy[6]				
< 4	10.2%	10.2%	N/A	
4–10	39.1%	39.1%	N/A	

Table 5 (continued)

	All (n = 81)	Female (n = 61)	Male (n = 20)	*p*
11–20	40.7%	40.7%	N/A	
> 20	27.1%	27.1%	N/A	
Attendance at a birthing or baby preparation class during most recent pregnancy[7]				0.55
No	75.0%	73.3%	80.0%	
Yes	25.0%	26.7%	20.0%	
Primary support person during most recent pregnancy				0.74
Partner or spouse	46.9%	45.9%	50.0%	
Parent	22.2%	21.3%	25.0%	
Close friend	11.1%	11.5%	10.0%	
Another relative	8.6%	6.6%	15.0%	
Case worker	3.7%	4.9%	0.0%	
Foster parent	1.2%	1.6%	0.0%	
Other	3.7%	4.9%	0.0%	
Do/did not have primary support person	2.5%	3.3%	0.0%	

Numbers in columns represent either percentage or mean (sd) of values. The *p* values indicate significance of gender differences

[1] Six responses were coded as missing to reflect "Not sure" responses and are not included in these percentages

[2] These percentages include a total of 51 respondents. Others ($n = 30$) either responded N/A, currently pregnant, or "not sure."

[3] A total of 80 respondents answered this question, with one missing

[4] A total of 52 respondents (42 females, 10 males), with 29 missing (due to skip pattern)

[5] A total of 61 respondents, with 20 missing (due to being not applicable for male respondents)

[6] A total of 59 respondents, with 22 missing (due to N/A being male for 20 and skipping the question for 2)

[7] A total of 80 respondents answered this question

As summarized in Table 5, all females (100.0%) in the sample received prenatal care during their most recent or current pregnancy, and most (98.4%) saw a doctor or nurse within the first trimester. However, 10.2% of this sample had three or fewer prenatal visits overall. Only 25% reported having attended a birthing or baby class during their most recent pregnancy.

Participants were also asked to name their primary support person during their most recent or current pregnancy. The top three support persons among the overall sample were partners or spouses (46.9%), parents (22.2%), and close friends (11.1%). Caseworkers and foster parents were uncommonly selected, though females did name them as support persons a small percentage of the time (4.9% and 1.6%, respectively) during their most recent or current pregnancy, whereas males did not.

Parenting Experiences (Research Question 4)

Survey questions also asked about the nature and perceptions of parenting for the subset of foster care youth who were currently parenting (n = 58; see Fig. 2); respondents who were currently expecting but did not have living children or who were previously pregnant but had no living children were excluded. The majority of respondents indicated one living child (74.1%). For those with two or more children, a majority (53.3%) were parenting with multiple partners. The majority of youth were either cohabiting with (48.3%) or married to (5.2%) the parent of their youngest child. The co-parenting relationship was identified as "very good" or "excellent" by 62.1% of foster care youth, with no significant gender differences. The majority reported having custody of all their children (89.7%). Of those not married or living with their co-parent, 55.6% had established paternity. Of those who were not married, very few reported either receiving (7.7%) or paying (3.7%) child support. The survey asked questions about participation in parenting and home visiting programs. Just over one third of participants reported participating in home-visiting services (34.5%), and/or other groups, classes, or programs specifically designed for parents (36.2%).

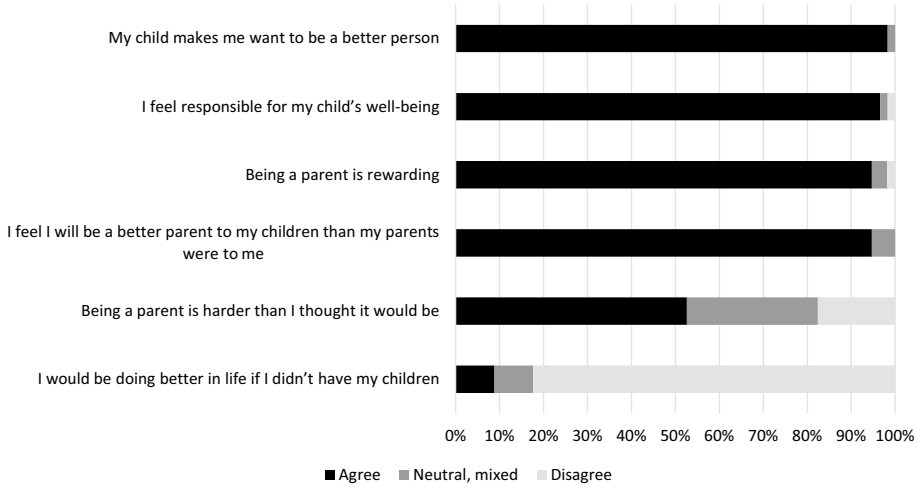

Fig. 2 Perceptions about parenting

Table 6 Parenting experiences

	All (n = 58)	Female (n = 47)	Male (n = 11)	*p*
Number of living children				0.13
1	74.1%	72.3%	81.8%	
2	20.7%	23.4%	9.1%	
3	3.4%	4.3%	0.0%	
4 or more	1.7%	0.0%	9.1%	
If more than one child,[1] all children share same parents	46.7%	53.8%	0%	0.16
How many men/women were parents to your children?				0.66
2	85.7%	83.3%	100.0%	
3	14.3%	16.7%	0.0%	
Do you have custody of your children?				0.49
Yes, custody of all	89.7%	91.5%	81.8%	
Yes, custody of some	6.9%	6.4%	9.1%	
Custody of youngest[2]	67.7%	75.0%	50.0%	
No	3.4%	2.1%	9.1%	
How confident do you feel in your ability to parent children?				0.91
Not at all confident	0.0%	0.0%	0.0%	
A little confident	0.0%	0.0%	0.0%	
Somewhat confident	10.7%	11.1%	9.1%	
Confident	14.3%	13.3%	18.2%	
Very confident	75.0%	75.6%	72.7%	
Currently married/living with the father/mother of youngest child				0.18
Married	5.2%	6.4%	0.0%	
Not married but living with	48.3%	42.6%	72.7%	
Not married or living with	46.6%	51.1%	27.3%	
Not married/living together,[3] formally established paternity of youngest				0.51
Yes	55.6%	58.3%	33.3%	
No	37.0%	33.3%	66.7%	
Not sure	7.4%	8.3%	0.0%	
If not married/living together,[3] do you receive child support?				0.74
Yes	7.7%	8.7%	0.0%	
No	73.1%	69.6%	100.0%	
Supposed to but I don't	15.4%	17.4%	0.0%	
Not sure	3.8%	4.3%	0.0%	
If not married/living together[3], do you pay child support?				0.87
Yes	3.7%	4.2%	3.7%	
No	92.6%	91.7%	92.6%	
Supposed to but do not	3.7%	4.2%	3.7%	
Participated in home visiting program(s)	34.5%	38.3%	18.2%	0.99
Participated in parenting program(s)	36.2%	36.2%	36.4%	0.21
Have child(ren) with special medical needs	12.1%	8.5%	27.3%	0.09

Additional questions explored participant perceptions about parenting, including preparedness, confidence, and attitudes (see Table 6 and Fig. 2). Overall, respondents provided positive outlooks on their attitudes and experiences of parenting, including nearly 95% reporting a strong sense of responsibility for their child's wellbeing, that their child makes them want to be a better person, that parenting is rewarding, and that they want to be a better parent to their children than their parents were for them. While 52.6% of participants agreed that parenting was harder than anticipated, no participants indicated feelings of total doubt or uncertainty in their ability to parent their children.

Focus Group Results

Four major themes emerged from the focus groups: socialization and reproduction, social support, pregnancy as a choice, and pay it forward. Primary themes will be outlined and less dominant patterns will also be described. These themes support and extend the survey results and provide insight to address the study's four research questions.

Socialization About Reproduction

Focus group participants learned about reproduction through school (e.g., teachers, peers), books, or the Internet. No women recalled receiving any information from their Department of Human Services social worker; one woman did recall a presentation while she resided a local youth shelter. She recalled, "I was in the [name removed] Shelter. Planned Parenthood would come, but I was already pregnant then." In support of this point, the women stressed the importance of providing education about reproduction early in development (e.g., 5th grade). As one woman offered, "I think by the time you start talking about it to people in foster care, they're already having sex." Adolescents commonly received this information too late.

Some of the women said that their parents (inclusive of biological and foster) did not engage them in discussion about reproduction. One woman shared, "It did not get talked about because they didn't want us to do it." Other women remembered these conversations as being awkward and sometimes uncomfortable. Only one woman explicitly stated that she received the information she needed from her biological parents, and so did not need to be educated when she was in the care of her foster parents. Among the information they did receive about reproduction, the women only received basic facts (e.g., physical anatomy).

None of the content focused on emotional or relational aspects of dating or choosing a partner, though information about these things would have been beneficial. One woman shared this: "It's a lot less personal when you talk about sex with anybody in the system. You're probably talking about sexual *health*, you're not talking about sexual *relationships.* I never talked about my sexual relationships with any of my foster parents. Your character as far as how you carry yourself, how your relationships affect how you carry yourself sexually." Another woman concurred with this saying, "If I could change anything I learned about sexual health as a minor, it would be the emotional aspect of relationships." In sum, the women expressed a need to be proactive and ask parents about reproduction.

Social Support

Most women acknowledged that they received some form of social support during their pregnancy. This support was mainly emotional support from their friends and some

financial support from their parents. Women desired emotional support from birth mothers and physical presence from family members and or the children's fathers at time of delivery, but this kind of assistance was not provided. The nature of support was reflective of the relationship quality shared with parents and children's fathers; many of these relational ties were complex and complicated by infrequent contact and substance use.

Once their children were born, some participants did receive more support from their mothers (biological and foster), both financially and with caregiving. One participant learned how to navigate being a single parent by watching her mother parent six children alone. Single women either received inconsistent support or no aid from their children's fathers. One woman shared, "Since my child's father has no relationship with me, he has no relationship with his child." Two women were married and engaged to their mates, and thus benefitted from more support since they were in committed relationships with the children's fathers.

Participants acknowledged receiving adequate support from churches, community organizations, or other groups during and after their pregnancies. Local community agencies and federal support programs (e.g., Supplemental Nutrition Assistance Program for Women, Infants, and Children) were mentioned as a means for both emotional and peer group support as well as access to nutritional and housing needs. One woman reflected, "One church I would go to give out all kinds of baby items like pampers and wipes, stuff that I could definitely use." Another participant stressed the importance of providing additional services and supports if a child has special needs.

Although they found these organizations and groups helpful, the women recommended offering support groups and resources especially designed for the unique needs of teens in the foster care system. One woman suggested this: "Another big support would be going to young mom's group. All the girls there, since they all have kids, you always have somebody you can go to for advice and they keep it real with you because they're doing it now."

Access to free birth control in shelters, doctor's offices, or school nurse offices would also be helpful. The women also advocated for more parenting prevention/preparation courses in school like the "take a fake baby home for a weekend" project, as one woman described it. Another woman concurred with this point and noted that foster parents should not be able to decline a teen in the foster care system participating in this useful activity. Another participant expressed the need for inclusive representation, especially during social and peer group settings. She said, "Having someone talk to them they could relate to. You don't want to hear it—like no offense—but if you're Black, you don't want to hear it from some White person from [suburb in Iowa]. You want somebody who's been in your position."

Pregnancy as a Choice

Women were asked to think of reasons why young adults their age would purposely try to have a baby. Many expressed foster care teens' desires to have "their own" families as central reasons, in addition to influences from boyfriends or partners and a hope to be loved and not alone. One woman said, "I did it on purpose 'cause I was young and stupid and I was in placement most of my life. When I was there, I always just wanted a family. So I tried." Another woman offered this: "I know a few girls who have had children because they really liked their man and thought that having a child would keep them together." Other reasons for intentionally choosing to have a child included a desire to demonstrate one's maturity, though becoming a parent early in life only served to shortened one's time

to develop and explore, in the women's opinions. One woman stated this: "You think you're ready to be grown up." The women advocated for delaying parenthood such that one might be more exposed to life and one could be better positioned to provide a stable home life for their child. The women advised protecting oneself if you were not ready to be a parent. Other messages included "Grow up first. Live out your youth" and "Know who YOU are, before becoming a parent."

Although participants expressed why some young women chose to have children, it was the consensus that most mothers in the focus group did not plan to become pregnant, but perhaps conceptions resulted from lack of or inconsistent use of birth control. One woman recalled, "My parents weren't really involved and I was kinda on my own, so nobody was there to enforce me to use protection or getting a contraceptive."

The women generally aimed to be intentional about reproductive decisions, yet they lacked needed guidance and support in choosing which method was best for them. A birth control counselor who was culturally competent and well-informed would have been helpful for these women. The women proved to be very knowledgeable about different forms of birth control (e.g., the pill, Nuva Ring, "The Patch," Nexplanon). Yet, many women communicated concerns about side effects or barriers to use which contributed to why they chose *not* to use them. Side effects such as weight gain, allergic reactions, and even "hating the feeling of condoms" were noted as deterrents to using birth control. Other barriers to contraceptive use were transportation, time, baby fever, and knowing when to renew the prescription or obtain a new dose. For example, one woman said, "When kids of women in the system have to choose a birth control method, it should be reflected where they are stability-wise in their lives. I still have to go to Planned Parenthood and get my Depo Shot and I'm like a week late getting the shot. So, like how long your birth control lasts when you have to renew it, how it's supposed to be renewed, those things that might have been handled by a foster parent, it's harder to deal with as an adult all on your own."

It is plausible that the lack of discussion about sex and birth control among participants, parents, and or other trusted adults contributed to the women's lack of or inconsistent use of contraception. One woman said: "I didn't know who to talk to about birth control." Another woman mentioned this: "With my birth mother, talks of birth control were seen as a 'green light' to have sex, so we just didn't ask." Regardless of whether becoming a parent was an intentional choice or not, the women had advice to share with teens who are in the foster care system. We describe this next.

Paying It Forward

Participants offered advice for foster care youth about parenting and reproductive health. Most women recommended using birth control, wearing protection at all times if sexually active, and educating oneself about birth control options. One participant asserted, "Don't be afraid to ask questions. That's for guys and girls." Another women warned, "Don't do it if you don't know." Others offered cautionary tales such as being selective on who you parent a child with and to wait until you become financially stable to have children.

The women reflected on their own experiences and shared lessons learned for teens currently in the foster care system. Participants recalled the physical effects of pregnancy and the weighty responsibility of being a new parent. The women commented on how time-consuming parenting is and noted the financial and emotional burdens of raising offspring. One woman lamented, "It's really hard but you think, if [one's peers] can do it, I can." Another woman conceded this: "I wish someone would have told me about kids—if

someone would have told me about parenting I probably would have made sure I used protection." These women seemed ill prepared for these challenges and advocated for educational programming to inform others about the realities of being a parent. Although the women expressed no regrets about having their children, the women conceded that it was important to be educated about parenting responsibilities before having children. As one woman shared, "There's that feeling of regretting the different life that you could have had or regretting not having the opportunity to have that life, but you'll never regret your child. You'll never regret a life."

Discussion

Findings from this study make some unique contributions to the literature about foster care youth and their experiences with early sexual relationships, pregnancy, and parenting. Using a mixed methods approach we supported hypotheses that foster care youth would have early sexual experiences, fewer educational opportunities, and less supportive personal relationships than would be expected from national estimates of non-foster care youth. The following sections will discuss the study findings related to existing literature and offer implications for future research and policy or practice changes that could best support foster care youth related to pregnancy and parenting.

Findings from this study are consistent with existing literature documenting the early ages at which foster care youth report having their first sexual experiences and first pregnancies. A majority of respondents in this study (53.2%) reported having their first sexual encounter before the age of 15. Focus group participants corroborated this sentiment in emphasizing the significance of offering reproductive education early in development in socialization about reproduction theme. Teens frequently received this information too late, in their opinions. This comports with national and regional studies that document first sexual experiences of foster care youth between the ages of 10–15 (Ahrens et al. 2016; Courtney et al. 2007), with differences between foster care and non-foster care youth of up to 2 years (Courtney et al. 2007; Carpenter et al. 2001). This study also found that foster care youth had their first pregnancy, on average, by age 18. According to The Casey National Alumni Study, the rate of pregnancy among youth in foster care is double the rate found in their sample representing the general population, with 50% of youth in foster care having been pregnant before the age of 19, compared to 27% of the general population. (Geiger and Schelbe 2013; Courtney and Dworsky 2006; Dworsky and Courtney 2010). A study from the 1995 National Survey of Family Growth found that those who had ever been in foster care were, on average, 11.6 months younger in age at first conception (Carpenter et al. 2001). Looking at foster care youth who transition into adulthood, Brandford (2003) assessed that, by the age of 17, 28% of females had been pregnant at least once while 10% of males reported impregnating someone.

Findings from the current study uncovered some of the reasons for early pregnancy among foster care youth and make a contribution to the literature about why foster care youth may experience higher rates of early pregnancies compared to non-foster care youth. Findings indicate that over one in four youth (27.2%) reported that they wanted to become pregnant at the time of their most recent pregnancy, while another 47% reported being open to the idea despite no explicit plans for becoming pregnant. Among the focus group participants, the young women noted intentionally becoming pregnant might be attributable to a desire to have their own families, influences from boyfriends/partners, a hope to be

loved and not alone, and a means to demonstrate one's maturity. This is relatively different than a previous study conducted just 15 years ago that reported less than 10% of foster care youth felt ambivalent about the idea of pregnancy while 22% actively wanted to become pregnant (Courtney et al. 2004). Some recent qualitative work with foster care youth has suggested that of those who desire pregnancy, they may be seeking conception as a means of being part of a family, developing loving relationships, or to break an intergenerational cycle of abuse (Boustani et al. 2015; Connolly et al. 2012; Curnow 2016; Love et al. 2005; Radey et al. 2016). The focus group participants cautioned against this way of thinking and advocated for delaying parenthood to be able to provide a more stable childhood for one's offspring. Additional quantitative research should expand on these suggestions with other populations including nationally representative samples to further explore these attitudes and articulate whether these findings are indicative of a changing trend suggesting more a passive approach to pregnancy prevention among foster care youth than in prior decades.

The current study also highlights some important gaps for foster care youth who may not have sufficient information or access to supports regarding their reproductive health, contraception, and parenting choices. While the majority of respondents believed that pregnancy prevention is a shared responsibility between both partners, fewer than half (49.4%) felt well informed about reproductive health and less than a quarter (22%) consistently used contraception as a method of pregnancy prevention. Focus group participants also conceded that they lacked or inconsistently used birth control. Though this is not entirely surprising given prior literature about foster care youth's sexual education experiences, youth in this study reported that their primary source of information about sex or reproductive health was through formal classes in schools, and less than half reported receiving any information from their foster care placement staff, social worker, foster parents, or juvenile correction officers. This finding was corroborated in the focus group discussions; participants learned about reproduction from school (e.g., teachers, peers), books, or the Internet. They did not receive information from their social worker; information from biological parents, if given, was very basic and only focused on anatomy and not on the emotional or relational aspects of sexual partnering. Given the amount of time these youth had spent in care outside of their homes, and the timing of this care coinciding with the timing of puberty and early sexual exploration, this finding presents an important opportunity for policy change that warrants attention. This is particularly concerning given recent trends showing that schools are (a) reducing the time they spend on intimate relationship education, and (b) spending more time on "abstinence only" education and less time discussing effective contraceptive use (Lindberg et al. 2016). This is a troubling trend for foster care youth, as accessing this information outside of formal school settings can be more difficult due to placement instability, changes in caregivers, and changes in schools (Constantine et al. 2009). Literature also suggests that youth are hesitant to talk with foster parents about sex out of fear of punishment or embarrassment (Love et al. 2005).

Foster care youth in this study reported inconsistent use of birth control, with only 22.2% always using contraception during sexual experiences. While some prior research has also documented that foster care youth use birth control less frequently (e.g., Polit et al. 1989), more recent studies with Midwest samples reported contraception use closer to 50% (Courtney et al. 2007), though this accounts for using birth control "most of the time" and not consistent use every time, which is the most effective form of preventing pregnancy.

Given the consistent literature documenting systemic disconnections that former foster care youth experience as they "age out" and transition into adulthood (Courtney et al. 2011; Pecora et al. 2003; Reilly 2003), a key question in the current research was how youth who are pregnant or parenting accessed formal supports such as prenatal care or

parenting classes. While the majority of foster care youth in our survey reported receiving early and consistent prenatal care, few participated in birthing or parenting classes. This was a unique finding that we explored more deeply through the focus groups to understand what these types of classes could do to support foster care youth, specifically, given prior literature expressing consistent needs for mentorship and parenting skill development among foster care youth (Radey et al. 2016). Participants did receive adequate, needed support from churches and community agencies. Yet, the women still longed from more support groups and access to free birth control to help them cope with and respond to their unique needs and experiences. Focus group participants highlighted the importance of culturally-competent birth control counselors who can help them be informed about their reproductive decisions and guide them in choosing the best contraception for them. These women advised being educated and consistently using contraception until one is prepared for the commitment and responsibility that parenting requires.

Focus group and survey results suggest foster care youth who are parenting often do not feel supported, emotionally or financially, by their co-parent. Less than half of survey respondents listed the other parent as a primary support for their most recent pregnancy. Focus groups suggested a need for more consistent support from co-parents and biological parents, and felt they did not have regular assistance from these individuals, a reflection of complex and complicated relational bonds. Relatedly, respondents in this study had very low rates of paternity establishment or history of paying/receiving child support. This is particularly concerning given the increased risk of children born to former foster care youth for economic challenges associated with low-income status that could benefit from child support payments (Goerge et al. 2015). Access to parenting support, including a more supportive role of the co-parent and help establishing formal parenting relationships through legal mechanisms including paternity establishment and child support, is centrally important to ensure the wellbeing of children of foster care youth.

Limitations and Future Research

This study provides insights into the early sexual experiences, pregnancies, and parenting beliefs and practices of foster care youth who are transitioning out of care. It is limited by reliance on a small sample of youth from one state with a network of care providers dedicated to providing aftercare services. To support broader generalizability and transferability of these results, future research should expand to additional populations of foster care youth transitioning out of care in other states and from other diverse cultural and ethnic groups. This smaller sample also limited power to detect multiple subgroup differences, such as between racial groups and gender. A further limitation is the sampling of only youth who were currently pregnant or parenting. Future research should expand to include youth transitioning out of care who may not be yet pregnant or parenting.

Implications for Policy and Practice

Findings from this study discussed using a risk and resilience framework suggests opportunities for enhancing programs for foster care youth to improve outcomes for youth and their children. First, comprehensive sexual education that attends to the emotional aspects of relationships and is culturally relevant for foster care youth populations is needed. Second, opportunities to facilitate and strengthen youth's support networks including peers, parents, and romantic partners need to be intentionally incorporated into formal programs as part of

their transitioning services. Last, findings from this study highlight the need for programs and policies that strengthen parenting capacities of foster care youth and their partners.

Given the early sexual experiences reported by youth in this study and the focus groups' emphasis on the need for sexual and reproductive health and healthy relationship education to be delivered prior to youth's first sexual encounter, our sexual education programs need to be more responsive. As evidence suggests (in this study and in other published literature), such programs need to be early (i.e., prior to sexual experiences), group-based, engaging, and interactive (Ahrens et al. 2016). While some sexual education programs are available to middle and high school students, oftentimes the curriculums have not been demonstrated to have efficacy (or lose efficacy due to not being implemented with fidelity) and are hyper-focused on subtopics such as sexually-transmitted-infections rather than capturing a breadth of content that includes sexual health and healthy relationships (Goesling et al. 2013; Arons et al. 2016). Further, current program content frequently focuses on abstinence, and lacks needed skill-based information about proper use of contraception that could empower youth to make good choices (Aparicio et al. 2015; Boustani et al. 2015; Curnow 2016; Schelbe and Geiger 2017). Our findings that less than one in four youth report consistent use of contraception and a majority of females reported they wished they had waited longer before having sex suggest that these traditional methods for sexual education need to be revisited, particularly for foster care youth who have fewer supportive relationships and access to information beyond school-based courses. Combined with the additional finding that foster care youth often cite feeling more comfortable discussing these topics in school-based settings among peers rather than in other settings, such as in doctor's offices (Hudson 2012), alternative options for foster care youth should be considered.

Prior research also suggests that sexual education programming is commonly not ecologically valid or culturally relevant to the lives of foster care youth, rendering such initiatives are less effective (Ahrens et al. 2016; Boustani et al. 2015; Curnow 2016). Future work to create or adapt educational programs for foster care youth should involve program facilitators who share similar backgrounds and experiences with foster care youth and can serve as strong, consistent role models. This may help to increase program engagement among foster care youth, who may mistrust authority figures as a consequence of their childhood experiences and engagement in the child welfare system (Ahrens et al. 2016; Boustani et al. 2015; Curnow 2016; Schelbe and Geiger 2017). Program facilitators whom youth can relate to is a salient issue, as one of our focus group participants articulated, "… you don't want to hear it from some White person from [suburb]. You want somebody who's been in your position." Despite the availability and format of such programs, the delivery is commonly constrained by time limits, the transient nature of foster care youth, and a concentration on risk reduction rather than education (Boustani et al. 2015; Curnow 2016).

A second recommendation for future programming is to develop intentional ways to improve social support networks for foster care youth who are pregnant or parenting. Findings from our focus groups and survey about the lack of supportive relationships among foster care youth is not new (e.g., Radey et al. 2016). Despite their expressed intention and desire to make good decisions regarding sexual and reproductive health, the women in our focus groups consistently underscored the lack of guidance and support as a major barrier to the quality and consistency of their decisions. Opportunities for mentorship and strategic connections with role models that include other former foster care youth who have made good decisions and are successfully navigating their parenting choices should be incorporated into "aging out" transition services (Radey et al. 2016; Schelbe and Geiger 2017).

This issue is highlighted by our study participants who cited both the timing of sexual and reproductive health education and lack of known resources as impacting their parenting experiences. Our research also supports other studies highlighting the need for coordinated services that integrate the needs of different aspects of foster care youth's lives including parenting, employment, and personal health (Radey et al. 2016). During our focus groups, we found the participants sharing resources and tips with one another, which reflects the need for finding ways to bring parenting foster care youth together to provide social support, resources, and skills with one another. As young parents want to improve their own and their children's lives, too often they are met with a lack of knowledge and preparation for parenthood coupled with a lack of social supports to feel they can achieve this (Schelbe and Geiger 2017; Radey et al. 2016; Boonstra 2011; Matta Oshima et al. 2013).

Findings from this study highlighted an important need for parenting supports for foster care youth to provide stronger opportunities for resilience among children of foster care youth. Literature consistently highlights the cumulative risk experiences of children born to former foster care youth, with supportive parenting (including both emotional and financial support) as a potential protective factor that could be enhanced with structural and social supports. Foster care youth in this study reported complicated family structures that often suggested inconsistent parenting relationships and lack of support. Less than half of the surveyed foster care youth reported that their partners and/or spouses were a primary support person during pregnancy, less than half were currently married to or living with the father/mother of their youngest child, and over half of those with more than one child reported multiple parent partners. These results suggest a complicated family structure that changes quickly and includes resident and non-resident co-parents with varying levels of involvement in child rearing. Focus group discussions also highlighted a desire for partners to be more involved and supportive.

Future work to support resilience among young children born to former foster care youth could build on existing evidence-based models of co-parenting and fatherhood support that are gaining attention. Efforts such as the National Fatherhood Initiative and Personal Responsibility Education Program are designed to engage fathers in the lives of their children regardless of living situations and to provide needed support to their co-parent (Fatherhood Research and Practice Network 2019; Fagan 2015; Dion 2015; Office of Planning Research and Evaluation 2013; Lewin-Bizan 2015). Further, programs inviting both parents to participate have shown even stronger results with regards to parental relationships (e.g. less parental conflict, increase in problem-solving strategies) and child and overall family wellbeing outcomes (Pruett et al. 2017). Findings from the current study suggest expansions of these national efforts, particularly into group-based settings that involve both parents, could be crucial supports for foster care youth who are pregnant or parenting.

Finally, given that paternity establishment and child support are topics often left out of school-based programming, integrating these topics into educational supports for foster care youth may improve their children's overall wellbeing outcomes. Given the well documented risks associated with being born to a foster care parent that often relate to income instability, consistent child support establishment can enhance resilient child outcomes. In studies of family wellbeing in Wisconsin and Michigan, for example, paternity establishment and involvement served as proxies for numerous infant and child health outcomes early in life including child support, infant mortality, and birthweight in addition to providing emotional and financial benefits to children (Almond and Rossin-Slater 2013; Ngui et al. 2009). Further, paternity establishment has been linked to improved overall family wellbeing. Using data from the Fragile Families and Child Wellbeing Study, researchers found that voluntarily establishing paternity in the hospital before the child's first year of

life led to greater financial contributions by the father to the family and increased father contact and involvement with the child (Mincy et al. 2005). Given these impacts, there is a need to inform expecting parents of the benefits of establishing paternity and to include relevant information in parenting education programs; however, there are still limited studies on the long-term effects of the relationship between paternity establishment, family wellbeing, and child development and the efficacy of educational programs that cover the importance of co-parenting in a formal setting.

Conclusion

Foster care youth experience a host of risk factors that hinder their development as well as the future development of their children. The current study builds on literature highlighting the increased risk of early sexual behavior and inconsistent education among foster care youth, and suggests opportunities to support resilience through education and supportive social networks. Future work to build stronger education supports including access to information about sexuality, contraception, healthy relationships, and parenting are warranted.

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Compliance with Ethical Standards

Conflict of interest All authors declare that they do not have any potential conflicts to report in the form of grants, employment by, consultancy for, shared ownership in, or any close relationship with, an organization whose interests, financial or otherwise, may be affected by the publication of the paper. Drs. Heather Rouse and Janet Melby take responsibility for the integrity of the quantitative data and accuracy of the quantitative data analysis; Dr. Tera Jordan accepts responsibility for the quality of focus group data and pertinent analyses. Tera R. Jordan publishes scholarly work using her maiden name, Tera R. Hurt.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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