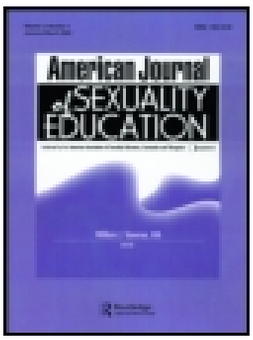

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Foster Youth Need Sex Ed, Too!: Addressing the Sexual Risk Behaviors of System-Involved Youth

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ABSTRACT

The social, economic, and environmental determinants of health include employment, housing, and education; exposure to environmental factors like lead or access to healthy food; and poverty, racism and oppression. Many of these conditions can lead to Adverse Childhood Experiences that may put children and youth at risk for abuse or maltreatment leading to involvement in the child welfare or juvenile justice systems. All young people experience important developmental milestones on their path to becoming healthy adults, and while this time of change is full of promise, it can be a time of increased vulnerability or risk. For system-involved youth, navigating this time of change can be fraught with even more challenges or barriers. Without strong family and social networks, they may face increased risk of engaging in high-risk behaviors—such as unprotected sex and sex with multiple partners—as well as unintended pregnancy, HIV, and other sexually transmitted infections. Our study examined survey data to assess the overall sexual reproductive health behaviors for youth aged 14–21 in out-of-home care in an urban environment ($n = 270$; 60.7% male; 82% African American; 7.9% Latinx). Youth were recruited between 2012 and 2016; 76.4% of these teens had had sexual intercourse at some point in their lifetime. Of these, 86.0% were sexually active before the age of 16. Although there were numerous risk factors related to contraception and condom use as well as partner demographics, there were assets or strengths identified. A discussion of how these findings can be utilized to develop effective prevention intervention strategies is provided.

KEYWORDS

Foster youth; out-of-home care; sexual reproductive health; social determinants of health; system-involved

Introduction

Youth in out-of-home care may be involved in multiple systems, including child welfare, juvenile justice, mental health services, and special education. There tends to be overlap primarily between youth in the child welfare and juvenile justice systems. Children and youth who have experienced maltreatment are more likely to become delinquent and involved in the juvenile justice system than those in the

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general population. Concurrently, victims of maltreatment are many times more likely to be arrested for a violent crime while a juvenile than a matched comparison group (English, Widom, & Brandford, 2002).

Systems involved youth (e.g., youth in child welfare or juvenile services) are an extremely vulnerable population with increased risk for unintended pregnancy, HIV, and other sexually transmitted infections (STIs). They tend to engage in high-risk behaviors, such as unprotected sex, sex with multiple partners or while substance impaired, at rates higher than their peers in the general population (Finigan-Carr et al., 2015). In addition, these youth report receiving inconsistent messages about their sexual and reproductive health; and lack access to reproductive health services and programs (Shaw, Barth, Svoboda, & Naeem, 2010).

System-Involved youth

System involvement is a social determinant of health leading to unique needs for teen pregnancy prevention and sexuality education in a vulnerable population. At present, there are approximately half a million children in out-of-home care, with roughly 50% over the age of 13. The majority of these youth are involved in the child welfare and juvenile justice systems. The number of youth in foster care in the United States has remained stable over the last decade. Currently, more than 400,000 foster children were in out-of-home care nationwide (2016 AFCARS Report). The average age of children in foster care was 8.6 years old with 52% male. Forty-five percent were living in a nonrelative foster home while 30% were living in a relative foster home (2016 AFCARS Report). Forty-three percent were white, 24% were Black or African American, and 21% were Latino (of any race). Of the millions of youth involved in the Juvenile Justice System, just under 100,000 are found to be delinquent and placed in out-of-home care (Hockenberry & Puzzanchera, 2014). Although most youth involved in the juvenile justice system are White males ages 10–15, those placed in out-of-home care are more likely to be older males of color (30% Black, 27% Native American, 24% White, and 22% Asian; Hockenberry & Puzzanchera, 2014).

Child welfare is a continuum of services designed to ensure that children are safe and that families have the necessary support to care for their children successfully (Child Welfare Information Gateway, 2012). Among other services provided, child welfare agencies typically coordinate services to prevent child abuse and neglect; provide services to families that need help protecting and caring for their children; and, arrange for children to live with relatives or foster families when safety cannot be ensured in their families of origin (i.e., foster care). Of those children placed in foster care, most were victims of neglect (75.3%), physical abuse (17.2%), and sexual abuse (8.4%) (USDHHS, 2016, and USDHHS, 2017).

Some children and youth become involved with the juvenile justice system because they are accused of committing a delinquent or criminal act. They may have committed offenses that were against persons (27%), property (33%), public order (32%), and/or involved drugs (8%). Other youth encounter the system due to status offenses—-those actions that are only illegal because of a youth's age, such as

truancy or underage drinking. Not all these cases are formally processed through the courts. Of the five thousand youth adjudicated as status offenders and placed in out-of-home care, 22% were for truancy, 18% were runaways, 21% were for liquor law violations, 17% were ungovernable, 17% were for other miscellaneous reasons, and 5% were for curfew violations (Hockenberry, & Puzzanchera, 2014).

Sexual reproductive health and system-involved youth

Sexual reproductive health, particularly the spread of STDs including HIV and the prevalence of unintended pregnancy, are determined in part by social, economic, and behavioral factors. The vulnerability of system-involved youth stems from numerous adverse childhood experiences. Many have experienced abuse and neglect, face challenges with mental health and substance abuse, and struggle with serious behavioral problems (Casanueva, Stambaugh, Urato, Fraser, & Williams, 2014). They are more likely than their peers to have academic struggles and less likely to graduate from high school or go on to secondary education (Dworsky, Smithgall, & Courtney, 2014). They also have higher rates of teen pregnancy, STIs, and associated sexual risk behaviors. Females in out-of-home care report higher rates of pregnancy than the general population of similar age (33% compared to 19%), and were more likely to have had more than one pregnancy (23% compared to 18%) (Courtney, Terao, & Bost, 2004; Dworsky & Courtney, 2010). Young mothers in foster care have unique needs and challenges, including being more at risk for rapid repeat pregnancies and lacking adequate parenting skills (Finigan-Carr et al., 2015; Putnam-Hornstein & King, 2014). Of 21-year old men aging out of foster care, half report that they had fathered a child, compared to 19 percent of their peers not in the system (Shaw et al., 2010).

Systems involved youth need many supports due to a history of inconsistent, disrupted relationships, multiple placements, trauma and other adverse childhood experiences, chronic depression, exposure to domestic violence, engagement in high-risk behaviors, fractured or non-existent support systems to help youth transitioning out of care, and barriers to pregnancy prevention (Becker & Barth, 2000; Boonstra, 2011). System-involved youth receive unclear and inconsistent messages about sexual and reproductive health and lack access to reproductive health services and programs, especially when they are placed in residential group homes (Freundlich & Gerstenzang, 2003; Crottogini, Villasenor, Fajardo & Ward, 2009). The sexual health education they do receive tends to come after they have become sexually active (Love, McIntosh, Rosst, & Tertzakian, 2005). As a result, system-involved youth report low levels of knowledge about contraceptive methods and reproductive health (Brooks, 2016).

Aims

This study is part of current and ongoing research conducted with system-involved youth in Baltimore City that began in 2012. It is designed to identify the sexual and reproductive health knowledge, attitudes, and behaviors of youth involved in the child welfare and juvenile justice systems and the related protective and risk factors.

The knowledge gained from this research can be used to determine best practices for implementation of preventive interventions related to sexual reproductive health outcomes for this vulnerable population.

Methods

Participants

Youth were originally assessed as a part of an ongoing evaluation of the implementation of a sexual reproductive health education curriculum designed specifically for system-involved youth ($n = 270$). Results from the intervention evaluation will be published separately. These youths were a convenience sample with out-of-home placements in traditional foster homes, group homes, therapeutic treatment centers, and detention centers. For foster youth, an individual's child welfare worker provided consent. For youth in the juvenile justice system, parental consent was obtained. All youth under the age of 18 provided written assent to participate. As this is a state where youth can remain in foster care until the age of 21, there were youth between the ages of 18 and 21 who consented themselves.

Procedures

Adolescents completed a comprehensive quantitative assessment to assess current knowledge, attitudes, and behaviors related to sexual activity and reproductive health as well as risk and protective factors. The complete assessment's time burden was 20–30 minutes. Evaluation staff including the authors administered the assessments. Surveys were completed on paper teleforms that were scanned for data entry. Participants were compensated with $20 gift cards for their time. The University of Maryland, Baltimore's Institutional Review Board approved this study.

Measures

Considering the social determinants of health, we constructed three groups of measures corresponding to the study's research questions: (a) youth knowledge of reproductive health and STIs, beliefs about methods of protection, and current social behaviors (prosocial and risk behaviors); (b) current reproductive health, pregnancy, and STI prevention behaviors; and (c) risk factors relevant to those who have ever had sex. In addition to basic demographic questions, all youth were asked whether they had ever had sex including oral, anal, or traditional intercourse. All youth were asked the first group of measures. The second and third sets of measures were only examined in those youth who had ever had sex.

1. Youth knowledge, beliefs and social behaviors

All youth were asked to report on several items designed to assess their knowledge of reproductive health, beliefs about methods of protection (i.e., condom use), and

their current social behaviors. Condom beliefs were measured with a three-item scale, which asked youth "If a condom is used correctly, how much can it decrease the risk of (a) pregnancy, (b) HIV, and (c) chlamydia and other STIs?" Responses were: *not at all*, *a little*, *a lot*, or *I don't know*. Cronbach's alpha for the condom beliefs scale was 0.7169. The survey then asked youth if they had received information in the past 12 months on items related to comprehensive sexuality education with topics such as abstinence from sex, birth control methods, STIs, and romantic relationships. The responses to the eight binary (yes/no) items were summarized into an index to assess how much education they have received from 0 (*no exposure*) to 8 (*comprehensive sexuality education*). Religiosity was measured with a single item asking youth to rate the role of religion in their life as *not important*, *somewhat important*, or *very important*. Prosocial activities were measured with an index of items such as sports, lessons, clubs, working, and volunteering. Youth could be involved in 0–6 activities. Participants were asked three separate questions similar to those asked on the Youth Risk Behavior Survey about their use of marijuana, alcohol, and cigarettes. These binary responses were either yes or no.

2. Current reproductive health, pregnancy and STI prevention behaviors

A series of items were asked of youth about their sexual debut including youth's age, partner's age, contraception, and condom use at first sex. Youth were also asked about condom and contraceptive use in the past three months; their pregnancy and parenting status, and number of lifetime partners. All items were similar to those used in the national *Power Through Choices* study conducted by Mathematica and the Oklahoma Institute (Goesling et al., 2015).

3. Other protective and risk factors

Those who have ever had sex were asked about other known protective and risk factors that can promote or impede positive sexual reproductive health behavior outcomes. These items included forced sex (at debut and ever), aggression and fighting (in the past 12 months, requiring medical care, and intimate partner violence), and the presence of a positive adult role model. All of these had yes or no responses. Questions in this section were from the Prevention Minimum Evaluation Data Set (PMEDS), a tool for evaluating teen pregnancy and STD/HIV/AIDS prevention programs (Card, Peterson, Niego, & Brindis, 1998).

Analysis

This was a cross-sectional analysis of data collected at baseline from a comprehensive survey of foster youth. Continuous data was summarized by summary statistics such as mean or median, standard deviation, 95% confidence limits, and range. Nominal and categorical data was summarized by frequency distributions. Chi-square tests were conducted to make gender comparisons of categorical variables. Spearman correlation was used to make gender comparisons for continuous variables. Quantitative data was analyzed using the Stata 14 Statistical Package (StataCorp, 2015).

Table 1. Participant demographics ($n = 270$).

Baseline characteristics	%
Gender	
Male	60.7
Female	39.3
Age: $\overline{X}$ (range)	17.67 years (13–24 years)
Race/ethnicity*	
African American	82.0
Latinx	7.9
Other	28.0
System involvement	
Child welfare	71.7
Juvenile justice	28.8
Ever had sex (vaginal, anal, or oral)	
Yes	76.4

Note. *Race/ethnicity are not mutually exclusive. One could have selected a race and Latinx.

Results

The demographic characteristics of the study sample reflect the characteristics of the child welfare and juvenile justice systems from where the youth were recruited. Participants were 270 predominantly African American (82%; 7.9% Latinx) adolescents in foster care (71.7%), and/or the juvenile justice system (28.8%) of a large metropolitan area; 60.7% of the sample was male. More than three-fourths of participants reported some lifetime experience with sexual intercourse. (Table 1)

All study participants (Table 2)

When asked about their beliefs about condoms' effectiveness, 37.6% believed that condoms when used correctly can decrease the risk for pregnancy, HIV, and other STDs "a lot." Of the eight items expected to be covered in a comprehensive sexuality education intervention, 29.22% reported receiving seven and none had received them all; 13.24% reported receiving nothing in the past twelve months. The majority of participants reported religion as somewhat (36.96%) or very important (42.17%) to them. The majority (81.98%) also reported participation in at least one prosocial activity. Substance use and abuse was a risk behavior reported in this sample with only 17.9% reporting no drug use. Just under one-third (31.7%) reported using at least marijuana with just under 20% reporting the use of marijuana and up to three other illegal substances.[1] Alcohol and tobacco use was also an issue with 43.4% reporting having had alcohol; and, 45.5% reporting having smoked cigarettes in their lifetime.

Sexually active participants (Table 3)

The study participants reported high rates of sexual activity and associated risk behaviors. The majority (86%) of participants who were sexually active had their first experience before the age of 16 ($\overline{X} = 13.5$ years old; *SD*. 2.4 years). More than half (56.2%) used a form of birth control the first time they had sexual intercourse.

[1] 45.56% reported marijuana use.

Table 2. Knowledge, beliefs, and social behaviors ($n = 178$).

Characteristics	*%*
Condom beliefs	
Not at all	*10.92*
A little	*34.06*
A lot	*37.55*
Don't know	*17.47*
*Comprehensive sexuality education**	
0	*13.24*
1	*6.39*
2	*9.59*
3	*8.22*
4	*10.50*
5	*11.87*
6	*10.96*
7	*29.22*
8	*0*
Religiosity	
Not important	*20.87*
Somewhat important	*36.96*
Very important	*42.17*
*Prosocial activities***	
0	*18.02*
1	*18.47*
2	*18.02*
3	*21.17*
4–6	*24.33*
Ever used marijuana	*45.56*
Ever used alcohol	*43.40*
Ever smoked cigarettes	*45.50*

Note. *Responses to eight (yes/no) items about whether youth had received information in the past 12 months on items related to comprehensive sexuality education were summarized into an index to assess how much education they have received from 0 (*no exposure*) to 8 (*comprehensive sexuality education*); **Prosocial activities were measured with an index of items such as sports, lessons, clubs, working, and volunteering. Youth could be involved in 0–6 activities.

Of those who had used birth control at first sex, the majority used condoms (78.8%). More than 55% of the sample had a partner at least one year older than them at first sex (34.2% one-two years older; 20.9% three or more years older).

There were statistically significant gender differences for sexual experience and sexual risk behaviors. Boys self-report of their age at first sex was evenly distributed between childhood (24.7%), early (26.9%), and late adolescence (26.9%). Girls reported age at first sex to be during early adolescence (51.9%; $p = 0.053$) more than boys. The percentage of girls whose partners at first sex were three or more years older was more than twice the percentage of boys (30.7% *vs* 14.6%; $p = 0.025$). The prevalence of girls using contraception at first sex was significantly higher than boys (71.7% *vs* 46.2%; $p = 0.002$).

Looking at the teen pregnancy and parenting data more closely, 34.4% of the teens had either been pregnant or gotten someone pregnant at baseline; 47% of this subset had done so more than once. Thirty-two percent of the sample were teen parents. Contraceptive use, specifically condom use, is promoted as an effective way to reduce teen pregnancy and STDs and/or STIs. Although 55.5% had used some form of contraception at first sex, their current condom and contraceptive use was significantly lower. Of those who have had sex ($n = 178$), 97.8% had had sex without a condom

Table 3. Sexual reproductive health behaviors by gender of only those who have ever had sex ($n = 178$[a]).

	Males n (%)	*Females n (%)*	*Total n (%)*	*Chi-square and statistical significance*
Age at first sex (n = 146)				
<11 years old	*22 (24.7)*	*5 (18.7)*	*27 (18.4)*	$X^2 = 5.88$
Early adolescence (12–14 years old)	*43 (26.9)*	*34 (59.7)*	*77 (51.9)*	$p = 0.053$*
Late adolescence (15–21 years old)	*24 (26.9)*	*18 (31.6)*	*42 (29.6)*	
Partner age at first sex (n = 158)				
3+ years younger	*1 (1.0)*	*3 (4.8)*	*4 (2.5)*	$X^2 = 11.16$
1–2 years younger	*13 (13.5)*	*5 (8.0)*	*18 (11.4)*	$p = 0.025$*
Same age as you	*36 (37.5)*	*13 (21.0)*	*49 (31.0)*	
1–2 years older	*32 (33.3)*	*22 (35.5)*	*54 (34.2)*	
3+ years older	*14 (14.6)*	*19 (30.7)*	*33 (20.9)*	
Contraception use at first sex (n = 151)				
No	*49 (53.8)*	*17 (28.3)*	*66 (43.7)*	$X^2 = 9.57$
Yes	*42 (46.2)*	*43 (71.7)*	*85 (56.2)*	$p = 0.002$**
Condom use at first sex (n = 113)				
No	*16 (25.8)*	*8 (15.69)*	*24 (21.2)*	$X^2 = 1.71$
Yes	*46 (74.2)*	*43 (84.3)*	*89 (78.8)*	$p = 0.191$
Sex without contraception in the past 3 months (n = 177)				
No	*41 (37.6)*	*30 (44.1)*	*71 (40.1)*	$X^2 = 0.73$
Yes	*68 (62.4)*	*38 (55.9)*	*106 (59.9)*	$p = 0.391$
Sex without condom use in the past 3 months (n = 178)				
No	*1 (0.9)*	*2 (2.9)*	*3 (1.69)*	$X^2 = 1.00$
Yes	*108 (99.1)*	*67 (97.1)*	*175 (98.31)*	$p = 0.317$
Ever pregnant/got someone pregnant (n = 160)				
No	*64 (65.9)*	*41 (65.1)*	*105 (65.6)*	$X^2 = 0.01$
Yes	*33 (34.0)*	*22 (34.9)*	*55 (34.4)*[b]	$p = 0.907$
Lifetime partners mean (SD)	*12.2 (1.1)*	*6.1 (0.87)*	*10 (9.9)*	*Spearman correlation = −0.31p = 0.0002***

Note. *$p \leq 0.05$, **$p \leq 0.01$, ***$p \leq 0.001$. [a]*n* for each item vary slightly due to missingness; [b]47% of these had been pregnant more than once. 32% were expectant or parenting.

in the 3 months prior to baseline (71.5% of total sample); 59.1% had had sex without any birth control (43.5% of the total sample).

Sexually active youth in this sample exhibited numerous other high-risk factors (Table 4). The mean number of sexual partners was 10.0 (*SD* 9.9). The percentage who had ever experienced forced sex (18.24%) was notable, with 11.39% being forced at their sexual debut. Violent behavior was an issue. More than two-thirds (71.35%) had been in a physical fight in the past 12 months and 29.07% of these

Table 4. Risk factors of those who have ever had sex ($n = 175$).

Item	Yes
Forced sex at first sex	11.39%
Ever had forced sex	18.24%
Physical fight in the past 12 months	71.35%
Physical fight in the past 2 months—medical professional*	29.07%
Intimate partner violence in the past 12 months	20.35%
Positive adult in life	91.41%

Note. *A physical fight in the past 12 months serious enough to require medical care.

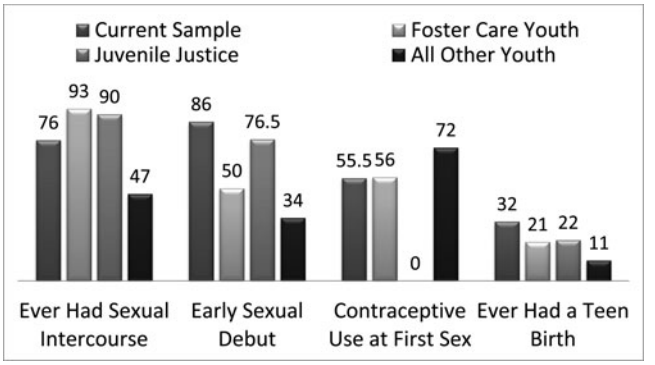

Figure 1. Sexual reproductive health behaviors compared to national samples.

needed to seek medical attention as a result. Over 20% had been hit, slapped, or punched by a romantic partner.

Discussion

Over the past decade, numerous efforts across the United States have led to a reduction in teen pregnancy and STIs among youth including the utilization of comprehensive sexuality education programs. Despite these efforts, there is still work to be done to address the sexual reproductive health behaviors of system-involved youth. National data lists the percentage of high school students who have ever had sexual intercourse at 47% (Federal Interagency Forum on Child and Family Statistics, 2015). Compare this with the percentage of youth who have ever had sex in the current sample as shown in Table 1 at 76.4%. Significant differences between peers in the general population are found for several other key sexual reproductive risk behaviors as well (Federal Interagency Forum on Child and Family Statistics, 2015). The percent of high school students who report early sexual debut is 34% versus 70% in the current sample. Only 15% of high school students in the United States report having had sexual intercourse with four or more persons; whereas, the mean number of lifetime sexual partners in the current sample is 10 (*SD* 9.9; range 5–20 partners).

Figure 1 provides the sexual reproductive health behaviors of the sexually active participants in the sample compared to nationally representative samples of youth in out-of-home care as well as in the general population of youth. Although more likely to be sexually active than youth in the general population, the current sample were slightly less likely to be sexually active than other samples of youth in out of home care. The current sample was also more likely to have experienced early sexual debut and to have become a teen parent even when compared to previous samples of youth in out of home care. Their contraceptive use at first sex mirrored that of other child welfare samples and is less likely compared to their peers not in foster care.

Increased use of condoms and contraception are posited to be the reasons why teen pregnancy and STI rates have decreased over the past decade. The Centers for

Disease Control and Prevention (2012) reports that in the prior three months 59% (65.8% males; 53.1% females) of U.S. high school students used a condom and 19% (15.1% males; 22.4% females) of students report that they or their partner had used birth control pills. Compare these with the self-reports of youth in the current sample with less than 2% reporting condom use and only 40% reporting the use of contraception in the same time period (Table 2).

In the current study, 53.5% of the participants reported that they were unaware that condom use can decrease their risk of getting HIV/AIDS and other STIs. This lack of knowledge of condoms' effectiveness is reflected in the decreased use of condoms and contraceptives in the past three months. This puts these teens at high risk for not only teen pregnancy but also STIs.

In planning for the implementation of prevention interventions for negative sexual reproductive health outcomes, it is important to keep in mind the unique issues relevant to system-involved youth. There has been a move in recent years to develop interventions which address issues related to the trauma and abuse which this population may have experienced. Most sexual reproductive health curricula have an inherent message that youth can make proud and responsible choices despite what they may have done in the past. It is important to note that for some of these youths they may not have had a choice in the past and still may not. Prevention interventions should help them learn how to navigate situations and relationships which may still be unhealthy as they make choices about their sexual behaviors.

At this time there are two promising programs which are being implemented and evaluated in various out-of-home care settings. *Power Through Choices* is a comprehensive teen pregnancy, HIV, and STI prevention program designed specifically to address the needs of youth living in foster care and other out-of-home care settings. The current edition is undergoing a national evaluation and shows promise for a positive impact on this vulnerable population (Goesling et al., 2015). *Making Proud Choices for Out-of-Home Youth* is an adaptation of *Making Proud Choices* with emphasis on trauma-informed language (Jemmott, Jemmott, & Fong, 1998). Both curricula consider the unique needs of system-involved youth. There is a perception by youth in foster care that the benefits of teen pregnancy far outweigh the costs (Dworsky & DeCoursey, 2009). As programs continue to develop, they should address factors that motivate youth to want to become pregnant and emphasize positive youth development activities, including role plays, interactive games and activities with characters that experience circumstances typical of those encountered by system-involved youth.

Even when prevention interventions are tailored to address the issues related to trauma and abuse in this vulnerable population, they may still not be effective. At age 17–18, only about 45% of the Chapin Hall study participants reported that they had received information about birth control and 15% had received any form of family planning services in the past 12 months (Dworsky & DeCoursey, 2009). Less than 30% of youth in the current study reported exposure to what would be considered comprehensive sexuality education in the past 12 months. Due to frequent placements and unstable living environments, even when this information is provided,

system-involved youth are less likely to complete an intervention or be able to continue with services if they are housed in a different area. Youth have noted that what sex education they do receive is too little, too late (Love et al., 2005). Considering the young ages of their sexual debut, this appears to be very true.

Prevention interventions should consider system-involved youth's existing sexual reproductive health history to truly be preventive. Sexual risk behaviors pose a threat to youth well-being because of increased risk of STIs and unintended pregnancy. Many system-involved youth exhibit elevated sexual risk behaviors posing a serious threat to their well-being. The current study shows that these risk behaviors are occurring at younger ages than those in which we tend to provide sexual reproductive health information. This in-depth descriptive information about the unique sex education and reproductive health needs of system-involved youth both highlights the importance of working with them and points towards the need to start intervening at younger ages with this high-risk population.

Strengths and limitations

This study is one of the few to examine the unique needs of system-involved youth which should be considered when developing prevention interventions for sexuality education. This vulnerable population is hard to reach and understudied. However, this study is not without its limitations. As the surveys provided were self-report, there may be issues related to social desirability as the information collected is of a sensitive nature. This was also a convenience sample, which was useful for data collection; but can be vulnerable to selection bias. However, the ability to generate hypotheses about this population that can lead to future research about sexuality education for system involved youth is advantageous despite the limitations. Lesbian, gay, bisexual, transgendered, queer or questioning (LGBTQ) youth are not a part of the current discussion of social determinants and sexual health of system-involved youth. The measures were written without assuming the gender of youth's partner and be open to various orientations, gender identities and expression. However, only information on biological gender was available from the data. Future research should collect this data, as well as include analysis and discussion of sexual orientation, gender identity and expression.

Implications for practitioners

System-involved youth could benefit from sexual reproductive health interventions that could lead to prevention of unintended pregnancies and the incidence of STIs. Engaging in sexual risk behavior can set the stage for engaging in other risky behaviors, thus increasing the likelihood of self-injury, victimization by others, and other negative consequences that result from these behaviors in an already vulnerable population. Efforts to improve sexual health education and services have become a growing focus of child welfare organizations in recent years, as a result (Leonard & Sullentrop, 2013).

Child welfare practitioners and caregivers are charged with ensuring that system-involved youth receive an annual physical. It is recommended that during this age-appropriate clinical encounter the youth are screened on sexual transmitted infections and educated on the full range of contraceptives. In addition, adults who work with system-involved youth should identify community resources for sexual and reproductive health services and establish a system for referrals. These partnerships would create environments that both administratively and programmatically address the sexual reproductive health issues specific to foster youth. Lastly, those who work with system-involved youth should engage them through evidence-based or promising prevention interventions that consider their unique needs and experiences.

Conclusion

System involvement is a social determinant of health which needs to be considered when providing sexual reproductive health information to youth in out-of-home care. System-involved youth are not only navigating the developmental tasks of adolescence and young adulthood but also dealing with issues related to being removed from their family of origin. Creating effective research-based prevention strategies within the foster care and juvenile justice systems is challenging but necessary to prevent additional social and behavioral health issues that impact youth's well-being.

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