



## UNSUPPORTED CORE: INADEQUATE POST-PARTUM CONSIDERATIONS FOR CANADIAN ARMED FORCES WARFIGHTERS

Major Geneviève Landry

### JCSP 49

#### Exercise Solo Flight

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**UNSUPPORTED CORE: INADEQUATE POST-PARTUM CONSIDERATIONS  
FOR CANADIAN ARMED FORCES WARFIGHTERS**

**Major Geneviève Landry**

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**NOTES :**

- This paper is using the word post-partum women in reference to CAF members who have had children. Author is aware that some members may not identify with this gender or have transitioned. This paper also covers them. This paper is aimed at CAF members who will or have delivered children.
- This paper will be focussing on the female/women version of issues. We are aware that men also have pelvic floors and can have issues however that is not covered in this paper and not related to this study as they do not function the same way.

## UNSUPPORTED CORE: INADEQUATE POST-PARTUM CONSIDERATIONS FOR CANADIAN ARMED FORCES WARFIGHTERS

*For millennia, medicine has functioned on the assumption that male bodies can represent humanity as a whole. As a result, we have a huge historical data gap when it comes to female bodies, and this is a data gap that is continuing to grow as researchers carry on ignoring the pressing ethical need to include female cells, animals and humans, in their research. That this is still going on in the twenty-first century is a scandal. It should be the subject of newspaper headlines worldwide. Women are dying, and the medical world is complicit. It needs to wake up.*

*-Caroline Criado-Perez<sup>1</sup>*

### INTRODUCTION

Since 2001, all genders have had access to all trades and opportunities in the Canadian Armed Forces (CAF). As with all cultural evolutions and transformations, the shift rarely happens overnight. The system, the organization's culture, vision and its members must evolve, which can take time. The CAF is not immune to this problematic transition phenomenon. Most large-scale changes within the CAF itself have not occurred due to the growth or awakening of the organization but were forcefully thrust into the change by an outside force. From the human rights commission in the 1980s forcing the subject of women in the CAF, the report in 2015 on sexual misconduct and the 2017 follow on Arbor report, to name a few, all have been accompanied by a wave of public scrutiny and media frenzy shining light on the shortfalls of the organization and thus forcing it into a change that it would not organically have made.

Inadequate post-partum assistance for Canadian Armed Forces members, coupled with discriminatory regulations that fail to take account the unique needs and experiences of women in the military, highlights systemic obstacles that require effective resolution to ensure the successful integration of women into the future combat force of Canada's warfighting enterprise. This paper will address issues specific to women's post-partum health that the CAF currently ignores in policy, including its universality of service and the Fitness for Operational Requirements of Canadian Armed Forces Employment (FORCE) test. To be successfully integrated members, women must be allowed to thrive.

Through analysis of current research, gender-specific data gaps, and failures to implement proper Gender-Based Analysis plus (GBA+), this author will examine pressing matters with women's physical health, such as Pelvic Floor Dysfunction (PFD) leading to Pelvic Organ Prolapse (POP), Urinary incontinence (UI) and pelvic pain. Firstly, a historical snapshot, a review of GBA+ and the current requirements of Universality of Service (UoS) and FORCE evaluation will paint the current requirements in the CAF. Secondly, a look at the CAF goals of 25% women by 2026 & current

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<sup>1</sup> Criado Perez Caroline Criado Perez, Inc OverDrive, and OverDrive ebook, *Invisible Women: Data Bias in a World Designed for Men*, Book, Whole (New York, New York: Abrams Press, 2019). P.310

retention issues as reasons for the importance of successful integration. The paper will then bring forward up to date research, nationally and internationally, on female specific health requirements, in general and post-partum, in relation to fitness in the CAF. Subsequently, it will demonstrate that these current policies and procedures will continue to further harm the CAF's strongly integrated future fighting force. Finally, this paper will provide options to resolve these issues successfully.

## BACKGROUND

Historically speaking, women have long had a role of other or less than in comparison to men in society. Though societies handled this differently, a pattern of having fewer rights and being less important for women can be discerned. During the SWINTER trials Captain Parks noted that “The military has traditionally been the last organization to accept social change. I believe this will be the case with females.”<sup>2</sup> Canada is no different in this historical past. However, changes in the stature of women and their rights have taken leaps forward at various times. In Canada, a few significant occurrences have pushed forward the right to safety, security, and involvement in peace.

On 16 Feb 1967, Lester B. Pearson directed the Royal Commission on the Status of Women in Canada “to inquire into and report upon the status of women in Canada, and to recommend what steps might be taken by the Federal Government to ensure for women equal opportunities with men in all aspects of Canadian society ...<sup>3</sup>. For many this was the beginning that sparked the changes necessary for the integration of women into the CAF. One of the important outcomes was that along with having equal rights, women and men also have a shared responsibility within Canada. This opened the door to women having access to the military as a career. However, there were still many obstacles in the way to complete integration. The follow-on change was brought about by the Canadian Human Rights Act (CHRA) in 1978. This decreed that all individuals have:

... an opportunity equal with other individuals to make for themselves the lives that they are able and wish to have and to have their needs accommodated, consistent with their duties and obligations as members of society, without being hindered in or prevented from doing so by discriminatory practices based on ... sex, sexual orientation, marital status...<sup>4</sup>

This combination of shared responsibility and inability to discriminate against individuals for employment opportunities and more created the impetus that forced the Canadian Armed Forces into requiring integration of women into the CAF. However, in an attempt

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<sup>2</sup> Captain R.E. Park, Results of Final Social/Behavioural Science Data Collection for the SWINTER Land Trial. Technical Note 2/85 (Canadian Forces Personnel Applied Research Unit: Willowdale, ON, February 1985), 19-20.

<sup>3</sup> Royal Commission on the Status of Women in Canada, Report of the Royal Commission on the Status of Women in Canada (Ottawa: Information Canada, 1970), vii

<sup>4</sup> Canadian Human Rights Act, R.S. 1985, C. H-6, s. 2 (1985).

to appease the government, though without fully adopting the direction, the CAF moved to a series of trials concerning women in the CAF.

Named the Servicewomen in Non-Traditional Environments and Roles (SWINTER) Trials, its aim was to estimate the “human consequences, if any, of introducing servicewomen into previously male roles and environments.”<sup>5</sup> Versions of these trials were conducted across CAF elements running between 1980-1985. While the military did delay integration of women in the CAF through the various trials and tests, the Canadian Human Rights Tribunal (CHRT) passed a ruling on 20 February 1989 that “was the final and ultimate direction to the CF which forced gender integration upon the military without exception.”<sup>6</sup>

Though the CAF has made progress in including women in the forces, some gaps are shockingly visible. Previous papers have strived to bring focus to these topics. Though much of the discussion revolves around the culture in the forces, a significant unacceptable gender data gap is found in the health care provided to women in the CAF, specifically when it comes to post-partum care. Interestingly, in 2022, data analysis on releases found that “medical attrition has been higher for women”<sup>7</sup> There are still systems in the CAF that are not being updated or analyzed through a Gender Based Analysis lens. A critical requirement for being an armed forces member is maintaining their universality of service, including the FORCE test. This piece of the system is not inclusive of women's health needs. The CAF wants to continue strengthening its ranks to operate a fully integrated fighting force. In that case, it needs to examine current policies that are too general and serve only a portion of its workforce, creating a culture of *have vs have-nots* and *important vs lesser members*.

## **Women, Peace and Security**

In 2000, the UN voted on UNSCR 1325 on Women, Peace and Security. The realization of the importance of women on deployed operations and the advantages that having these members as part of deployed operations allows for more holistically complete solutions to conflicts. Women comprise 50% of the world's population and are critical in developing and sustaining peace.

The importance of gender factors in current and future Peace Security Operations (PSO) to allow sustainable peace processes is critical. Ambassador Melanne Vermeer states that “The prevention of conflict, the protection of human rights, and the promotion of peace and security worldwide cannot be achieved without the full and equal

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<sup>5</sup> Department of National Defence, National Defence Headquarters Instruction – Deputy Chief of Defence Staff 13/79, The Trial Employment of Servicewomen in Non-Traditional Roles and Environments (Ottawa: National Defence Headquarters, December 1979), 3.

<sup>6</sup> MacLean, Rhea. “Equal but Unfair: The Failure of Gender Integration in the Canadian Armed Forces.” CFC. 2017. p.42

<sup>7</sup> DND “Deep Dive into Women in the CAF August 2022.” ..Pdf, Slide show, n.d.

participation of women."<sup>8</sup> The UN directs through UNSCR 1325 and other documents that the way forward in successful peace operations lies in women's full and equal participation.<sup>9</sup> <sup>10</sup> To be clear, the visibility of women in operations is critical and a force multiplier for success.<sup>11</sup> As a signatory to this resolution, Canada commits itself to use gender balancing and gender mainstreaming efforts within its organization to construct its desired Peacekeeping force.

### Gender-Based Analysis +

What is GBA+, and why is it so crucial for the CAF? GBA It provides direction to ensure that the CAF analyses all impacts, for persons of all genders, in its development of "when policies, programs and legislation are developed."<sup>12</sup> GBA+ was implemented partly to remind "all decision makers that policies must be assessed through a feminist lens, based on all identity factors, such as gender, race, ethnicity, religion, age, sexual orientation and ability."<sup>13</sup> We are reminded in the GoC's approach to GBA+ that if we cannot implement this process correctly, we "risk developing policies and initiatives that can inadvertently increase inequalities."<sup>14</sup> However, this only works if GBA+ is appropriately applied and executed and reports are available. Currently, members trying to get GBA+ reports from the organization can usually not obtain them quickly as there is no central repository, which leads to doubt in members' minds about whether they were completed.

The Government of Canada (GoC) started implementing GBA in 1995 following recommendations from the United Nations (UN) Women Peace and Security (WPS) at the UN Beijing Platform for Action. It moved in earnest when it developed the Canadian National action plan listing the various departments, including DND/CAF, as one of its partners. It was not until 2016 that the CDS provided clear guidance to the CAF implementation of GBA+ in the form of the *CDS Directive for Integrating UNSCR 1325<sup>15</sup> and Related Resolutions into CAF Planning and Operations*. It clearly states that "The CAF will fully integrate the requirements of Canada's National Action Plan on the Implementation of UNSCR 1325 and related resolutions, and GoC direction on GBA+,

<sup>8</sup> Robert Egnell, Mayesha Alam, and Melanne Verveer, *Women and Gender Perspectives in the Military: An International Comparison* (Washington, UNITED STATES: Georgetown University Press, 2019), <http://ebookcentral.proquest.com/lib/cfvlibrary-ebooks/detail.action?docID=5612868>. P.vii

<sup>9</sup> UN. *Resolution 1325* (2000)

<sup>10</sup> Robert Egnell, Mayesha Alam, and Melanne Verveer, *Women and Gender Perspectives in the Military: An International Comparison* (Washington, UNITED STATES: Georgetown University Press, 2019), <http://ebookcentral.proquest.com/lib/cfvlibrary-ebooks/detail.action?docID=5612868>. P.vii

<sup>11</sup> Colonel Clark H Summers and U S Army Reserve, 'Women: The Combat Multiplier of Asymmetric Warfare', *MILITARY REVIEW*, 2013.

<sup>12</sup> <https://www.canada.ca/en/immigration-refugees-citizenship/corporate/publications-manuals/departamental-plan-2020-2021/gender-based-analysis-plus.html> accessed 20 Apr 2023

<sup>13</sup> Canada's Action Plan for the Implementation of United Nations Security Council Resolutions on Women, Peace and Security - 2017-2022

<sup>14</sup> GOC. Government of Canada's approach on Gender-based Analysis Plus. <https://women-gender-equality.canada.ca/en/gender-based-analysis-plus.html> accessed 20 April 2023.

<sup>15</sup> UN. *Resolution 1325* (2000)

into CAF planning and operations by 31 Aug 17, and into the wider CAF institution by 31 Mar 19."<sup>16</sup>

## FORCE TEST & UNIVERSALITY OF SERVICE

To remain a member of the CAF, members must meet specific requirements under the universality of service.<sup>17</sup> These basic requirements ensure a certain level of fitness, an ability that applies to all members uniformly across the CAF. If a member cannot confirm/accomplish all aspects of this document, they are released. Often this is seen through a medical release. One of the basic tenets of the UoS is the annual completion of the FORCE test.

The FORCE evaluation is used to assessment of physical fitness within the CAF.<sup>18</sup> It does not modify standard for age, sex or trade. Currently this evaluation consists of 4 timed events: Sandbag lift; Intermittent loaded shuttles; 20-m rushes; and Sandbag drag.<sup>19</sup> This evaluation is based on the Common Military Tasks Fitness Evaluation (CMTFE)<sup>20</sup> which is currently the standard basis of Canadian military fitness requirements to serve, tied into the UoS.

This author is not saying in any way that members do not have to be physically fit or operationally capable of certain things to be operationally ready members of the organization. Just the opposite is being presented. The current issue is that the fitness or operationally able requirements of the FORCE test are unacceptably inherently biased and cause potential unnecessary physical repetitive damage to an essential section of its members. In 2013, when the CAF moved to the FORCE test instead of the Express test, it did so due to perceived reverse discrimination towards males due to lower female fitness requirements.<sup>21</sup> Ultimately though, it then moved to a test that is now biased against women, specifically post-partum members of the CAF.

In the GBA+ of the UoS, it states, "DFit identified that the barriers to passing the FORCE evaluation are more societal and sociological rather than based on the physical differences of males and females."<sup>22</sup> They assume that physical differences are not the issue. Though they purport to have a large cross-section of members, male/female, no analysis through this report indicates whether or not they have identified issues during or after the long-term effects of this test on its members, specifically those with parity.<sup>23</sup> As

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<sup>16</sup> DND. *CDS Directive for Integrating UNSCR 1325 and Related Resolutions into CAF Planning and Operations*. <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/conduct/cds-directive-unscr-1325.html>

<sup>17</sup> DND. DAOD 5023-1

<sup>18</sup> DND. GBA+: Universality of Service in the Canadian Armed Forces. (draft) p.35

<sup>19</sup> DND. FORCE Evaluation Operations Manual. 3<sup>rd</sup> Edition. p.4

<sup>20</sup> DND. DOAD 5023-2 Common Military Tasks Fitness Evaluation

<sup>21</sup> DND. GBA+: Universality of Service in the Canadian Armed Forces. (draft) p.34

<sup>22</sup> DND. GBA+: Universality of Service in the Canadian Armed Forces. (draft) p.38

<sup>23</sup> *Parity: the number of pregnancies carried by a woman for at least 20 weeks*



a large percentage of women in the CAF will at some point have children, this data and possible associated health issues need to be considered when developing these policies.

Since the FORCE test concept and current format are relatively new, few studies have analyzed the effect of this test on its members across the board. More specifically, there is a lack of emphasis placed on this evaluation and its effect on the female members of the CAF. Though many studies have linked female/pelvic floor issues with fitness and military service, one Canadian study looked to identify the link between all those factors and injury during the test. Chris Edwards found in her study on *Associations between Rank, Sex and Parity with MSKI injuries sustained during Annual Military Fitness Test* that parous<sup>24</sup> females "reported pelvis/abdomen injury at a higher rate than the nulliparous<sup>25</sup> group"<sup>26</sup> Though the FORCE test is aimed at being a baseline for all members of the CAF regardless of rank or sex, it is not reflective of the realities of the spread of women in the CAF and the trades they choose. Many members hold positions and trades that would rarely, if ever, see them require the skills being tested in the FORCE test. For example, in 2022, females were at a higher percentage likely to be Officers vs NCM and more likely to be in Health, Support and Logistics roles.<sup>27</sup> Let us compare the positions these members hold and the likely normative pattern of movement they would execute daily compared to those in the combat arms. We can see that though the members may be fit, their lack of similar movement patterns can also lead to increased injury during testing.

## 25% IN 2026

As of April 2022, the percentage of women sits at 16%. The CAF must look at all options with four years left to reach the 25.1% goal.<sup>28</sup> We often discuss the recruitment of women, but there also needs to remain a high level of attention on retaining the women we already have, who are already trained and can also mentor those coming behind them. The CAF needs to focus, understand and seek to remove barriers to retention. The CAF retention policy acknowledges that it needs a holistic approach<sup>29</sup>. However, as LCdr Nadia Shields indicates in her paper, "it has been unable to apply this approach which has resulted in fragmented policies, programmes and incentives."<sup>30</sup> One rarely studied aspect of females in the forces is a gap in the study and policy of post-partum health requirements for CAF members. Loss of females through this gap is unnecessary, and in

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<sup>24</sup> Parous :having produced offspring

<sup>25</sup> Nulliparous: a female of reproductive age who has never had a live delivery.

<sup>26</sup> Chris M. Edwards et al., 'Associations between Rank, Sex, and Parity with Musculoskeletal Injuries Sustained During Annual Military Physical Fitness Test' (Journal of Strength and Conditioning Research, (in press)). p.1

<sup>27</sup> DND"Deep Dive into Women in the CAF August 2022." ..Pdf, Slide show, n.d.

<sup>28</sup> DND"Deep Dive into Women in the CAF August 2022." ..Pdf, Slide show, n.d.

<sup>29</sup> CAF'Canadian Armed Forces Retention Strategy', n.d. p. 11

<sup>30</sup> Shields, N. "Canadian Armed Forces 25% Women by 2026: Attainable Goal or Pipe Dream"(Joint Command and Staff College Solo Flight Paper, Canadian Forces College, 2020. P.

her research, J. Puranda advises that "addressing pelvic floor disorders (PFD) may help with this goal."<sup>31</sup>

*Strong, Secure and Engaged* discusses the future of the CAF and the desire for a Canadian force able to anticipate, adapt and act in the current, to change, and future global operating environment.<sup>32</sup> It further expands, combined with the *CAF Retention Strategy*, that people are at the core of its capabilities and success.<sup>33 34</sup> The document outlines a healthcare vision that aligns with its ultimate goals. It also notes, "not only is this important to build a strong and agile defense organization, but the Canadian Armed Forces also has a fundamental moral obligation to care for those who have accepted unlimited liability in the service of their fellow citizens."<sup>35</sup> That moral obligation to care must also apply to the female population of the CAF. This is critical in evaluating all policies for members, including their health care to ensure unbiased and supportive policies in the future. The organization must include incoming policies but review preexisting policies that prove discriminatory and are not evaluated through a GBA and intersection lens. The *CAF Diversity Strategy* clearly states the advantages of a diverse membership organization. CAF members who are "diverse, multiethnic, and multicultural represent force multipliers during both domestic and international operations."<sup>36</sup>

## RETENTION ISSUES

The CAF is currently experiencing critical recruitment and retention pressures within its force.<sup>37</sup> Retired General Hillier comments that "the capability of the Canadian Forces, what we rely upon to look after us in Canada and then to represent us and protect our interests around the world and to take our values with them, that part that can do that is minuscule right now, and we need to change it."<sup>38</sup> A decline in enrollment and increased attrition from the organization weaken the force as it tries to expand and become more capable of increased threats. The Arctic, the Great powers of Russia and China, and increasingly complex conflict zones worldwide require a strong, stable, complete CAF to respond to the threats.

In his vision for the CAF Retention Strategy, the CDS General Eyre mentions the necessity to "remove barriers for those who want and have the capacity and desire to continue to serve in order to better maintain operational effectiveness and achieve Canada's defense mandate."<sup>39</sup> We are at a time when those who want to serve and desire to serve are supported. Discriminatory policies that do not allow these healthy members

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<sup>31</sup> Jessica L. Puranda et al., 'Characteristics Associated with Pelvic Floor Disorders among Female Canadian Armed Forces Members' (Journal of Obstetrics and Gynaecology Canada, (in press)).p.3

<sup>32</sup> DND .*Strong Secure Engaged: Canada's Defence Policy* (Ottawa, ON, CA: National Defence, 2017).

<sup>33</sup> DND. *Strong Secure Engaged: Canada's Defence Policy* (Ottawa, ON, CA: National Defence, 2017).

<sup>34</sup> CAF'Canadian Armed Forces Retention Strategy', n.d.

<sup>35</sup> DND. *Strong Secure Engaged: Canada's Defence Policy* (Ottawa, ON, CA: National Defence, 2017). p. 25

<sup>36</sup> CAF, 'Canadian Armed Forces Diversity Strategy. Canadian Armed Forces Diversity Strategy', 2016.p.3

<sup>37</sup> <https://globalnews.ca/news/9217070/military-recruitment-canada-armed-forces-hillier/>

<sup>38</sup> <https://globalnews.ca/news/9217070/military-recruitment-canada-armed-forces-hillier/>

<sup>39</sup> CAF'Canadian Armed Forces Retention Strategy', n.d. p.5

to continue as part of the CAF fighting force must be removed and modified to support both members and the institution. Though recruiting initiatives towards women may be successful, the CDS reminds us that "retention efforts address the concerns of women because about half of the number of recruited women release in the same timeframe; we cannot "fill the bucket" with a hole in the side." <sup>40</sup>The issues affecting women and the reasons for retention must be addressed. Though many of the more apparent dissatisfiers, such as work/life balance and family support, are essential, ensuring the health of all CAF members, including women, is imperative. The retention strategy lists a line of effort supporting "the Health and Wellness of CAF Members and their Families."<sup>41</sup> The CAF needs to realize that not all of their members require the same medical care but needs to ensure that all its members receive the correct medical support.

## **FEMALE-SPECIFIC HEALTH REQUIREMENTS**

*We need a revolution in the research and the practice of medicine, and we need it yesterday. We need to train doctors to listen to women, and to recognise that their inability to diagnose a woman may not be because she is lying or being hysterical: the problem may be the gender data gaps in their knowledge. It's time to stop dismissing women, and start saving them.*

— Caroline Criado Perez<sup>42</sup>

There must be an understanding that if the CAF wants a fully integrated CAF with a higher percentage of women within its lines, then there needs to be an understanding that the female body is not simply a slight variation of man's and, therefore, a simple one size fits all approach is acceptable. Historically, society and the medical field have "been focused on the male' norm', with everything that falls outside that designated 'atypical'" including women. "<sup>43</sup> There are significant fundamental differences that cannot be ignored. These do not mean female members cannot do the tasks or fully integrate into all roles. The success of women in the CAF has been proven and acknowledged time and time again. It means that we must provide these military members with the tools, systems and support they specifically require to remain healthy and ready to fight effectively for the long term.

## **POST PARTUM CARE POP & UI INJURIES**

In 1999, US researchers began studying pelvic floor (PF) issues, urinary incontinence (UI), Pelvic Organ prolapse (POP) and pelvic pain and how they affected military members. In one US study, "31% of females interviewed indicated that they commonly experienced urinary incontinence during duty and/or training to the extent that

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<sup>40</sup> CAF'Canadian Armed Forces Retention Strategy', n.d. p.36

<sup>41</sup> CAF'Canadian Armed Forces Retention Strategy', n.d. p.v

<sup>42</sup> Criado Perez Caroline Criado Perez, Inc OverDrive, and OverDrive ebook, *Invisible Women: Data Bias in a World Designed for Men*, Book, Whole (New York, New York: Abrams Press, 2019). p.336

<sup>43</sup> Criado Perez Caroline Criado Perez, Inc OverDrive, and OverDrive ebook, *Invisible Women: Data Bias in a World Designed for Men*, Book, Whole (New York, New York: Abrams Press, 2019).p.283

it interfered with job performance, hygiene, or was socially embarrassing."<sup>44</sup> The paper also concluded that "urinary incontinence is a pervasive problem among female soldiers." Other research in 2001 by JA Criner found that "Due to the rigorous demands of military life, physical fitness requirements, and environmental barriers, female soldiers are at risk for SUI."<sup>45</sup> (Stress Urinary Incontinence) Citing that 31% of US female Military active-duty members suffered from these problems.

In 2006, an Australian paper focused its research in the same direction: "Pelvic floor health is a key area where support needs vary between sexes because of differences in pelvic anatomy and function."<sup>46</sup> They concluded that "a sizeable proportion of military women experience pelvic floor conditions. Consideration of how to optimise and support the pelvic floor health of female military personnel is required." <sup>47</sup>

The CAF currently lacks research within its lines on the requirements and impacts of pelvic floor issues, particularly aggravated by pregnancy. One of the main issues when DND scientists reach out to women's health practitioners is the lack of sex-aggregated data regarding pelvic floor and post-partum issues within the CAF. Unfortunately, the CAF is not tracking these metrics and, therefore, cannot learn from the information it provides. It is to be noted that this is typically common in Canadian and American health care and not only within the CAF. At best, any data seems to include sex or age but not other factors. Luckily, researchers from the University of Ottawa, under the lead of Dr. Kristi Adamo, began researching musculoskeletal injuries and pelvic floor injuries in CAF female members, including one study specifically concerning musculoskeletal injuries (MSKI) connected to the Force test.

In 2022 research entitled, *Characteristics associated with pelvic floor disorders among female Canadian Armed Forces members* by Jessica L. Puranda and Dr. Kristi Adamo, important patterns and future research requirements were found regarding female CAF members and pelvic floor disorders. In the study, it found that numbers of 57% UI and 14.5% POP in members of the CAF interviewed.<sup>48</sup> Data from other studies also found that these numbers in civilian populations worldwide can vary between 5-70% depending on reporting due to cultural reasons and stigma. <sup>49</sup>It is important to note that the number may be higher due to personnel not wanting to disclose the information. Outside this study, there are several anecdotal situations where female members continue to hide their PFD issues for fear of career loss and embarrassment.

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<sup>44</sup> G. Davis et al., 'Urinary Incontinence among Female Soldiers', *Military Medicine* 164, no. 3 (March 1999): 182-87.

<sup>45</sup> Criner JA. Urinary incontinence in vulnerable populations: female soldiers. *Urol Nurs*. 2001 Apr;21(2):120-4.

<sup>46</sup> <https://jmvh.org/article/pelvic-floor-health-in-female-military-personnel-a-narrative-review/>

<sup>47</sup> <https://jmvh.org/article/pelvic-floor-health-in-female-military-personnel-a-narrative-review/>

<sup>48</sup> Jessica L. Puranda et al., 'Characteristics Associated with Pelvic Floor Disorders among Female Canadian Armed Forces Members' (*Journal of Obstetrics and Gynaecology Canada*, (in press)). p.1

<sup>49</sup> Fontenele MQS, Moreira MA, de Moura ACR, de Figueiredo VB, Driusso P, Nascimento SL. Pelvic floor dysfunction distress is correlated with quality of life, but not with muscle function. *Arch Gynecol Obstet*. 2021 Jan.

When analyzing factors associated with increased POP and UI, parity was among the leading factors associated with increased odds<sup>50</sup>. Other factors, such as BMI, age and NCM occupations, increased the chances of POP. Most members of the Puranda study experienced POP and UI issues post-pregnancy.<sup>51</sup>

POP at stages 3 & 4 is much more likely to be evident to members experiencing this level of disorder. However, in stages 1 & 2 of POP, some females may not be aware of the underlying issues. This implies that actual numbers of POP incidence are, in fact, higher than listed. As heavy lifting and arduous occupations are associated with damage to the pelvic floor, assumptions can be made that this percentage will continue to increase in individuals serving the CAF. In one qualitative study a CAF member stated:

... it'll [*pelvic floor*]continue to degrade and every time you do it, you will do permanent damage... I can deadlift and I can squat like high amounts of weight because I'm able to control the muscles properly. But because the time limit on the PT test... You lose your form and you're just slinging things up to make this deadline and now causing yourself permanent damage. And I know for me, ... I'm facing essentially like a medical release from the military that affects absolutely nothing else in my job except for that FORCE test. And that is frustrating.<sup>52</sup>

"PFD's impair quality of life and are considered a barrier to exercise"<sup>53 54</sup> There are current members of the CAF continuing to struggle with pain and worsening health conditions due to a yearly FORCE test they are required to complete to hold onto their careers. The level at which these injuries affect women goes way beyond the ability to complete a fitness evaluation. It is beyond critical to understand that this has a direct impact on their quality of life, their sexual health and ultimately their mental health.<sup>55</sup> With the current rampant mental health issues the CAF is facing, this seems like a straightforward issue to tackle to remove some mental health barriers for members. The CAF is asking its members to choose their health or career once again, and even more at the core, to choose to have a family vs a career in the CAF. This is unacceptable in this day and age and falls into the old mindset adage of "if the military wanted you to have a

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<sup>50</sup> Jessica L. Puranda et al., 'Characteristics Associated with Pelvic Floor Disorders among Female Canadian Armed Forces Members' (Journal of Obstetrics and Gynaecology Canada, (in press)). p.1

<sup>51</sup> Jessica L. Puranda et al., 'Characteristics Associated with Pelvic Floor Disorders among Female Canadian Armed Forces Members' (Journal of Obstetrics and Gynaecology Canada, (in press)).p.14

<sup>52</sup> Francine Darroch et al., 'Perceptions of Pregnant and Parenting Individuals Risk of Musculoskeletal Injuries in the Canadian Armed Forces: A Qualitative Research Study' (Manuscript, School of Human Kinetics, (in press))p.11

<sup>53</sup> Fontenele MQS, Moreira MA, de Moura ACR, de Figueiredo VB, Driusso P, Nascimento SL. Pelvic floor dysfunction distress is correlated with quality of life, but not with muscle function. Arch Gynecol Obstet. 2021 Jan;

<sup>54</sup> Jessica L. Puranda et al., 'Characteristics Associated with Pelvic Floor Disorders among Female Canadian Armed Forces Members' (Journal of Obstetrics and Gynaecology Canada, (in press)).p.4

<sup>55</sup> Fontenele MQS, Moreira MA, de Moura ACR, de Figueiredo VB, Driusso P, Nascimento SL. Pelvic floor dysfunction distress is correlated with quality of life, but not with muscle function. Arch Gynecol Obstet. 2021 Jan;

family, it would have issued you one." These biased policies and requirements need to be studied and re-evaluated.

Though this paper focuses on post-partum members, multiple studies in elite athletes and elite military members across the globe have also found higher pelvic floor issues even when nulliparous (those who have not given birth).<sup>56 57 58</sup> So not only is this issue an issue for post-partum members, it encompasses all female members in the CAF.

### **Post-Partum MSKI**

A qualitative study by Dr. Francine Darroch of female CAF members found that "the physical impacts of pregnancy on their bodies and the ways in which the CAF physical training and testing, contributed to, or exacerbated, injuries".<sup>59</sup> They further identified three themes through their study that increased the risk of MSKI, including anatomical changes in pregnancy, unreasonable pressures to return to work at peak physical condition and lack of access to appropriate resources and support.<sup>60</sup>

One of the problems with female health and the FORCE test is the repetitive heavy lifting under time pressures which elicits repetitive pelvic floor loading. However, this test is supposed to represent a Bona Fide Occupational Requirement (BFOR) and not a fitness evaluation. The test is supposed to measure things members must do while employed. Though the CAF has made the decision not to separate between elements/trades in this primary measure, other countries such as the US, Australia, the UK, Germany and others have not gone this route. Though the Elsie Initiative mentions this basic op requirement as a good practice, the current test itself does not indicate what members may be required to do.<sup>61</sup> What an officer pilot will have to complete in their job/trade and what an infantry officer level needs to be at is quite different. A newer study at the University of Ottawa, finds that the current FORCE test is aimed at requirements for combat arms NCM members and not requirements that other officers in

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<sup>56</sup> J. Rogo-Gupta et al., 'Incidence of Pelvic Floor Disorders in US Army Female Soldiers', *Urology* 150 (1 April 2021): 158–64,

<sup>57</sup> Wilma I. Larsen and Trudy A. Yavorek, 'Pelvic Organ Prolapse and Urinary Incontinence in Nulliparous Women at the United States Military Academy', *International Urogynecology Journal and Pelvic Floor Dysfunction* 17, no. 3 (May 2006): 208–10,

<sup>58</sup> G. Davis et al., 'Urinary Incontinence among Female Soldiers', *Military Medicine* 164, no. 3 (March 1999):

<sup>59</sup> Francine Darroch et al., 'Perceptions of Pregnant and Parenting Individuals Risk of Musculoskeletal Injuries in the Canadian Armed Forces: A Qualitative Research Study' (Manuscript, School of Human Kinetics, (in press)) p.10

<sup>60</sup> Francine Darroch et al., 'Perceptions of Pregnant and Parenting Individuals Risk of Musculoskeletal Injuries in the Canadian Armed Forces: A Qualitative Research Study' (Manuscript, School of Human Kinetics, (in press))p.10

<sup>61</sup> *Évaluation Des Obstacles Dans Le Cadre de l'Initiative Elsie: Résultats de l'évaluation Des Opérations Selon La Méthodologie Mesurer Les Opportunités Pour Les Femmes Dans Les Opérations de Paix Menée Pour Les Forces Armées Canadiennes* (Ottawa (Ontario): Défense nationale = National Defence, 2022). p.14

Air or Navy might be required to accomplish.<sup>62</sup> In this day and age where retention is an issue, personnel who have been trained, qualified and employed in their jobs with no limitations are being medically released due to a pattern of movement assessment they do not require in their trades. The CAF cannot afford the loss of these members.

"With the adoption of gender-free policies and standards, the disparity between rates of MSKI in male and female members has grown even larger"<sup>63</sup> with females having the most significant likelihood of injury. A study linking reproductive health and MSKI in female CAF members recommends that investigating "reproductive health is essential for reducing the burden of MSKI and could inform future mitigation strategies to improve retention rates."<sup>64</sup>

## CURRENT POLICIES

Since military institutions are mostly hegemonic masculine work environments, one cannot be surprised when female health issues are not at the forefront or considered when initially implemented. Historically this has been the case in all facets of health care.<sup>65</sup> However, this needs to change to support all military members of the CAF. There is currently no standard of care for female CAF members regarding their pelvic floor health. The disparity of care and level of care differs between bases and individual practitioners. The CAF health system and programs such as the Women's Health section and the Women's Wellness Research that is being developed have finally noticed this gap.<sup>66</sup> However, implementing these programs and research will take time to enact and ensure balanced care for women's wellness. In an analysis of the ages of CAF female members, an important observation is that most are in their reproductive years and, therefore, susceptible to increased PF damage/injury.<sup>67</sup>

Further steps forward in research and analysis of women's health included the Feb 2023 first Inaugural Military Women's Health Symposium in Feb 2023. This international initiative brought together medical professionals and members from Canada, the US, the UK, Australia and more. This pooling of knowledge is imperative due to limited current data. Continued involvement in this organization and a stream of research are needed to allow the development of programs best to support female CAF members.

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<sup>62</sup> Chris M. Edwards et al., 'Associations between Rank, Sex, and Parity with Musculoskeletal Injuries Sustained During Annual Military Physical Fitness Test' (Journal of Strength and Conditioning Research, (in press)).p.3

<sup>63</sup> Jessica L. Puranda et al., 'Association Between Reproductive Health Factors and Musculoskeletal Injuries in Female Canadian Armed Forces Members', Journal of Women's Health 32, no. 2 (1 February 2023): 199–207, p.200

<sup>64</sup> Jessica L. Puranda et al., 'Association Between Reproductive Health Factors and Musculoskeletal Injuries in Female Canadian Armed Forces Members', Journal of Women's Health 32, no. 2 (1 February 2023): 199–207, p.200

<sup>65</sup> Criado Perez Caroline Criado Perez, Inc OverDrive, and OverDrive ebook, *Invisible Women: Data Bias in a World Designed for Men*, Book, Whole (New York, New York: Abrams Press, 2019). Part IV

<sup>66</sup> CAF . Women's wellness program. 2022

<sup>67</sup> DND"Deep Dive into Women in the CAF August 2022." ..Pdf, Slide show, n.d.

In 2023, there is even a review of the current fitness test at the Royal Military College ongoing due to the possibility of issues that have arisen due to a cross-section of members that not all students are young fit members but also include members of the CAF that have been accepted but that through use, injury and age it may no longer qualify as an unbiased fitness test. Results from this review should be considered on the larger CAF scale.

## RECOMMENDATIONS

Key recommendations from the study conducted by Dr. Darroch, Dr. Adamo, Dr. Puranda Chris Edwards and others are critical in supporting female members of the CAF and their post-partum realities in the organization.<sup>68 69 70</sup> Their recommendations line up across the studies with similar themes. They also address best practices forward in building an equitable, supported, healthy warfighting force for Canadians.

Firstly, Dr. Darroch recommends that the CAF:

...create a task force including key stakeholders (e.g., female CAF members who have experienced pregnancy, diverse CAF members, obstetrician and gynecologists, CAF medical personnel, occupational health specialists, exercise physiologists) to develop strategies to implement practical changes in CAF policies and practices to better support female CAF members.<sup>71</sup>

We cannot expect senior members of the CAF involved in making these decisions to be aware of these issues without ensuring that the experts in the field, those who have lived experience and those who have studied the subjects provide the correct data and information. In conflict situations, commanders use their Subject Matter Experts when needed to make timely, well-informed and best possible decisions. These decisions need to be made in an informed fashion when reviewing the best practices and care of all CAF members.

Secondly, improve "member access to injury prevention resources physical training from qualified professionals (i.e., certified exercise physiologists,

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<sup>68</sup> Francine Darroch et al., 'Perceptions of Pregnant and Parenting Individuals Risk of Musculoskeletal Injuries in the Canadian Armed Forces: A Qualitative Research Study' (Manuscript, School of Human Kinetics, (in press))p.22

<sup>69</sup> Jessica L. Puranda et al., 'Association Between Reproductive Health Factors and Musculoskeletal Injuries in Female Canadian Armed Forces Members', *Journal of Women's Health* 32, no. 2 (1 February 2023): 199–207,

<sup>70</sup> Chris M. Edwards et al., 'Associations between Rank, Sex, and Parity with Musculoskeletal Injuries Sustained During Annual Military Physical Fitness Test' (*Journal of Strength and Conditioning Research*, (in press)).

<sup>71</sup> Francine Darroch et al., 'Perceptions of Pregnant and Parenting Individuals Risk of Musculoskeletal Injuries in the Canadian Armed Forces: A Qualitative Research Study' (Manuscript, School of Human Kinetics, (in press)) p22



kinesiologists."<sup>72</sup>) Specific health concerns require experts for those members to recover from MSKI during testing or related to female health concerns. Post-Partum issues are not new; concerted effort needs to be made to support members through continuous improvement and giving them the care, they need when needed.

Thirdly, the CAF needs to examine its current practices & policies,<sup>73</sup> specifically the CMTFE /FORCE evaluation requirements and execution and UoS and re-evaluate to ensure these policies are not disadvantaging members of the CAF or causing them extra harm. Though reviewing policies and current systemic challenges for our members will take time and effort, the outcome will be positive for the CAF.

## CONCLUSION

*Women can't flourish in a system that needs us as support pillars for someone else's building. We're here to prop it up, not live in it. This is not a place that was built for us to thrive.*

*-Jill Filipovic<sup>74 75</sup>*

This paper reviewed integration of women in peace and security as well as the unsuccessful implementation of GBA+. Secondly, it examined the existing requirements of Universality of Service and FORCE evaluation presently required in the CAF and demonstrated a crucial link the CAF needs to immediately address which could cause failure towards obtaining their 25% women integration goals and cracking retention problems. Study of up-to-date research, nationally and internationally, on female specific health requirements, in general and post-partum, in relation to fitness in the CAF was examined. It demonstrated that these current policies and procedures will continue to further harm the CAF's strongly integrated future fighting force. Finally, this paper proposed several recommendations towards successful resolutions of these issues.

Biased policies and systems that fail to support the members of the CAF organization do nothing but deteriorate the operational effectiveness and readiness of Canada's Warfighting enterprise capabilities. The Canadian people and government require the fundamental protection our troops provide, at home or abroad, and therefore the CAF needs to provide them with correct medical care and policies that reflect the lived experience of those members. Females must be able to thrive within the organization for it to reach its full potential. The CAF must immediately recognize that

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<sup>72 73</sup> Francine Darroch et al., 'Perceptions of Pregnant and Parenting Individuals Risk of Musculoskeletal Injuries in the Canadian Armed Forces: A Qualitative Research Study' (Manuscript, School of Human Kinetics, (in press)) p22

<sup>73</sup> Francine Darroch et al., 'Perceptions of Pregnant and Parenting Individuals Risk of Musculoskeletal Injuries in the Canadian Armed Forces: A Qualitative Research Study' (Manuscript, School of Human Kinetics, (in press)) p22

<sup>74</sup> Filipovic, J. "The H-spot: The Feminist Pursuit of Happiness."2017

<sup>75</sup> <https://www.cnn.com/2023/05/06/opinions/equal-rights-amendment-equality-impossible-bianco/index.html>

female members within their organization have different yet just as important health requirements. With conflict zones rising around the world, and now more than ever the fight for democracy and human rights requires the CAF to step up to the plate and provide protections for those people and freedoms.

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