Norms, trust, and backup plans: U.S. College women's use of withdrawal with casual and committed romantic partners

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Abstract

This study integrates research on the prevalence of contraceptive methods, including withdrawal, and research on how hook-up culture impacts contraceptive use to examine college women's use of withdrawal with sexual partners. Drawing on in-depth interviews with 57 young women at a midwestern U.S. university, we analyzed women's explanations for using withdrawal for pregnancy prevention and framed our study within the research on gender norms, sexual scripts, and power dynamics. Findings show that withdrawal is normalized within collegiate hook-up culture, with most women assuming without discussion that both casual and committed partners will pull out. Across relationship types, participants typically reported using withdrawal as a backup contraceptive method to pills or condoms or a stop-gap method when switching between more effective contraceptive methods. Women also relied on emergency contraceptives if using only withdrawal. With casual partners, women often advocated for themselves in sexual encounters; however, in committed relationships women tended to acquiesce to the use of withdrawal to maintain their relationship and because their partner desired condomless sex. At the same time, withdrawal in committed relationships was tied to trust and demonstrating love for one's partner. Our study shows that college women frequently relied on withdrawal to avoid pregnancy, even though they acknowledged it was not the most effective or desired method. These findings underscore the disjoint between the contraceptive methods women report using versus those they would prefer to use, emphasizing the need for enhanced contraception education and promotion efforts for both women and men.

Key words: contraception; withdrawal; emergency contraceptives; hook-up culture; gender

Word count: 12,575

Introduction

Withdrawal – or "pulling out" – is rarely conceptualized as an effective method of pregnancy prevention or as a legitimate method of contraception. The family planning community largely dismisses the method and medical providers rarely discuss withdrawal as a viable contraceptive option for women and their partners (Arteaga & Gomez, 2016; Higgins & Smith, 2016; Higgins & Wang, 2015; Rogow & Horowitz, 1995). Indeed, women who rely on withdrawal for pregnancy prevention report facing stigma and shame from health providers as well as peers (Laris et al., 2021). However, evidence suggests that women themselves often do not think of withdrawal as a "real" method and therefore rarely mention it when asked about their contraceptive methods unless they are specifically prompted (Arteaga & Gomez, 2016; Jones, Fennell, Higgins, & Blanchard, 2009). These circumstances have led to an incomplete understanding of the prevalence of withdrawal for pregnancy prevention as well as the dynamics—such as norms about gender and sexuality and gendered power dynamics—that factor into how women and their sexual partners make decisions about its use.

Despite these limitations, a handful of recent studies have documented that withdrawal is frequently relied upon, especially among young women, racial and ethnic minorities, women in casual relationships, and those highly motivated to avoid pregnancy (Arteaga & Gomez, 2016; Dude, Neustadt, Martins, & Gilliam, 2013; French & Holland, 2013; Jones, Lindberg, & Higgins, 2014; Laris et al., 2021). Studies suggest that young people view withdrawal use as a way to reduce the risks of pregnancy as well as sexually transmitted infections (De Visser, 2004). Moreover, the reporting of withdrawal use on surveys has increased over time, with women often listing it as a secondary or backup contraceptive method (Jones et al., 2014; Kavanaugh, Pliskin, & Jerman, 2021; Lindberg, Santelli, & Desai, 2018), which indicates a growing normalization of the use of withdrawal in

sexual relationships (Jones et al., 2014; Whittaker, Merkh, Henry-Moss, & Hock-Long, 2010). Thus, scholars have called for additional research to better understand why withdrawal is used, when it is used, and how it is combined with other contraceptive methods (Gibbs, Yusunoki, & Moreau, 2019; Kavanaugh et al., 2021).

We responded to this call by analyzing 57 in-depth interviews with women attending a public university in the midwestern United States to explore the dynamics of withdrawal use. This analysis provides one of the first qualitative studies of women's use of withdrawal for pregnancy prevention (Arteaga & Gomez, 2016; Horner et al., 2009; Whittaker et al., 2010) and the first to our knowledge among college attending women. Thus, our study brings together two disparate strands of research: quantitative research on the prevalence of contraception (e.g., Jones et al., 2014; Kavanaugh & Jerman, 2018; Kavanaugh et al., 2021; Lindberg et al., 2018; Tsung-chieh, FuHensel, Beckmeyer, Dodge, & Herbenick, 2019) and the growing body of work examining the dynamics of contraceptive use in collegiate hook-up culture (Bearak, 2014; Dalessandro, James-Hawkins, & Sennott, 2019; James-Hawkins, 2015a; James-Hawkins, Dalessandro, & Sennott, 2019; Lemley, Jarmolowicz, Parkhurst, & Celio, 2018). In doing so, we frame our study within the research on gender norms, sexual scripts, and power dynamics to analyze how and why college women use withdrawal in sexual encounters. We focused on college women because of their higher reliance on withdrawal as compared to other age groups (Higgins & Wang, 2015; Jones et al., 2014) and because women (vs. men) are often held primarily responsible for pregnancy avoidance (Dalessandro et al., 2019; James-Hawkins et al., 2019; Littlejohn, 2021). We also compared women who used withdrawal in casual sexual encounters with those using withdrawal in committed romantic relationships, given the importance of the relationship context in the choice of contraceptive methods, including withdrawal (Arteaga & Gomez, 2016; De Visser,

2004; French & Holland, 2013; Harvey, Oakley, Washburn, & Agnew, 2018; Whittaker et al., 2010).

Our study is one of the first to analyze how withdrawal figures into college women's contraceptive life histories and decision-making processes, giving us insight into women's motivations for using withdrawal, how and why they combine withdrawal with other contraceptive methods, and the gender dynamics involved in these decisions (Arteaga & Gomez, 2016; Mullinax et al., 2017; Rogow & Horowitz, 1995; Whittaker et al., 2010). Our focus on withdrawal use also responds to calls for clearer measures of "condomless sex," which may include withdrawal and thus some level of protection against pregnancy, but which is rarely captured unless researchers ask specifically about whether a partner pulled out (Whittaker et al., 2010). Our study also contributes to a growing body of quantitative work aimed at better understanding how women use and combine different contraceptive methods (Frohwirth, Blades, Moore, & Wurtz, 2016; Jones et al., 2009, 2014; Kavanaugh & Jerman, 2018; Kavanaugh et al., 2021; Lindberg et al., 2018). Our study expands on and complicates current knowledge about the sexual and reproductive health strategies young women use to avoid pregnancy as well as how they think about the benefits and effectiveness of those strategies (Frohwirth et al., 2016; Jones et al., 2009, 2014; Littlejohn, 2012). Finally, our study contributes to the conversation around male-bodied contraceptive methods—condoms and withdrawal—and how they may aid in reducing the considerable contraceptive burden that women face (see Reynolds-Wright, Cameron, & Anderson, 2021 for a review).

Theoretical framework

We frame our study of women's use of withdrawal within the research on gender norms, sexual scripts, and unequal power in sexual encounters. Explanations for the persistence of gender inequality often highlight the ubiquity of social norms that disadvantage women (Ridgeway, 2011; Risman, 2004). Broadly, norms are defined as group-level expectations

that guide behaviour and the sanctions individuals incur for breaking them (Horne & Mollborn, 2020). In this study, we are particularly interested in the interrelationship between norms about gender and sexuality and how they contribute to contraceptive decision-making and sexual outcomes. Therefore, the construct of gendered sexualities, which links individual and societal constructions of gender and "sexual behaviors, ideations, attitudes, identities, and experiences" (Gagne & Tewksbury, 2005, p. 4), is useful for thinking about how norms about gender and sexuality overlap and intermingle to influence women's views and sexual experiences. In other words, in specific contexts, such as collegiate hook-up culture, there is a "mutual construction of sexuality and gender" that governs gender dynamics and sexual behavior (Carpenter, 2010, p. 161). These norms influence beliefs about what sexual behaviors are expected and desirable for men and women through sexual scripts, which define how and when to be sexual as well as with whom to be sexual (Gagnon & Simon, 1973). For the purposes of this study, we are particularly interested in how sexual scripts interact with gender norms to influence the decisions women make about how to negotiate pregnancy prevention in sexual encounters, how power differentials with casual and committed romantic partners influence women's sexual decisions, and how withdrawal fits into these dynamics.

Literature review

Norms in hook-up culture

A large body of research has examined the norms surrounding hook-up culture on U.S. college campuses (Anders, Goodcase, Yzaedjian, & Toews, 2020; Armstrong & Hamilton, 2013; Armstrong, Hamilton, Armstrong, & Seeley, 2014; Hamilton & Armstrong, 2009; Kettrey & Johnson, 2021). Hook-ups have become normative on college campuses (Anders et al., 2020; Bogle, 2008; Kettrey & Johnson, 2021), particularly among first year students (Anders et al., 2020; Fielder, Walsh, Carey, & Carey, 2013; Roberson, Olmstead, & Fincham,

2015). The normalization of casual sexual encounters on college campuses has transformed the hook-up into the perceived context within which all sexual behavior occurs, which has implications for individuals across relationship types, from casual to committed and monogamous (Armstrong & Hamilton, 2013; Wade, 2017). That is, regardless of what a particular college student's relationship status is, they must still contend with the sexual and gender norms governing hook-up culture. Despite the prevalence of these norms, college students frequently overestimate the extent of hooking up among their peers (Barriger & Vélez-Blasini, 2013) and commonly report that they would prefer to be in a relationship rather than participate in hook-ups (Bradshaw, Kahn, & Saville, 2010).

Although hook-ups are often valued for being fun and allowing for sexual exploration without commitment (Anders et al., 2020), norms within hook-up culture contribute to gender inequality (Armstrong, Hamilton, & England, 2010; Bogle, 2008; Kalish & Kimmel, 2011). More specifically, sexual norms and scripts within hook-up culture position men and women within a hierarchy in which they are ranked according to their perceived sexual desirability (Hamilton & Armstrong, 2009). In this marketplace, white men's pleasure, priorities, and experiences are valued above other groups (Armstrong & Hamilton, 2013; Wade, 2017). Additionally, sexual norms on college campuses across the United States perpetuate the sexual double standard and reinforce traditional gender scripts present in the broader society (Allison & Risman, 2013; Armstrong & Hamilton, 2013; Armstrong et al., 2010). This occurs even though research has found that many college students themselves do not endorse the sexual double standard (Kettrey, 2016). Even so, women who have casual sex report being judged more harshly than men who engage in the same sexual behavior (Hamilton & Armstrong, 2009; Kettrey, 2016). Additionally, some recent research suggests that college women who engaged in hook-ups more often report regretting those experiences due in part

to the loss of respect from men that followed (Anders et al., 2020), although findings are mixed (see also cites).

Hook-ups are also tied to unequal power among men and women within sexual encounters. For example, studies have shown that sexual coercion is common on college campuses and in hook-ups, such as coercive scripts that encourage men to push for sex even when their partner says no (Anders et al., 2020; Papp & McClelland, 2021). These scripts may result in women succumbing to men's pressure to have sex and participating in sexual acts to please their partners (Flack et al., 2007; Kettrey, 2016; Wright, Norton, & Matusek, 2010). Indeed, college women report that experiences of "mild" sexual aggression and coercion in gendered interactions are everyday experiences (Papp & McClelland, 2021). Nonetheless, women's narratives about hook-up culture often do not include the risk of sexual assault (Anders et al., 2020; Littleton, Tabernik, Canales, & Backstrom, 2009), which reflects widespread societal norms that reinforce images of men as sexually aggressive and focused mainly on the pursuit of sex and women as sexually submissive and focused mainly on the pursuit of romantic love (Hamilton & Armstrong, 2009; Wiederman, 2005). In other words, although women frequently experience mild sexual aggression and coercion in everyday life, they do not view these experiences as linked to a heightened risk of sexual assault within hook-ups.

Gendered power differentials in hook-up culture often result in sexual and contraceptive risk-taking due to a lack of communication about contraceptive preferences between partners (Allison & Risman, 2013; E. A. Armstrong & Hamilton, 2013; Fennell, 2011; Hamilton & Armstrong, 2009; James-Hawkins, 2015a; James-Hawkins et al., 2019). For example, research has shown that college men often assume that women will take care of contraception and pregnancy prevention (Dalessandro et al., 2019; James-Hawkins et al., 2019). Additionally, gender norms and expectations dictate that women are responsible for

men's satisfaction and happiness in sexual encounters and relationships (e.g., Kimport, 2018), which reinforces the need for women to select contraceptive methods that men prefer (see for example Dalessandro, Thorpe, & Sanders, 2021). Further, competing norms about women's bodily autonomy and pressure for men and women to participate equally in contraceptive decision making means that although men largely agree that contraceptive responsibility should be shared equally, they simultaneously affirm women's right to make decisions about their own bodies (James-Hawkins et al., 2019). This effectively absolves men of the responsibility for avoiding pregnancy, typically leaving women fully in charge of pregnancy prevention (Dalessandro et al., 2019; James-Hawkins et al., 2019; Littlejohn, 2021). Thus, women have been termed "contraceptive gatekeepers" (Fennell, 2011, p. 518) because of the expectations for them to initiate contraceptive negotiations and ensure that pregnancy is avoided. Although being in charge of the contraceptive sphere is empowering for women, their choices are also constrained by gender norms and power dynamics within their relationships and the broader hook-up culture that reinforce women's responsibility for contraceptive use and for initiating negotiations with partners (Fennell 2011).

These gendered assumptions and expectations in sexual encounters put both women and men at risk of unwanted reproductive and sexual health outcomes (Fennell, 2011; James-Hawkins et al., 2019; Littlejohn, 2021). For example, power inequalities in sexual encounters are closely tied to adverse health outcomes for women (Connell, 1987; Wingood & DiClemente, 2000), in part due to the reduced negotiating power women have to enforce condoms (e.g., Norris et al., 2021). Indeed, evidence suggests that unintended pregnancy and STIs are increasingly common among college age women (Fielder, Walsh, Carey, & Carey, 2014; Finer & Zolna, 2016).

Withdrawal use

Evidence suggests that withdrawal use is common as a secondary or backup method. Kavanaugh and colleagues (Kavanaugh et al., 2021) used U.S. nationally representative data from 2006-2017 and found that 28.8% of women had used withdrawal in combination with another method (aside from condoms) and other studies have reported that as many as one-third of participants relied on withdrawal (Dude et al., 2013; Jones et al., 2014). Researchers have argued that withdrawal users may be more versus less vigilant about pregnancy prevention because by combining it with other contraceptive methods, they are doubly protected against pregnancy (De Visser, 2004; Horner et al., 2009; Jones et al., 2014; Laris et al., 2021).

At the same time, because withdrawal is typically a secondary method, research on its prevalence is incomplete because of the focus on primary or most effective contraceptive methods (Jones et al., 2014; Kavanaugh et al., 2021). For example, quantitative research often excludes withdrawal as a method of contraception altogether (Gibbs et al., 2019) or group it with other methods (Harvey et al., 2018). Although excluding withdrawal from official estimates may be justified for developing a better understanding of women's primary method of choice and the extent to which they are adequately protected from pregnancy, it leaves us with little information about the strategies and backup plans women may employ when their primary method is unavailable or ineffective (e.g., due to inconsistent use of pills or getting a shot late).

The relationship context is an important determinant of how women and their partners make decisions about contraceptives, including withdrawal (Arteaga & Gomez, 2016; Dalessandro et al., 2021; Frohwirth et al., 2016; Harvey et al., 2018). For example, French and Holland (2013) found that individuals in monogamous relationships were significantly more likely to use withdrawal than those who were not in a relationship. Much research has also documented the link between condomless sex and trust in relationships (e.g., Ewing &

Bryan, 2015; Flood, 2003; Fortenberry, 2019; Tavory & Swidler, 2009) though this work rarely indicates whether withdrawal was used. However, some evidence suggests that relying on withdrawal in lieu of condoms can be a strategy for enhancing intimacy and closeness between couples (Arteaga & Gomez, 2016; Horner et al., 2009). Indeed, withdrawal can provide a more welcome method for doubling up on contraception if couples do not like condoms or see them as reducing pleasure (Higgins & Smith, 2016). If withdrawal were used more often as a backup or secondary method, the incidence of unintended pregnancy could be reduced (Arteaga & Gomez, 2016; Jones et al., 2014; Laris et al., 2021).

Our study builds on this work by merging insights from research on the prevalence of withdrawal and on contraceptive use and negotiations in hook-up culture. Viewed through the lens of gender norms and unequal power in sexual encounters, we explore women's views of withdrawal and how and why they use withdrawal in sexual encounters with casual and committed romantic partners. Research suggests that withdrawal is a common method of contraception, particularly among college students, though no studies have examined how withdrawal use relates to the gendered power dynamics common in hook-up culture. Therefore, our study fills a notable gap in the literature by offering one of the first qualitative studies of the dynamics of withdrawal among college women.

Method

The larger study from which this analysis was drawn was designed to document and explore college women's sexual and contraceptive life histories. We drew on data from 57 in-depth interviews conducted between September 2016 and April 2017 with women attending a large public university in the midwestern United States. The research team was comprised of the authors and two women graduate students who were trained in study goals and qualitative interviewing.

Participants

Participants were recruited via posters placed in campus buildings that students frequent (e.g., residence halls), and announcements in a campus-wide weekly email. Women were eligible to participate in the study if they were aged 18 to 24 years, reported having heterosexual sex in the six months prior to the interview, perceived that they had taken a contraceptive risk when they were not trying to become pregnant, and were not known to be pregnant at the time of recruitment. Women who believed they were sterile were excluded from the sample. Women who responded to the study announcements were screened via email by a member of the research team to ensure they fit sample criteria and were then scheduled for an interview.

Descriptive statistics are presented in Table 1. Among the analytic sample, 81% (n=46) of participants were white, 12% (n=7) were Asian, and 4% each were Black (n=2) and Latina (n=2). Of those participants who reported an age (n=51, 6 missing), the average was 21 years old; nearly half of the women in the sample were seniors (n=28, 49%), 14% (n=8) were juniors, 23% (n=13) were sophomores, and 14% (n=8) were in their first year of college. Just over half of participants (53%) identified as upper (n=3) or upper-middle class (n=27), and 44% (n=25) identified as middle (n=17) or lower-middle class (n=8); two participants (4%) identified as working class.

[Table 1 about here]

Procedure

All participants provided written informed consent to participate in the study. The interview protocol was semi-structured, allowing for probing on experiences unique to each participant. Interviews were conducted by a graduate student member of the research team, lasted 60-90 minutes, were audio-recorded, and later transcribed verbatim. Interviews were conducted in private rooms on campus. Participants received $20 upon completion of the interview. The study received ethical approval from the university's institutional review

board. We use pseudonyms below to protect the identities of participants.

Measures

The interviews employed a sexual life history approach in which we asked women to chronologically report on each romantic relationship and casual sexual encounter experienced throughout their lives. Participants were also asked explicitly about the use of withdrawal and all other contraceptive methods in each sexual encounter described. Other interview themes included: contraceptive negotiations with partners, experiences with pregnancy scares, social norms related to contraceptive use and relationships, and the influences of family, peers, and sexual partners on contraceptive use. Prior to the interview, each participant completed a short survey in which they reported several socio-demographic characteristics as well as frequency of contraceptive use, most commonly used contraceptive method(s), and method at last sex. Contraceptive methods were listed as: birth control pill, condoms, withdrawal, Plan B, and other, with space provided to list any "other" method. Other methods among the sample included Nuvaring, IUDs, and contraceptive injections (Depo-Provera). These responses as well as the in-depth interviews inform the findings described below.

Analysis

We used a combination of deductive and inductive strategies to analyze the interview data (Charmaz, 2001; Strauss & Corbin, 1990). We first engaged in deductive coding of responses to interview questions relevant to the main interview themes, using the NVIVO software package (QSR International, 2018). During this process, we also analyzed the demographic data to determine the overall sample prevalence and individual frequency of withdrawal use, if and how withdrawal was used in combination with other methods, and whether there were specific individual characteristics that patterned withdrawal use. Through this process, we found several overlapping themes that were not patterned by women's

characteristics; we also found that relationship status was a key marker of difference for some outcomes.

Therefore, after structured coding, we returned to the transcripts to further explore how relationship status was tied to withdrawal use. Through this iterative process, we found differences between women who discussed using withdrawal in committed romantic relationships (i.e., with boyfriends) versus those who discussed using withdrawal with casual partners (i.e., in hook-ups). All women who discussed using withdrawal in friends-with-benefits relationships also discussed using withdrawal with casual partners; therefore, we combined these groups. Below, we describe the findings drawing on quotes that are representative of broader patterns in the data.

Results

The majority of the college women in our sample reported that using withdrawal in sexual encounters was a norm. According to the demographic data collected, 30% (n=17) of the sample listed withdrawal as one of their most commonly used contraceptive methods in the previous year. Most of these women combined withdrawal with other methods; however, five women (9% of full sample) relied solely on withdrawal as their most frequent method in the past year. An additional four women (7%) reported using withdrawal at their most recent sexual encounter (two of these women used it as a backup method and two used it as their sole method at the most recent encounter). Therefore, in all, 34% (n=19) of participants reported withdrawal use on the demographic survey. However, when we broadened the view to the content covered in the in-depth interviews during which we asked directly about whether women's partners pulled out, we found that all but six women in the sample (n=51, 89%) reported using withdrawal at some point in their sexual life histories.

We found several common themes among women who used withdrawal, regardless of whether they were with casual partners or in committed romantic relationships. Women used

withdrawal: a) in combination with other methods; b) as an interim method; c) followed by emergency contraceptives. We also found several distinct themes among women who used withdrawal with committed partner (n=37, 73% of women who reported ever using withdrawal) versus casual partners (n=14, 27%). Therefore, we present the last two sections of the findings by relationship type, discussing unique themes first for women who used withdrawal in casual sexual encounters, followed by women who used withdrawal in committed romantic relationships.

Withdrawal across relationship type

Withdrawal as a norm

Across relationship types, women frequently characterized withdrawal as a norm regardless of whether other contraceptive methods were used. For example, Mary (age 19, casual partners), described withdrawal with a past partner as "one thing we were absolutely weird about". She went on to explain:

> I think it's something that's just generally assumed with my partners, and…I normally tell my partners, I'm like, "Avoid a mess. Just finish on me. We'll deal with that." It's just easier, anyway.

Similarly, Sophia (age 19, committed partnership) described how she thought about withdrawal vis-à-vis other contraceptive methods:

> I don't really consider that [withdrawal] an actual form of contraceptive. *That's just something you do*. Frankly, when I have sex, I tend to say, "You need to pull out even if you're wearing a condom" because I don't want to risk the condom breaking. (emphasis added)

In constructing withdrawal as "something you do", Sophia normalizes using withdrawal as a regular part of sexual encounters. Further, like many other women in the sample who said

their partners "always pulled out" (Katherine, age 19, committed partnership), Claire (age 19, casual partners) described how withdrawal was a norm in her hook-ups:

> I've never had a [partner] not pull out. Even though I am on birth control, I would never not have them pull out…That's never been something I've had to talk about either. They just kind of all do it…I guess they figure that's the one thing they can do in the moment regardless of if they wear a condom or not…It's like the first step to not getting pregnant. I feel like most guys just all do it.

These comments emphasize the frequency with which women used withdrawal with both casual and committed partners. Further, comments among women who used withdrawal with casual partners, such as Claire's statement that "most guys just all do it" and Mary's point that withdrawal is "generally assumed with my partners" suggest withdrawal may be viewed as a collective norm in the local hook-up culture.

Withdrawal combined with other methods

Overall, most women described being conscientious about the risk of pregnancy and taking measures to reduce their risk, regardless of whether they were with committed or casual partners. Like many women in the sample, Jamie (age 21, casual partners) described using multiple forms of contraception to avoid pregnancy:

> I think by being on the Pill…I'm forgetting the odds, but it's very good odds that if you take it consistently at the right time, that it will prevent pregnancy…So, if I'm doing that on top of [his] pulling out or wearing a condom, and if anything felt unsafe, I'm taking Plan B afterwards, I feel pretty confident in my ability to not get pregnant.

As shown here, women in our sample who used withdrawal usually did so in combination with other contraceptive methods, especially hormonal birth control, condoms, and at times, emergency contraceptives. This supports the idea that women who use withdrawal are likely to be "doubly protected" (De Visser, 2004; Horner et al., 2009; Jones et al., 2014; Laris et al.,

2021)—or sometimes triply protected—against pregnancy. For example, prior to starting birth control pills, Amanda (age 20, committed partnership) and her partner used condoms plus withdrawal when having sex; Destiny (age 22, committed partnership) combined pills, condoms, and withdrawal with her partner; and Miranda (age unknown, casual partners) used condoms plus withdrawal, sometimes combined with emergency contraceptives.

Withdrawal as an interim method

Another common theme across participants regardless of relationship type was that women on hormonal contraceptives frequently relied on withdrawal as an interim method during times when their other method was less effective (e.g., when taking pills inconsistently, when switching pills, or when on antibiotics) or when condoms were either unavailable or undesirable. For example, Michelle (age 21, committed partnership) said that if she forgot to take her pills for a week, the method she would use, "…would probably just be withdrawal. And I know that's not the most reliable form. But the person I'm with now just really hates condoms." In this case, Michelle's partner's dislike for condoms resulted in their using withdrawal alone during times when her birth control use was inconsistent, even though she worried about its effectiveness. In another example, Bailey (age 21, casual partners) described using condoms plus withdrawal in hook-ups she had when she was in the process of switching methods:

> …I got off the pill but then I got on the NuvaRing, so there were a couple months, I think maybe a year, where I wasn't on anything but I did hook up and so we had to use condoms. And if it was really, not sketchy but like...if I didn't feel secure in the situation, then I would ask them, okay, can you pull out too just in case.

In these situations, women relied on withdrawal as an important method in their contraceptive toolkit as they felt it provided added protection and gave them a sense of reassurance that they were (more) effectively preventing pregnancy. In some cases, like Michelle's, having a

partner averse to condoms left the couple solely reliant on withdrawal for pregnancy prevention, which increased the risk compared to cases like Bailey's where condoms and withdrawal were combined in hook-ups. Notably, Michelle was with a committed partner and therefore more likely to acquiesce to a partner's desires, one of the differences we found by relationship type (discussed below).

Withdrawal followed by Emergency Contraceptives

Although women primarily used withdrawal in combination with hormonal methods and condoms; some participants—like Jamie and Miranda described above—also used emergency contraceptives to reduce their risk of pregnancy. This occurred across relationship types but was more common among women with casual partners. For example, Heather (age 19, casual partners), who was not on hormonal birth control, described hooking up with a partner after a night of drinking. Explaining why they had used withdrawal in lieu of condoms, she said: "I'll just think about [the risks] later, like tomorrow…If he pulled out, I'm like, okay, we're fine. But if he didn't, okay, let's go take Plan B." Heather's comments show how she weighed the risks after sex to determine if emergency contraception was warranted. Her assessment that "if he pulled out…we're fine" highlights her trust in withdrawal as an effective method and shows how in this case emergency contraceptives served as a backup plan. However, other women followed withdrawal with emergency contraceptives even if they had used *another* contraceptive method. Rachel (age 21, committed partnership) described how she thought about the risks of having condomless sex:

> I think he [her partner] was okay with it [condomless sex] because I think he just wanted to try that, and he also knew that I was okay with it, knowing I was on birth control, and we also went and got Plan B afterwards because we were freaked out. We also talked [about it] and he pulled out…and I felt comfortable knowing that we both were clean [free from STIs], so I knew I wasn't going to get anything from doing that.

In this situation, Rachel and her partner decided to forgo condoms, however, she was on the pill, her partner used withdrawal, and she took emergency contraception afterwards. Therefore, they were still highly protected against pregnancy. Later, when asked how she felt about this experience, Rachel said: “I was scared, and also like, what actions do I have to take to minimize this risk? Which is usually to go get Plan B.” Similarly, Kayla (age 20, casual partners) explained her logic for combining condoms, withdrawal, and emergency contraception:

Kayla: Even with condoms I make them pull out…Two or three times I've had to do Plan B…I really was scared that there was a chance [of pregnancy].

Interviewer: So, tell me about those times when you were scared…

Kayla: …I would probably be coming from a party where we'd start having sex, but the condom would come off. So, they've pulled out and the condom wasn't there when they pulled out and I wasn't sure. And I'd look in my little period [tracker] app and I'd be ovulating. It's like, okay we need to get [Plan B].

As she describes, Kayla determined whether she should use emergency contraception based on tracking her menstrual cycle. Therefore, in this encounter Kayla relied on condoms and withdrawal, followed by emergency contraception since she was at a higher risk of pregnancy because of her cycle and uncertainty about the effectiveness of the condom. As noted above, combining multiple methods with withdrawal was typical among women in the sample, especially when other methods were thought to be less effective (e.g., inconsistent pill use) or used incorrectly (e.g., condoms). Kayla’s comments also evince a common experience among women—that partners were often less than diligent about using condoms and withdrawal—which often resulted in women’s use of emergency contraceptives.

Though it was a commonly used method, women often expressed skepticism about the effectiveness of withdrawal—because it forced them to rely on men to successfully

follow through—and so they followed up with emergency contraceptives. For example, Miranda (age unknown, casual partners) reported using emergency contraception "In my life, I think four or five [times]" in situations where partners were unsure about whether they had pulled out: "If we have sex and they just pull out, then they'd probably say, 'I hope I didn't cum in you.' I'd be like 'Okay, I believe you.' And then I'll just go get Plan B just in case." Similarly, Mariah (age 24, committed partnership) said the first time she used emergency contraception was because her partner was not "confident about the fact that he had actually pulled out." After that she said she was "…sort of nervous about it. I waited a day and then a friend of mine was like, 'I'll take you to go get it [Plan B].'" In addition to situations in which men were unsure whether they pulled out in time, women described using emergency contraceptives following sexual encounters in which men said they would withdraw but did not. Mackensie (age 20, casual partners) said she was "upset" after her partner "…was like 'I'll just pull out.' And then he didn't. So, the next morning he got me Plan B." Although this occurred during a hook-up, women in committed relationships also shared this experience. Katherine (age 19, committed partnership) said that on several occasions her partner did not withdraw after he had agreed to. Although he apologized saying "Sorry it [condomless sex] just feels better," Katherine responded: "It doesn't make it okay…You need to pull out next time." Even though Katherine's partner knew she was on the pill, she felt he "overestimates its power" and in doing so and refusing to withdraw, put her at greater risk of pregnancy. These experiences underscore the persistence of inequality in sexual encounters in which women rely on men to use condoms or withdraw. As other research has shown, men's preference for condomless sex often puts women at risk (Dalessandro et al., 2019; Fielder et al., 2014).

The following sections illustrate the themes that were unique to women who used withdrawal with casual partners, followed by unique themes among women in committed

partnerships. Despite the similarities described above, the ways women described their use of withdrawal with committed and casual partners took on distinct tones. Women who used withdrawal with casual partners more frequently advocated for their own sexual and contraceptive preferences, though as shown above, not always with success. Comparatively, women in committed partnerships' views about withdrawal clustered around the importance of the relationship. For these women, moving from condoms to withdrawal was part of the progression of a relationship, although it was often motivated by a partner's desire to stop using condoms. Women in committed partnerships also felt withdrawal enhanced trust and closeness within the relationship.

Withdrawal with casual partners

Women who used withdrawal with casual partners were more likely than women in committed partnerships to advocate for their sexual and contraceptive preferences, including for their partners to withdraw. Importantly, women with casual partners typically used withdrawal in combination with other methods, especially birth control pills, condoms, and emergency contraceptives. For example, Mary (age 19), who reported that withdrawal was her main method, also relied on condoms because blood pressure issues precluded her from using hormonal birth control. Mary said that although in the past she generally had sex with "someone exclusive", her approach to sex had changed since she began college: "Now it's like I'm open about sex, I like having sex. I've never been one to really care about numbers [of sexual partners], so to speak, but to do that, I know I need to take care of my health and make sure my partners are taking care of their health." Because she cannot use hormonal birth control, Mary prioritizes her sexual health by using condoms and openly communicating her preference for withdrawal to her sexual partners. Similarly, Kayla (age 20), who was not on hormonal contraception, described requesting her partners to withdraw even when they used condoms. When asked if she thought it was always important to use a

method besides condoms, Kayla said: "For me personally, yes, I would still like them to withdraw. I understand that might be slightly excessive…" Kayla also advocated for herself in refusing to have sex on occasions where a partner did not have a condom. She said:

> Kayla: I'd be like, "Do you have one [a condom]?" Like no. Then we're not doing this.
>
> Interviewer: Okay. If they didn't have a condom, you said that we're not doing this?
>
> Kayla: A couple times yeah.

Similarly, when asked what she would do if a partner did not have a condom, Mackensie (age 20) said: "…if a guy [would] be like 'I don't want to wear one [a condom]', I'd be like 'No.'" In refusing sex when the men they were with were not willing to wear a condom, women like Kayla and Mackensie worked to enforce their contraceptive preferences. Notably, this use of agency did not preclude women from having experiences in which men did not abide by their preferences, as described above by both Mackensie and Kayla. Therefore, we should understand women's use of agency as occurring within a context of considerable gender inequality in which women—especially those who rely on men for pre-emptive pregnancy avoidance, such as through withdrawal or condoms—are subjected to men's sexual and contraceptive preferences. As we show below, although the ways women in committed partnerships described their use of withdrawal took on distinct tones as compared to women with casual partners, both groups of women had to contend with their partners' desires for condomless sex.

Withdrawal with committed partners

Women's narratives about using withdrawal with committed partners centered on the importance of the relationship and keeping it intact. This was elucidated in three main ways: a) women often acquiesced to their partner's desire to forgo condoms in favor of withdrawal; b) once condoms were dismissed, it was difficult to reinstate them; and c) withdrawal was thought to increase trust and emotional closeness within the couple.

Acquiescing to a partner's desires

Women in committed relationships frequently attributed the move from condoms to withdrawal as stemming from their partner's desires. In many cases, women described partners convincing them that withdrawal was a safe replacement for condoms. Isabella (age missing) described how her partner convinced her to go along with withdrawal:

> I think it was just kind of like a spur of the moment thing. I don't think he had one [a condom], and he assured me like, "Oh, the withdrawal method, it'll be fine. I know myself, I know how I am", so I was just like, "okay". I just went with it. I was kind of worried, but I trusted him. I know there's always those mistakes that happen, so I was still kind of antsy about it after.

In this situation, Isabella went along with her partner's desire to use withdrawal instead of condoms because he convinced her it was safe. Isabella was not on hormonal birth control, so even though she "trusted him" to withdraw in time, she was still anxious about pregnancy. Similarly, Morgan's (age 21) partner convinced her that relying on withdrawal instead of condoms was low risk: "He said there wasn't a huge risk [to using withdrawal], so he didn't really use them [condoms]." Although Morgan was on hormonal birth control, her use was inconsistent, and she felt vulnerable to pregnancy when they relied on withdrawal. She said: "It [sex using withdrawal only] was scary and I think that's a huge reason why it was not as enjoyable for me…It was just kind of like, here we go again." In a similar vein, Chloe (age 22) described being conflicted about relying solely on withdrawal. When asked to describe the first time she and her partner used withdrawal, she said: "I think it was probably one drunken night where he's like, 'I don't have one [a condom].' I said, 'That's okay. Just go ahead.'" However, since then, she and her partner had more consistently relied solely on withdrawal: "It [using withdrawal] is regular now, which is terrible. If we don't have one [a condom]…then we just withdraw…I feel like now it's an emotional thing, do you trust me

thing." Like Isabella, Chloe was not on hormonal birth control and therefore using withdrawal was the sole pregnancy prevention method. In characterizing the behavior as "terrible", Chloe highlighted a common view across the sample: that relying on withdrawal alone was risky.

As shown above, women often framed their acquiescence to their partner's request for condomless sex as tied to the quality of their relationship. Isabella said she went along with withdrawal because she "trusted" her partner and Chloe described her partner's use of withdrawal as "emotional" and based on trust. Similarly, Erica (age 22) explained acquiescing to her previous partner's desires to forgo condoms to increase his happiness: "So, in that relationship I was very much concerned with making him happy and making sure our relationship was good and we were on good terms. And part of that involved sex without condoms." Later in the interview, when asked about power in relationships, she said: "I'd like to think it would be equal. Equal decision-making. But in reality, I know that's not [the case]...You know, we were using withdrawal, that was mostly his decision." Like Isabella and Chloe, Erica tied her acceptance of withdrawal to the importance of the relationship and keeping it together. These examples show how some women in committed relationships felt the need to go along with their partner's preference to avoid condoms and rely on withdrawal, even if it made them feel less comfortable and protected from pregnancy. Yet, women's concerns about the method remained salient, as evidenced by Isabella's feeling "antsy" and Chloe regarding the choice as "terrible", feelings that they did not share with their partners.

Difficulty reinstating condoms: habit and pleasure

Women often discussed the difficulty of reinstating condoms once they had stopped using them within a relationship. Many women's comments show how, once introduced, withdrawal became a habit that was hard to break. For example, Erica (age 22) said:

> I'd say especially with withdrawal once it becomes a habit and you see that it's actually working, then it's like "Why not?" And it becomes a regular [method]...And it's free. You don't have to buy anything. You don't have to get anything put into your body…I think habit plays a huge role. I think that expectation in the relationship of what we normally do, what we use as our method, once it's set it's pretty stuck.

In Erica's view, once a couple becomes habituated to withdrawal, they are "stuck" with it. At the same time, Erica described some benefits of the method including that it is "free" and you can avoid getting "anything put into your body". However, Erica's positive views hinge on her perception of the method's effectiveness as she perceived it as something that was "actually working" for her and her partner. Thus, Erica's comments also illuminate the common view that withdrawal was a "time-tested" method for pregnancy prevention (Whittaker et al., 2010). Women who used withdrawal regularly with their partner felt more protected from pregnancy over time precisely because they did not get pregnant, even though the cumulative effectiveness of contraceptive methods declines over time (see also Shaklee & Fischhoff, 1990), highlighting the need for more detailed information about sexual and contraceptive risks among young women. Mariah (age 24) described how her view of withdrawal changed over time:

> I've gotten more relaxed I guess with someone that I stopped using condoms with. It's not that I don't think about it [pregnancy], it's just that it's again time-tested of using withdrawal and not getting pregnant. It's not that I don't think that it's [pregnancy] not an option…It's just that…you don't think about it every time. You just get used to the fact that we do this. He pulls out, I don't get pregnant. It's worked…and then from there it's hard to go back to using condoms because it just feels different.

While Mariah describes withdrawal as "time-tested" in terms of effectiveness, she also foregrounds the pleasure of condomless sex, that it "just feels different," in explaining why it

is hard to go back to condoms. Similarly, Molly (age 22) reflected on the enhanced pleasure of sex with her partner once they moved from condoms to withdrawal: “We'd use condoms every now and then, but then it was like ‘eh, it's so much better without them.’" In linking withdrawal to habit and the perceived efficacy of the method, women in committed relationships often grounded their discussions of pleasure within the relationship context. That is, women in committed partnerships typically described the shift from condoms to withdrawal as positive because they had thus far successfully avoided pregnancy. Additionally, some women in relationships took further measures to enable condomless sex without the worry of pregnancy. For example, once Molly and her partner started having condomless sex, she decided to start hormonal birth control to avoid relying solely on withdrawal.

Trust and backup plans

Similar to Chloe’s comments about the “emotional” aspect of withdrawal and Erica’s efforts to increase her partner’s “happiness”, linking withdrawal to trust and closeness within the couple was common among women in committed partnerships. Thus, once a couple started using withdrawal and eschewing condoms, women began seeing the method as symbolic of the relationship’s quality. Jada (age 19) highlighted this when describing why she and her partner did not use condoms:

> My boyfriend now, he was my best friend, so I trust him with everything that I totally have…I trust him, so I know that he's not gonna do that [not withdraw]. And I know what he wants, and I know what he thinks about pregnancy…I know that he's very cautious when we have sex, so I know that nothing bad would happen with him…I trust him to pull out and be courteous of me and think of me while we're doing it.

Because she was not on hormonal birth control, Jada put her faith in her partner’s actions to prevent pregnancy. She explained this by tying withdrawal to her trust of her partner and his

respect for her in being “courteous”. Similarly, Isabella (age missing), who emphasized the trust she had in her partner to withdraw (above), described how that trust had increased over time.

> I trust him more now the further we get on in the relationship. We've done it [withdrawal] before so I think like ‘Oh, he's been fine in the past so he will be now’, kind of thing…I love him enough and trust him enough to know that it [him not withdrawing] won't [happen]. I don't really think about the ifs, I guess, which I should, but I just trust him with not just that but everything else too…I trust him that he's gonna be loyal, and that he's always gonna have my back. When he says something and makes a promise, I know he's gonna keep it and mean it.

Isabella links her trust in her partner’s successful use of withdrawal to broader issues of love and loyalty in the relationship. In this way, withdrawal comes to signify a couple’s emotional connection and relationship quality. Moreover, women who are not on birth control and are relying solely on withdrawal—like Jada and Isabella—place significant trust in their partners to pre-emptively prevent pregnancy. Thus, women framed their decisions about withdrawal and the level of pregnancy risk they were willing to accept as emblematic of the quality of their relationship and their feelings for their partner. In this way, women brought the relationship context to the forefront of their contraceptive decision-making.

Finally, some women described their reliance on withdrawal as related to their optimism about the future of their relationship. For example, Chelsea (age 23) described a situation in which she had missed several birth control pills and had condomless sex using withdrawal with her partner. She described her reasoning:

> I would say the only reason I was okay with that, was because we were in a serious relationship, and because I knew I was not ovulating…so I was like, "This will probably be okay." And again, like I said, "I'm 23, I can make this decision, but I

> know my consequences if they happened," like, “I chose this”…But, I mean, I have a very stable view of like, "If I get pregnant, I have a child." That is where I'm at, so I know going into it, "Okay, if this leads to a baby, I have a baby. It's not the end of the world."

Chelsea’s reasoning for relying solely on withdrawal hinged on the seriousness of her relationship and her willingness to accept the potential consequences. At the same time, Chelsea was tracking her menstrual cycle and felt confident that she was not in a fertile period, which gave her additional reassurance. In another example, Angelica (age 22), has an IUD and often uses condoms plus withdrawal with her partner, though when condoms are not available, she and her partner forgo them. Angelica talked about how her future informs her thinking about pregnancy prevention:

> At this point, we're graduating now, so…we certainly don't wanna get pregnant until I'm out of grad school I think, that's further down the road. But at this point, there might be a little more gray for me if I would get pregnant; what I would do with the baby. But pretty much whatever I would decide, I think, you know, he's said, you know, that he would be supportive…He said that if I were to keep it, he would help me raise it and we would get married. If I wanted to have it but put it up for adoption, he would help me with going through that process. And if I wanted to get an abortion, he would, you know, go with me to have the abortion, and be there.

As Chelsea and Angelica’s examples show, women’s decisions about withdrawal and the level of pregnancy risk they were willing to accept served as symbols of the quality of their relationship and their feelings for their partner. In describing how they would react to a potential pregnancy and their partner’s role in that decision, women centered the relationship context in their contraceptive decision-making. This is similar to women who described the use of withdrawal as enhancing pleasure, closeness, and their emotional connection with their

partner, however, it takes that reasoning a step further in their thinking through the consequences of their decision (having condomless sex with withdrawal) versus focusing on how using withdrawal enhances the relationship.

Discussion

Withdrawal has long been considered an ineffective method for preventing pregnancy (Rogow & Horowitz, 1995). Consequently, most studies of contraceptive effectiveness tend to consider withdrawal as being akin to not using any contraceptive at all, which has resulted in less research on withdrawal as compared to other more effective forms of contraception. While withdrawal has been included in some quantitative studies estimating prevalence of contraceptive use and other factors, there is little qualitative research examining women's reasons for using withdrawal as either a primary or secondary form of contraception (Arteaga & Gomez, 2016; Horner et al., 2009; Whittaker et al., 2010). Our work combines a largely quantitative research base looking at the prevalence of withdrawal (Jones et al., 2014; Kavanaugh & Jerman, 2018; Kavanaugh et al., 2021; Lindberg et al., 2018; Tsung-chieh et al., 2019) and an emerging body of literature focused on the effects of hook-up culture on contraceptive use (Bearak, 2014; Dalessandro et al., 2019; James-Hawkins, 2015a; James-Hawkins et al., 2019; Lemley et al., 2018).

We interviewed 57 young women at a midwestern U.S. university on their sexual activity and contraceptive use, asking them about a wide variety of contraceptive methods, including withdrawal. We found that the use of withdrawal had become normalized within the local hook-up culture on campus, with most women assuming their partners, both casual and committed, would pull out, although this was oftentimes not explicitly discussed. Participants reported using withdrawal most often as a backup method, usually in combination with condoms or the pill. Withdrawal was also seen as useful as a stop-gap method when women were switching between other, more effective methods of

contraception. Finally, across relationship types, women who used withdrawal alone, as a stop-gap method, or who were not confident in the effectiveness of their other method (e.g., condoms) often followed withdrawal with emergency contraceptives. This finding emphasizes the importance of emergency contraceptives and the value women gain from having over-the-counter access to them (see also Kaller, Mays, Freedman, Harper, & Biggs, 2020; Smith, Cleland, Wagner, & Trussell, 2017).

We also found differences in withdrawal use by partner type. With casual partners, women were better able to advocate for themselves and to refuse sex if men did not want to use a condom or refused to withdraw when asked. The women in our study who engaged in casual sex clearly had absorbed messages about protecting themselves from pregnancy and were taking actions to do so, including by using withdrawal—often as a backup method—as a normative behavior in hook-ups. This fits with the idea that young women, particularly those attending college, prioritize the self and their futures (Armstrong & Hamilton, 2013; Hamilton & Armstrong, 2009). In contrast, women in committed relationships often used withdrawal because they were convinced by their partner that withdrawal was effective and that their partner would effectively implement the method (i.e., pull out in time), which was not always the case. Unfortunately, once the use of withdrawal in lieu of condoms was instituted within a committed romantic relationship, women in our sample reported that it was very difficult to go back to using condoms. Women also linked the use of withdrawal to relationship quality and their partner's happiness. Thus, agreeing to use withdrawal was seen as a way for women to demonstrate trust in their romantic partner (Horner et al., 2009; James-Hawkins 2015b; James-Hawkins et al., 2019). Findings suggest that women in romantic relationships may be disadvantaged by the prevailing notion within university hook-up cultures that sex is freely available, especially to men (Bogle, 2008), which puts added pressure on women to acquiesce to the use of withdrawal to maintain their relationship. The

limited research on FWB relationships suggests that dynamics related to sexual satisfaction, the use of condoms, and communication in FWB relationships are distinctive from those in committed romantic relationships (Lehmiller, VanderDrift, & Kelly, 2014). College women frequently report engaging in FWB relationships and findings in past work are inconclusive on whether these types of arrangements provide women with greater control and agency (see Jovanovic & Williams, 2018). Therefore, future research on sexual and contraceptive dynamics in FWB relationships is important for better understanding how these relationships might influence women's pregnancy avoidance strategies, including their use of withdrawal.

With the vast majority (89%, n=51) of our sample reporting use of withdrawal at some point in their reproductive life course, our findings support research that suggests that withdrawal is normalized among young adults, aligning with past evidence that the use of withdrawal is more common than generally thought (Dude et al., 2013; Jones et al., 2014; Kavanaugh & Jerman, 2018; Laris et al., 2021). Our results also are consistent with research suggesting there is a high prevalence of withdrawal use in combination with other more effective methods (i.e., birth control pills) among college students, who most commonly use withdrawal as a backup method to increase their level of protection from pregnancy (Higgins & Wang, 2015; Whittaker et al., 2010). However, it was also clear from our data that withdrawal is not considered to be an effective form of contraception by the women in our sample and they often did not report its use unless specifically asked, reaffirming the idea that current prevalence estimates of use may be understated (Jones et al., 2009, 2014; Kavanaugh et al., 2021; Tsung-chieh, FuHensel et al., 2019). Given this population's use of withdrawal as a backup method, it is likely that surveys focused on measuring the most effective method of contraception may miss withdrawal as an important method that helps women not only protect themselves against unintended pregnancy but also alleviates some of the worry about pregnancy that our participants commonly discussed. This finding suggests that we need to

consider the use of withdrawal in a broader context to best assess the implications of its use for women's emotional and sexual health.

The somewhat unique themes associated with different relationship types (casual vs. committed romantic partners) clearly show that relationship context is critical in how women make decisions about contraceptives, including withdrawal, supporting findings from recent quantitative work (Harvey et al., 2018). We also found that gendered power dynamics influenced if withdrawal was used, especially within relationships. As most past research on withdrawal has been quantitative and focused on prevalence and patterns of use across populations, the gender context has been largely ignored in the literature specific to withdrawal. An exception to this is Edwards et al. (2014) who found that that in casual sexual encounters, women who have more power were better able to convince their partners to use condoms. As withdrawal is one of the only male-bodied methods of contraception (along with condoms), better measuring its use, especially in combination with other methods, may provide information that will enable men to take more responsibility for pregnancy avoidance (see also Ortayli, Bulut, Ozugurlu, & Cokar, 2005).

There are some limitations to this research. First, our data were collected from a sample of 57 women at one midwestern public university and may not represent the views of women at private universities, at universities in other parts of the United States, or in other countries. However, our findings are largely consistent with the small body of qualitative research examining women's use of withdrawal as a contraceptive method (Arteaga & Gomez, 2016; Horner et al., 2009; Whittaker et al., 2010). Second, because our study recruitment focused on contraceptive use, women may have been less likely to report withdrawal due to social desirability, or because they felt that withdrawal was not a real form of contraception (Arteaga & Gomez, 2016). Nevertheless, we used a sexual life history approach which asked women to report on specific sexual encounters chronologically

through their sexual lives, and they were also asked specifically about the use of withdrawal and all other contraceptive methods in each encounter a woman described. In addition, the high frequency with which withdrawal was brought up throughout the interviews suggests that participants felt comfortable disclosing its use. Third, this study focused on young adult women who had heterosexual sex in the past six months. Future research on withdrawal should incorporate sexual minority women and their partners given that studies have shown that sexual minority women also engage in heterosexual sexual activity and thus are at risk of unintended health outcomes, including pregnancy (Higgins et al., 2019). Finally, our sample only included women. Given the importance of gender dynamics in the use of withdrawal, and because withdrawal is a method that is inherently under men's control, research on withdrawal that includes men is a promising area for future research.

Our study has several implications for research on contraception, sexual health initiatives, and policy regarding contraceptive education and promotion. Given that our findings support the idea that withdrawal has become normalized among young adults especially as a secondary or tertiary method of contraception (Arteaga & Gomez, 2016; Jones et al., 2009, 2014), it is important that researchers pay more specific attention to the context in which withdrawal is used. The impact of context suggests that researchers and health providers need to be explicit in asking about withdrawal and other "natural" methods (fertility-based, rhythm) because women may not see them as "contraception" and may therefore misreport their use of these methods on surveys (Arteaga & Gomez, 2016; Jones et al., 2009) or in health provider encounters (Laris et al., 2021; Tsung-chieh, FuHensel et al., 2019; Whittaker et al., 2010). We recommend that withdrawal be specifically probed for in survey research, and that additional data regarding the context of use (i.e., as a primary or secondary method and the relationship context in which it is used) be collected.

We also found that because women viewed withdrawal as an ineffective and unreliable method of pregnancy prevention, they often did not discuss it in interviews unless specifically asked. This finding supports previous research among minority youth in the western United States (Arteaga & Gomez, 2016). Both current cultural messages surrounding the use of withdrawal (Higgins & Smith, 2016) and current contraceptive researchers (Gibbs et al., 2019) tend to emphasize *only* that withdrawal is an ineffective method of contraception, ignoring its potential as a backup pregnancy prevention method in combination with other forms of contraception such as birth control pills and condoms. If women are convinced that withdrawal is ineffective, they may also be less likely to put effort into using withdrawal correctly (Jones et al., 2014), and communicating openly with their partners about its use. We also need to give women better tools for negotiating condom use, particularly within committed romantic relationships, and help them to understand that condomless sex is not necessarily representative of trust and love (Flood, 2003; Fortenberry, 2019; James-Hawkins, 2015b).

Research has shown that people often prefer to get their contraceptive information from less reliable sources such as friends or family members, rather than from a health provider (Whittaker et al., 2010). Current research with young adult women suggests that health providers, rather than promoting the use of withdrawal as a backup method may instead devalue the potential benefits of using withdrawal to provide additional protection from unintended pregnancy beyond the use of condoms and birth control pills (Laris et al., 2021). This sort of education is especially important as research shows that condoms and birth control pills, while some of the most common contraceptive methods (Kavanaugh & Jerman, 2018), are often not used correctly (Kost, Singh, Vaughan, Trussell, & Bankole, 2008). A first barrier that must be addressed is changing the messages that stigmatize withdrawal as a completely ineffective method of preventing pregnancy. A reduction in the

stigma surrounding the use of withdrawal, combined with the promotion of withdrawal as a backup method of pregnancy prevention by health providers is in line with a harm reduction approach and could help women to better protect themselves from unintended pregnancy (Laris et al., 2021).

Finally, our findings have implications for contraceptive messaging and education targeted at adolescents who are just becoming sexually active and thus exploring different methods of pregnancy prevention. This is especially important as recent research has shown that attitudes and knowledge about different contraceptive methods acquired during adolescence are predictive of contraceptive behaviors in early adulthood (Guzzo & Hayford, 2013; James-Hawkins, 2015b). Given our findings, we suggest that it would be useful for researchers and policymakers to both acknowledge and better understand the potential of the use of withdrawal as a backup method that could help in reducing unintended pregnancy rates in the United States and beyond.

Table 1. Participant Descriptive Statistics

	% or mean	n
Race/Ethnicity		
White	81%	46
Black	4%	2
Asian	12%	7
Latina	4%	2
Age	21	51
Year in college		
Senior	49%	28
Junior	14%	8
Sophomore	23%	13
First Year	14%	8
Social Class		
Upper	5%	3
Upper-middle	47%	27
Middle	30%	17
Lower-middle	14%	8
Working Class	4%	2

Total N		57

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