VA Birth Control on Demand

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Abstract

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Veterans with the capacity for pregnancy who utilize Veterans Affairs (VA) healthcare are a vulnerable population with unmet contraceptive needs despite access to existing VA health services. As the largest integrated healthcare system in the country, there is an opportunity to implement and evaluate novel evidence-based interventions to improve contraceptive access within the VA. Two examples of innovative strategies include pharmacist prescription of contraception and 12-month dispensing of prescription contraception. Several states have demonstrated that pharmacist provision of hormonal contraception is safe, feasible, and satisfactory to both patients and pharmacists. Furthermore, data demonstrate that 12-month dispensing of short-acting contraception increases adherence and continuation. We conducted and evaluated a demonstration project examining pharmacist prescription of hormonal contraception and 12-month dispensing at two sites within the VA healthcare system. While we found high patient and pharmacist satisfaction, improved patient safety, and ongoing interest in participation in the program, we also identified numerous implementation challenges including low uptake of services and lack of sufficient staffing. These findings can inform efforts to implement these interventions to increase access to contraception at other sites in the VA and in other integrated healthcare systems.

1. Introduction

Despite access to care in the VA, Veterans using VA healthcare still experience unintended pregnancies and gaps in contraceptive access and use. According to national data, nearly half of woman-identifying Veterans are in their reproductive years (18-45 years old).[1] Unfortunately, over one third of these Veterans experience at least one unintended pregnancy and often face difficult decisions when confronted with these situations.[2] Previous research shows that over half of Veterans using contraception have at least one gap in contraceptive coverage over a single year, which significantly increases their chance of an unintended pregnancy.[3] These gaps in contraceptive coverage also heighten racial and ethnic disparities, as they are more likely to happen in Hispanic and Black Veterans.[3, 4] Underlying factors contributing to gaps in contraceptive adherence and continuation are complex and multifactorial and include lack of patient-centered counseling resulting in inadequate information and knowledge, challenges in accessing visits with providers, and delays in obtaining refills for ongoing prescriptions.[5]

Within the VA, barriers to care include lack of access to providers with complete knowledge of all contraceptive options and lack of available appointments with providers.[6] One promising strategy to improve access is pharmacist prescription of contraception, as this practice is known to reduce barriers to obtaining and continuing contraception.[7] Currently, within the VA, contraception provision is limited to clinicians.[8] VA pharmacy staff already prescribe and provide extensive counseling for a number of medications and are well poised to take on contraceptive counseling and prescribing. For example, VA pharmacists currently prescribe and dispense diabetes and hypertensive medications, which require significant counseling and adjustment based on patient factors.[9] Pharmacist prescription of hormonal contraception has worked successfully in settings outside of the VA.[8] Both Oregon and California have developed

robust programs that incorporate pharmacist prescription of hormonal contraception at retail and university-affiliated pharmacies.[10] These practices have increased new users of contraception, improved continuation rates of contraception, reduced unintended pregnancies, and lowered Medicaid costs.[11] Community pharmacists are able to safely screen and counsel patients for hormonal contraception.[12] Additionally, pharmacist prescription of hormonal contraception improves patient quality of life as measured by a study conducted in Oregon that followed patients for 2 years after receiving hormonal contraception from a pharmacist.[11]

Second, VA pharmacies currently allow a maximum of 3-months dispensing for any medication, which also limits patient access to continuous contraception.[4] Previous studies have demonstrated the multiple advantages of 12-month dispensing of hormonal contraception. A large study of over 84,000 patients in California found a 30% reduction in odds of unintended pregnancy when dispensing a 12-month supply versus a 1 or 3-month supply of oral contraception.[13] A cost analysis study estimated that 12-month dispensing would result in annual cost savings of over $2,000,000 due to an absolute reduction of 24 unintended pregnancies per 1000 patients per year.[14] 12-month dispensing has particular benefit to VA patients who use oral contraceptive pills, which is the most commonly used type of hormonal contraception in the country and one of the most commonly used types in the VA.[15]

As the largest integrated healthcare system in the United States, the VA is an ideal environment in which to evaluate pharmacist prescription of hormonal contraception and 12-month dispensing of hormonal contraception. The VA already has a robust mail order pharmacy model established, which increases accessibility and convenience for Veterans. Due to the integration of electronic medical records and protocols across different VA sites, the VA also offers an excellent system in which to evaluate both of these interventions across multiple sites.

Testing innovative strategies to increase continuous contraceptive coverage and improve the delivery of reproductive healthcare can also help the VA achieve its goal of raising the national standard of reproductive healthcare.[16]

We conducted a demonstration project, called Birth Control on Demand (BCOD), at VA Puget Sound and VA Pittsburgh, of pharmacist counseling and prescription of hormonal contraception as well as 12-month dispensing of hormonal contraception. We performed a mixed methods evaluation of this project guided by the RE-AIM framework, including both quantitative data collection from the electronic medical record (EHR) and qualitative data collection from semi-structured interviews on key domains including reach, program effectiveness/safety, patient and provider acceptability, and barriers and facilitators to program success and maintenance.

2. Methods

A. Description of VA Demonstration Project

A multidisciplinary team conducted the project, including three Obstetrician/Gynecologist physicians, one internal medicine physician with a focus in reproductive healthcare, four pharmacists, one pharmacist supervisor, and two researchers at two distinct VA sites (Puget Sound and Pittsburgh). The project consisted of two primary components: (1) pharmacist consult with the option of 12-month dispensing of short-acting methods and (2) pharmacist outreach to current short-acting method users to offer counseling and 12-month dispensing.

Component 1: Pharmacist consult with 12-month dispensing

Four primary care clinical pharmacy specialists, three from Puget Sound and one from Pittsburgh, elected to join this project and attended two training sessions led by project

physicians. This training included a two-hour presentation covering the fundamentals of contraceptive methods and patient-centered counseling. A second one-hour training session was led by one of our Obstetrician/Gynecologist physicians, a current Complex Family Planning fellow, who discussed best practices for prescription of each method, strategies for troubleshooting side effects of each method, and when to refer to a reproductive health provider, including complex cases, undiagnosed gynecologic symptoms, or desire for a long-acting reversible contraceptive or permanent contraception. After completing both of these sessions, pharmacists completed a 10-question competency quiz with a passing score of 80%. Throughout the project, we held monthly all-team meetings as well as monthly site-specific meetings to role-play patient scenarios with pharmacists as well as troubleshoot complex patient encounters that pharmacists experienced throughout the month.

Current VA pharmacy practice limits dispensing to a maximum of 3 months. Pharmacist members of the project team worked with national pharmacy leaders, local site pharmacies, and mail pharmacy partners to develop a pilot system for writing and filling 12-month prescriptions. Pharmacists were trained at both sites in how to prescribe 12 months of hormonal contraception for methods including combined estrogen/progesterone pills, progesterone-only pills, the contraceptive patch, and the self-administered subcutaneous formulation of the contraceptive injection; 12-month dispensing of the contraceptive ring was not possible due to refrigeration requirements for the ring. Patients who were counseled by a pharmacist about contraception were then offered the option of a 12-month supply if they were already using a short acting method or provided a 3-month supply and scheduled for a follow up visit to discuss a 12-month prescription if they were newly starting the method.

The project included several ways for connecting patients to pharmacists for contraceptive counseling and care. First, patients could directly call a number to talk with a pharmacist or schedule an appointment to meet with a pharmacist virtually. Direct marketing to patients through flyers, social media posts, or business cards was planned to educate them about the program and to provide them with the number to call to access the service directly. Second, patients could be referred to the program by any VA provider, including primary care providers and mental health providers, through a consult placed in the EHR. Once connected with patients, pharmacists provided patient-centered evidence-based contraceptive counseling via a telephone or video encounter and, when appropriate, prescribed hormonal contraception and offered a 12-month supply, which was mailed to our patients.

Component 2: Pharmacist outreach to current short-acting method users to offer counseling and 12-month dispensing

Pharmacy staff also obtained lists of patients on short acting methods with 1 or 3-month prescriptions who were due for a refill and called them to offer counseling and discuss the option of 12-month dispensing. If interested, pharmacy technicians scheduled a telephone visit for the Veteran with a pharmacist, who then called them at the scheduled time. Pharmacists then conducted a contraceptive consult visit with the patient, which included asking about their experience with their current method and reviewing any contraindications to contraception, including assessing whether the patient had unrecognized contraindications to the method they were currently using. If appropriate and desired, pharmacists refilled the current short-term prescription and dispensed a 12-month supply, which was mailed to the patient. If contraindicated or another method was desired, pharmacists prescribed and dispensed a different

type of hormonal contraception. When appropriate, pharmacists referred to a reproductive health provider for further counseling or contraceptive methods that required a procedure.

B. Project Evaluation

Overview: We used the RE-AIM implementation framework to evaluate our demonstration project.[17]. Strengths of the RE-AIM framework include challenging researchers to constantly examine fundamental questions before, during, and after implementation, flexibility for use in multiple settings, and contribution to replicability and generalizability of interventions. The RE-AIM framework includes the following domains: reach, effectiveness, adoption, implementation, and maintenance. We applied each of these concepts to our intervention and determined, prior to the start of our intervention, how to evaluate each of these components using a mixed quantitative and qualitative approach.

A. Study population: The target population included all Veterans with the capacity for pregnancy between the ages of 18-45 currently utilizing Puget Sound or Pittsburgh primary care. Capacity for pregnancy was defined as people who had no history of hysterectomy, permanent surgical contraception, or documented infertility. Patients were not eligible for the program if they desired contraception for purposes other than pregnancy prevention or had undiagnosed gynecologic complaints such as abnormal bleeding or pelvic pain.
B. Data collection
    1. Quantitative data: Prior to study recruitment, our team developed a project specific template that guided pharmacists through evidence-based patient-centered counseling. This template also included fields from which we could extract specific data points

for each of our consult visits. After several iterations, this template was incorporated into the VA's electronic health record, the Computerized Patient Record System (CPRS) at both sites. Quantitative data was obtained from the CPRS note template, clinical data warehouse (CDW), and project records. Two data analysts extracted data from the CPRS note template and CDW.

2. Qualitative data: Semi-structured qualitative interviews were conducted with both patient participants in the program and study pharmacists. Interview guides were developed to assess initial interest in the BCOD program, overview of the pharmacy visit, barriers and facilitators to participation, suggestions for improvement, and interest in ongoing involvement with the program. Patients were asked after their pharmacy consult visit if they were interested in participating in a 20-30 minute telephone follow-up interview. If they agreed, they were contacted by telephone for an interview. For pharmacists, notes were taken during each of our team meetings to document successes and challenges, as well as ways we should adapt our program to meet our pharmacist and patient needs. Exit interviews with all the study pharmacists were conducted at the conclusion of the evaluation period. Interviews were audio-recorded and transcribed.

C. Measures

1. Quantitative descriptive measures: We collected demographic information on all of the patients we enrolled at both sites including age, BMI, most recent blood pressure, number of days since the most recent blood pressure, and contraindications to estrogen.

2. Outcomes: Study outcomes and data sources for each component, as well as the definitions for each RE-AIM concept, are described below and in Table 1. Component 1 is labeled as "Pharmacy Consult" and Component 2 is labeled as "Outreach Calls."

Table 1: VA Birth Control on Demand (BCOD) outcomes measures

RE-AIM concept	Quantitative measure(s) [datasource]	Qualitative measure(s) [datasource]
Reach	Overall: • Total number of Veterans who participated [CPRS]	Overall: • Interest in program and accessibility [patient interviews] • Relevance [patient interviews] • Pharmacist participation [pharmacist interviews] • Number of Veterans who hear about the program via each marketing method [patient interviews]
Effectiveness	Pharmacy consult: • Proportion who had consult who received a prescription [CPRS] • Reasons why Veteran did not receive contraception after consult [CPRS] • Contraceptive methods dispensed [CPRS] • Proportion who opted for 12-month dispensing [CPRS] • Proportion of consults referred to reproductive health [CPRS] Outreach calls: • Proportion whose short-acting contraceptive method was contraindicated [CPRS]	Overall: • Comparison to prior experiences obtaining contraception or reproductive health services [patient interviews] • Benefits to patients [patient interviews] Benefits to pharmacist [pharmacist interviews]

	• Proportion who opted for 12-month dispensing [CPRS] • Proportion called who were referred to reproductive health [CPRS] Proportion called who were interested in BCOD consult [project records]	
Adoption	Overall: Number of pharmacists who attended trainings among pharmacists recruited [project records]	Overall: • Appropriateness of training and support [pharmacist interviews]
Implementation/Fidelity	Overall: • Proportion of completed BCOD note templates among those with BCOD visit [CPRS] • Mean pharmacist time spent on consults [CPRS] • Mean pharmacist time spent training [project records] Pharmacy consult: Proportion who wanted a consult or were referred who had a documented consult [project records]	Overall: • Barriers and facilitators to participation or delivery of service [patient and pharmacist interviews]
Maintenance		Overall: Ongoing interest in program [patient and pharmacist interviews]

- Reach: Reach was quantitatively assessed by the total number of Veterans who participated in our BCOD program and qualitatively assessed by asking about patient and pharmacist interest in the program through semi-structured interviews.
- Effectiveness: For the pharmacy consult component, effectiveness was measured quantitatively through review of CPRS to determine the proportion of consults that resulted in a prescription, reasons why Veterans did not receive contraception, the range of methods that were dispensed, proportion of Veterans who opted for 12-month dispensing, and proportion of Veterans who required a referral to reproductive health. Reasons why Veterans did not receive contraception at the time of the pharmacy consult were categorized as follows: patient desired an intrauterine device or implant, had a concern about side effects, wanted to speak to a physician, or other. Types of contraception dispensed were categorized as follows: combined oral contraceptive pill, progestin only contraceptive pill, patch, depo, emergency contraception, and condoms. For our outreach calls component, effectiveness was measured quantitatively through review of CPRS to determine the proportion of patients due for a refill who were interested in a BCOD consult. We also captured the proportion of Veterans who were found to have unrecognized contraindications to the method that they were using, as this is in indicator of one way that the intervention can improve patient safety over current practices. Across both components, effectiveness was measured qualitatively by asking patients to compare their BCOD experience to other VA experiences obtaining contraception or reproductive health services, as well as asking patients and pharmacists what the benefits of BCOD were for them.

- Adoption: Adoption was assessed quantitatively through project records to measure the involvement of pharmacists in our project, specifically how many pharmacists decided to participate out of all eligible pharmacists and how much time they spent training for the program. Overall, adoption was assessed qualitatively by pharmacist interviews to measure the level of training and support pharmacists received.
- Implementation: Implementation was assessed quantitatively through CPRS and project records to measure the fidelity of pharmacist consults. Overall, we determined the proportion of complete CPRS note templates out of all BCOD visits. We also assessed implementation quantitatively by determining the average time spent on each pharmacy visit and the average time spent training for each pharmacist. For our pharmacy consult component, fidelity was assessed quantitatively to determine if all patients who desired a consult received one. Overall, implementation was assessed qualitatively through patient and pharmacist interviews to measure barriers and facilitators to participation in BCOD.
- Maintenance: Maintenance was assessed qualitatively by asking patients and pharmacists if they were interested in continuing to be a part of BCOD.

D. Analysis

Quantitative: Descriptive analyses were used to summarize results. We report means, standard deviations, and ranges for continuous measure and counts and percentages for quantitative measures.

Qualitative: Interviews were analyzed using rapid qualitative analysis, a pragmatic approach to analyzing structured qualitative data in implementation research.[18] Rapid qualitative analysis templates were developed, which were filled out during the interviews and additional prompts asked to ensure collection of all target information. Two members of our team independently

conducted interviews and filled out the templates for all audio recordings, then met to compare rapid qualitative analysis templates and come to a consensus on interview summaries, which were used to identify key themes in each RE-AIM domain.

3. Results

We included data for Veterans who participated in the demonstration project between July 2021 to January 2022. At the Puget Sound site, all Veterans who participated in the pharmacist consult component of the project (Component 1) were referred by primary care providers. Despite our outreach efforts to patients with flyers, business cards, and social media posts, no Veterans called in directly to access contraceptive counseling from the pharmacist. Due to lack of available staff, the outreach component (Component 2) was not performed in Puget Sound, therefore no outreach calls were made to Veterans with current short term prescriptions for hormonal contraception who were due for a refill. At the Pittsburgh site, despite direct marketing to Veterans and to primary care providers, no Veterans called in to access pharmacist consults and no primary care providers referrals were made. The Pittsburgh site, however, did have available pharmacy technicians who were able to make outreach calls to those Veterans using short-acting prescriptions who were due for refills. Therefore, all participants in the project at the Pittsburgh site obtained their pharmacy consult as a result of an outreach call. Figures 1 and 2 show the pathways per component for patients to enter our program.

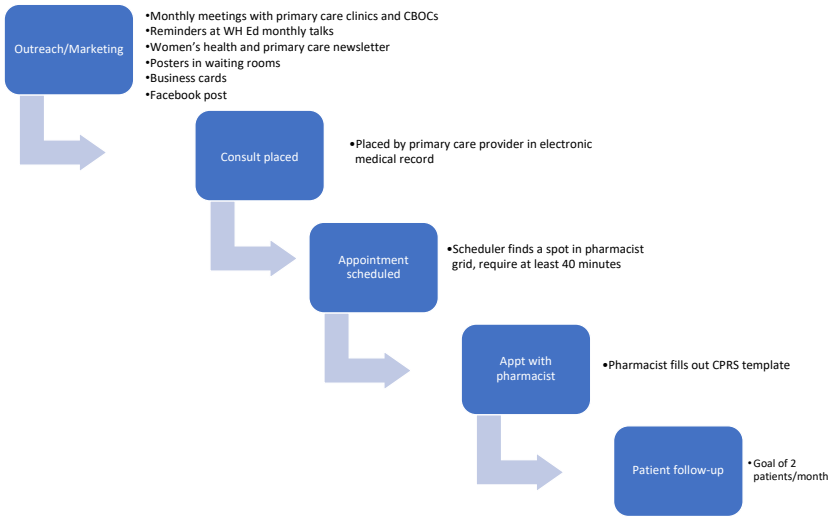

Figure 1: Puget Sound Site Flow

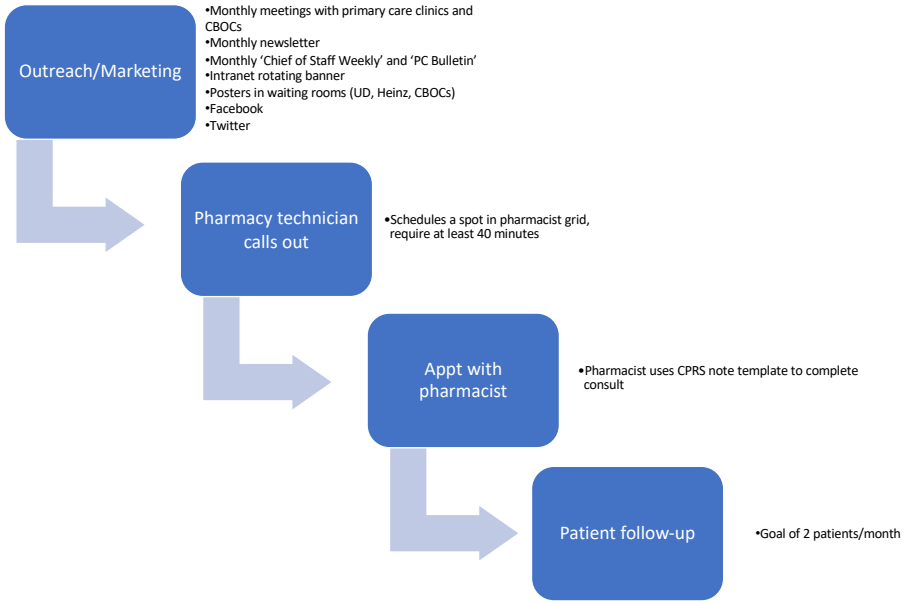

Figure 2: Pittsburgh Site Flow

A. Quantitative Results:

Table 2 includes the demographics of enrolled patients for each component of the project. In general, mean age for our pharmacy consult component was lower than for our outreach calls component (29.75 years versus 37.35 years), while other factors were similar. We included numbers of Veterans who had specific contraindications to estrogen to measure the prevalence of each of these conditions in our enrolled population.

Table 2: Demographics of patients enrolled for each component

Demographic	Pharmacy consult (n=20)	Outreach calls (n=54)
Mean Age (SD), Range	29.75 (5.25) 21-42	37.35 (8.06) 21-54
BMI	28.81 (3.94)° 23-36	29.59 (5.71)‡ 21-52
Most recent blood pressure	120/81† 97-139/68-99	121/76 102-162/57-100
Number of days since most recent blood pressure	191 (328.49)	132 (121.49)
Contraindications to estrogen	11 (55)	18 (33)
15 or more cigarettes and age over 35 years	0 (0) 4 (36)	2 (11) 7 (39)
Migraines with aura	1 (9)	1 (6)
Gallbladder or liver disease	2 (18)	0 (0)
History of blood clot	2 (18)	8 (44)
Hypertension	2 (18)	0 (0)
Worrisome vaginal bleeding		
Site		
Puget Sound	20 (100)	0
Pittsburgh	0	54 (100)

°missing n=3 (BMI older than 1 year)
‡missing n=4 (BMI older than 1 year)
†missing n=1

- Reach:

In total, 74 patients participated in the BCOD program: 20 patients participated in the pharmacy consult component of the program and 54 patients participated in the outreach calls component of the program.

- Effectiveness:

Pharmacy consult component: Out of the 20 patients who enrolled in our pharmacy consult component, 12 (60%) received a prescription for hormonal contraception after their consult. Table 3 shows reasons why patients did not receive a prescription for hormonal contraception after their consult. The most common reasons were desire for LARC or contraindications. Table 4 shows the range of contraceptive methods dispensed. The most common methods were combined oral contraceptive pills and progestin only contraceptive pills. Out of those who received a prescription for hormonal contraception, no Veterans were eligible for the 12-month dispensing option as all were new users of this type of contraception. Out of all Veterans who received a BCOD pharmacy consult, 7 (35%) required a referral to reproductive health, 4 (57%) of which were due to their interest in LARC and 3 (43%) of which were due to contraindications.

Outreach calls component: Out of the 109 Veterans due for a refill of a short-term contraceptive method, 21 (19%) were not called for the following reasons: 14 (67%) did not have a recent blood pressure, 2 (10%) already had a 12-month supply, 2 (10%) had just started their current method, 1 (5%) was trying to conceive, 1 (5%) was currently pregnant, and 1 (5%) was no longer receiving care with VA. Out of the 54 patients who were called in the outreach calls component, 9 (17%) were on a current contraceptive method that was contraindicated. Out of those who received a prescription for hormonal contraception, 36

(67%) opted to continue their current method with the 12-month dispensing option. Out of all Veterans who received an outreach call, 9 (17%) required a referral to reproductive health, 2 (22%) of which were due to a desire for LARC, 5 (56%) of which were due to contraindications, and 2 (22%) of which wanted to speak with a physician.

Table 3: Reasons why patients did not receive contraception from BCOD consult for each component

Reasons did not receive contraception	Pharmacy consult (n=8)	Outreach calls (n=9)
N (%)		
Desire for LARC	4 (50)	2 (22)
Contraindications	3 (38)	5 (56)
Concern about side effect	0 (0)	0 (0)
Wish to speak with physician	0 (0)	2 (22)
Other*	1 (13)	0 (0)

* Currently on triphasic oral contraceptive pill, opted for no action at this time

Table 4: Types of contraception prescribed for each component

Contraception	Pharmacy consult (n=12)	Outreach calls (n=45)
N (%)		
Combined oral contraceptive pill	5 (42)	33 (73)
Progestin only contraceptive pill	5 (42)	2 (4)
Patch	0 (0)	0 (0)
Ring	0 (0)	9 (20)
Depo	1 (8)	1 (2)
EC	1 (8)	0 (0)
Condoms	0 (0)	0 (0)

- Adoption

Overall: Four total pharmacists attended our contraception trainings, 3 out of 14 (21%) eligible pharmacists from Pittsburgh and 1 out of 2 (50%) women's health pharmacists from Puget Sound.

- Implementation/Fidelity

Overall: Out of the total 74 consults performed by pharmacists, all (100%) had completed the CPRS note templates without missing fields. Pharmacists spent an average of 36 minutes (standard deviation 12 minutes) per consult and 4 hours training prior to the launch of our BCOD program.

Pharmacy consult component: Out of all Veterans who wanted a BCOD consult or were referred to our program, all 20 (100%) received a consult from a pharmacist.

B. Qualitative Results

A total of 11 Veterans were reached for follow-up interviews, 7 from the pharmacy consult component and 4 from the outreach calls component. We conducted exit interviews with all 4 of our project pharmacists.

- Reach:

Veterans: All 11 (100%) patients interviews cited convenience of the telephone visit and ease of not having to commute as their primary interest in our BCOD program. One participant stated, "This makes your life so much easier and is much more convenient." All patients stated that their contraceptive needs were met and that the BCOD program allowed them to obtain the contraceptive method they desired with the supply they desired. One participant volunteered, "They made sure they expedited getting me in, getting me seen, and making sure I got [my contraception] in time and didn't run out."

Pharmacists: All four of our project pharmacists described their interest in reproductive health and expanding their scope of practice as motivations for joining the BCOD program. One of our pharmacists noted, “We don’t normally see female Veterans since our patients are usually male. This is a way to make a difference and a great way to prevent burnout.”

- Effectiveness

Veterans: All patients interviewed felt that their telephone visits with our project pharmacists were thorough and informative. Many patients noted that previous contraceptive discussions had felt rushed incomplete, and these visits left them feeling that they had a better understanding of all of their options. One patient stated, “It’s a great experience, you’re going straight to the source instead of trying to figure out what is the best medication with your PCP. The pharmacist just knows that information off the top of their head.”

Pharmacists: Project pharmacists identified multiple benefits of this program for both patients and pharmacists. For patients, they saw the BCOD program as a way to increase access to contraception for Veterans and allow patients to have a detailed discussion about their priorities for their chosen method. For pharmacists, they saw the BCOD program as a way to increase collaboration between themselves and physicians as well as increase job satisfaction. One pharmacist stated, “I have always been interested in contraception for women’s health. I’ve had difficulty in the past but this helped spearhead [pharmacist prescription].”

- Adoption

Pharmacists: All 4 project pharmacists felt supported throughout the BCOD program timeframe due to the immediate availability of reproductive health physicians for each of the

components if they had specific questions about patients. Overall, our pharmacists felt that their training was sufficient but would have liked the training to have been more tailored specifically to the medications that were available on VA formulary. They also would have appreciated more time spent on the following topics: knowing when to refer, how to counsel patients with multiple comorbidities and complex medical histories, and how to manage side effects of contraceptive methods.

- Implementation

Veterans: All patients appreciated not having to conduct an in-person visit for their contraceptive counseling appointment with the pharmacist. Out of our 11 patients interviewed, 3 (27%) identified a long delay of over 1 month between the time their primary care provider placed a BCOD consult order and when someone reached out to them to schedule their appointment as a barrier to access. Other patients felt that the process went smoothly and appreciated that they were given multiple appointment times to choose from for their BCOD telephone visit.

Pharmacists: All 4 of the project pharmacists felt that having an hour-long telephone visit scheduled was a facilitator to success as they were able to cover all of the components on our project specific CPRS template. Out of all of our project pharmacists, 2 (50%) noted multiple issues with our CPRS template including length of template, minimal ability to free text, and "hard stops," where they were unable to close the note until filling out a specific piece of information.

- Maintenance

Veterans: All patients interviewed stated that they would be interested in continuing to receive their contraception through our BCOD program. Words they would use to describe the program to another Veteran included “quick,” “convenient,” “easy,” and “helpful.” All patients stated they would refer this service and one patient continued to say, “I would tell them that this service is awesome, useful, and being able to get your birth control and the things you need as a woman without going through the hoopla is like having a pocket pharmacist for your womanly needs.” Pharmacists: All 4 project pharmacists stated ongoing interest in our BCOD program. They stated that they enjoyed their visits with patients, appreciated having reproductive health physicians available to them for immediate questions, and wanted to continue to provide contraception. They noted that in order to continue offering this service, they needed support from their supervisors, dedicated time in their clinical schedule, continued access to reproductive health physicians, and continuing education courses. One pharmacist reflected, “I’ve learned that contraception is a vital part of someone’s overall health and this is a super important part of primary care.”

4. Discussion

This demonstration project found high patient and pharmacist satisfaction with pharmacist prescription of hormonal contraception and dispensing of 12-month supplies of hormonal contraception within the VA healthcare system. Patients found this program easy to access and advantageous over previous experiences obtaining contraception at the VA. Pharmacists felt supported in their patient consults and appreciated the ability to provide reproductive healthcare services.

Our quantitative and qualitative data suggested multiple positive benefits of the program for both patients and pharmacist as well as key facilitators to successful implementation. Patient benefits included increased knowledge about all of their contraceptive options and feeling that their priorities were being heard. Several patients stating that this was much better than previous care they have received from the VA. Nearly all patients who were eligible for 12-month dispensing elected for this option, despite having copays. This is an important finding because some of the pushback our pharmacist manager received when discussing 12-month dispensing was that Veterans would not want to or be able to afford the cost of paying a 12-month copay at one time. However, copays do not seem to be a significant barrier to desiring 12-month supplies of hormonal contraception. Benefits to pharmacists included increased job satisfaction, increasing their collaboration with physicians, and preventing burnout. All of our pharmacists stated commitment to continuing to provide contraceptive care within the program. Key facilitators to successful implementation included convenience of telephone visits, ease of scheduling a pharmacy consult visit, and time allotted for contraceptive counseling by pharmacists.

Despite the multiple benefits, we also identified significant barriers to implementation. For the pharmacist consult component, there was lower than expected uptake despite extensive multi-pronged media efforts from our project team. First, no patients called in to our project by themselves at either of our sites, although several patients who had participated through other means asked about the option of direct patient access during their follow-up interviews, signifying that our outreach advertising efforts did not reach them. Second, we had mixed success with promoting our service to primary care providers, with moderate uptake in Puget Sound and no uptake in Pittsburgh. For the outreach component, we similarly had mixed success

due to pharmacy services being organized differently at each site. The Puget Sound site did not have staff available to do outreach calls, whereas Pittsburgh did and obtained all of their participants through these calls. Further research is needed to understand why, despite our multi-pronged outreach efforts, patient and primary care uptake was so low. We have seen an increased number of referrals from primary care providers at Puget Sound since the completion of our intervention timeframe, suggesting that potentially more time is needed to raise awareness of our BCOD program and to build it into consult practice patterns. Further research should also focus on which types of primary care providers are referring to our program and why, allowing us to identify where interest and need is greatest and target our future outreach efforts accordingly.

Previous studies have shown that pharmacists can safely identify contraindications to contraception and appropriately prescribe hormonal contraception.[10,11,13] Our study went further in that pharmacists identified current hormonal contraceptive use that was unsafe or contraindicated in patients, suggesting that pharmacist prescription could not only ensure but actually improve patient safety. This may be due to the fact that our visits focused entirely on contraception and did not include other aspects of care. Similar to previous studies conducted, both patients and pharmacists found pharmacist prescription and 12-month dispensing convenient, satisfactory, and desirable.[7,12]

The strengths of our study include that it was a multi-site study and thus we were able to evaluate implementation outcomes in two separate but related sites. This allows us to use our specific training and program materials to potentially scale the program across the VA nationally. Limitations of our study include potential lack of generalizability. Our intervention was limited to two VA sites, and there is great variability between different VA sites.

Additionally, the VA healthcare system as a whole has fixed protocols and standard copays, which may be difficult to generalize to other clinics and pharmacies. Our project pharmacists all had an interest in reproductive health and we had physicians who were immediately available for curbside consults, which may not be the case at all facilities, and would potentially affect the safety and effectiveness of our program.

5. Conclusions

Our demonstration project established a novel delivery method for hormonal contraception that has the potential to increase access, pharmacist and patient satisfaction, and safety for users of contraception. This is particularly important during the COVID-19 pandemic as patients face multiple barriers to obtaining continuous reliable contraception. We plan to continue this project at both our Puget Sound and Pittsburgh sites. In the future, we need to bolster our program outreach and advertising to reach a wider audience. We hope to start to receive primary care referrals at our Pittsburgh site and anticipate hiring additional staff soon to reach out to patients due for a refill at our Puget Sound site. We are developing a toolkit that compiles all of the components of our intervention, including pharmacist training, in order to assist other VA sites or commercial pharmacies in implementing our program. It is our hope that with expansion of our program, Veterans nationally will have increased access to continuous contraception in a timely, safe, and convenient way.

6. Appendices

a. Pharmacist education slides

b. Pharmacist quiz

c. Patient qualitative interview guide

d. Patient qualitative interview transcript summary

e. Pharmacist exit interview guide

f. Pharmacist exit interview transcript summary

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