

Experiences of progestin-only pill users in the United States and attitudes toward over-the-counter access

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Abstract

Context: Removing the prescription requirement and making oral contraceptive pills available over the counter (OTC) could increase contraceptive access in the United States. Despite current efforts to make a progestin-only pill (POP) available OTC, there are no qualitative data exploring the experiences of POP users and their perspectives on making POPs available OTC.

Methods: We conducted six online, asynchronous focus group discussions with 36 POP users between July and November 2020. We stratified focus group discussion placement based on three reasons for POP use: breastfeeding, having a contraindication to estrogen (for a reason other than breastfeeding), and for any other reason. We thematically analyzed these data using inductive and deductive coding.

Results: The majority of participants described their overall POP experience as positive, mostly because they experienced minor or no side effects and thought the pill was effective. Participants overwhelmingly supported OTC availability of POPs and expressed interest in purchasing an OTC POP. Over one-third of participants had very limited knowledge or held inaccurate assumptions about POPs before they started using this method and many stressed the need to disseminate accurate information and resources about POPs to the public.

Conclusions: Most focus group discussion participants were satisfied with POPs and supported OTC access. While misconceptions and concerns about POPs should be addressed, an OTC POP has the potential to be a safe, effective, and convenient contraceptive option in the United States.

INTRODUCTION

Daily oral contraceptive pills (OCPs) are one of the most common contraceptive methods used among women (we recognize that not all individuals who use contraception identify as women, but have retained the language used in the cited studies throughout this manuscript) in the United States (US), second only to sterilization.¹ However, the prescription requirement for OCPs creates barriers that

prevent or delay many from accessing them, as it can be difficult to afford a provider visit^{2,3} or to make time for an appointment.^{3,4} Although innovative healthcare models, such as pharmacist prescribing of hormonal contraception and telemedicine provision of contraceptive services using a website or smartphone app, may make accessing OCPs easier for some, these models of care do not address all challenges women, transgender men, and other pregnancy-capable individuals may encounter when trying to obtain a

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prescription, as they can be limited by varying state access policies, lack of public awareness, age restrictions, consultation fees, and privacy concerns.⁵⁻⁸

Removing the prescription requirement and making OCPs affordable and available over the counter (OTC) could further increase contraceptive access. A 2013 global review found that OCPs were available without a prescription in 102 countries,⁹ and research has shown that women can accurately self-screen for contraindications using a checklist,^{10,11} supporting that OTC access is a safe way to obtain OCPs without the assistance of a clinician.

Both combined oral contraceptives (COCs) and POPs are safe^{11,12} and effective^{14,15} and leading medical societies in the United States support OTC OCP access.¹³⁻¹⁵ As of October 2022, there are only two POP formulations available in the United States (norethindrone 0.35 mg and drospirenone 4 mg)¹⁶ and the US Food and Drug Administration is currently considering an application for norgestrel 0.075 mg to become the first POP available OTC in the United States.¹⁷ Prior literature estimates 0.4% of women of reproductive age to 4% of OCP users use POPs.^{18,19} POPs users tend to be breastfeeding or receiving postpartum care and/or have contraindications to estrogen-containing methods.^{18,19} Despite low use of POPs in the United States, a nationally representative survey found that 39% of women at risk of unintended pregnancy and 29% of teenage girls reported they would likely use POPs if they were available OTC.²⁰ Despite public interest in an OTC OCP and current efforts to make an OTC POP a reality in the United States, there are few studies exploring the experiences of POP users and their perspectives on making POPs available OTC,^{21,22} and no studies that have explored these topics outside of a clinical trial setting. This study aims to address this gap in the literature by qualitatively exploring the thoughts and experiences of previous and current POP users.

METHODS

We recruited participants of all ages for online focus group discussions (FGDs) through postings on Facebook, Twitter, Instagram, and Reddit. Postings included a brief description of eligibility criteria, data collection methods, and a link to the study webpage. The study webpage included details about the study objectives and a link to an online screening questionnaire hosted by Qualtrics (Provo, UT). Individuals were eligible to participate if they lived in the United States and had used a POP any time in the prior 2 years (including current use). If eligible, participants provided informed consent and their contact information so study team members could schedule a phone screening to confirm eligibility. If their answers on the online questionnaire and phone screening aligned, study team members sent participants the online FGD dates and instructions.

To accommodate participants' different time zones and schedules and to allow participants to write responses so they would feel comfortable sharing their experiences and views on potentially sensitive reproductive health topics, we conducted online, asynchronous FGDs between July–November 2020 using a discussion board hosted by the online platform FlexMR (Charleston, South Carolina). We made the

discussion boards accessible to participants for 3 days. As the moderator, CZ posted a set of questions on the first and second days of the study and asked follow-up questions as needed for clarification or additional details, which is an advantage of conducting an FGD as opposed to a survey. Participants answered questions about their knowledge of POPs before use, experiences using a POP, difficulty/ease in getting a prescription or a refill for POPs, and support for and interest in OTC access. To foster rich and insightful discussions, we encouraged participants to respond to questions the same day they were posted and comment on posts of other participants on the discussion board. Participants had to respond to a question before they were able to see other participants' responses to that question. Participants were able to access the discussion board for a third day to share any additional thoughts and/or respond to comments made by other participants.

At the end of the FGD, the moderator asked participants to provide sociodemographic information through a short online survey hosted by Qualtrics. Upon completing the survey, participants who responded to all FGD questions asked by the moderator (with "Prefer not to answer" considered a valid response) were eligible to receive a \$75 gift card.

We aimed to conduct six FGDs, each with 6–8 participants. To ensure a sample with diverse reasons for POP use, we stratified enrollment and FGD placement based on three reasons for most recent POP use: breastfeeding, having a contraindication to estrogen (for a reason other than breastfeeding), and for any other reason. If participants described more than one reason on the online screening questionnaire, we placed them in an appropriate FGD with the fewest people recruited at that time.

We downloaded participant responses to Excel[®] and uploaded compiled transcripts from each FGD to the web application Dedoose 8.3.47b (Dedoose, Los Angeles, CA) for thematic analysis using inductive and deductive coding. We created an initial codebook based on the questions the moderator posted on the discussion board, which we iterated on during analysis to include emerging topics from the discussions. Two study team members (CZ and HF) independently coded one FGD transcript and then compared their coding strategies to ensure consistency and to edit existing codes. Since there were no major discrepancies in the way each study member coded the first transcript, they split up the remaining transcripts for coding. Once they coded all transcripts, the two study team members analyzed and summarized findings by code.

In asking about experiences using POPs, we included questions on positive and/or negative side effects. We categorized side effects as positive if participants described them as desirable in some way; neutral if participants described them as okay or did not comment on desirability; and negative if they described them as undesirable in some way. Since participants did not have to be taking a POP for pregnancy prevention to participate in the study, we took reasons for POP use into account when analyzing side effects. Health impacts reported by participants while using a POP were only categorized as side effects if they differed from their primary reason for using a POP (e.g., if a participant was using a POP primarily to manage endometriosis pain, reduction of such pain was not considered a side effect). To protect the identities and confidentiality of participants, we attributed each quote in this manuscript by the participant's age, state of

TABLE 1 Participant demographics, by focus group discussion category (N = 34).

Participant characteristics	Focus group category			Total (N = 34 ^a)
	Contraindicated (n = 11)	Other (n = 12)	Breastfeeding (n = 11)	
Age (years)				
18–24	4 (36%)	4 (33%)	2 (18%)	10 (29%)
25–34	4 (36%)	5 (42%)	3 (64%)	16 (47%)
35–44	3 (27%)	2 (17%)	2 (18%)	7 (21%)
45+	0 (0%)	1 (8%)	0 (0%)	1 (3%)
Spanish, Hispanic, Latinx descent				
Yes	1 (9%)	3 (25%)	3 (27%)	7 (21%)
No	10 (91%)	8 (67%)	8 (73%)	26 (76%)
Prefer not to answer	0 (0%)	1 (8%)	0 (0%)	1 (3%)
Racial identity^b				
Asian/Pacific Islander	1 (9%)	5 (42%)	2 (18%)	8 (24%)
Black/African American	1 (9%)	0 (0%)	1 (9%)	2 (6%)
Native American/Alaska Native	1 (9%)	1 (8%)	1 (9%)	3 (9%)
White/Caucasian	10 (91%)	8 (67%)	9 (82%)	27 (74%)
Prefer not to answer	0 (0%)	1 (8%)	0 (0%)	1 (3%)
Census region				
West	3 (27%)	3 (25%)	3 (27%)	9 (26%)
Midwest	2 (18%)	1 (8%)	2 (18%)	5 (15%)
South	5 (46%)	6 (50%)	2 (18%)	13 (38%)
Northeast	1 (9%)	2 (17%)	4 (37%)	7 (21%)
Relationship status^c				
Single (never married)	2 (18%)	3 (25%)	0 (0%)	5 (15%)
In a relationship, living with partner	2 (18%)	3 (25%)	1 (9%)	6 (18%)
In a relationship, not living with partner	5 (46%)	2 (17%)	0 (0%)	7 (20%)
Married or in a civil union	2 (18%)	4 (33%)	10 (91%)	16 (47%)
Divorced, separated, or widowed	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Ever given birth				
Yes	2 (18%)	3 (25%)	11 (100%)	16 (47%)
No	9 (82%)	9 (75%)	0 (0%)	18 (53%)
Highest level of school completed				
High school graduate	1 (9%)	3 (25%)	0 (0%)	4 (12%)
Some college, no degree	3 (27%)	1 (8%)	0 (0%)	4 (12%)
Associate degree	0 (0%)	3 (25%)	0 (0%)	3 (9%)
Bachelor's degree	4 (37%)	2 (17%)	7 (64%)	13 (38%)
Some advanced schooling	0 (0%)	1 (8%)	0 (0%)	1 (3%)
Advanced degree	3 (27%)	2 (17%)	4 (36%)	9 (26%)
Are you a student?				
Yes	4 (36%)	4 (33%)	0 (0%)	8 (24%)
No	7 (64%)	8 (67%)	11 (100%)	26 (76%)
Currently working				
Yes	10 (91%)	8 (67%)	11 (100%)	29 (85%)
No	1 (9%)	4 (33%)	0 (0%)	5 (15%)
Enough \$ in past month to meet basic living expenses				
All the time	9 (82%)	5 (42%)	6 (55%)	20 (59%)

(Continues)

TABLE 1 (Continued)

Participant characteristics	Focus group category			Total (N = 34 ^a)
	Contraindicated (n = 11)	Other (n = 12)	Breastfeeding (n = 11)	
Most of the time	1 (9%)	4 (33%)	2 (18%)	7 (20%)
Some of the time	0 (0%)	3 (25%)	2 (18%)	5 (15%)
Rarely	0 (0%)	0 (0%)	1 (9%)	1 (3%)
Never	1 (9%)	0 (0%)	0 (0%)	1 (3%)
Type of health insurance				
Health insurance through your or someone else's employer or union	10 (91%)	8 (67%)	10 (91%)	28 (82%)
Medicaid or any other state medical assistance plan	0 (0%)	1 (8%)	1 (9%)	2 (6%)
Health insurance that you or your family bought directly	1 (9%)	0 (0%)	0 (0%)	1 (3%)
Health insurance from some other source	0 (0%)	2 (17%)	0 (0%)	2 (6%)
Prefer not to answer	0 (0%)	1 (8%)	0 (0%)	1 (3%)

^a2 breastfeeding group participants did not complete the demographics survey.

^bParticipants could select >1 response.

^cParticipants could only choose one response even though the variables were not mutually exclusive, which may account for why no participant reported being divorced, separated, or widowed.

residence, and FGD category (breastfeeding, contraindicated, or other). We organized the results in this manuscript by the questions the moderator asked in the FGDs.

RESULTS

FGDs and participant characteristics

We conducted six online FGDs with a total of 36 participants. We conducted two FGDs each with participants whose reason for most recent POP use was breastfeeding, having a contraindication to estrogen, and other reasons. Each FGD had between 5–7 participants. All participants were using the POP formulation norethindrone. Participant ages ranged from 18–47 years, with a median age of 27.5 years. See Table 1 for participant characteristics.

Knowledge of POPs prior to use

Three-quarters of participants had either very limited knowledge or inaccurate assumptions about POPs or had been unaware of POPs prior to using them. A few participants with inaccurate assumptions noted confusion with the term “mini-pill,” including the belief that POPs were physically smaller than COCs, would have less side effects, or that they were less effective than COCs. Other participants had not realized there were different types of OCP formulations, and two participants had thought POPs were similar to or the same as emergency contraception pills.

Among the remaining nine participants who had some knowledge of POPs prior to using them, the most common information known about POPs was that it was important to take them at the same time

every day and reasons why POPs may be safer than COCs for some people. Approximately half of participants in the contraindicated groups reported some knowledge of POPs prior to using them, compared to 25% of participants in the other groups and 8% of participants in the breastfeeding groups.

Thoughts on daily pill-taking regimen

Most participants found it easy to take a POP at the same time every day. A handful of participants noted they had no difficulty because they were accustomed to taking daily medication. However, about a third of participants found it annoying or difficult to take a POP at the same time every day, and a quarter of participants highlighted associated challenges or drawbacks, such as sometimes forgetting to take a dose or feeling stressed or worried that they would forget to take their pill. A common strategy among participants was setting an alarm to help them remember to take their POP, such as one participant who shared, “I set an alarm on my phone with the alarm tone being a screaming infant ... but I was mentally terrified the whole time... Knowing that this pill had less margin for error was an absolute nightmare” (32, AR, Contraindicated). Three-quarters of participants in the preference groups found POPs easy to take compared to about half of those in the breastfeeding groups and contraindicated groups.

Side effects

Approximately one-quarter of participants reported they experienced no side effects while taking a POP. Only participants in the other and breastfeeding groups reported not experiencing any side effects. Participants could elaborate on whether side effects were negative,

TABLE 2 Participant experiences with progestin-only pills, by focus group discussion category.

POP experience	Focus group discussion category			Total participants (N = 35 ^a)
	Contraindication (n = 11)	Other (n = 12)	Breastfeeding (n = 12 ^a)	
Positive ^b	5 (45%)	10 (83%)	12 (100%)	27 (77%)
Neutral	2 (18%)	1 (8%)	0 (0%)	3 (9%)
Negative	4 (36%)	1 (8%)	0 (0%)	5 (14%)

^aOne participant dropped out part way through.

^b“Positive” includes 2 participants who described their POP experience as both positive and neutral.

positive, temporary, or minor. Five participants perceived at least one side effect they experienced as positive, citing desirable bleeding changes (regulated periods and decreased bleeding), reduced cramping, increased libido, and/or being in a better mood. A total of 15 participants described experiencing at least one negative side effect, the most common being undesirable bleeding changes (irregular periods, prolonged spotting, longer periods, bleeding between periods), unpleasant emotions (sadness, loneliness) or feeling emotionally unstable, and loss of libido. Four participants, all in the contraindicated group, mentioned they were unsure whether the negative side effects they experienced were caused by their POP. As one participant shared, “The only negative side effect I’ve experienced is a lower libido, but I feel that might only be partially the fault of the pill combined with all the stress and anxiety” (36, NC, Contraindicated). Seven participants noted that some negative side effects began shortly after initiating POP use but eventually decreased in intensity or disappeared. The most frequently cited temporary negative side effects included moodiness, spotting, and bloating or weight gain.

As breakthrough bleeding has been documented as a common side effect of taking progestin-only contraceptives,^{23,24} we specifically asked participants whether they experienced any bleeding between periods. Of the 25 participants that responded to this question, the majority reported they did not experience breakthrough bleeding. No participants in the breastfeeding groups reported bleeding between periods. Of the nine participants who experienced bleeding between periods, three felt this side effect negatively affected their experience taking a POP, although one described it as temporary. One participant recalled, “The transition to [norethindrone ...] was really awful. During that month, I experienced incessant spotting, painful [sic] under the skin, acne in places I do not usually get acne (neck and shoulders), and also body dysmorphia” (18, California, Other). The other six participants felt neutral about bleeding they experienced between periods, often because it was infrequent or light.

Overall POP experience

We asked participants to rate their overall POP experience as positive, negative, and/or neutral, and more than three-quarters of participants described their experience as positive. All 12 participants in the breastfeeding groups and 10 of the 12 participants in the other groups reported positive experiences, compared to just under half in the contraindicated groups. See Table 2. When elaborating on why

their experience was positive, most participants said they experienced minor or no side effects. Participants also mentioned experiencing fewer side effects when using a POP compared to other contraceptive methods. According to one participant, “Overall I’m very happy with using a POP. I was worried that I wouldn’t be allowed to take anything after having my embolism and I’m glad that the progesterone-only pill [sic] is an option for people like me. I think I definitely had less initial side effects, except for some nausea, than with the regular pill” (44, Virginia, Contraindicated).

Effectiveness at pregnancy prevention was the second most frequently cited reason for participants’ positive POP experience. Other reasons contributing to positive experiences were that it controlled or suppressed their period, was easy to take, reduced migraine frequency, and reduced endometriosis pain.

Three participants felt neutral about their POP experience, describing both positive and negative aspects of taking a POP. For example, one participant explained,

It’s so far been successful at preventing pregnancy and has lessened my cycle though for me I do sort of miss the regularity I had before. It’s sometimes hard to take it at the same time every day, but taking ASAP has been ok and I don’t do it often. I also have seen my blood pressure go back to normal but not sure if it’s due to lifestyle change, pill, or [blood pressure] meds. It does give me peace of mind that there’s less chance of a stroke side effect. (37, Maryland, Contraindicated)

Five participants described their overall POP experience as negative, mostly due to unpleasant side effects. As one participant shared, “I would say my experience leans more towards negative due to the side effects I experienced [including ...] weight gain and low libido [that] really affected my mental health” (26, Illinois, Contraindicated). Three participants mentioned spotting or irregular bleeding as a contributing factor to having a negative POP experience. Four of the five participants who described their experience as negative were in the contraindicated groups.

Reasons for stopping POP use

Approximately one-third of participants in each focus group type were no longer using a POP at the time of the FGD. The most

common reasons for stopping use were negative side effects and preference for a method that did not require taking a pill at the same time every day. According to one participant, “I stopped breastfeeding and honestly I was always so nervous about forgetting/not taking it at the same time so I switched” (42, Massachusetts, Breastfeeding). Many participants who stopped POP use cited more than one reason contributing to their decision to stop.

No participant stopped using a POP solely because of bleeding changes, although three mentioned irregular bleeding as a factor in their decision. Two of these participants were, however, unsure if the POP had directly caused their irregular bleeding.

Two participants shared they had to stop because they encountered barriers to obtaining a prescription. One participant explained,

I couldn't get my prescription filled because my provider had to renew it, but they wouldn't until I came in for a physical... Given the distance [to the provider] from where I was living and time, I realized it wasn't a priority and I stopped taking it. I was also single and not sexually active. When I was starting to see someone new, it was like once a month so we would just use condoms. (26, Georgia, Other)

Prescription and refill difficulty

One-fifth of participants, all of whom were in the other or contraindicated groups, reported difficulties getting a prescription or a refill for a POP. Challenges included insurance coverage issues, difficulty accessing pills due to the COVID-19 pandemic, their provider requiring additional appointments, traveling long distances to pick up pills, delivery issues, and having negative interactions with a pharmacist. Those who did not experience difficulties shared factors that facilitated their prescription access, including receiving multiple packs of pills at a time, having responsive health care providers, and having pills delivered.

Opinions on OTC access to POPs

The vast majority in each FGD type expressed support for the possibility of being able to purchase a POP OTC. Most supporters cited increased access to contraception as a reason, and about half described barriers that would be removed by OTC access, such as difficulty affording a doctor's appointment or prescription and trouble scheduling appointments or making it to a pharmacy or doctor's office within limited business hours. Five participants thought OTC access would allow young people in particular to enjoy greater reproductive autonomy. One participant shared:

Long overdue!!!! There is no reason to have all these barriers to access birth control. I understand like IUDs or the rods because that requires a provider to insert, but oral contraceptives should be more accessible.

Obviously, one will hope OTC means insurances will continue to cover too. A lot of the hassles I experiences [sic] were due to waiting on my provider to renew my prescription and sending it to the pharmacy. (26, Georgia, Other)

Another participant reflected:

I think [OTC access] would be really valuable to people who are ... underage and scared to talk to a parent/guardian. I think some who are unable to get a prescription for birth control may just decide to risk going without. I think that is probably the demographic who would benefit the most. I honestly really don't see a downside to having the ability to purchase a POP OTC. (27, Ohio, Breastfeeding)

Four participants, all in contraindicated groups, supported OTC POPs because they were safe for many people to use compared to some other contraceptive methods. One participant explained, “The POP is the safest birth control pill on the market according to my Dr. and everything I've read. There's no reason to gatekeep it and deny access to people who cannot afford or get time off work for a doctor's visit” (36, North Carolina, Contraindicated).

Three participants that supported OTC access emphasized the need for potential users to receive clear instructions and/or information about POPs.

Five participants had mixed opinions about POPs being OTC. They liked that it would provide easier access but had concerns about people not receiving advice from a health care provider, cost, young people having sexual relationships ($n = 1$), and a lack of information about POPs when deciding to use one. One participant did not support OTC POP access because they thought people should consult with their doctor about contraception.

Interest in purchasing POPs OTC

The majority expressed some level of interest in purchasing POPs OTC. While 10 participants were interested in purchasing an OTC POP at the time of the FGD, an additional 20 participants reported they would be interested under certain circumstances, including if it were affordable, they could find a trusted brand, they talked to their doctor first, they were not restricted from doing so due to age, and/or they were reassured of the pill's safety and efficacy. Timing was a factor for some participants as well, who stated they would have been interested in using an OTC POP when they were younger or would be in the future if they needed a POP again. According to one participant, “When I used a POP I would have definitely been interested in buying it OTC as opposed to getting a prescription. It would've made it easier because I would not have had to get transportation from my Mom or use my family insurance” (21, California, Contraindicated).

Five participants were not interested in purchasing a POP OTC and cited current insurance coverage of their POP, easy access to their doctor, no longer needing a POP, and/or preferring to have their doctor manage their contraception due to existing health conditions.

Useful information before and after purchasing an OTC POP

A total of 35 participants shared their thoughts on information that would be useful when deciding whether to use an OTC POP, as well as information that would be helpful while using an OTC POP. Information deemed helpful in both scenarios included information about side effects, instructions for proper use, and contraindications. Other information participants thought would be useful in both scenarios included effectiveness, testimonials from users, cost, ingredients, and specific information about who to contact for questions.

DISCUSSION

Our study's findings expand upon the limited prior literature on POP user experiences by qualitatively exploring individuals' experiences using norethindrone and attitudes toward OTC POP access. Previous studies on POPs primarily focus on safety or efficacy, and findings about acceptability are limited to study discontinuation rates due to negative side effects (or continuation rates despite these effects).^{25–28} One study assessed the acceptability of the POP drospirenone by asking general questions about drug tolerability and patient well-being.²⁹ Although over 82% described drug acceptability as excellent or good, there was no information on the reasons for ratings and limited research documents reasons for interest in continuing POP use or for satisfaction with the method. Using open-ended qualitative methodology, we were able to capture the nuances in many users' experiences.

The majority of participants in our study rated their POP experience positively and felt this way because they experienced little or no side effects. Side effects documented in clinical studies are often reported in the context of reasons for participants' discontinuation of the study and are therefore assumed to be negative. Clinical studies reporting discontinuation rates of norethindrone users have reported irregular bleeding as one of the most frequently cited reason for stopping use.^{30,31} Our study highlights the nuances of side effects felt by participants, as they could elaborate on whether and how side effects were negative, positive, temporary, or minor. Bleeding changes, for example, were viewed differently by participants—some saw their bleeding changes, such as no period, as desirable while others preferred having a regular period. Although our sample size was small, it is interesting to note that no participant stopped using a POP solely because of bleeding changes, although three mentioned it as a factor. Many participants who stopped POP use cited more than one negative side effect or other non-drug related factors (such as not wanting to take a pill at the same time every day) that contributed to their

decision to stop using the POP. Very few described irregular bleeding as a contributing factor to having a negative POP experience, which complements findings from two studies of norethindrone users that found that a minority of participants (6%–13%) discontinued the study due to bleeding changes or irregularities.^{32,33}

Although the majority of participants in our study found it easy to take a POP at the same time every day, some were very concerned about missing a pill and others found it to be an annoyance. These findings suggest that a POP that can be taken within a wider window of time, such as desogestrel (which can be taken within a 12-h window³⁴) or drospirenone (which can be taken in a 24-h window³⁵) may be more acceptable to some POP users. Although desogestrel is not currently available in the United States, the US Food and Drug Administration approved drospirenone in May of 2020.¹⁶ Having a variety of OTC POP formulations would allow individuals to try different pill types and find one that works best for them.

Our study also revealed that a vast majority of participants (including those that did not describe their experience as positive) supported OTC access of POPs, with some also highlighting concerns that should be addressed to ensure that people in need of contraception feel comfortable using an OTC POP. Some supporters of OTC access emphasized the importance of public education around POPs, including information on side effects, contraindications, and instructions for use. The fact that some participants had limited knowledge or held inaccurate assumptions about POPs before they started using this method also points to the need for public awareness campaigns about the safety and efficacy of POPs and their distinction from COCs and other contraceptive methods.

This study has several limitations. First, the demographic questionnaire did not include a question about gender identity, yet the experiences of women, transgender men, and gender nonbinary individuals might be different. Future research should explicitly engage with a range of gender identities. Second, the experiences of young people under age 18 are not reflected in this study, despite the study being open to POP users of all ages. This could be because few minors have taken POPs, as they are often prescribed to individuals with contraindications to estrogen or who are breastfeeding, both of whom are typically older.^{36,37} If/when an OTC POP is approved, future research should explore the extent to which teens are using them and their experiences with the product.

A third limitation is that the vast majority of our sample identified as white, so the perspectives of individuals identifying as other races and ethnicities are not well represented in this study. Previous research has shown that OCP use is higher among non-Hispanic white women than among Hispanic women, non-Hispanic Black women, and Asian Americans,³⁸ which may account for the low number of non-white participants in our sample. Further collaboration with Black, Indigenous, Asian American and Pacific Islanders, and Latinx people are needed to understand better their views on POPs and OTC access.

Finally, our study is also limited by the exclusion of people who have never used a POP, and it is unknown whether these individuals are similar or different to our sample in regard to their knowledge of

POPs, thoughts about and interest in an OTC POP, and thoughts on information that would be helpful prior to and during OTC POP use. Prior research has found that women who had ever used a POP had higher interest in OTC POPs compared to those who had never used them.²⁰

Trustworthiness of our findings depends on satisfying four criteria: credibility, transferability, dependability, and confirmability.³⁹ To ensure our findings accurately reflect the experiences of participants (credibility), we utilized an online discussion board where participants could anonymously respond to questions about their POP experiences. The moderator followed up with participants if clarification was needed to ensure that their experiences were being accurately understood. Participants' written reactions to other participants' responses also provided an additional layer of verification that responses were clear and understood by both participants and researchers. In regard to transferability, our findings only reflect the experiences of our sample of previous and current POP users in the United States who have Internet access. We have, however, provided a detailed description of our methodology and characteristics of our sample to aid researchers seeking to compare their results with findings from this study. To ensure that our research process is logical and traceable (dependable), we made sure that raw data from participants were clearly documented and that researchers coded transcripts in a consistent and systematic manner. Details of our analysis strategy, as well as the inclusion of selected quotations from participants, can help readers judge the extent to which our interpretations and findings are derived directly from our data (confirmability) and will allow readers to assess the trustworthiness of our findings.

CONCLUSION

The majority of participants had positive experiences using POPs, mostly because they experienced minor or no side effects and found them to be effective, and supported OTC POP access, though many emphasized the need to disseminate accurate information and resources about POPs to the public. If misconceptions and concerns about POPs are adequately addressed, an OTC POP may be a convenient contraceptive option for individuals in need of contraception.

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