Unintended Pregnancy, Depression, and Hazardous Drinking in a Community-Based Sample of Sexual Minority Women

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Abstract

Context: Unintended pregnancy is a stressful life event with important implications for women's health. Little research has examined sexual minority women's (SMW; lesbian, bisexual, mostly heterosexual) experiences of unintended pregnancy, and no studies have examined the relationship between unintended pregnancy, mental health, and negative coping behaviors in this population.

Methods: We used the Chicago Health and Life Experiences of Women (CHLEW) Study ($n=454$), a diverse sample of SMW, to examine the relationship between self-reported unintended pregnancy, depressive symptoms, and hazardous drinking. We used generalized linear model-building techniques and adjusted for key sociodemographic controls, as well as unintended pregnancy risk factors, including childhood physical and sexual abuse and age of sexual debut.

Results: Twenty-four percent of the sample reported an unintended pregnancy. SMW who reported unintended pregnancies also reported significantly more depressive symptoms and greater risk of hazardous drinking. Adjusting for childhood abuse explained the relationship between unintended pregnancy and depressive symptoms, but not the relationship between unintended pregnancy and hazardous drinking.

Conclusions: Unintended pregnancy among SMW is an understudied topic. Our results suggest that unintended pregnancy is not uncommon among SMW and highlight the need for more research to investigate the mechanisms that link unintended pregnancy to depression and to hazardous drinking within this population.

Introduction

UNINTENDED PREGNANCIES, typically defined as pregnancies that are mistimed, or unwanted at the time of pregnancy, are stressful life events that have important implications for both women's and infants' health. Recent data suggest that 49%–51% of all pregnancies^{1,2} and 37% of all births³ in the United States are unintended. Such high rates of unintended pregnancy are troubling, given numerous associated negative outcomes, including inadequate prenatal care,^{4,5} negative birth outcomes,^{6–8} and adverse maternal outcomes such as postpartum depression and anxiety.^{7,9,10}

Recent scholarship conceptualizes pregnancy as a life event that is best understood using a lifecourse perspective with special attention to its antecedents and its subsequent effects on the lives of women.^{11,12} By considering the life circumstances that bookend a pregnancy, researchers are better able to describe how unintended pregnancies affect women's lives.

Preconception and childhood exposure to stressful life events, lack of social support, and/or experiences with social discrimination have been found to impact pregnancy and infant outcomes.^{13–15} Based on this perspective, an unintended pregnancy or the termination of an unintended pregnancy does not necessarily lead to depression or other negative mental health outcomes,¹⁶ but rather it may be associated with exposure to psychosocial stressors that increase the risk of *both* an unintended pregnancy and other adverse health-related outcomes such as depression and negative coping behaviors.^{17–20} For example, sexual and physical victimization in childhood and in adulthood increases the risk of depression, hazardous drinking, *and* unintended pregnancy in both adolescence and adulthood.^{21,22} Thus, an unintended pregnancy may be symptomatic of depression and hazardous drinking, but also serves as an acute psychological stressor that may initiate or exacerbate existing depressive symptoms, leading to negative coping behaviors such as hazardous drinking.

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Extant research on the relationship between unintended pregnancy and health, however, has focused almost exclusively on heterosexual populations, with little attention paid to sexual minority women (SMW), a population that includes women who do not identify as exclusively heterosexual or do not engage in exclusively heterosexual sexual and/or romantic relationships. The limited research that has considered SMW's pregnancy experiences has found that they experience higher levels of both perinatal and postpartum depression relative to their heterosexual counterparts.²³ These higher rates of depression may be due to the fact that SMW face a variety of population-specific risk factors for pregnancy-related depression such as discrimination from healthcare providers, increased challenges in negotiating their romantic relationships and parenting roles, and less social support from friends and family members.^{24–27}

However, even these studies focus almost exclusively on lesbian fertility and lesbian couples who attempt pregnancy through the use of assisted reproductive technologies (ARTs).^{28–31} Pregnancies in this context, however, represent just one segment of the female sexual minority population that is generally white, highly educated, and middle to upper middle class.³⁰ The limited focus on ART services in studies of lesbians' experiences of pregnancy is problematic for several reasons. First, this research does not acknowledge that many lesbian-identified women have current or previous sexual and romantic relationships with men,^{32–34} which may result in pregnancy (both intended and unintended) outside the context of fertility clinics. Indeed, studies have shown high levels of sexual fluidity and identity behavior incongruence (*e.g.*, identifying as lesbian and engaging in heterosexual sex) among women.^{35–40} For example, using nationally representative data, Xu *et al.* showed that among adult women in the United States, 10% of currently identified lesbians and 70% of bisexual identified women had had a male sexual partner in the past 12 months. Furthermore, Xu *et al.* showed that lesbians had a median of 2.9 male partners in their lifetime and bisexual women had a median of 17.6 male partners.⁴¹ Mojola and Everett used the National Longitudinal Study of Adolescent to Adult Health (Add Health) and showed that it is not uncommon for lesbian young adults to report male sexual partners: on average, white lesbians reported 5.5 male partners, black lesbians reported 8.7 male partners, and Latina lesbians reported 5.0 male partners in their lifetime.⁴² While, it is possible that some of these heterosexual sexual relationships were the result of forced sex, in light of recent work that highlights the complexity of women's sexuality,^{36,43,44} it is likely that many of these relationships were consensual.

Second, the sexual minority population encompasses a range of sexual orientations that also includes women who identify as bisexual, "mostly heterosexual," and "mostly gay/lesbian." Indeed, new research has found that a five-item indicator of sexual orientation identity that includes "mostly heterosexual" and "mostly gay/lesbian" as identity response options reveals important identity subgroups.⁴⁵ Recently, researchers have paid more attention to investigating "mostly heterosexual" identified persons as a unique identity group.⁴⁶ Including mostly heterosexual and bisexual samples in studies of SMW's experience of unintended pregnancy is important as previous studies have shown that these subgroups report more sexual risk behaviors, including more male partners than either

heterosexual or lesbian identified women.^{34,42} Such risk factors have been studied primarily in connection with sexually transmitted infections which also increase risk of unintended pregnancy.

Third, a large body of research has documented greater levels of lifetime victimization⁴⁷ among SMW and the influence on sexual risk behaviors,^{48–50} which may lead to unintended pregnancy. In fact, research has shown that bisexual and lesbian identified adolescent girls have a *greater* risk of reporting teen pregnancy than heterosexual girls.^{51–53}

Taken together, this research suggests that many SMW are not only likely to have engaged in consensual heterosexual sexual intercourse at some point in their lives but that they are also more likely to report risk factors (*e.g.*, sexual abuse) that may directly or indirectly increase their risk of unintended pregnancy. Furthermore, previous research has demonstrated a causal relationship between victimization and depression and hazardous drinking later in life.⁵⁴ The link between unintended pregnancy and risk of depression and hazardous drinking may be confounded by victimization, an experience that is associated both with increased risk of unintended pregnancy as well as higher levels of depressive symptoms and hazardous drinking.

Mainstream research in the area of unintended pregnancy rarely considers how SMW experience unintended pregnancies, and studies that do consider the reproductive health of SMW typically view it as either highly controlled (in the case of lesbians who use ART) or as a risk that only occurs during adolescence. This study seeks to bridge these conceptual gaps by examining rates of unintended pregnancy among adult SMW as well as the potential effects that unintended reproduction may have on this already vulnerable population. We present estimates of the rates of unintended pregnancy among a diverse sample of SMW. We then examine the relationship between reports of unintended pregnancy and depression, as well as the relationship between unintended pregnancy and hazardous drinking. Finally, we examine the impact of childhood physical and sexual abuse, as well as age of sexual debut, on the relationships between unintended pregnancy and depression and hazardous drinking.

Methods

Sampling

Data are from the Chicago Health and Life Experiences of Women (CHLEW) Study, a 15-year longitudinal study of SMW. Data collection began in the greater Chicago metropolitan area in 2000–2001 using a broad range of recruitment sources and strategies to produce a diverse sample of 447 English-speaking women, aged 18 and older, who self-identified as lesbian. Concerted efforts were made to maximize sample representativeness by including subgroups of lesbians underrepresented in most studies of lesbian health (those under 25 and over 50; those with a high school education or less; those from racial/ethnic minority groups). The study was advertised in local newspapers, on Internet listservs, and on flyers posted in churches and bookstores. Information about the study was also distributed to individuals and organizations *via* formal and informal social events and social networks. Other recruitment sources included clusters of social networks (*e.g.*, formal community-based organizations and informal community social groups) and individual social networks, including those of

women who participated in the study. Interested women were invited to complete a short telephone-screening interview. Although women who identified as bisexual or mostly heterosexual were not invited to participate, during the actual interview 11 women identified as bisexual. The baseline sample included women 18–82 years old; less than one half of the sample was white. The CHLEW Wave II survey (2003–2004) had a response rate of 86%, and the Wave III survey (2010–2012) a response rate of 79%.

In 2010–2012 (Wave III), a supplemental sample ($n = 373$) was added to the CHLEW that included bisexual and mostly heterosexual identified women. This sample was recruited using an adaptation of respondent-driven sampling, designed to oversample black, Latina, and younger lesbians (ages 18–25), as well as women who identified as bisexual.

Questions about unintended pregnancy were added in Wave III—the sample used in the current study. Because women's chances of conceiving are less than 5% per cycle after age 40,⁵⁵ we limit our sample to women between 18–45 years old. This decision was also made to reduce potential recall bias between the time of pregnancy and time of interview. While it is likely that many women in the sample who report unintended pregnancy had this experience more than 5 years ago, it is a near certainty that women over the age of 45 experienced the unintended pregnancy beyond this time frame. Thus, we restrict the sample to women aged 45 or younger ($n = 454$).

Measures

Unintended pregnancy was measured using an item that asked participants if they had ever been pregnant and whether the pregnancy/pregnancies were planned. Responses were used to create a dichotomous variable that captured whether respondents reported “Yes (all of them)” or “One or more of them” compared to those who reported “No (none of them) [referent].”

Depressive symptoms were measured using 10 questions from the CES-D that asked, “Over the past week have you: felt depressed; felt everything you did was an effort; had sleep that was restless; felt happy; felt lonely; felt people were unfriendly; felt you enjoyed life; felt sad; felt people disliked you; and felt you could not ‘get going.’” Possible answers ranged from (0), “rarely or none of the time (less than 1 day),” to (3) “most or all of the time (5 to 6 days).” Items were reverse coded when appropriate so that higher scores indicated more depressive symptoms. The scale alpha was 0.83 with scores ranging from 0 to 29.

Hazardous drinking was measured using four indicators: heavy episodic drinking, intoxication, adverse drinking consequences, and potential symptoms of alcohol dependence. Heavy episodic drinking was assessed using a question that asked about frequency in the past 12 months of consuming six or more drinks in a day.^{39,54,56,57} Participants are coded as 1 if they reported at least one heavy episodic drinking episode in the last 12 months and 0 if they did not. A similar question asked about frequency of subjective intoxication (“drinking enough to feel drunk—where drinking noticeably affected your thinking, talking, and behavior”). Participants who reported at least one indicator of intoxication in the past 12 months were coded as 1 and those who did not were coded as 0. In addition, participants were asked

about their lifetime and past 12-month experience of eight adverse drinking consequences (driving a car while highly intoxicated from alcohol; drinking-related accidents in the home; harmful effects of drinking on housework or chores, or on job or career opportunities; drinking-related problems with partner or children; and starting fights with partner or with people outside the family when drinking) and five symptoms of potential alcohol dependence (blackouts, rapid drinking, morning drinking, inability to stop drinking before becoming intoxicated, and inability to stop or cut down on drinking over time). For both of these indicators, participants were coded as 1 if they reported at least one adverse drinking consequence or dependent symptom and 0 if they had not. We summed the dichotomized responses to questions related to each indicator (any/none in past 12 months), producing an index ranging from 0 to 4.

Risk factors. *Childhood sexual abuse* was measured using an item that asked, “Do you feel that you were sexually abused when you were growing up?” An affirmative answer was scored with a 1 and a negative response was scored 0 (referent). *Childhood physical abuse* was measured using a similar item that asked, “Do you feel that you were physically abused when you were growing up?” Again, a “yes” response equaled 1 and “no” equaled 0 (referent).

Age of sexual debut was coded as a series of dummy variables derived from three questions: (1) “Have you ever had consensual sex?” (2) “What was your age when you first had consensual sex with a female partner?” (3) “What was your age when you first had consensual sexual intercourse with a male partner?” The dummy variables captured whether a participant had *not* had consensual sex, had had sex before the age of 16, or between the ages of 16 and 18, or had sex after they turned 18 (referent).

Controls. We controlled for several sociodemographic characteristics, including sexual identity, age, race/ethnicity, education, and relationship status. *Sexual identity* was coded as a series of dichotomous variables that measured whether the participants identified as exclusively lesbian/gay (referent), mostly lesbian/gay, bisexual, or mostly heterosexual. *Age* was coded as a continuous variable that ranged from 18 to 45 years. *Race/ethnicity* was coded as a series of dichotomous variables that measured whether a participant was white (referent), black, Hispanic, or some other race/ethnicity. *Education* was coded as a series of dummy variables that measured whether a participant had a high school diploma or fewer years of education (referent), some college, or a college degree.

Data analysis

First, descriptive statistics are presented for the total sample and by whether participants reported an unintended pregnancy or not. Second, results from a series of bivariate tests to determine whether women who report unintended pregnancies differed from those who did not are summarized. Ordinary least squares (OLS) regression was used to assess the relationship between unintended pregnancy and depressive symptoms. Model 1 controlled for unintended pregnancy, Model 2 added sociodemographic controls, and Model 3 included unintended pregnancy risk factors. Finally, a series of Poisson regressions were conducted to

examine the relationship between unintended pregnancy and hazardous drinking. A model building strategy similar to the previous analysis was used: Model 1 controlled for unintended pregnancy, Model 2 included sociodemographic controls, and Model 3 added risk factors.

Results

Descriptive statistics

The descriptive statistics (Table 1) reveal that nearly 24% of the total sample reported at least one unintended pregnancy. When these statistics are broken down by unintended pregnancy status, the results show that women who reported unintended pregnancies were more likely to be bisexual, black, and to have fewer years of education. It is important to note, however, that it is not just bisexual women who reported unintended pregnancies: of the 108 women who reported unintended pregnancy, 35% identified as exclusively lesbian and 9.3% identified as mostly lesbian.

The results in Table 1 also show that women who reported childhood sexual or physical abuse were more likely than those who did not to report unintended pregnancy. Close to half (44%) of women who reported an unintended pregnancy also reported sexual abuse compared to 32% of women without an

unintended pregnancy, and 27% of women with an unintended pregnancy reported physical abuse compared to 19% of women without an unintended pregnancy. Age of sexual debut also differed across the groups: unsurprisingly, women who had not had consensual sex had a lower prevalence of unintended pregnancy, but among women who reported an unintended pregnancy, 50% reported that their first consensual sexual experience occurred before the age of 16 compared to 27% of women without an unintended pregnancy.

The descriptive statistics also show differences in mean scores on the depressive symptoms scale and the hazardous drinking scale, indicating that women who reported unintended pregnancies had significantly higher mean scores on both these outcome variables compared with women who did not report an unintended pregnancy.

Multivariate results

Depressive symptoms. Results from the OLS regressions in Panel A of Table 2, Model 1, show that SMW who reported at least one unintended pregnancy had higher scores on the depressive symptoms scale ($B = 0.67, p < 0.05$) compared with SMW who did not report unintended pregnancy. This effect actually increased in Model 2 when sociodemographic controls were added and remained significant ($B = 0.87, p < 0.05$).

TABLE 1. DESCRIPTIVE STATISTICS FOR TOTAL SAMPLE AND STRATIFIED BY UNINTENDED PREGNANCY STATUS

	Total sample	No unintended pregnancy	Unintended pregnancy
Unintended pregnancy	23.79		
Sexual orientation identity (%)			
Exclusively lesbian	48.23	49.42 ^a	35.19
Mostly lesbian	17.40	19.94 ^b	9.25
Bisexual	32.16	25.43 ^b	53.70
Mostly heterosexual	2.21	2.31	1.85
Age (M)	31.07	30.77	32.00
Race/ethnicity (%)			
White	38.06	39.31 ^b	14.80
Black	33.92	27.17 ^b	55.56
Hispanic	28.19	28.61	26.85
Other	4.41	4.91	2.78
Education (%)			
LT HS/HS	20.26	16.47 ^a	32.41
Some college	35.68	32.08 ^a	47.22
College graduate	44.06	51.15 ^b	20.37
Relationship status (%)			
In a relationship	62.25	64.06 ^c	55.56
Widow/separated	4.86	4.93	4.63
Single	32.89	30.72	39.81
Childhood sexual abuse (%)	35.02	32.37 ^c	43.52
Childhood physical abuse (%)	20.70	18.79	26.85
Age of sexual debut (%)			
Not had consensual sex	12.66	15.90 ^b	1.85
<16 years of age	32.60	27.17 ^b	50.00
16–18 years of age	34.26	32.95 ^c	38.89
>18 years of age	20.48	23.99 ^b	9.26
Depressed (M)	5.26	5.10 ^c	5.77
Hazardous drinking (M)	2.12	2.01 ^a	2.45
	<i>n</i> = 454	<i>n</i> = 346	<i>n</i> = 108

Source: Chicago Health and Life Experiences of Women Study.

^a $p < 0.01$.

^b $p < 0.001$.

^c $p < 0.05$.

TABLE 2. RESULTS FROM ORDINARY LEAST SQUARES REGRESSION FOR DEPRESSIVE SYMPTOMS AND POISSON REGRESSION FOR HAZARDOUS DRINKING

	Panel A: depressive symptoms			Panel B: hazardous drinking		
	Model 1 β (SE)	Model 2 β (SE)	Model 3 β (SE)	Model 1 IRR (SE)	Model 2 IRR (SE)	Model 3 IRR (SE)
Unintended pregnancy	0.67 (0.34) ^a	0.87 (0.39) ^a	0.55 (0.37)	1.22 (0.09) ^b	1.25 (0.10) ^c	1.21 (0.10) ^a
Sexual orientation identity (exclusively/lesbian)						
Mostly lesbian		0.12 (0.36)	-0.18 (0.40)		1.00 (0.09)	0.98 (0.09)
Bisexual		0.34 (0.42)	0.11 (0.34)		1.01 (0.07)	0.96 (0.07)
Mostly heterosexual		-1.87 (1.02)	-2.29 (0.98) ^a		-0.43 (0.16) ^a	0.39 (0.15) ^a
Age		-0.02 (0.02)	-0.04 (0.02)		0.97 (0.00) ^b	0.97 (0.00) ^b
Race/ethnicity (White)						
Black		-0.79 (0.42) ^a	-1.13 (0.40) ^c		0.90 (0.08)	0.90 (0.08)
Hispanic		-0.27 (0.40)	-0.51 (0.38)		1.02 (0.09)	1.00 (0.09)
Other		-0.40 (0.76)	-1.22 (0.72)		0.93 (0.17)	0.94 (0.17)
Education (high school graduate or less)						
Some college		0.50 (0.43)	0.46 (0.40)		0.79 (0.07) ^c	0.79 (0.07) ^c
College graduate		0.01 (0.47)	0.07 (0.44)		0.82 (0.08) ^a	0.85 (0.09)
Relationship status (in a relationship)						
Widow/separated		-0.24 (0.74)	0.46 (0.67)		1.11 (0.18)	1.20 (0.20)
Single		0.00 (0.99)	-0.12 (0.31)		1.04 (0.07)	1.04 (0.07)
Childhood sexual abuse			1.95 (0.31) ^b			1.00 (0.09)
Childhood physical abuse			0.52 (0.37)			1.08 (0.07)
Age of sexual debut (>18 years of age)						
16–18 years of age			-0.14 (0.40)			0.99 (0.09)
<16 years of age			0.24 (0.42)			1.03 (0.10)
Not had consensual sex			-0.52 (0.52)			0.66 (0.09) ^c
Constant	5.10 (0.17) ^b	5.89 (0.77) ^b	5.93 (0.80) ^b			
R square/pseudo R square	0.01	0.05	0.15	0.01	0.05	0.06

Source: Chicago Health and Life Experiences of Women Study; $n=454$.

^a $p < 0.05$.

^b $p < 0.001$.

^c $p < 0.01$.

IRR, Incidence Risk Ratio.

In Model 3, results show that childhood sexual abuse ($B = 1.95$, $p < 0.001$) predicts depressive symptoms and that the inclusion of this measure fully explained the relationship between unintended pregnancy and depressive symptoms.

Hazardous drinking. Results for the relationship between unintended pregnancy and hazardous drinking are presented in Panel B of Table 2. Results are presented as Incidence Risk Ratios (IRRs), the exponentiated form of the beta. The bivariate results in Model 1 show that unintended pregnancy was positively associated with hazardous drinking ($IRR = 1.22$, $p < 0.001$), a relationship that persists with the addition of controls in Model 2 ($IRR = 1.25$, $p < 0.01$), and in Model 3 when unintended pregnancy risk factors were included ($IRR = 1.21$, $p < 0.05$).

Discussion

Previous research has documented heightened risk of depression and hazardous drinking abuse among SMW.^{54,58,59} Our results are the first to investigate the link between unintended pregnancy, depressive symptoms, and hazardous drinking in SMW. These findings help to fill an important gap in the literature and increase understanding of SMW's reproductive health.

Nearly one-quarter (24%) of the sample reported at least one unintended pregnancy. Moreover, reports of unintended pregnancy were not limited to bisexual or mostly heterosexual identified women: of the 108 women who reported an unintended pregnancy, 35% identified as exclusively lesbian and 9% identified as mostly lesbian. Therefore, 18% of the exclusively lesbian identified sample and 13% of the mostly lesbian sample reported unintended pregnancy. Because SMW are more likely than their heterosexual counterparts to report sexual victimization,^{47,48} it is quite possible that some of the reported unintended pregnancies were the result of coerced sexual experiences. However, given findings from other studies that show high levels of identity behavior incongruence and sexual fluidity among SMW,^{35,39,41,42} many of these pregnancies likely resulted from consensual sexual relationships with men.

Furthermore, the descriptive results show variations within the sample of SMW. Previous research using heterosexual samples has demonstrated that unintended pregnancies are not randomly distributed across the population, but that disparities in unintended pregnancies occur along social fault lines that reflect other dimensions of inequality, such as race/ethnicity and socioeconomic status.^{60,61} The results presented here reflect similar trends: black SMW and women with lower levels of education had a higher

prevalence of unintended pregnancies than white women or women with higher socioeconomic status. These results highlight the importance of investigating multiply marginalized populations who may be in need of increased access to reproductive health services, including contraception.

Second, this research is the first to establish a link between unintended pregnancy among SMW and negative health outcomes. Because we did not have a baseline indicator of depression or hazardous drinking prior to unintended pregnancy, we are careful not to interpret our results as causal, that is, a direct path from unintended pregnancy to higher risk of depressive symptoms and hazardous drinking. However, the results suggest a strong relationship between unintended pregnancies and these outcomes. This relationship could be interpreted in several ways. First, based on findings from previous research that suggest depression and hazardous drinking predict unintended pregnancies,^{17,62} our results may reflect an underlying relationship between depression, hazardous drinking, and unintended pregnancy. That is, depression and hazardous drinking may be relatively stable characteristics that predict unintended pregnancy and persist after an unintended pregnancy has occurred. An alternate explanation might emphasize the role of an unintended pregnancy as a stressor that may have effects that endure well beyond the postpartum period and affect the quality of life for women for years afterward. Unintended pregnancy for a SMW may be especially stressful due to the stigmatization and stress experienced by the population in general⁶³ and in the context of pregnancy.^{64–66} Furthermore, for some SMW, especially those who identify as exclusively or mostly lesbian, unintended pregnancies may conflict with in-group normative behavioral expectations and invite stigmatizing attitudes from other lesbian-identified women,^{37,67} which may increase the negative psychological impact of an unintended pregnancy. Most likely, both explanations are valid, but more research is needed to untangle the causal pathways and mechanisms linking unintended pregnancy to depression and hazardous drinking.

Importantly, for the analyses involving depressive symptoms as the outcome, the results show that after adjusting for childhood physical and sexual abuse, the relationship between unintended pregnancy and depressive symptoms was no longer significant. Research has shown that SMW report high rates of childhood victimization, which increases the likelihood of engaging in sexual risk behaviors⁴⁸ and the risk of depression and hazardous drinking.^{54,56} The results presented here suggest that childhood sexual abuse may be a confounding factor that leads to both unintended pregnancy and depressive symptoms. Unintended pregnancy prevention strategies, therefore, should incorporate a lifecourse approach that includes risk factors before sexual debut, such as childhood sexual abuse. Such strategies may ultimately not only reduce unintended pregnancy but also depression.

This study has several limitations—most notably the lack of detailed information about the context of the unintended pregnancy. Unfortunately, we did not have information about the woman's age at the time of pregnancy or the outcome of the pregnancy (*e.g.*, live birth, termination, miscarriage). It is likely that some of the negative effects are concentrated among women who recently experienced an unintended pregnancy and that the relationship between unintended pregnancy and health was moderated by the outcome of the pregnancy. Fur-

thermore, we were unable to assess whether the pregnancy occurred as a result of consensual sexual experience or as a result of sexual abuse/assault. Pregnancies that occur as a result of sexual assault have been shown to increase the risk of a variety of negative physical and mental health outcomes.⁶⁸ We also note that we are unable to assess the sexual orientation identity of the participant at the time of the pregnancy. It is possible that these unintended pregnancies occurred while a woman identified as heterosexual. Future research should incorporate more detailed measures of sexual behaviors, pregnancy intentions, and pregnancy experiences among SMW. Finally, our results are drawn from a sample of SMW recruited in the Chicago area. It is possible that the results are not generalizable to SMW in other geographic regions, in particular, more rural settings.

Despite these limitations, this study presents new data on SMW's experiences of unintended pregnancy. By treating unintended pregnancy as a stressful life event that has identifiable antecedents and long-term effects, this study emphasizes the importance of enhancing women's control over their reproductive lives to their future health and well-being. Given the unexpected rates of unintended pregnancy among SMW and the relationship between unintended pregnancy and depressive symptoms and hazardous drinking, it is important that more research be devoted to SMW's reproductive health, beyond the risk of sexually transmitted infection and the use of ARTs.

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