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# Barriers to access and use of contraception in military and Veteran personnel

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**Amendments -** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 18 February 2025 and was last updated on 18 February 2025.

## INTRODUCTION

**Review question / Objective** This scoping review aims to identify, map and appraise existing evidence on short/long-acting reversible contraception and menstrual suppression in women Veterans and military personnel. Specific objectives are:
1- To investigate the barriers to access and the use of short/long-acting reversible contraception and menstrual suppression in women Veterans and military personnel in different contexts, including domestic home-base settings, international postings and deployed military environments;
2- To identify the factors influencing women Veterans and military personnel's choices between the different contraceptive methods.

**Background** Reproductive health, including care for menstruation, pregnancy, fertility, and sexual health, is essential for operational readiness and long-term health of servicewomen and Veterans. Military service provokes different motivations for accessing contraception compared to civilian populations, such as career implications due to pregnancy, barriers to accessing abortion services for unintended pregnancy, or managing menstruation in austere environments.1-14 Servicewomen face unique challenges in access and use of contraception and menstrual suppression due to the nature of military related factors including deployment, postings in different countries, field exercises, and healthcare system infrastructure. Given that most military organizations have health systems separate from the services provided to civilians, contraceptive choice and availability may not be optimal for the individual's needs.

Servicewomen are thought to gravitate towards these contraceptive types to control or stop menstrual bleeding.4,5 Data from the United States (US) suggests that oral contraceptive use is more prevalent among military personnel (34%)

compared to the general population (29%).4 In contrast, 31% of servicewomen from the United Kingdom (UK) have a prescription for a hormonal contraceptive, which is similar to the British general population (34%).5 The data from a recent self-report survey suggests hormonal contraceptive use among the Canadian Armed Forces to be substantially higher, with 76% indicating they currently 'use hormones for birth control'.6

The types of contraception used by servicewomen is a paramount point of discussion as each method can have positive or negative effects on the individual's health and medical history should be considered. Poor bone health and mental health outcomes for example are common among female military members and are risks associated with certain contraceptive methods.10,11,12,13 Unfortunately, it remains unclear if counselling by health professionals is provided to servicewomen seeking contraception or if symptom monitoring occurs to ensure this appropriate method is supplied to the member.

In 2008, a study carried out by the US Navy identified several challenges of oral contraceptive use among military personnel including ineffective training (i.e., contraceptive options, dosage, side effects) for servicewomen and user adherence.14 The outcomes described in this study include barriers in successful use of contraceptives, discrepancies between recommended use and actual use, as well as unintended pregnancy and sexual transmitted infection transmission.14 This is concerning as unintended pregnancy, including conception achieved when contraception is used incorrectly, occurs at a disproportionally higher rate among military personnel and several factors limit access to abortion in military contexts (i.e., policy limitations, deployment in countries where abortion is illegal, lack of medical leave, financial costs, stigma, career implications, permission from chain of command).15 Further, barriers in obtaining contraceptives pre-deployment have also been identified lending support to arguments advocating for increased accessibility of long-acting methods. Yet, in several military services, it appears that oral contraceptives remain the sole option provided to servicewomen.16 The testimony provided by Veterans, researchers, healthcare providers, and Department of National Defence (DND) leadership presented at the Parliament of Canada House of Commons Standing Committee for Veterans Affairs, strongly suggests improvements for female-specific medical care, including healthcare personnel education on contraceptives, is needed.

There is a growing body of evidence examining the use of contraceptives in military environments, a comprehensive review of the literature is needed to assess the knowledge base in this area. This literature review will provide a much-needed start point for service members, clinicians, researchers, and policy makers who support active-duty service members and Veterans.

**Rationale** This review responds to an urgent need to map the evidence and gather information about the barriers to accessing and using short- and long-acting reversible contraception use in women military personnel and veterans. By identifying and analyzing these barriers—ranging from logistical and healthcare system challenges to cultural, regulatory, and psychosocial factors—the review aims to support informed decision-making and improve healthcare services within military contexts. It will also explore the factors influencing contraceptive choices, such as deployment requirements, personal health considerations, and the availability of healthcare support, to ensure that women's reproductive health needs are met with personalized, evidence-based care. Addressing these barriers requires a comprehensive approach that includes enhancing healthcare infrastructure, improving education and awareness, developing supportive policies, and fostering a military culture that prioritizes the reproductive health and wellbeing of all service members. By summarizing best practice guidelines and developing educational tools, this review will contribute to the enhancement of military health policies and practices, ultimately improving the quality of life and operational readiness of female service members.

## METHODS

**Strategy of data synthesis** This scoping review will be conducted following the Joanna Briggs Institute (JBI) methodology for scoping reviews and reported in accordance with Preferred Reporting Items for Systematic Reviews and Meta Analyses Extension for Scoping Reviews (PRISMA-ScR) guidelines. A scoping review design was selected because it has been suggested to be the optimal approach for providing a comprehensive overview of the literature (i.e., empirical research and grey literature [e.g., policy and government reports]), unlike a systematic review design, which is intended to focus on a specific question. The Participant-Concept-Context (PCC) framework will be used as recommended for scoping reviews.

**Eligibility criteria** Participants: Studies will be included if they involved women* (*see

specification section Other relevant information) military personnel or veterans. Studies will be excluded if they involve minors.

Concept
Literature will be included if it investigated the barriers to access and use of contraception and menstrual suppression in women Veterans and military personnel in different contexts, namely domestic home-base settings, international postings, and deployed military environments. The multifaced aspects of barriers to access and the use of contraceptive and menstrual suppression methods will be investigated (including, but not limited to):
1) Logistical and accessibility challenges (limited supplies of the products in remote and isolated locations, disrupted access to healthcare services, including contraceptive prescriptions/refills and medical follow-up);
2) Healthcare system constraints (limited availability of providers trained in reproductive health as well as inconsistent care leading to inconsistency in services and information provided);
3) Cultural and organizational barriers (stigma and misconceptions surrounding the use of contraceptives, lack of privacy and confidentiality, religious or cultural beliefs within the military community discouraging contraceptive);
4) Knowledge and education gaps (lack of awareness and inadequate education about the different types of contraceptives available, how to access them through military healthcare systems and how to use them properly);
5) Regulatory and policy barriers (restrictions on the types of contraceptives that can be prescribed or dispensed, particularly in deployed settings as well as insurance/coverage under military health plans, creating financial barriers for service members seeking specific options);
6) Psychosocial and personal factors (fear/ concerns about side effects);

Literature will be included if it assessed the factors influencing the choice of contraceptive/menstrual suppression methods among women Veterans and military personnel will entail:
A) Operational requirements and transferability from domestic to deployment (e.g. convenience and low maintenance option favouring duration of effectiveness without the need for daily attention, making them suitable for unpredictable and demanding operational environments);
B) Desire for menstrual suppression (i.e. method providing menstrual interruption to avoid the challenges of managing menstrual hygiene in austere or combat environments where privacy and sanitary facilities may be limited or to prevent menstrual-related symptoms like cramps, which can affect physical performance and comfort during military activities);
C) Medical history and conditions (e.g. personal health issues such as migraines, hypertension, depression, osteoporosis, or a history of blood clots may influence contraceptive choices. Certain contraceptives might be contraindicated for individuals with specific medical conditions);
D) Side effects and tolerability (potential side effects such as weight gain, bone mineral density, mood changes, or decreased libido may be significant factors in decision-making);
E) Access to healthcare and support (availability of contraceptive options and access to medical personnel for consultation and follow-up in confidentiality);
F) Personal preferences (e.g. how the method fits with their lifestyle routines, time zone changes, personal preferences, sexual health, and relationship dynamics);
G) Reproductive goals and family planning (e.g. desire for future pregnancy and timeline);
H) Mental health factors (i.e. women may choose or avoid certain contraceptives based on their perceived impact on mood and mental health);
I) Cost and insurance coverage (e.g. cost considerations may still influence choices, especially for women veterans who might transition to different insurance plans post-service).

Context
There will be no restriction in terms of research and data collection setting, geographical location and languages given the language profile of our research team (e.g. English, French, Spanish, Portuguese, Polish, Turkish, German, Etc.).

## Source of evidence screening and selection

Types of sources
This scoping review will consider a variety of study designs, including randomized controlled trials (RCTs), non-RCTs, and before-after studies. In addition, analytical observational studies, including prospective and retrospective cohort studies, case-control studies and analytical cross-sectional studies will be considered for inclusion, as well as descriptive observational study designs, such as case series, individual case reports, and descriptive cross-sectional studies. Reviews, clinical guidelines and qualitative studies will also be included for reference snowballing. Grey literature, including government reports or military documents, will be included.

After implementing the search strategy, all retrieved texts will undergo an initial title and

abstract screening with consensus achieved by two reviewers. Disagreements will be resolved by a third reviewer. Included texts will then undergo full-text screening, inclusion or exclusion will again be determined by two reviewers, disagreements to be resolved by a third reviewer. Included texts will undergo data extraction by 2 independent reviewers. The two extractions performed for each article will be consolidated for the final report.

**Data management** For data extraction, two independent individuals will extract relevant information from the full texts, including the study design, study sample, subject demographics (military occupation specialty and military nation), treatment details, data collection time points, outcome measures, dropouts, and findings using a data extraction tool developed by the team. Disagreements will be resolved by consensus, and a third reviewer will be involved when needed (MM).

**Reporting results / Analysis of the evidence**
N/A.

**Presentation of the results**
N/A.

**Language restriction** There will be no restriction in terms of languages given the language profile of our research team (e.g. English, French, Spanish, Portuguese, Polish, Turkish, German, Etc.).

**Country(ies) involved** The affiliated institutions conducting this review are in Canada and the United Kingdom. Articles from all countries will be included in this review.

**Other relevant information** This study aims to map the evidence regarding contraceptive use among servicewomen. This review will target adults with no maximal age limit, of all races, indigeneity, and family status. Studies investigating individuals with a female biological sex regardless of their gender identity and sexual orientation will be included. To simplify our proposal, the term "women" is used throughout our application. However, our proposal aims to be inclusive considering the non-binary aspect of gender identity and sexual orientation. By incorporating an intersectional approach, we aim to collect all relevant data about contraceptives, sex, race, ethnicity, indigeneity, and gender to enrich the interpretation of the findings. Where possible, sub-group analysis and interpretation will be conducted.

**Keywords** Army, Navy, Air force, military, Marine, Coast Guard, National Guard, Astronaut, Veteran, contraception, contraceptive, women's health, sexual health, pregnancy, healthcare.

**Dissemination plans** Knowledge mobilization (KMb) will involve a diverse complement of KMb activities to reach varied knowledge users, including podcast discussions on key findings, digital stories to raise awareness, hosting briefs (virtual and on bases), webinars and roundtable sessions with decision-makers and sharing crucial insights via social media platforms. In addition, accessible knowledge products (e.g., algorithm, infographics, podcasts) will be designed based on the review findings as well as with best practice guidelines available in the general population and other relevant groups (i.e. women athlete, women in low-resources settings). Moreover, utilizing technology and social media allows us to disseminate accessible information to key stakeholders. Additionally, we will engage community-based KMb, sharing results with military personnel Veterans, and stakeholders.

**Contributions of each author**
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