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Pregnancy and parenting among youth in foster care: A review☆

Deborah V. Svoboda *, Terry V. Shaw, Richard P. Barth, Charlotte Lyn Bright

University of Maryland, School of Social Work, USA

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ABSTRACT

Parenting during adolescence is often followed by a range of untoward outcomes of young parents and their children. The birth rate and experience of pregnancy and parenting for youth in foster care are, however, little studied. Emerging research suggests greater risk for early pregnancy or parenthood for this population. The research on possible reasons for this elevated risk is considered. This review reports the findings related to prevalence, risk factors, and protective factors for pregnancy and parenting among youth in foster care. Youth report their motivations for parenting and barriers to preventing pregnancy. Child welfare workers and administrators report lack of policy and practice guidance related to pregnancy prevention and reproductive healthcare for youth in foster care.

Contents

1. Introduction

While recent prevalence data suggest a decrease in births from 15 to 19-year-old females in the United States (Hamilton, Martin, & Ventura, 2010), adolescent parenthood remains a concern due to documented poor outcomes. Adolescent mothers are at risk of increased incidence of depression in young adulthood (Barnet, Liu, & DeVoe, 2008; Kalil & Kunz, 2002), have lower educational attainment and less economic success than similar youth (Boden, Fergusson, & Horwood, 2008; Serbin et al., 2004), are more likely than older women to experience problems in pregnancy (Beers & Hollo, 2009), and use harsher parenting methods (Lee, 2009).

The children of adolescent parents have higher risk of infant mortality (Phipps, Sowers, & DeMonner, 2002), may be more likely to experience child maltreatment (Lee & Goerge, 1999), and have a higher risk of death (Overpeck, Brenner, Trumble, Trifiletti, & Berendes, 1998). Children born to adolescent parents are observed to have more reported behavioral problems (Jaffee, Caspi, Moffitt, Belsky, & Silva, 2001) and have higher rates of educational and school related difficulties (Jaffee et al., 2001). Children of adolescent parents report lower overall life satisfaction (Lipman, Georgiades, & Boyle, 2011) and are, themselves, more likely to engage in risky sexual behaviors in adolescence (Jaffee et al., 2001; Levine, Emery, & Pollack, 2007; Phipps et al., 2002).

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* Corresponding author at: University of Maryland School of Social Work, 525 West Redwood Street, Baltimore, MD 21201, USA.
E-mail address: dsvoboda@ssw.umaryland.edu (D.V. Svoboda).

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While the overall adolescent birth rate appears to be declining, disparate birth rates by race and origin persist, with higher birth rates respectively for American Indian/Alaska Native (55.5 per 1000), African–American (59 per 1000), and Hispanic (70.1 per 1000) young women compared to their Non-Hispanic White peers (25.6 per 1000) (Hamilton et al., 2010). Just as adolescent parenthood is disproportionately dominated by minority youth, so is foster care. Minority youth make up approximately half of all youth in out-of-home care supervised by child welfare services (U. S. Department of Health and Human Services, 2010) but only 24% of youth under 18 in the general population (U. S. Census Bureau, 2011). This suggests that, all else being equal, the foster care population will have higher birth rates than the population in general due to the extant disproportional representation. One study in Maryland found that the birth rate for youth in foster care was almost three times the rate of the general population in Maryland (92.7 births per 1000 girls compared to 32.7 births per 1000 girls overall) (Shaw, Barth, Svoboda, & Shaikh, 2010).

As interest in adolescent pregnancy and parenting in child welfare populations grows, scholars and practitioners in this area have begun to address the gaps in our understanding through prevalence studies (Courtney & Dworsky, 2006; Love, McIntosh, Rosst, & Tertzakian, 2005), prevention campaigns (The National Campaign to Prevent Teen and Unplanned Pregnancy, 2010), and sex education programs focused on foster youth (Becker & Barth, 2000). The dialog related to pregnancy prevention or sexual activity among youth in care predominately assumes heterosexuality of youth, with a consistent oversight of the risks for early pregnancy for youth who identify themselves as lesbian, gay, bisexual, transgendered, or queer (LGBTQ). Youth in foster care are in a unique position of trying to meet the challenging psychosocial and sexual demands of adolescence while engaged with various child welfare staff, providers, and/or foster parents through potentially numerous placements, schools, friends, and neighborhoods (Love et al., 2005; Pryce & Samuels, 2010); they might be considered an especially vulnerable population with a high risk of early parenthood and the least prepared to cope with that parenthood when it occurs.

According to the most recent report from the Adoption and Foster Care Analysis Reporting System (AFCARS), there were 408,425 children living in an out-of-home placement in the foster care system in the United States on September 30, 2010 (U.S. Department of Health and Human Services et al., 2011). Of these children in foster care, approximately 32% were in the reproductive age group of 14 to 20 years of age. Typically the backgrounds of foster youth include a history of neglect or physical, sexual or emotional abuse (Stock, Bell, Boyer, & Connell, 1997). Many are under juvenile court supervision and enter out-of-home care as a result of their behavioral problems in the home (Barth, Wildfire, & Green, 2006). Others develop more intensive behavioral health problems following the experience of multiple years and placements in foster care (Newton, Litrownik, & Landsverk, 2000). Although direct research on the pregnancy risks among foster youth is not available, much of the foster care population has experienced trauma and behavioral health issues associated with higher risk of pregnancy (Barnet et al., 2008; Kirby, 2002; Mollborn & Morningstar, 2009).

In an effort to prevent pregnancies among youth in foster care, child welfare professionals, policy makers, and scholars are faced with deciphering the prevalence, scope, and factors related to adolescent pregnancy. While qualitative studies have revealed that some adolescent women plan a pregnancy or intend to have a child (Dworsky & DeCoursey, 2009; Love et al., 2005; Pryce & Samuels, 2010), this review focuses on what researchers have learned thus far about unplanned early parenthood for youth in foster care. Our understanding of the prevalence and incidence of first and subsequent pregnancies, abortions, and births for young women who are in foster care is limited given the lack of consistent and standardized documentation. Even less is known of the scope of involvement in teen pregnancy and parenting by young men in foster care. To begin to address these gaps in the literature, the following review is a synthesis of findings related to prevalence of, and risk and protective factors related to, adolescent pregnancy and parenting among child welfare-involved youth.

2. Method

The review includes an examination and synthesis of the key findings and recommendations from studies of pregnancy or parenting among youth in foster care. Studies published in peer-reviewed journals from 1989 through 2010 and non-peer reviewed research reports (or white papers) from research institutes and government departments were considered for review. Inclusion criteria for this review required the study to focus on youth in foster care either entirely or as a subset of the sample. While studies from other countries are no doubt informative, this review is limited to samples from the United States because of international contextual differences in child welfare policy and practice. Those studies that duplicated findings from the same data set were not included in the review. Databases searched included Google Scholar, Academic Search Premier, Social Service Abstracts, and Sociological Abstracts. Search terms included “foster care” AND “youth” OR “teen(s)” OR “adolescent(s)” AND “pregnancy” OR “pregnancy prevention” OR “sexual behavior”. A hand search from key studies was also conducted. A final sample of 16 empirical studies was located and met inclusion criteria.

The studies chosen for the review are diverse in their methodology and strengths, although common themes across the studies' findings are enumerated following the results. The profile of the reviewed studies is a combination of research designs, various sample populations, and methods with mixed results (Table 1). The various designs include experimental, observational, and descriptive. The samples range from youth in out-of-home care, youth transitioning from foster care, adults formerly in foster care, child welfare personnel, and foster care parents and providers. The various sources of data were collected from administrative data, survey and structured interviews, on-line surveys, and focus groups.

A summary of the key findings and recommendations relevant to pregnancy among youth in foster care are presented here jointly in an effort to reach a diverse audience and to spur future research. Following the summaries, common themes and nuances of results are presented, closing with a discussion on future research.

3. Results

In an effort to identify risk behaviors including the prevalence of unplanned pregnancy, James, Montgomery, Leslie, and Zhang (2009) conducted an analysis of National Survey of Child and Adolescent Well-Being (NSCAW) data including a subset of 877 youth aged 11 or older, and for which sexual risk behaviors were recorded using the social development model as a theoretical framework. Of the girls who were sexually active, 39.3% had been pregnant at some time in their lives, with over one half of the pregnancies ending in childbirth with an additional quarter of these girls indicating having a second child. Factors such as inconsistent relations with trusted adults, placement changes, mental health problems, and developmental needs were identified as barriers for youth in foster care to building relationships that include conversations and assistance to prevent unplanned pregnancy.

Health risk behaviors were examined by Leslie et al. (2010), who also used a subsample of the NSCAW study to examine the health risk behaviors (including pregnancy) of youth between ages 11 and 15. A total of 993 youth of both genders were included in the study. Of the sample, 0.7% of the eleven year olds, 4.3% of the twelve to fourteen year olds and 18.7% of the fifteen year olds reported being pregnant or causing a pregnancy. Additionally, a higher percentage of girls

Table 1
Summary of reviewed studies.

Study	Population/sample	Summary
Carpenter, S. C., Clyman, R. B., Davidson, A. J., & Steiner, J. F. (2001). The association of foster care or kinship care with adolescent sexual behavior and first pregnancy. *Pediatrics*, *108* (3), e46	Data on women in the 1995 National Survey of Family Growth (NSFG). A total of 89 women reported foster care placement, 513 reported kinship care placement, and 9018 did not report either type of placement.	More females in foster care and kinship care reported unwanted sexual experiences before the age of 18 compared to the comparison group (17.7% for foster care and 12.5% for kinship care compared to 8.1%, respectively). Females in foster care and kinship care were on average younger at first conception (given ages − 11.3 months and 8.6 months respectively); and, being in out-of-home care was a predictor of having higher than the median number of sexual partners (foster care OR: 1.7, 1.0–2.8 and kinship care OR: 1.4, 1.1–1.8).
Collins, M.E., Clay, C. M., & Ward, R. (2007). *Leaving care in Massachusetts: Policy and supports to facilitate transition to adulthood.* Boston, MA: Boston University School of Social Work.	Massachusetts DSS administrative data on 812 youth who turned 18 in 2005. Surveys with 96 youth who aged out of foster care. Interviews with 16 youth who returned to foster care after the age of 18.	Analysis of administrative data from MA Department of Social Services and a survey of former foster youth found 43% had been pregnant or had caused someone to get pregnant.
Constantine, W. L., Jerman, P., & Constantine, N. A. (2009). *Sex education and reproductive health needs of foster and transitioning youth in three California counties.* Public Health Institute, Center for Research on Adolescent Health and development. Retrieved from: http://teenbirths.phi.org/.	Qualitative study consisting of focus groups, interviews and surveys. Respondents included former foster youth (n = 21), caregivers (n = 6), child welfare workers (n = 58), administrators (n = 9) and public health nurses (n = 5).	Findings reflect common themes from prior research related to access to information, services and relationships with caregivers and staff. Responses to the four areas of questioning include: lack of attention to the sexual and reproductive health needs of youth in care, lack of clear guidance; consistent messages, and policy for staff as to their role in addressing these needs; limited knowledge by staff as to current contraception methods and risks of sexually transmitted infections; and lack of comfort by staff and foster parents to address sexual and reproductive health for the youth in their care.
Courtney, M. E., & Dworsky, A. (2006). Early outcomes for young adults transitioning from out-of-home care in the USA. *Child and Family Social Work*, *11*(3), 209–219.	A report from the second round of the Midwest Study, interviewing youth around their 19th birthday, 282 are being supervised by the state and 321 who had left out-of-home care.	Youth who remained under supervision of the state child welfare system appeared to have an increase in positive outcomes in the majority of the domains over those youth who did not choose to remain under the supervision of the state after their 18th birthday including higher incidence of pregnancy and parenting.
Dworsky, A., & DeCoursey, J. (2009). *Pregnant and parenting foster youth: Their needs, their experiences.* Chicago: Chapin Hall Center for Children at the University of Chicago.	Descriptive study of the experiences of 2950 youth of both genders who were pregnant or parenting while in care of the Teen Parenting Service Network (TPSN).	Of the children born to TPSN foster youth, 11% of the mothers' children and 4% of the fathers' children were placed in care due to child abuse or neglect. Interviews revealed difficulties in engaging youth in services available to them, such as the Independent Living Placement Services, prenatal care, contraception, and family planning.
Gotbaum, B. (May, 2005). *Children raising children: City fails to adequately assist pregnant and parenting youth in foster care.* New York: Public Advocate for the City of New York.	An exploratory survey of foster care agencies in New York City (65% response rate) and representing approximately 57% of the children in foster care.	One in six of the foster girls were pregnant or parenting, with 82% of the mothers caring for their child(ren). Over half of the agencies reported no training in place for foster youth related to parenting and care of their children.
Haight, W., Finet, D., Bamba, S., & Helton, J. (2009). The beliefs of resilient African-American adolescent mothers transitioning from foster care to independent living: A case-based analysis. *Children and Youth Services Review*, *31*, 53–62.	Qualitative intensive study of 3 African American women transitioning from foster care.	The interviews, writings, and participant observations revealed themes such as children acting as motivators for success, stability, and maturing; parenting as a challenge financially, and responsibility-wise; teen parenthood eliciting negative responses from caseworkers and others in authority; fear of losing their children to the child welfare system; and identifying individuals, spiritual beliefs, cultural beliefs, and practical programs that were supportive.
James, S., Montgomery, S. B., Leslie, L. K., & Zhang, J. (2009). Sexual risk behaviors among youth in the child welfare system. *Children & Youth Services Review*; *31*: 990–1000.	Data on 877 youth of both genders between ages 11 and 14 at baseline from the National Survey of Child and Adolescent Well-being (NSCAW) were used to examine sexual risk behaviors over a 36 month period.	The authors looked at three groups within the overall sample. The full sample with both genders (n = 877), a sexually active sub-sample of both genders (n = 417), and a female only sample (n = 500). Multivariate analysis suggested that age (OR = 2.17, CI 1.60, 2.94), evidence of delinquency at baseline (OR = 1.08, CI 1.03, 1.14), and having deviant peers at baseline (OR = 3.30, CI 1.45, 7.50) led to higher odds of self-reported consensual sexual intercourse, while the presence of caregiver monitoring (OR = 0.58, CI 0.34, 0.99) decreased the odds. Caregiver connectedness (OR = 0.32, CI 0.14, 0.73) and religiosity (OR = 0.44, CI 0.23, 0.84) were shown to increase the odds of using protection during consensual sex (always/often use protection was the

(continued on next page)

Table 1 (*continued*)

Study	Population/sample	Summary
		reference group in the analysis). Among the female only group older girls (OR = 4.37, CI 2.09, 9.14) and having deviant peers at baseline (OR = 7.43, CI 2.27, 24.30) led to increased odds of pregnancy while caregiver education having a high school diploma or equivalent (OR = 0.15, CI 0.03, 0.84) or some college (OR = 0.12, CI 0.02, 0.87) decreased the odds of pregnancy.
Kerr, D. C. R., Leve, L. D., & Chamberlain, P. (2009). Pregnancy rates among juvenile justice girls in two randomized controlled trials of multidimensional treatment foster care. *Journal of Consulting and Clinical Psychology*, *77* (3), 588–593.	Two randomized controlled trials with girls mandated into group care. The 166 female participants were randomly assigned to either group care (n = 85) or to Multidimensional Treatment Foster Care (MTFC) (n = 81).	By the two-year follow-up, 26.9% of the MTFC sample had a reported pregnancy, compared with 46.9% of the group care sample, a statistically significant difference favoring MTFC. Findings supported the influence of the MTFC on first and subsequent pregnancies by youth in care.
Krebs, B., & de Castro, N. (1995). *Caring for our Children: Improving the foster care system for teen mothers and their children*. New York, NY: Youth Advocacy Center.	Cross sectional survey and focus groups with pregnant and parenting teens in out-of-home care (n = 73). Interviewed social workers and city officials (NYC).	Administrative data was not collected for pregnancies or births among youth in the foster care system. Data was available from the maternity residences and group homes revealing approximately 264 births to young women in foster care in 1994. Survey demographics found female teens residing in maternity group homes or mother/child placements represented diverse educational achievements, placement histories, ethnicities, and ages. These young women faced separation from their infants after birth due to lack of appropriate placements and a complicated placement process within the child welfare system.
Leslie, L. K., James, S., Monn, A., Kauten, M. C., Zhang, J., & Aarons, G. (2010). Health-Risk Behaviors in Young Adolescents in the Child Welfare System. *Journal of Adolescent Health*, *47*(1), 26–34.	Nationally representative sample from NSCAW. Of the 993 youth, half were male, half female.	Findings suggest that factors for both the general population and the high-risk population have similar characteristics that lead to higher rates of health-risk behaviors. Of the 993 youth, 4.3% of the 12 to 14 year olds (31/686) and 18.7% of the youth 15 and older (12/76) were either pregnant or had gotten someone pregnant.
Love, L. T., McIntosh, J., Rosst, M., & Tertzakian, K. (2005). Fostering hope: Preventing teen pregnancy among youth in foster care. Washington, DC: National Campaign to Prevent Teen Pregnancy.	An on-line survey was conducted for child welfare staff in twelve agencies, resulting in 371 respondents. Focus groups with 121 youth of both genders in foster care and 31 foster parents were conducted.	Parenting youth made up 58% of the focus group participants. Themes related to youth in foster care: a) a lack of important relationships for youth in care, b) youth identified that there are benefits to having a baby as a teen even though unplanned, c) there is pressure to be sexually active, d) information on sex and pregnancy is offered too late and too little, e) access to contraception may not result in use, f) youth sexual activity are based on present impulse even in the presence of long term goals, and g) males and females identified distrust between the sexes in relation to contraceptive use.
Max, J., & Paluzzi, P. (2005). Healthy Teen Network Summary Report: Promoting successful transition from foster/group home settings to independent living among pregnant and parenting teens. Washington, DC: Author.	Qualitative study using interviews with twelve key informants from foster care providers from across the country.	Findings from the interviews revealed assets and barriers in five areas of influence on youth, such as individual, family, peer, community and society. Individually, youth in the foster care system who are pregnant and/or parenting lead complex lives, they are in need of healthy relationships with their peers, services that address their multiple needs such as employment, housing, child care, and education, and increased attention to the needs of youth in care who are pregnant or parenting was beneficial to this particular group of youth.
Polit, D., Morton, T., & Morrow White, C. (1989). Sex, contraception and pregnancy among adolescents in foster care. *Family Planning Perspectives*, 21(5), 203–208.	Quantitative analysis of 177 youth currently in child welfare (90 in out of home care and 87 living at home with in-home services). Comparisons on rates of sexual experience were conducted using the National Survey of Young Women.	Youth still living at home were more likely to report being currently sexually active, though they also reported having greater understanding, access, and use of contraceptives. No significant difference in reported pregnancy or births was seen. Comparisons to the NSYW suggested that both groups (in-home and out-of-home) had higher rates of being sexually active (45.6% vs 29.6% for out-of home and 54.7% vs 35.4% for in-home). Additionally, the in-home group had significantly higher percentage of youth reporting they were ever pregnant (21.0% vs 9.3%). Both groups were found to score significantly lower on the birth control knowledge scale (8.2 vs. 11.4 for out-of-home and 9.6 vs. 10.9 for in-home).

Table 1 (*continued*)

Study	Population/sample	Summary
Pryce, J. M., & Samuels, G. M. (2010). Renewal and risk: The dual experience of motherhood and aging out of the child welfare system. *Journal of Adolescent Research*, *25*(*2*), *205–230.*	Qualitative interviews with 15 females who were pregnant or parenting at the time of the interview. Participants drawn from Wave 1 survey of the Midwest Evaluation of Adult Outcomes of Former Foster Youth.	The new mothers in the study struggled with the tension between their past experiences while simultaneously plotting a new course. The reality of the cost of failure came out during the discussions hi-lighting the amount of fore-thought that these young ladies had in place. The authors suggest that motherhood can be a source of healing for young women.
Sakai S., Lin, H., & Flores, G. (2011). Health outcomes and family services in kinship care. *Archives of Pediatrics & Adolescent Medicine*; 165(2): 159–165.	A sample of 1308 children of both genders entering out of home care from the National Survey of Child and Adolescent Well-being.	Children in kinship care have lower risks of behavior (RR = 0.59, CI[0.41,0.80]) and social skills problems (RR = 0.61, CI[0.40,0.87]). Additionally, kinship care was

reported having been pregnant (4.9%) than that of boys having caused a pregnancy (3.9%). Due to the high rate of health risk behaviors for these youth the authors posit the importance of early (before age 12) intervention at multiple levels (individual, peer, school, etc.) to develop protective factors within the youth and therefore lessen risk factors over time.

The rate of pregnancy has been reported in the results of a randomized control trial of an intensive foster care model (Multidimensional Treatment Foster Care: MTFC) of treatment for youth in the juvenile justice system, intended to reduce rates of pregnancy and other problematic behavior in comparison to traditional group care (Kerr, Leve, & Chamberlain, 2009). Although these youth were originally referred by juvenile services, not child welfare services, MTFC has now become a staple of child welfare services. Young women who were court mandated to out-of-home care were randomly assigned to the standard group care or the MTFC treatment model. Sexual activity and pregnancy were measured by self-reports and caregiver reports at a baseline interview and subsequent interviews at 12 and 24 months for Trial 1 participants. Trial 2 participants were interviewed at baseline, 6, 12, 18, and 24 months. By the two-year follow-up, 26.9% of the intervention sample had a reported pregnancy, compared with 46.9% of the group care sample, a statistically significant difference. Findings supported the influence of the intervention on reducing both first and subsequent pregnancies to youth in care.

An early Midwestern study by Polit, Morton, and Morrow White (1989) surveyed youth with child welfare involvement as to their sexual activity, occurrence of pregnancy, and contraceptive knowledge and use. Ninety youth placed in foster care and 87 youth retained in their homes by child welfare between ages 13 and 18 responded to the survey. Youth living at home reported being more sexually active (47% reporting they had ever had sexual intercourse voluntarily compared to 33% of the out-of-home respondents), but there were no significant differences in the percent of respondents reporting pregnancy and/or birth. Youth at home reported having more understanding (64% used contraceptives at most recent intercourse compared to 45% of the out-of-home respondents) and access to contraception (34% ever obtained contraceptives from a family planning clinic compared to 13% of the out-of-home respondents). A match to a demographically similar sample from the 1979 National Survey of Young Women (NSYW) to compare rates of sexual activity and knowledge of contraception, and subsequent comparisons, showed youth with child welfare experience had higher rates of ever having intercourse compared to the NSYW group (45.6% vs. 29.6% for out-of-home care and 54.7% vs. 35.4% for in-home). Youth in the NSYW scored higher on a scale designed to measure birth control knowledge (11.4% vs. 8.2% for out-of-home care and 10.9% vs. 9.6% for in-home), suggesting that youth with child welfare experience have less understanding of birth control while at the same time having higher rates of being sexually active.

Considering the incidence of pregnancy, births, parenting, and subsequent pregnancies for youth in foster care, scholars have incorporated mixed methods to learn the experience of youth in care in relationship to these life experiences. One of the early advocacy based reports that shed light on the experiences of pregnant and parenting girls in foster care was initiated in 1995 by a New York City (NYC) based advocacy group, Youth Advocacy Center (YAC) (Krebs & de Castro, 1995). The authors interviewed and surveyed youth in foster care, social workers, and officials related to the foster care system in NYC. The study was the first to document systematic problems for youth in care who gave birth or fathered a child while in out-of-home care in NYC, finding a lack of appropriate placement opportunities for female foster youth who were pregnant, and following the birth, for the mother and newborn. No records were maintained as to the number of youth in care who were pregnant or parenting in this study.

Advocates and service providers in NYC once again addressed the question of what was happening to young mothers in foster care following a tragic death of an infant whose mother was then in foster care (Gotbaum, 2005). The survey by the Public Advocate's Office for the City of New York reached 57% of the foster care population in New York and revealed that 16% of the females were either pregnant or parenting. The findings recorded insufficient services for girls in foster care who were pregnant or parenting, with 3 out of 4 young mothers not placed in Mother/Baby Foster Care due to lack of space and a continued practice of separation of mother and infant (Gotbaum, 2005).

A mixed methods study sought to broaden understanding of the experiences of youth in foster care with unplanned pregnancies and their prevention. The Uhlich Children's Advantage Network (UCAN) conducted focus groups with 121 parenting and non-parenting youth in foster care and 31 foster parents to learn their views on teenage sex and pregnancy (Love et al., 2005), learning that youth want to have close relationships with caring adults, including talking about sex. Youth identified positive consequences to having an unplanned pregnancy, and their desire to improve on their own parental abilities. The youth reported beliefs that a child should be born within a committed relationship between parents who have financial stability, education, and the ability to care for the child. Surveys from child welfare workers captured the challenges to addressing pregnancy prevention with the youth in their care due to an absence of a defined role, clear policy, and plans to address pregnancy prevention among youth in care.

An in-depth qualitative study by Haight, Finet, Bamba, and Helton (2009) documents the perspectives of three African–American young women, ages 19 and 20, transitioning from foster care. The study was designed to understand the impact of an unplanned pregnancy and birth on young women while in foster care, and findings revealed overwhelming challenges and obligations in addition to discussions of the rewarding outcomes of motherhood. Pregnancy and birth of a child were motivating factors for these young women to succeed, mature, and stabilize their lives. The transitioning foster youth identified their cultural backgrounds, spiritual beliefs, caring adults, and

programs with practical assistance as supportive factors in their feeling successful as a parent. The less positive experiences included financial burdens, negative attitude by some adults toward teen mothers, and fear of losing their children.

Experience in one's family was examined in relationship to parenting in a qualitative study by Pryce and Samuels (2010) with semi-structured interviews of 15 young women who were formerly in foster care. Two of the women were pregnant at the time of the interview and the remaining young women were parenting at least one child. The participants were 20 years old on average and had spent between 3 and 16 years in care. The unique life experiences of young women in foster care were contrasted with their counterparts without out-of-home placement, such as missing relationships with one's own mother and residency with multiple caregivers. Findings revealed that the young women had experienced unplanned pregnancies that resulted in heightened awareness to "get down to business" and "an increased 'drive' to achieve" (Pryce & Samuels, 2010, p. 214) when faced with the birth of their children. Pregnancy and parenting experienced by these young women provided a sense of purpose and value to their lives not experienced previously and an opportunity for reflection on the mothering experienced from biological and foster mothers. Although the young women expressed commitment to care for their own children differently than they were cared for, the authors noted the difficulties in developing identities as emerging adults for the young parents, as well as poverty and histories of trauma that influenced the ability of the young women to parent successfully.

Using multiple sources of information, a three county California study assessed the overall reproductive health service needs for youth in foster care (Constantine, Jerman, & Constantine, 2009). The study consisted of focus groups, interviews and surveys with former foster youth (n = 21), caregivers (n = 6), child welfare workers (n = 58), administrators (n = 9) and public health nurses (n = 5). Findings reported the lack of policies and protocols to guide the child welfare workers, the lack of training on reproductive health needs for youth in foster care, and the limited comfort among child welfare workers to address sexuality and reproductive health matters with the youth under their supervision.

A series of interviews with 12 professionals directs attention to what can be learned from foster care providers about existing or needed supports for parenting or pregnant youth (Max & Paluzzi, 2005). On an individual level, the providers identified pregnant and/or parenting youth in the foster care system as leading complex lives with insights and experiences that can provide valuable input into programming that meets their needs. On a family level, consistent relationships with trusting adults were reported as assisting in healthy development for youth while the presence or absence of biological family members were seen as barriers. On a peer level, healthy relationships with peers and significant others are assets although often youth are seen as connected to unhealthy peer relationships. Youth in foster care who are pregnant or parenting tend to transition better to adulthood when comprehensive services are available given the obstacles they face in that transition for employment, housing, mental and physical health services, and child care needs. Finally, on a social level those care providers reported increased attention on pregnant and parenting youth aids in attending to the needs of foster youth, although the specific population faces additional challenges.

The Midwest Evaluation of the Adult Functioning of Former Foster Youth (The Midwest Study) is a longitudinal study with youth "aging out" of the foster care system in Illinois, Wisconsin, and Iowa (Courtney & Dworsky, 2006). Survey data from the second wave of data collection with young adults who were or formerly were residing in out-of-home placements was compared to data from the 2002 National Longitudinal Study of Adolescent Health (Add Health). Related to pregnancy history, nearly half of the Midwest Study participants had been pregnant prior to their 19th birthday compared to 20% of their peers.

Outcomes for youth who have transitioned from foster care and those who chose to return to care after reaching the age of 18 are documented in a study initiated by the state of Massachusetts Task Force on Youth Aging-Out of Department of Social Services (DSS) Care (Collins, Clay, & Ward, 2007). Data was collected from administrative records, interviews with stakeholders and youth, and a survey of youth who turned 18 years of age while in care. One of the outcomes examined included the reproductive health of the youth. Close to half of the survey respondents (43%) had been pregnant or gotten someone pregnant while in care and 15% reported having their children with them while in care. The study revealed significant needs parenting youth have for appropriate housing for themselves and their children, along with child care options and parenting skills training. Youth were consistent in their desire to have more input into their plans of care as they aged out of foster care; this sentiment was mirrored in the stakeholder interviews. Stakeholders reported the need for additional and age appropriate resources for this population, a youth development approach to service delivery, and independent evaluation of DSS services.

Using administrative data, Dworsky and DeCoursey (2009) described the experiences of youth in foster care who were pregnant or parenting while in care of the Teen Parenting Service Network (TPSN) from 1999 to 2006, a total service population of 2950. The study of the TPSN alumni included interviews with the youth, and representative caseworkers and program directors from each TPSN regional partner. The youth gave birth at an average age of 17.8 years, with one-third of young women giving birth before age 16. Approximately 30% of the TPSN female foster youth would have a second pregnancy. Interviews revealed difficulties in engaging youth in services available to them, such as the Independent Living Placement Services, prenatal care, contraception, and family planning. Pregnancy prevention was found to involve the same information and methods of delivery for all youth, including those with developmental delays, addictions, and mental health concerns.

Examining the outcomes for youth depending on their out-of-home placement was the focus of a secondary analysis of the 1995 National Survey of Family Growth (NSFG), representing approximately 9620 women who were in foster care between 1951 and the early 1990s (Carpenter, Clyman, Davidson, & Steiner, 2001). The authors compared pregnancy in women with three different childhood residential experiences: foster care, kinship care, and no out-of-home placement. They did not find a difference in the reproductive outcomes for women who had resided in foster care in comparison to those who lived in kinship care.

A second study comparing youth in foster care placement and those placed in kinship care examined the mental health and behavioral outcomes and access to health services for youth in care, along with the support services received by the kinship care and foster care providers, using data collected at three years post placement from the National Survey of Child and Adolescent Well-Being (NSCAW) (Sakai, Lin, & Flores, 2011). In stark contrast to the findings by Carpenter et al. (2001), the authors concluded that youth in kinship care had "nearly 7 times the risk of pregnancy (12.6% vs. 1.9%, respectively)" (p. 162) compared to youth in non-kinship foster care. The study revealed that the youth in kinship care were more likely to be living in a lower income household with more children in the house, and a care provider of an older age when compared to foster care. Characteristics of kinship care such as the lack of financial support for kinship care providers and the limited supportive services for kinship care providers were identified as areas in need of reform.

These studies begin to fill in the picture of pregnancy and parenting by youth in foster care in the U. S. While all these studies looked at pregnancy prevention for girls, only a few included male perspectives

(Collins et al., 2007; Dworsky & DeCoursey, 2009; Leslie et al., 2010; Love et al., 2005). Overall, results suggest that youth in foster care are less informed about pregnancy prevention methods (Polit et al., 1989), more sexually active (Carpenter et al., 2001; Polit et al., 1989), more likely than their peers to become pregnant prior to age 18, often more than once (Collins et al., 2007; Courtney & Dworsky, 2006; James et al., 2009; Leslie et al., 2010; Polit et al., 1989), and those who are informed and have access are not necessarily using prevention methods (James et al., 2009; Love et al., 2005). Barriers related to lack of protocol and support for case managers, foster parents, and care providers to address healthy sexual development were documented in focus groups and surveys as reasons for a lack of pregnancy prevention and contraceptive knowledge for youth in foster care (Constantine et al., 2009; Dworsky & DeCoursey, 2009). The reported experiences of youth in care ranged from perceived negligence on the part of the various systems involved in the placement of foster youth with their newborn (Dworsky & DeCoursey, 2009; Krebs & de Castro, 1995), to limited, sporadic, or delayed sex education and reproductive healthcare for youth in care (Constantine et al., 2009; Love et al., 2005).

4. Discussion

4.1. Common themes across studies

The literature demonstrates a consistency in the reports of the barriers and opportunities for youth in care, the diverse mental and physical health needs of youth, the influences of traumatic life experiences on sexual development, the influence of poverty, and the disruption of relationships and living environments for youth in foster care. Studies have revealed the lack of data collection, documentation, or reporting on the prevalence of pregnancy and/or parenting for youth who are in foster care (Gotbaum, 2005; Krebs & de Castro, 1995; Love et al., 2005). A common finding among studies is the lack of consistent documentation across jurisdictions and states to calculate the birth rate among youth in foster care. In addition, the lack of written policies and protocols to address prevention of pregnancy was reported by child welfare workers, former foster youth, and foster parents (Constantine et al., 2009; Love et al., 2005).

A consistent and important theme throughout the literature is the value of connections with a caring adult in the lives of youth in foster care. These adults could be members of the family, workers, or some other meaningful, consistent relationship that a youth has developed. Youth who remained under state supervision after the age of 18 were found to have a lower incidence of pregnancy than those who did not choose to remain in care (Courtney & Dworsky, 2006). Caregiver connectedness was related to increased contraceptive use and decreased odds of pregnancy (James et al., 2009). In focus groups youth cite the lack of a caring relationship with an adult as a barrier to gaining and acting on reproductive health information (Constantine et al., 2009; Haight, et al., 2009; Love et al., 2005; Max & Paluzzi, 2005).

Systematic analysis of administrative data reported the incidence of pregnancy among young women in foster care ranged from 16% in New York City (Gotbaum, 2005) to close to 50% of the recorded pregnancies in the Midwest Study (Courtney & Dworsky, 2006). Those studies with access to several state-wide or country-wide databases reported missing data and limitations in matching cases across databases of several state agencies such as vital statistics, Medicaid, and child welfare (Courtney & Dworsky, 2006; Dworsky &DeCoursey, 2009).

The motivations for youth to continue a pregnancy have been reported through qualitative interviews and focus groups with child welfare workers, foster parents, and youth currently or formerly in foster care. Such motivations have included the desire to have a family, to hold onto relationships with a boy/girlfriend, to parent in a way they did not experience, to be identified as an adult/mother in family of origin, to have “something” that belongs just to them, and to not abandon a baby as they felt abandoned (Constantine et al., 2009; Love et al., 2005; Pryce & Samuels, 2010). Youth reported the difficulties in parenting at a young age while in foster care due to limited housing for themselves and their child(ren), the negative stereotypes of young mothers, the added burdens to complete their education, their limited knowledge of caring for an infant, financial burdens, and the loss of teen experiences (Constantine et al., 2009; Haight et al., 2009; Pryce & Samuels, 2010).

4.2. Recommendations across studies

The literature highlights the uniqueness of the adolescent and emerging adult population placed in foster care. Overall, scholars have noted that youth in child welfare should be considered a high risk population for early unplanned pregnancy given prior research related to protective and risk factors (James et al., 2009; Leslie et al., 2010; Pryce & Samuels, 2010), and the youths' lived experiences and behaviors (Carpenter et al., 2001; Dworsky & DeCoursey, 2009; Pryce & Samuels, 2010). The limited knowledge of the prevalence of pregnancy and parenting among young women and men in foster care is furthered by the lack of consistent record keeping and reporting of pregnancy and its outcomes (Constantine et al., 2009; Krebs & de Castro, 1995). The studies in this review noted areas in need of development and further exploration related to 1) the development and clarification of policies and practices within the child welfare system, 2) the reproductive health and identity needs of youth in foster care, and, 3) considerations in developing pregnancy prevention programs for this population of youth.

4.2.1. Child welfare policy and practice

Researchers have concluded that child welfare professionals, care providers, and foster parents are seeking and would benefit from the establishment of clear, consistent policies and protocol related to their role and practices to promote positive reproductive and sexual health, including pregnancy prevention, among foster youth (Constantine et al., 2009; Love et al., 2005; Max & Paluzzi, 2005). Clear policies are needed to ensure that a full range of services are provided to pregnant youth, including but not limited to counseling on pregnancy options, prevention of subsequent pregnancies, and prenatal care resources (Collins et al., 2007; Constantine et al., 2009; Love et al., 2005). Once policies and protocol are in place, care providers, Independent Living Program caseworkers, child welfare staff, and foster parents need to be equipped with accurate information, training and support to regularly address issues of sexuality, safe sex, relationships, and decisions related to sex, with youth in their care along with the community resources to obtain healthcare services (Constantine et al., 2009; Haight et al., 2009). Policies related to the recruitment and training of foster parents and care providers should include the rights of youth in care to access information and services related to sex education and reproductive healthcare (Constantine et al., 2009; Love et al., 2005).

Policy and practice related to youth transitioning from foster care were addressed in a portion of the literature reviewed. Researchers recommended extension of services to youth up to age 21, including services to support pregnant and parenting youth transitioning out of care (Courtney & Dworsky, 2006; Dworsky & DeCoursey, 2009; Max & Paluzzi, 2005). Generally, in order to support the successful transition of youth out of the foster care system, youth in care need stability in their housing and personal relationships (Constantine et al., 2009; Gotbaum, 2005; Love et al., 2005). This may not be sufficient, however, to reduce unwanted or early pregnancies and births. These youth may also need a specific intervention related to reproductive health services. Former foster youth may also need additional parenting assistance as they are less likely to have families to provide

child care, respite, and helpful consultation about successful parenting practices than other young parents (Max & Paluzzi, 2005).

4.2.2. Prevention of unplanned pregnancy

Pregnancy prevention programs in child welfare need to take into consideration the motivations for youth to become parents and the role of sexual relationships with adolescent and adult men among young women in care (Constantine et al., 2009; Haight et al., 2009; Love et al., 2005; Pryce & Samuels, 2010). Foster parents and child welfare practitioners reported the value of support and mentoring for youth in foster care to build positive relationships, set future goals, and create alternatives to becoming a young parent (Constantine et al., 2009; Love et al., 2005).

Prior to the development of further prevention programs, scholars recommend comprehensive needs assessments be conducted on the available reproductive healthcare education for youth, child welfare practitioners, care providers, and foster parents, along with an assessment of the reproductive healthcare services available for youth in foster care (Constantine et al., 2009). Consequently, future development of age appropriate programs is needed to address prevention of initial and subsequent pregnancy (Dworsky & DeCoursey, 2009) for elementary and middle school age children prior to Independent Living Programs (Constantine et al., 2009; Love et al., 2005). Promising new findings from an intervention with girls in foster care making the transition to middle school shows that cognitive behavioral group work with foster parents and youth can reduce externalizing and internalizing problems which may later contribute to high risk behavior (Smith, Leve, & Chamberlain, 2011).

Expansion of pregnancy prevention programs to address multiple aspects of sexuality, including the characteristics of and capacity to build positive relationships with peers and dating partners as well as sexual identity development, would meet identified needs of foster youth and their foster parents (Constantine et al., 2009; Love et al., 2005; Pryce & Samuels, 2010). Pregnancy prevention programs targeting youth in care also need to undergo rigorous evaluation (Constantine et al., 2009, James et al., 2009; Love et al., 2005). Ideally, these programs should directly address issues related to the unique experiences and history of youth in foster care, as *Power Through Choices* does. It is also possible that programs which have been affirmatively tested with populations consistent with the local demographics of the adolescents in foster care (e.g., Becoming a Responsible Teen [St. Lawrence & Jackson State University Community Health Program, 1994], which was tested among African American youth in Mississippi, and Making Proud Choices [Jemmott, Jemmott, & Fong, 1998], which was tested among African American youth in Pennsylvania) may be as effective. If these programs prove ineffective, further research will be needed on the differences in beliefs and behaviors related to pregnancy by youth in foster care in relationship to their race, ethnicity, sexual orientation, gender, and age to inform the development of next generation prevention efforts, and provision of services for pregnant and parenting youth (Haight et al., 2009; Love et al., 2005).

Finally, the reviewed studies identified gaps in research and revealed common themes across studies. Future research is needed to understand the impact of abuse and neglect on overall reproductive health of youth in foster care. Research is needed to understand the role young men in out-of-home care play in adolescent pregnancy, along with an assessment of their parenting needs (Haight et al., 2009; Love et al., 2005). Interest in positive youth development programs and prior research supports further inquiry into the effectiveness of these programs to preventing pregnancy (Constantine et al., 2009; Max & Paluzzi, 2005).

4.2.3. Implications for future research, practice, and policy

In order to gain a clearer picture of the scope of unplanned pregnancy and its prevention among all youth in the U.S. foster care system, documentation of pregnancy, abortions, adoptions, live births, and parenting among young women and men in foster care is needed. In order to successfully document these factors it is important for state and local child welfare systems to develop inter-agency data sharing agreements with agencies overseeing health, mental health, and vital records. It is only through such collaborations that the true nature of issues surrounding births and pregnancy can be effectively understood, monitored, and acted upon. Future pregnancy prevention efforts directed at foster youth can best be implemented taking into consideration what we have learned from prior research as to the motivations for pregnancies, the barriers to prevention, and the protective factors identified by youth and child welfare professionals coupled with accurate and timely information related to the incidence and prevalence of pregnancy and parenting by the youth in foster care. The range of experiences related to pregnancy prevention for LGBTQ youth in foster care have yet to be documented and examined.

Common themes from qualitative studies have expressed the significance of consistent, engaged, and trustworthy adults in the lives of youth in foster care. These findings are not new. Advocates for youth, child welfare professionals, care providers, and youth themselves have agreed on this matter (Constantine et al., 2009; Love et al., 2005; Pryce & Samuels, 2010). According to the studies reviewed, future research, policy initiatives, and practice efforts are needed to focus on the protective factors for healthy sexual development for youth in foster care, including prevention of pregnancy.

5. Conclusion

The literature tells a consistent story of the specific and unique needs of foster youth related to the prevention of unplanned teen pregnancy. Foster youth have inconsistent relationships with adults, experience less stability in their living arrangements, have a history of trauma, and have on the whole less access to prevention messages than their peers outside of foster care. These barriers place foster youth at increased risk of becoming parents at an early age. The lack of consistent policies and guidance for child welfare workers and the dearth of training exacerbate an already challenging problem. The research evidence as to the increasing needs of youth in foster care, even with the consistency of message, has not led to focused federal or state attention to the issue of pregnancy prevention for youth in foster care. A text search undertaken as part of this analysis of the recorded state Child and Family Service Reviews (CFSR), Program Improvement Plans (PIPS) required of all state child welfare agencies (US DHHS, 2010), showed a complete lack of any discussion of issues related to pregnancy, pregnancy prevention, or family planning. In the years since the introduction of Child and Family Service Reviews (CFSRs), and the focus on the safety, permanency and well-being of children in foster care, child welfare agencies have been required to ensure that children receive necessary services. Although this requirement has arguably boosted the interplay among child welfare agencies, community resources and government programs across disciplines, such as education, mental health, medical care, and social outlets for youth in care, little discussion about family planning has yet resulted.

The difficulty in measuring the number of births to youth in foster care is behind much of the challenge in developing effective programs. Birth records hold the answers to many of the questions about the outcomes for foster youth who become parents. The integration of State Automated Child Welfare Information Systems (SACWIS) and birth records through data sharing agreements and inter-agency collaborative processes is a necessary step in understanding the scope of the problem and developing ways to measure success. State and federal agencies should take a leadership role in this issue and provide the necessary resources and regulatory requirements

related to defining, measuring and addressing issues of teen pregnancy in foster care. Data integration will lead to a rapid and sustainable growth in the knowledge base in this area. Then, inclusion of family planning, and pregnancy prevention in particular, should become a required element of the discussion of efforts to ensure child well-being.

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