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ASSISTANT DEPUTY MINISTER (DEFENCE RESEARCH AND DEVELOPMENT CANADA)

Emerging technology snapshot Military women's health research

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Military service is associated with unique physical and mental health issues and women are at higher risk compared to servicemen. With an increasing number of women serving in the military, gaining a robust understanding of military women's health (MWH) research is key to providing preventive and curative care and to supporting the development of evidence-based practices that protect servicewomen.



Photo: Corporal Jordan Lobb, Canadian Forces Joint Imagery Cer

Enabling Science and Technology

Musculoskeletal (MSK) injuries

Workplace injuries disproportionately affect military women, especially during training. MSK injuries are one of the rare MWH research areas with a significant body of evidence. Recent research found that hip extensor muscles play a critical role in women running with a load carriage. Such mechanical determinants should be further studied and used to optimize female military training.

Post-traumatic Stress Disorder (PTSD)

Women are not more vulnerable to stressors – or even to combat-related stressors – than men, but they are more than twice as likely to develop PTSD. Finding the actual biological sex-related factors involved in PTSD and analyzing the role played by environmental and social factors, such as sexual assaults, is important to improve prevention and care.

Reproductive health

Military women face unique health risks relative to reproductive health including infertility risks, increased risk of hysterectomy and sexually transmitted diseases.

Pelvic and urogenital health

Active duty women (ADW) encounter unique challenges in urogenital health, including hazardous exposures, unpredictable and demanding schedules and difficult field settings. Urinary incontinence and urinary tract infections are significantly more common in servicewomen (compared to servicemen) and current care may be associated with negative health consequences. Very little research is published in the field.

Mental health

Research is still embryonic in many important military women's mental health issues such as sleep, adjustment disorders, personality disorders, etc. Eating disorders is the only topic with an increased publication count since 2017.

"Canadian women veterans appear to face different mental and physical issues than their male counterparts and women in the Canadian general population, but these gendered issues are understudied."

Poole MN. <u>Women Veterans of the</u> <u>Canadian Armed Forces and Royal</u> <u>Canadian Mounted Police: A scoping</u> <u>review</u>. Journal of Military, Veteran and Family Health. 2021;7(s1):6-18.



Signals

Academic



Renowned American medical research universities are among the organizations

publishing the most in MWH.

Collaboration



The US Veterans Affairs (US VA) is the organization publishing the most in MWH followed by the

US Department of Defense (DoD). Together, they account for half the 2017-2022 MWH publications, but they rarely co-published. The US VA's women's health research portfolio is a priority for the organization.

Government



In 2022, the Government of Canada awarded the Canadian Armed Forces (CAF) with a large budget

envelope to increase their capacity to be more responsive to servicewomen.

Defence



The two main MWH collaboration networks are led by the US VA and the US DoD. The University of

Toronto, University of British Columbia and the University of Manitoba collaborated with the US VA. Canada's Department of National Defence's main collaborators in MWH are: University of Ottawa, Veterans Affairs Canada and Queen's University. "Several study participants [i.e. CAF servicewomen] noted that they, and other women, did not receive equitable care or treatment because their bodies did not conform to the male norm. [...] Gender neutrality manifests as gender blindness and, as such, negatively affects women's health and well-being."

Eicher M. <u>Making military and Veteran</u> women (in)visible: The continuity of gendered experiences in military-to-civilian transition. JMVFH, 2022.

Impact



Social

Social support, a key variable in men and women's health, is an emerging research area in MWH. So far, it is the only known protective factor for military women's mental health. Unfortunately, military women tend to have weaker social support than men.



Policy

A recent RAND report recommends that the US DoD shift its mental health efforts away from substance abuse programs designed for servicemen and toward PTSD, suicide and depression.

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Economic

Research gaps in MWH and the insufficient implementation of research findings are detrimental to military women. They also increase the burden of disease and healthcare costs for defence health systems.



Defence

Many defence organizations want to increase women's recruitment and retention. The CAF has the mandate to increase the representation of women to 25% by 2026. Better MWH is key to increasing women's recruitment and retention. "Decades of findings and recommendations concerning ADW's health has not led to sustained improvements. [...] Significant best practices to improve ADW's health already exist in isolated locations and commands. Initiatives to improve women's health should be implemented proactively using a lifecycle perspective."

US Defense Health Board. <u>Active Duty</u> <u>Women's Health Care Services Report</u>. 2020.

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Please provide feedback

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Lethiecq-Normand, M. Scientometric Study on Military Women's Health. September 2022.

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