ACCESS TO CONTRACEPTION FOR ACTIVE-DUTY WOMEN

Increase access to contraception; Decreased unplanned pregnancy among women in the military.

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On my honor, I pledge that I have neither given nor received any unauthorized assistance on this paper. April 9, 2023 – JDB
Abstract

**Background and Purpose:** Unplanned pregnancy is a global issue, reportedly higher in active-duty women. The plausible cause may be secondary to the non-use or use of less effective contraceptive methods, logistic difficulties faced by deployment and operational commitment, and limited patient and provider knowledge of available options. The literature validates this problem, identifies access barriers to highly effective contraceptive options, and offers evidence-based, best-practice opportunities to conquer this public health challenge. This process improvement project aimed to evaluate access, utilization, effectiveness, and patient satisfaction of a newly implemented Walk-in Women’s Sexual Health Clinic for the delivery of contraceptive services at a large military medical facility.

**Methods:** This process improvement project utilized a systematic pre/post-evaluation intervention. The setting for this Walk-in Women’s Sexual Health Clinic was integrated within the OBGYN clinic at a large Military Medical Center. A sample size of 111 eligible female beneficiaries, including active duty, was used. The implementation and evaluation of this intervention took place over 12 weeks. To evaluate the effectiveness of the intervention, duplication of previously established measurements by Navy Medicine for readily accessible access to walk-in contraception clinics was attempted.

**Results:** Women aged 18-49 were filtered and analyzed for pre- and post-clinic implementation contraception utilization. This age range (especially among active-duty servicewomen) is known to be "high risk" for unplanned pregnancies. This high-risk age group was the population of interest for this quality improvement project. There was a 38% increase in contraception encounters for active-duty females between the 12-week pre- and post-clinic implementation.
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The results demonstrated the critical influence of the walk-in contraceptive clinic population of interest for this project. Most notable were the LARC usage increases among active-duty and non-active-duty females.

**Conclusion:** Findings suggest that an easy-access walk-in contraception clinic, for active-duty women, along with contraception and family planning counseling, have a clinically significant impact on the rate of unplanned pregnancies among active-duty women in the military and should be replicated at other military medical sites.

**Implications:** The results demonstrated the critical influence of the walk-in contraceptive clinic on the population of interest for this project. The results further suggest that when women in the military have effective counseling and easy access to contraception, the rate of unplanned pregnancies in this population decreases.

**Keywords:** Active-Duty Women, Contraception, Unplanned Pregnancy, Barriers to Contraception, family planning.
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Introduction

The percentage of women in the military has increased from 11% in 1990 to 15% in 2015 (Parker et al., 2017). Unplanned pregnancy among active-duty women presents a critical problem for military readiness. Unplanned pregnancies interfere with deployment, and women who become pregnant while deployed must return from operational assignments (Holt et al., 2011).

Despite free healthcare and access to contraception for women serving on active duty in the military, apparent barriers prevent women from promptly obtaining contraception. These barriers include but are not limited to, preconceived notion that women in an active-duty status do not have premarital sex or have sex during deployment, operational commitments, location of medical facility, lack of transportation, deployment requirements, recruit training and inability to leave duty during working hours when most appointments are scheduled (Heitmann et al., 2016).

In 2014, Finer and Zolna noted that unplanned pregnancies in women of childbearing age were 51% in 2008. Of those women, the majority were between 18-25 years old. In 2011 the rate of unplanned pregnancies among women serving in all military branches was 72/1000, compared to women in the general population, 52/1000 (Grindlay et al., 2015).

Various studies have indicated that unplanned pregnancies among women in the military, as well as women in the general population, are attributed to lack of contraception use; and among those that use contraception, less effective, i.e., condoms, patches, and pills, are most often preferred (Goyal et al., 2012; Rabie et al., 2013; Grindlay et al., 2015).

Implementing evidence-based practice guidelines is indicated for quality healthcare
during family planning, improving the education and availability of effective contraceptive options, and decreasing unplanned pregnancy incidents. Evaluating the efforts of these clinical services is essential to ensure that the contraceptive needs of this critical population are attained. Also, to validate progress towards increasing awareness of contraception, decreasing unplanned pregnancy incidents among military women, and ensuring that federally funded resources are used appropriately.

**Background of the Clinical Problem**

Over 390,000 uniformed women are serving on active duty in the military. Approximately 95% of these women are between 18 and 49 (Speier, 2021). Studies have compared the rate of unplanned pregnancies among active-duty military women and women in the general population. These studies have shown that unplanned pregnancies in active-duty women exceed that of women in the general population. Almost 50% of women in the general population have at least one unplanned pregnancy. Women serving in the military had an unplanned pregnancy rate ranging from 54-71% (Goyal et al., 2011). The DOD noted that last year 16.2% of unplanned pregnancies amongst women serving in the military were aged 18-20 y/o compared to 7.1% of women in the general population in the same age group.

Women comprise approximately 18 percent of the uniformed services stationed worldwide; 95% of these women are of childbearing age (Speier, 2021). Unplanned pregnancy is one of the most concerning health issues globally, causing undue stress and financial burden on individuals and society (Yazdkhasti et al., 2015). According to the World Health Organization (2005), out of approximately 210 million pregnancies each year worldwide, 87 million (41%) are unplanned. Unplanned pregnancies are considered intangible costs, which have more than a
negative financial impact on the quality of life of the mother, child, and family, not to mention the financial burden on society (Khakki et al., 2011).

Finer and Zolna noted that pregnancies in single women, women with low socioeconomic status, and under-educated women had an increased rate of abortions, unwanted parenthood, and adoptions. Grindlay and Grossman (2015) compared unplanned pregnancies in women, of childbearing age, in the United States (52/1000) to women in the military in the same age group (72/1000). They also noted that active-duty women in a deployment status had an even higher rate. Two-thirds of women in the general population and those in the military with unplanned pregnancies were noted not to have adequate access to contraception or did not take them consistently (Guttmacher Institute, 2011).

In 2010, 60/1000 (6%) women of childbearing age had unplanned pregnancies in Maryland (Guttmacher Institute, 2011). During this same year, 46% of unplanned pregnancies resulted in births, 41% resulted in abortions, and 13% resulted in miscarriages (Heitmann et al., 2016). The federal and state government funded fifty-eight percent of the unplanned pregnancies in Maryland, totaling almost $500 million, compared to the 68% funded nationally (Guttmacher Institute, 2011). At first glance, a large military medical center notes that the rate of unplanned pregnancies is higher than that of the general population it belongs to (Personal conversation, Lamb, S., 2021). Heitmann et al., 2016, confirmed this, noting 229/1000 (23%) were unplanned pregnancies at this military medical facility in women aged 18-25 compared to 162/1000 (16%) in the general population in the same age group, in which it belongs. The cause of this is not the unavailability of contraception but instead having access to contraception. Operational and deployment commitments, access to proper women's health care, transportation issues, and the inability to leave the workspace are a few obstacles preventing this (Heitmann and al., 2016). In
all cases, these barriers have led to the termination of pregnancies, single parenthood, adoption, depression, stress, the financial burden on the individual, state and local government, suicide/homicide ideations, and within the military system, compromise to the unit and mission (Heitmann and al., 2016).

**Specific Aims**

The three aims of this project are to:

1. Promote patient education focusing on correctly and consistently using highly effective contraception and preconception education and care, including emergency contraception strategies to prevent unplanned pregnancy. Provide same-day post-abortion care, education, and contraception.

2. Assess the effectiveness of the walk-in contraceptive clinic by tracking the number of unplanned pregnancies during the 12-week implementation period.

3. Assess the accessibility of the walk-in contraceptive clinic during the 12-week implementation period.

**Review of the Literature**

Evidence supports that barriers that interfere with access to contraception lead to increased unplanned pregnancies among women in the military. The number of women in the military is increasing, as is the prevalence of unplanned pregnancies. More than 400,000 women are active in the military (Hietmann et al., 2016). There has been a considerable increase in unplanned pregnancies among women in the military between 2008 to present. Women of childbearing age represent most women on active duty (Grindlay et al., 2015 & Holt et al., 2011). As women become more embedded in combat and deployable operations, pregnancy and women's healthcare needs with healthy outcomes remain a principal research area (Heitmann et
This review examined literature-related barriers to obtaining access to care and contraception, thus, leading to an increased risk of unplanned pregnancy among active-duty women. No studies identified significant effects on pregnancy outcomes from combat-related exposures or operational deployments. However, several studies addressed the hardships of unplanned pregnancies, access to care and contraception, and continuity of care during military service (Heitmann et al., 2016; DOD, 2011; Adams, 2017; Finer et al., 2014; Goyal et al., 2011; Grindlay et al., 2011 & Holt, et al., 2011).

Increased unplanned pregnancies among less-educated, lower-rank, young, and unmarried military personnel are very concerning. Pregnancy in medially austere areas (combat zone, operational deployment, basic training) is especially worrisome and can result in life-threatening pregnancy complications (Heitmann et al., 2016). In the military, annual medical screenings are prompt to assess risky behavior, discuss contraceptive practices, and ensure preventive health testing compliance (Adams et al., 2017). Therefore, the healthcare provider must be knowledgeable and comfortable discussing and prescribing contraception to decrease the risk of unplanned pregnancies during this assessment (DOD, 2011). Providers' ability and willingness to provide effective counseling and pregnancy prevention education and its impact on active-duty women's perception of contraception access and desire to use needs further research exploration.

Active-duty women reported ambivalent feelings about reckless behaviors with condom use during deployment, combat, and operational environments (Holt et al., 2011). This finding is bothersome given younger ages, lower ranks, lower education, and long-term physical and mental complications that could arise with an unplanned pregnancy (Holt et al., 2011 &
Heitmann et al., 2016). Varying rates of unplanned pregnancies across the different military service branches were noted; future research should explore the reasons for these differences.

Findings from this review provided an agenda for reproductive health, easy access to contraception, and increased unplanned pregnancy research efforts. Annual health screenings and timely follow-up care for military women are essential areas for future research. Studies examining providers' knowledge, comfort, and willingness to explore contraceptive options can decrease unplanned pregnancies among active-duty women. Future research should explore development and testing in areas with limited women's healthcare services and the impact this limitation has on access to contraception and the risk of unplanned pregnancies.

There are some considerable limitations of the literature review. Because of the sensitive nature of premarital sex among active-duty women, research on this subject must rely on individuals' reports of behaviors; however, these reports could be highly biased.

**Transitional Framework – The RE-AIM Model**

The RE-AIM framework was used to effectively implement this intervention (see Figure 1) (Glasgow et al., 1999). This model was the best fit for initial and continuous (future) evaluation of the clinic's impact within the military beneficiary community. RE-AIM offers a systematic approach for planning and evaluating healthcare initiatives and has been widely utilized and accepted as the standard for disseminating findings from public health research, the application of evidence-based intervention, and community-based health promotion programs.

The RE-AIM framework has five distinct components (RE-AIM.org, 2018). The components include Reach, Effectiveness (or Efficacy), Adoption, Implementation, and Maintenance. A core tenet of the RE-AIM framework is that the overall impact of an
intervention results from the cumulative effects of all five dimensions, consistent with systems-based models. This project's scope was to use the RE-AIM framework to establish a baseline evaluation of this newly implemented healthcare initiative. A description of each of the five RE-AIM dimensions follows.

Reach

The *Reach* component targets the participant and delineates the demographics or characteristics of the participants and the population (active-duty women who used the clinic services). By evaluating the demographics, representativeness was evaluated for the participants within the community of interest (Glasgow et al., 1999). This project sought to evaluate the reach component by collecting and analyzing data for the targeted population. The project also sought to identify feedback in terms of any identified barriers and facilitators (ease of access, hours of clinic, ability to obtain necessary information) of the women’s sexual health clinic from the participants.

Effectiveness

The *Effectiveness* component is how the health care initiative improves, in this implementation, decreases a health disparity, or produces the desired health outcome. Recommendations that any adverse outcomes (unplanned pregnancies) be identified and evaluated (Glasgow et al., 1999). This project evaluated the impact of the clinic by analyzing access and utilization of contraceptive services, choice of contraception desired, and patient satisfaction for this newly implemented clinic. Additionally, feedback for future services and suggestions for improvement were solicited from each participant.

Adoption
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The Adoption component addresses the settings where participation occurs and the barriers to participation from clinics/settings/individuals who choose not to participate. Adoption also addresses where the program will be applied and by whom - individually and organizationally (Glasgow et al., 2018). This project aims to evaluate resource allocation (staffing, time, supplies, space, number and type of contraception, and overall patient satisfaction) and patient feedback to evaluate their knowledge of the clinic and the services offered regarding contraception access and education on pregnancy prevention, from a 5W and how perspective, the adoption component answers the where and who – walk-in women’s health clinic used by female military beneficiaries.

Implementation

The Implementation component addresses the evaluation of whether and to what extent a program or protocol meets its intended plan for delivery (Glasgow et al., 1999). Implementation gets at the how questions for the intervention, including the consistency of planning, adaptation, and costs. (Glasgow et al., 2018). The women's sexual health clinic aims to provide easy access to care, including contraception. This project produced a baseline analysis of whether the clinic meets its intended goals, whether easy access to women's health services increased utilization, and whether this project should be implemented at other military medical facilities.

Maintenance

The Maintenance component references the sustainment of behavioral change and is evaluated on the merits of longevity and implies stability and integration as the intervention becomes normal in individual behavior, community standards, and cultural acceptance (Glasgow et al., 1999). The RE-AIM framework further defines maintenance as the degree to which the intervention becomes integral to policies, resource commitments over time, position descriptions,
and even performance evaluations (Glasgow & Estabrooks, 2018). With the recent policy implemented by the Surgeon General of the Navy (Department of the Navy, 2022), mandating that walk-in contraception clinics be implemented at all Navy medical facilities within 12 months from the date the document was signed, June 2022, this project aims to demonstrate its potential for sustainability, integration, and duplication through ongoing access, utilization, and valuable data for future military sites in accordance with the Surgeon General’s new policy. The maintenance component answers the why from a 5W and how perspective.

Figure 1: Translational Framework

Adapted from: http://www.re-aim.org/about/frequently-asked-questions/#validation
Methods

Ethical Review Approval Plan

Ethical review approval for this quality improvement project was obtained from the Johns Hopkins School of Nursing Project Ethical Review Committee and the Institutional Review Board at the project site.

Design

This quality improvement project utilized a systematic pre/post-evaluation intervention. The pre-intervention evaluation was done by pulling retrospective data from the electronic health record in the business office from January – May 2022, and the post-intervention period covered July – October 2022. The retrospective data allowed for the comparison between the pre/post-intervention evaluation.

Setting

The setting for this walk-in women’s sexual health clinic was integrated within the OBGYN clinic at a large Military Medical Center. It was open two half days a week; one women's health provider and one medical assistant staffed the clinic with assistance from the front desk staff. The clinic featured an easy-to-use triage form for screening women for current and desired contraceptive choices; it included a tool to screen for risk factors for contraindications of combined hormonal contraceptives, using the criteria published by the World Health Organization (WHO, 2015).

Participants

This DNP candidate used a sample size of 111. This intervention focused on women on active duty in the military seeking easy access to contraception and who were not ready for pregnancy. Women who were married, already pregnant, or planning to get pregnant were seen
in the clinic but excluded from this project. The setting for this project was the Obstetrics and Gynecology clinic at a large Military Medical Center. Patients evaluated in the clinic sought quick and easy access to pregnancy testing, counseling on contraceptive options, and contraception on a same-day visit.

**Intervention**

The implementation and evaluation of this intervention took place over 12 weeks. Patient-centered strategies were employed to increase access to contraception and reduce unplanned pregnancies, as described in the literature and endorsed by professional practice groups and organizations. The strategies used to advertise this intervention included gaining support from stakeholders (base leadership, facility board of directors, staff from the OBGYN clinic, and the facility’s business office), advertisement (social media platforms, posting flyers, pamphlets, and posters throughout the base) (see appendix A and B), during leadership huddles, secure messaging, attending leadership huddles, and the facility’s call center). Operation PINC: Process for Improvement for Non-Delayed Contraception was used as a framework to implement this clinic (Adams, 2017).

Participants were provided with an informational pamphlet and given the option and instructions on how to download an app for their electronic device, outlining the pros and cons of each contraceptive option. Upon arrival at the clinic, the participant completed questionnaires and screening forms (see appendix C). Participants completed a pregnancy test in the clinic before a same-day visit with the provider. During this visit, and when appropriate, same-day counseling and contraceptive services were offered, and the visit was completed.
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Procedure

The DNP student collected a review of contraception types (LARC: Long-Acting Reversible Contraception and SARC: Short-Acting Reversible Contraception) from the site's pharmacy. Coding information specific to contraceptive CPT and ICD-10 was retrieved from the medical facility’s Business Operations Office. The data collected provided a 3-month baseline (Jan-May 2022) contraceptive utilization and unplanned pregnancy among active-duty women before the implementation of the women's sexual health clinic and was compared with data collected 3-months (July – October 2022) after the opening of the clinic.

A performance tracker (see appendix D) was created and used manually to collect information on patient demographics, service utilization, and types of service provided, i.e., contraception, STI workup, education, pregnancy test, GYN annual exams, postpartum, and post-termination care. This tracker also provided information on resources used (types of contraception), lab utilization, the number of patients seen, and the number of patients turned away, indicating a requirement for increased staff. A standardized anonymous questionnaire was developed for implementation across Navy Medicine walk-in contraception clinics to capture patient satisfaction and was used to evaluate the patient's experience in this project. The forms were collected by the front desk staff and stored in a locked file cabinet. This DNP candidate collected the surveys weekly for three months. A total of 69 surveys were collected.

Instruments

In order to evaluate the effectiveness of the intervention, duplication of previously established measurements by Navy Medicine for accessible access to walk-in contraception clinics was attempted. For this project, considering time constraints, the primary focus for evaluation was the RE-AIM dimensions of reach, effectiveness, adoption, and implementation.
The tenets of *maintenance* will require more time for mature evaluation and will be recommended as a follow-on to this project. Plans to measure impact included clinic access and utilization measures, patient satisfaction, historical rates of contraception usage among demographic groups, and rate of unplanned pregnancy both pre and post-implantation.

**Data Analysis**

All data were analyzed using SPSS version 25. Descriptive statistics analyzed the type of contraception used and the number of unplanned pregnancies. The aims were analyzed using a Chi-square test. The reported p-value determined there was statistical significance between lack of access to contraception and unplanned pregnancy among women in the military.

**Aim 1:** Promote patient education through counseling, focusing on correctly and consistently using highly effective contraception.

**Analyses:** Raw data was entered using SPSS, and descriptive analytics was utilized to determine how many participants were provided counseling and education on contraception options and usage. A pre/post survey captured the patient's understanding of contraceptive choices, proper administration, and side effects.

**Aim 2:** Assess the effectiveness of the walk-in contraceptive clinic by tracking the number of unplanned pregnancies pre and post-clinic implementation.

**Analyses:** The number of unplanned pregnancies was evaluated pre and post-clinic implementation, and mean differences were calculated and analyzed using a Chi-square test. A patient survey assessed this data (Adams, 2017). Historic unplanned pregnancy rates were extracted from de-identified outpatient medical record coding data using the capabilities of the business office analytics staff. This data was filtered and analyzed. A p-value and confidence interval review determined that there was a statistical significance with an alpha set at 0.05.
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Results

Access to the women’s health walk-in contraception clinic services is available to all eligible beneficiaries. For this intervention, data were filtered to include (female only) patients interested in accessing women’s health services, to include contraception services (SARC and LARC). Data were compared between the twelve weeks pre-implementation (January – May 2022) and twelve weeks post-implementation (August – October 2022). Additional discriminators were identified, including military service affiliation (active or non-active duty) and age-group ranges for populations of interest.

Women aged 18-49 were filtered and analyzed for pre and post-clinic implementation contraception utilization. This age range (especially among active-duty servicewomen) is known to be "high risk" for unplanned pregnancies. This high-risk age group was the population of interest for this quality improvement project. Figure 2 displays characteristics of active-duty and non-active-duty female contraception utilization, pre and post-contraception clinic implementation, showing a 38% increase in contraception encounters for active-duty females between the respective 12-week pre and post-clinic implementation. The results demonstrated the critical influence of the walk-in contraceptive clinic population of interest for this project. Most notable were the LARC usage increases among active-duty and non-active-duty females.

An increase in LARC utilization was noted in both patient categories, indicating improved access, acceptability, and utilization of the LARC method by eligible beneficiaries (see figure 2). These data findings were consistent with measures of success for project evaluation, especially in the reach and effectiveness domains.
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## Type of Contraception

<table>
<thead>
<tr>
<th>Patient Category</th>
<th>SARC</th>
<th>LARC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-Clinic/ Post-Clinic</td>
<td>Pre-Clinic/ Post-Clinic</td>
</tr>
<tr>
<td>Active Duty (AD) Military</td>
<td>47/11 (42/9.9)</td>
<td>42/84 (37.8/75.6)</td>
</tr>
<tr>
<td>Non-Active Duty</td>
<td>11/1 (9.9/0.9)</td>
<td>11/15 (9.9/13.5)</td>
</tr>
<tr>
<td>Unplanned Pregnancy</td>
<td>20 (18)</td>
<td>3 (2.7)</td>
</tr>
<tr>
<td>Counseling</td>
<td>90 (81)</td>
<td>111 (100)</td>
</tr>
<tr>
<td>All Women (16-49)</td>
<td>111</td>
<td>111</td>
</tr>
</tbody>
</table>

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**Figure 2:**

*Note: These data represent contraception utilization by type Short Acting Reversible Contraception (SARC) –(Pill, Patch, Nuva Ring, Hormonal Injection, Plan B) and Long-Acting Reversible Contraception (LARC )-(Hormonal IUD, Cooper IUD, and Subdermal Implant). SARC is considered the more ineffective of the two sets of methods commonly used. The patient category also represents unplanned pregnancies in both the pre-clinic implementation (January – May 2022) and post-clinic implementation (August – October 2022). The numbers in parenthesis represent the percentage of SARC vs. LARC contraception used pre and post-clinic implementation.*

Additional analysis was performed on the active-duty population to determine whether there was a statistical significance between contraception utilization and unplanned pregnancy in the population of interest. A chi-square test of independence was performed to evaluate the relationship between LARC selection and unplanned pregnancy. The relationship between these variables was significant, $\chi^2 (1, N = 111) = 9.593, p = .002$. The data supports lack of access to contraception will likely cause an increase in unplanned pregnancies. (See figures 3 and 4).
## LARC Method * Unplanned Pregnancy Crosstabulation

<table>
<thead>
<tr>
<th></th>
<th>Unplanned Pregnancy</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no</td>
<td>24</td>
<td>3</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>yes</td>
<td>84</td>
<td>0</td>
<td>84</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>108</td>
<td>3</td>
<td>111</td>
</tr>
</tbody>
</table>

### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymptotic Significance (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>9.593(^a)</td>
<td>1</td>
<td>.002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity Correction</td>
<td>5.833</td>
<td>1</td>
<td>.016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>8.747</td>
<td>1</td>
<td>.003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td></td>
<td></td>
<td></td>
<td>.013</td>
<td>.013</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>111</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(\(^a\)\) two cells (50.0%) have an expected count of less than 5. The minimum expected count is .73.

b. Computed only for a 2x2 table

*Figure 3.* This figure represents Chi-Square results.
Figure 4. This figure represents LARC selection and its impact on unplanned pregnancy.

The walk-in contraception clinic was accessible Monday and Tuesday mornings from 0800-1200 for 12 weeks. Patient satisfaction data were provided via the anonymous surveys collected from 69 participants of contraceptive services between August 2022 and October 2022. The data showed that the participant was highly satisfied with the clinic. Suggestions to increase the days and hours of operations were expressed in the survey. Patient satisfaction response data are reflected in Figure 5, which illuminates participant responses to yes/no and the range of responses to satisfaction questions. Patient feedback data were considered a vital baseline indicator and suggested overall satisfaction with the walk-in contraceptive clinic’s services.
Patient Satisfaction Survey Responses

<table>
<thead>
<tr>
<th>Questions Asked</th>
<th>Yes</th>
<th>No</th>
<th>Excellent</th>
<th>Good</th>
<th>Sat</th>
<th>Unsat</th>
<th>No answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility Appearance</td>
<td>55</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Employee/Staff Attitude</td>
<td>60</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wait Time</td>
<td>44</td>
<td>22</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I was satisfied with the overall experience</td>
<td>69</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The clinic hours were convenient</td>
<td>63</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The clinic days were convenient</td>
<td>65</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I understood my options</td>
<td>69</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The clinic met my needs</td>
<td>69</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Figure 5. This figure represents the Patient Satisfaction Survey results.

Discussion/Interpretation

The results of this project revealed sufficient findings. The use of contraception, namely LARC, increased dramatically within the active and non-active-duty women. Additionally, high patient satisfaction was confirmed by survey participants and suggested only minimal opportunities for improvement.

Planning for this project was ambitious. Although, retrospective data collection initially proved challenging due to short staff and low priority in the site’s business office. During initial planning for this project, it was anticipated that retrospective data would be immediately available, enabling an analysis of comparison of pre and post-clinic implementation, such as trends and specific utilization of contraception, number of unplanned pregnancies, and the amount of counseling made available to this population. Additionally, it was projected that data retrieved for access to walk-in women's health contraceptive clinics could be fully discriminated from other utilization data. Contraception by age and military duty status, access to and utilization of, and baseline patient satisfaction data was collected consistently during the 12-week implementation period. The analysis of contraception utilization demonstrated a significant increase from pre-implementation compared to data from post-implementation.
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This project identified significant themes from the literature surrounding contraception access and utilization for active-duty women. These themes included increased rates of unplanned pregnancies among women in the military and barriers that impact easy access to contraception. Implementing an easy-access walk-in contraception clinic across military medical treatment facilities has been mandated by the Surgeon General to be initiated within 12 months of the signing of the mandate.

This project systematically evaluated a quality improvement project at a military medical center. Specifically, this project addressed themes identified in the literature by evaluating whether the clinic successfully addressed the gaps and barriers preventing easy access to contraception, thus preventing unplanned pregnancies among women in the military and in accordance with the Surgeon General’s guidance and best-practice literature. Examples of barriers that limit easy access to effective contraception include non-availability of appointments or needing multiple appointments, deployments, conflict with work schedules, and lack of trained or willing providers to support contraceptive services, to name a few. This project successfully eliminated known barriers and reflected successful patient, clinic, and staff outcomes.

The framework chosen for this project was the RE-AIM (reach, effectiveness, adoption, implementation, and maintenance) model, which has been widely utilized and accepted as the standard for disseminating findings from the application of evidence-based intervention, and community-based health promotion programs (Glasgow et al., 1999). The RE-AIM framework helped evaluate the walk-in women's health contraception clinic.

The first dimension of RE-AIM, reach, is targeting interventions that reach the intended population. For this project, the population of interest was high-risk active-duty women who
experienced a higher-than-expected unplanned pregnancy rate. This demographic (especially young, enlisted servicewomen) comprises a significant portion of the eligible beneficiaries at this facility. Although the clinic was open to all eligible female beneficiaries, women who desired to get pregnant and desired services other than contraception were not included in the project's data.

Effectiveness identifies the degree to which the targeted intervention achieved a desired outcome. This project's effectiveness was demonstrated. The easy-access women's health clinic was established to reduce barriers to contraception and sexual health services, decreasing unplanned pregnancies. Increased utilization of contraception services by the population of interest revealed demonstrable effectiveness. Additionally, patient satisfaction data illustrated high patient satisfaction with the clinic's baseline services. Retrieved data indicated that the patient, more than likely, learned about the walk-in contraceptive clinic from the site's social media platforms, posters and pamphlets posted throughout the base and within the hospital, secure messaging, messaging from the call center, and word of mouth. These findings suggested that the clinic's success has been enhanced by acceptance and support from internal and external stakeholders (base leadership, hospital leadership, and staff) and patients.

Adoption is the level at which the population of interest accepts and utilizes an implemented intervention. In this case, the easy access walk-in women's health contraceptive clinic. Data analysis has indicated that there has been successful adoption of this project during the first twelve weeks of implementation. Improvements in contraception use and type suggest that the clinic's service is acceptable to patients and staff.

The final dimensions of the RE-AIM framework are implementation and maintenance. The implementation helps identify other sites that can benefit from this intervention and maintenance identify ways to successfully maintain the intervention, with the mandate set forth
by the Surgeon General that all military medical facilities will initiate a walk-in contraception clinic within the next 12 months, ensuring that there will be implementation and maintenance across the military medical treatment facilities.

**Conclusion**

To address the increased rate of unplanned pregnancies among women in the military, especially during a deployment or operational assignment, a walk-in contraceptive clinic addressing these concerns was implemented at a large military medical center. The well-established RE-AIM framework was used to accomplish this implementation's success. This framework was consistent with evidence-based, patient-centered models already established and used at other military medical sites. The commitment of the stakeholders, implementation team, organizational mentor, healthcare business office, and ancillary support teams assisted in eliminating barriers and resulted in quantifiable outcomes, including easy access to care, improved delivery of best-practice, evidence-based contraceptive services, to both active duty females and other eligible beneficiaries, leading to a decrease in the number of unplanned pregnancies at the project site. An analysis of historic contraception usage and post-implementation utilization demonstrated a successful impact among women in the military and a high acceptance rate among base leadership and medical staff.

In summary, one unplanned pregnancy can potentially jeopardize mission readiness and success. The U.S. national defense strategy prioritizes military operational readiness as the most critical variable in our military mission set. This quality improvement project addressed the importance surrounding easy access to contraceptive resources. The project results successfully targeted the contraceptive needs of active-duty women, thus addressing the increased rate of unplanned pregnancies among the female population at this military medical facility.
**Dissemination**

The military medical facility where this quality improvement project was implemented will continue to provide walk-in contraceptive service to all female military beneficiaries needing women's healthcare. The site is currently in the process of training more personnel to sustain this project.

Findings from this project will first be shared with leadership, stakeholders, and staff via a formal presentation. Additionally, the results will be shared with other Department of Defense and Federal Government medical sites via the Strategic Performance Improvement Data Repository (SPIDR), a government database where successful process improvement projects are shared for replication. To further support implementation of this project, this DNP candidate was selected to visit different military medical sites and assist with implementing walk-in contraception clinics in accordance with the Surgeon General's mandate of July 2022. Additionally, the findings of this process improvement project will be submitted for publishing in the Journal for Military and Veterans' Health.

**Sustainability**

Ongoing evaluation of the walk-in contraceptive clinic services is recommended. This will enable the military medical facility to continue supporting the women's health and contraceptive needs of the active-duty female population associated with this site, consistent with current evidence-based recommendations.

Following continuous process improvement and quality assurance recommendations, the walk-in contraception clinic will continue to be assessed and revised to fit the growing and ever-changing needs of the population it serves. Data collected from similar military medical facilities, coupled with the mandated guidelines of the Surgeon General to establish walk-in
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contraceptive clinics across all military medical facilities, has increased the opportunity for this project to be expanded with the potential to demonstrate improvement in access to women’s health care and contraception needs, thus showing a decrease in the rate of unplanned pregnancies among active-duty women.
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References


https://doi.org/10.7205/MILMED-D-17-00083

Defense Health Agency (DHA), 2022. Walk-in contraceptive services required at hospital and clinics. Retrieved February 22 2023, from:


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initiatives in community and clinical settings. *Preventing Chronic Disease, (15)*E02. doi: 
https://doi.org/10.5888/ped15.170271

1. doi: 10.1016/j.ajog.2011.11.018, retrieved from:
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3361625/#R37

https://doi.org/10.1016/j.contraception.2015.07.015.


Lamb, S. (2021). WRNMMC Senior OBGYN.


Appendix A:

Walter Reed National Military Medical Center
Walk-In Contraceptive Clinic
Addressing Sexual Health & Wellness for Women

Services Available:
⇒ Contraceptive Counseling
⇒ Prescriptions & Renewals
⇒ Birth Control Pills
⇒ Condoms
⇒ Intrauterine Device (IUD) Insertions & Removals
⇒ Depo-Provera
⇒ NEXPLANON® Insertions & Removals

OB/GYN Clinic: 301-319-5000

Hours of Operation:
Mon-Tues: 08-1500

A same day walk-in clinic for family planning services, providing immediate contraception and contraceptive counseling.

Open to all beneficiaries

To download the “decide + be ready” app on your iPhone or iPad, go to the Apple App Store, type it in, and download
WRNMMC Announces Opening of the Sexual Health and Wellness Walk-in Clinic

**Walter Reed National Military Medical Center Bethesda**- WRNMMC is proud to announce the grand opening of our Sexual Health and Wellness Walk-in Clinic on September 1, 2022. Located OB/GYN Clinic, the clinic is open to all beneficiaries (both active duty & civilian) in need of women’s health services (birth control services and treatment of Sexually Transmitted Infections (STIs).

**This is a walk-in clinic, no appointments are necessary!**

The clinic is open every daily from 0800-1500 and offers a variety of same-day services:

- Birth Control Pills (prescriptions/refills)
- IUD Insertions
- Nexplanon
- Depo Provera
- Emergency Contraception
- STI Testing & Treatment
- PrEP (HIV Pre exposure Prophylaxis)
- Sexual Health Counseling
- Condoms

To find more news and information about Naval Health Clinic Lemoore, visit our web page at [https://www.med.navy.mil/sites/WRNMMC/nhcl/Pages/default.aspx](https://www.med.navy.mil/sites/WRNMMC/nhcl/Pages/default.aspx) or our official Facebook page at [www.facebook.com/WRNMMC/](https://www.facebook.com/WRNMMC/)
Appendix C:

Walk-In Contraception Clinic Patient Feedback

Please circle one option for the questions below:

Did the walk-in contraception clinic meet your needs?  Yes  No
Did you understand your options for contraception?  Yes  No
Were the clinic days convenient?  Yes  No
Were the clinic hours convenient?  Yes  No
Were you satisfied with your overall experience?  Yes  No

Please circle one option for the topics below:

Wait Time  Excellent  Good  OK  Poor  Awful  N/A
Employee/Staff Attitude  Excellent  Good  OK  Poor  Awful  N/A
Facility Appearance  Excellent  Good  OK  Poor  Awful  N/A

Please provide as much detail as possible for the questions below:

How did you hear about the walk-in contraception clinic?

Do you have any suggestions for changes or improvements to the walk-in contraception clinic?

Would you like to recognize military and/or civilian clinic personnel for providing outstanding service?

Do you have additional feedback you would like to share?

Thank you for your feedback!

Appendix D:

Walk-in Contraception Performance Tracker

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<th>SARC</th>
<th>Emergency Contraception</th>
<th>Weekly Total</th>
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<td>Nexplanon Insertion</td>
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<td>OCP, Patch, Ring, Depo</td>
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