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Sports in the Canadian Armed Forces

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Exercise Solo Flight

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Sports in the Canadian Armed Forces

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SPORTS IN THE CANADIAN ARMED FORCES: A SOLUTION TO THE CHALLENGES OF THE FUTURE OPERATING ENVIRONMENT

INTRODUCTION

Sports and war have been linked together essentially since their respective creation. Images dating back to antiquity depict soldiers preparing for war by performing tasks and playing sports, such as wrestling, to sculpt their bodies and minds for the harsh times ahead of them. Modern popular culture is bursting with movies and television series, such as *Gladiator* (2000), *Spartacus* (2010), *Band of Brothers* (2001), that represent physical conditioning and participation in games as ways to foster the required mental state, team building and social bonds for war. The literature base demonstrating the health benefits of sports in the military is extensive and is recognized in the Canadian Armed Forces (CAF) by official policies and directives. However, it remains limited on the positive psychological, social and cognitive advantages that are afforded to participants through sport.

As the CAF will be facing an increasingly competitive landscape in future conflicts, this essay will seek to answer the following question: can sports render the CAF better prepared and more competitive for the challenges that lie ahead in great power competition? The author's thesis is that sports are well recognised in the CAF for their overall health benefits, but they are under-appreciated for the cognitive tools that they bring to their participants and how they could become key building blocks in the preparation of soldiers for the future operating environment. To explore this hypothesis, this essay will first paint a rough picture of what is awaiting the CAF in the near future in the great power competition and the Future Operating Environment (FoE). Sports will be separated from physical activity by their definition and by the targeted cognitive

advantages of social functioning, spatial abilities, transfer of pattern recognition skills, decision-making and problem-solving and finally competitiveness. Arguments will be made throughout that sports suit better the CAF's needs of tomorrow using elements identified in the CAF's Pan-Domain Force Employment Concept (PFEC). Finally, the current situation of sports in the CAF will be depicted in terms of infrastructure, policies and literature and how they do not fully recognize the benefits of sports beyond physical and mental wellness; exposing gaps that may arise when CAF soldiers will be matched to the FoE.

Great Power Conflict and the FoE

Competition is one of the main themes that dominates the analyses done by the Government of Canada (GoC) and the CAF when looking at Canada's place on the international stage in the mid to long-term future. Gone are the days of unipolar domination by the United States of America over the rules-based international order.¹ New poles of power involving state and non-state actors are rising fast and are challenging the main stakeholders of the past thirty years on all fronts, including economically, diplomatically, in cyber, information control, militarily and technologically, to name a few.² What further complicates this issue, is that in order to prevent causing open conflicts or even war, our adversaries proceed to conduct their operations completely below what is known as the threshold of conflict. Intuitively and along with allied forces, the CAF are staying abreast of the evolving FoE and with

¹ Canada, Department of National Defence, "Strong, Secure, Engaged, Canada's Defence Policy", Ottawa: DND, 2017, 50, <http://dgpaapp.forces.gc.ca/en/canada-defence-policy/docs/canada-defence-policy-report.pdf>.

² Canada, Department of National Defence, Pan-Domain Force Employment Concept: Prevailing in an Uncertain World, Ottawa, DND, 2021, 3.

initiatives, such as “How We Fight” giving the framework for documents like the PFEC; requirements and imperatives are described to define what the CAF need to achieve future success. Briefly, these imperatives are as follows. War and peace are not the only two states in which we will be evolving in the future, it will be a constant state of competition. All domains will be leveraged by our adversaries and we must be ready to meet them on all fronts. Competing on the international stage will require intricate coordination of all instruments of national power, and the military is only but one of them. Therefore we must integrate with other government partners. On the international stage, the CAF cannot operate by themselves and therefore close knit cooperation must be maintained with allied countries. As the competition knows no more geographical boundaries, Canada’s domestic and international defence needs to be strengthened and be coherent with the challenges we are facing. Further, those imperatives are tackled in the PFEC by fourteen elements that describe how we will need to fight.³ Those elements are closely linked to the advantages that sports represent over physical activities described below.

Definitions and Differences between Physical Activity and Sport

Physical Activity

Many definitions for physical activity exist. Sources such as peer reviewed studies in kinesiology and sports psychology use different terminology which sometimes steers away from the essence and most generic meaning. For this reason, the author decided to use the World Health Organization’s (WHO) definition which goes as follows:

WHO defines physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure. Physical activity refers

³ Canada, Department of National Defence, Pan-Domain Force Employment Concept . . . , 3.

to all movement including during leisure time, for transport to get to and from places, or as part of a person's work. Both moderate and vigorous intensity physical activity improve health.⁴

Expressions such as bodily movement, energy expenditures, refer only to the physical component of the activity, which confirms that physical activities do not necessarily address the related psychological, social and cognitive implications which we are seeking. Further, the WHO makes recommendations on how much physical activity should be done for various age groups. In order to be representative of the population in the CAF, the WHO's age group utilized will be for adults between the ages of eighteen and sixty-four; which relatively represents the portion of the population that the CAF employs with a minimum of seventeen and a maximum of sixty years old.⁵ The WHO recognizes the following health benefits of physical activity: sustain a healthy body weight, reduce the risk of hypertension, stroke, various types of cancer, depression, diabetes, coronary heart disease, improve bone and functional health, improve muscular and cardiorespiratory fitness.⁶ All these benefits are recognized and well documented in the various policies legislating sports and physical activity in the CAF; which will be covered later in this paper. As those are also present in most sports, we will be able to extract separate specific benefits which will address challenges of future armed conflicts.

⁴ World Health Organization, "Physical Activity", last updated 26 November 2020, <https://www.who.int/news-room/fact-sheets/detail/physical-activity>.

⁵ Canada, Department of National Defence, Queens Regulations & Orders Volume 1, Chapter 6, Enrolment and Re-Engagement, Ottawa, DND, 2022. Section 6.01 <https://www.canada.ca/en/department-national-defence/corporate/policies-standards/queens-regulations-orders/vol-1-administration/ch-6-enrolment-reengagement.html>.

⁶ World Health Organization, "Physical Activity", last updated 26 November 2020, <https://www.who.int/news-room/fact-sheets/detail/physical-activity>.

Sports

George Orwell had a famous quote with regards to sports: “Serious sports is war minus the shooting.”⁷ Even Carl von Clausewitz compared war with sports: “War is nothing but a duel on a larger scale. Countless duels go to make up war, but a picture of it as a whole can be formed by imagining a pair of wrestlers.”⁸ Definitions of sports vary depending on the source. It is important to recognize that sports are a subset of physical activity and therefore most of the health benefits of physical activity documented will appear to different degrees in different sports. Also, many physical activities are used to complement the performance of athletes in sports and therefore cannot be discarded altogether. For the purpose of this paper, the following definition of sports will be used: “a human activity of achieving a result requiring physical exertion and/or physical skill which, by its nature and organization, is competitive and is generally accepted as being a sport.”⁹ It is important to underline the word competitive as key in this definition, as it establishes a direct link to the imperatives of the PFEC. Competition generates many social and cognitive realities. In keeping with the *raison d’être* of this paper, we will narrow down on specific behavior traits and cognitive skills that are relevant to the FoE. Those traits and skills are: social functioning, spatial abilities, transfer of pattern recognition, decision-making and problem-solving and finally competitiveness. In order to argue the benefits of sports for military purposes, the concept of cognitive skill transfer

⁷ George Orwell, “The Sporting Spirit”, *Tribune*, 14 December 1945.

⁸ Carl von Clausewitz, *On War*. Edited by Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976), 75.

⁹ Rochelle M. Eime, Janet A. Young, Jack T. Harvey, Melanie J. Charity, and Warren R. Payne. "A Systematic Review of the Psychological and Social Benefits of Participation in Sport for Adults: Informing Development of a Conceptual Model of Health through Sport." *International Journal of Behavioral Nutrition and Physical Activity* no. 10 (2013): 2, <https://www.proquest.com/scholarly-journals/systematic-review-psychological-social-benefits/docview/1466575493/se-2>.

will be applied to argue that knowledge acquired through sports can be leveraged in the training of soldiers. Studies have shown that a high level of knowledge in a certain sport resulted in athletes necessitating less practice time than novice players to achieve expert status when transferring to another discipline.¹⁰ Therefore, skills acquired in sports should not only transfer back to soldiering, but also expedite the process. As a caveat, it is important to state that not all sports have similarities between them, therefore, the findings of this study cannot be generalized across all sports.

Social Functioning

Sports at the recreational and competitive levels compared to other physical activities improve social functioning and have been shown to be the most beneficial for adults in terms of commitment/retention, but most importantly for this paper, for social integration.¹¹ The social connections and relationships that stem from competing against another individual or team have been demonstrated to relieve and reduce distress; which could be important when dealing with stressful workplaces and even more so during warlike operations. Physical activities on the other hand, have shown that they could add to everyday life stress and distress when they represent an activity that must happen for extrinsic purposes, such as domestic tasks or work commuting, but more relevant to this paper, for work related performances.¹² Where sport really elevates from physical activity

¹⁰ Nicholas J. Smeeton, Paul Ward and Mark A. Williams. "Do pattern recognition skills transfer across sports? A preliminary analysis", *Journal of Sports Sciences*, no. 22, issue 2(2004): 211. <https://www-tandfonline-com.cfc.idm.oclc.org/doi/full/10.1080/02640410310001641494>; Bruce Abernethy, Joseph Baker and Jean Côté, "Transfer of Pattern Recal Skills May Contribute to the development of Sports Expertise", *Applied Cognitive Psychology*, no 19, issue 6 (2005): 706. <https://web-s-ebSCOhost-com.cfc.idm.oclc.org/ehost/pdfviewer/pdfviewer?vid=1&sid=37f9c03f-5dcd-4ecd-ad0f-3bf314639b4e%40redis>.

¹¹ Rochelle M. Eime et al., "A Systematic Review of the Psychological and Social Benefits of Participation in Sport for Adults . . .", 13.

¹² *Ibid*, 10.

is in the realm of social integration and how participants are forced to cooperate or learn to operate with opposition or imperfect unison. As discussed in the PFEC under elements 3. Pan-Domain Integration, 4. Whole of government Coordination, 5. Collaboration with Allies and Partners and 12. Multi-Dimensional Interoperability, having a force that can integrate and leverage all of its partners and their own culture, priorities and restrictions will be crucial. Enhanced social functioning would facilitate these elements.

Spatial Abilities

Spatial abilities are those requiring spatial coding and representations, such as: geographical orientation, the accuracy of motor skills or the memory of the location of certain items.¹³ These abilities are part of the Canadian Forces Aptitude Test administered to Canadians who want to join the forces and determine which military occupation best fits candidates, as many trades require members to be able to orient themselves in stressful situations.¹⁴ Spatial abilities have been shown to be trainable. In a study published in the *Journal of Individual Differences*, subjects who were tested for the spatial ability called *mental rotation* before and after undergoing 10 months of training in wrestling and running separately demonstrated significant differences in scores. After training, wrestlers (sport) scored much higher in mental rotation than initially tested compared to runners (physical activity) who did not experience any improvement.¹⁵ Elements of the PFEC such as 2. Conscious Action, 7. Temporal Awareness and 14.

¹³ Moreau, David, Jerome Clerc, Annie Mansy-Dannay and Alain Guerrien. "Enhancing Spatial Ability through Sport Practice: Evidence for an Effect of Motor Training on Mental Rotation Performance." *Journal of Individual Differences* no. 33, issue 2 (2012): 83. <https://psycnet-apa-org.cfc.idm.oclc.org/fulltext/2012-03639-003.html>.

¹⁴ Canada. Department of National Defence. "Join the Forces". Last visited 27 April 2022. <https://forces.ca/en/how-to-join/#st>.

¹⁵ Moreau, David et al., "Enhancing Spatial Ability through Sport Practice . . .", 87.

Comprehensive Resilience, relate to spatial abilities in that the CAF need to be able to maintain its direction in the disorienting and uncertain circumstances of the FoE.

Transfer of Pattern Recognition Skill

Being able to read and anticipate what the opposition does on the battlefield can become a matter of life and death in combat at the tactical and even operational levels. Early studies have demonstrated that there is a measurable amount of skill transfer in the recognition of patterns of play and strategy in both friendly and opposing sides in individual and team sports.¹⁶ People with higher levels of pattern recognition skills have also been found to produce more different solutions when faced with problems.¹⁷ It could be argued that sports players would then have an advantage compared to people who do not play sports in forecasting their opponents' actions or recognizing their strategies. This does not apply to generic physical activities such as weightlifting, running, biking, etc. As pattern recognition skills can be trained and applies directly to the fluidity of the battlefield, sports on top of regular tactical training should be considered for the preparation of soldiers for combat.¹⁸ Precise intelligence in the targeting process is vital and being able to recognize what the opposition is trying to attempt is therefore key. Elements of the PFEC such as 1. Integrated Operational Approach, 8. Artificial

¹⁶ Nicholas J. Smeeton et al., "Do pattern recognition skills transfer across sports? . . .", 211; Paul Ward, Damian Farrow, Kevin R. Harris, A. Mark Williams, David W. Eccles and K. Anders Ericsson. Training Perceptual-Cognitive Skills: Can Sport Psychology Research Inform Military Decision Training? *Military Psychology*, no. 20 issue 1 (2008): 83. <https://www-tandfonline-com.cfc.idm.oclc.org/doi/full/10.1080/08995600701804814>; Bruce Abernethy et al., "Transfer of Pattern Recal Skills . . .", 714.

¹⁷ Paul Ward et al., "Training Perceptual-Cognitive Skills . . .", 77.

¹⁸ *Ibid*, 75; Donald E. Vandergriff, "FROM SWIFT TO SWISS," *Performance Improvement*, no. 45, issue 2 (2006): 34, <https://www.proquest.com/scholarly-journals/swift-swiss/docview/237247787/se-2?accountid=9867>.

Intelligence Enhancement, 9. Adapted Intelligence and 10. Evolved Planning and C2 would greatly benefit from personnel with higher levels of pattern recognition skills.

Decision-making and Problem-solving

In business or at war, leaders always seek to make the best, most judicious and timely decision that will yield bigger profits or victory on the battlefield. Having a clear mind, fully comprehending the situation, being cognizant of own capabilities and the oppositions' are but a few examples of personal attributes or states of being that are vital for success in the military. When looking ahead at what the future holds for the CAF in great power competition, it becomes apparent that having the ability to make sound decisions to solve complex problems will be one of the most sought after assets in militaries worldwide. Thankfully, decision-making is something that can be taught and developed. The CAF already have a thorough and progressive system that takes all of its soldiers from basic training all the way to strategic planning courses, providing them with the skills and knowledge required at their current or future rank.¹⁹ What the CAF lacks in is the opportunity to practice simple, short-term and inexpensive exercises where soldier can learn hands-on and on their own time, the many lessons they acquire on career courses or in field training. The CAF provide top tier training to its members, but the exposures are always limited due to time and funding restrictions. As the CAF seek to elevate the inclusivity of members, it needs to recognize that not all members learn the same way. Some are more practical and others may need many more repetitions than what training provides in order to master a new skill.

¹⁹ Canada. Department of National Defence. Public service and military, Services and benefits for the military. <https://www.canada.ca/en/department-national-defence/services/benefits-military/education-training.html>.

For decision-making and problem-solving, sports provide a great and somewhat inexpensive method of exposing soldiers to safe, but stressful situations where time is constrained by the actions of the opposing team or individual. Military psychology literature has demonstrated that what characterizes astute decision-makers lies in their willingness to make decisions, the speed at which decisions are made and communicated, and how they rely on expertise and intuition.²⁰ Experiments have demonstrated that junior officers achieved higher levels of expertise in planning and decision-making by using tools such as Tactical Decision Games.²¹ Tactical Decision Games represent relevant and simple problem-solving scenarios that progressively build in complexity. These studies found that candidates demonstrated improved levels of willingness to make decisions and shortened the time required to make them, as well as an increase in the amount of answers produced. These results were applicable to other fields like the corporate world or sports.²² When considering the skill transfer back to the military, playing sports represent hundreds of small, relevant and safe decisions that have to be made in both tactics and game strategy. Sports even provide opportunities to fail, which has been shown to have beneficial outcomes in the learning process. Through increased participation in sports, CAF members would be exposed to situations varying in levels of complexity and stress, thereby learning to become better decision makers in the process. Elements of the PFEC such as 1. Integrated Operational Approach, 2. Conscious Action

²⁰ Joseph A. Calleja, Benjamin L. Hoggan and Philip Temby, "Individual predictors of tactical planning performance in junior military officer", *Military Psychology*, no. 32, issue 2 (2020): 150, <https://www-tandfonline-com.cfc.idm.oclc.org/doi/full/10.1080/08995605.2019.1691405>.

²¹ Donald E. Vandergriff, "FROM SWIFT TO SWISS," 34.

²² *Ibid*, 37.

and 13. Operationalized Culture align perfectly with the need for better decision-making and problem-solving skills.

Competitiveness

As described in the PFEC, competition will be at the core of the FoE. It then puts competitiveness at the very center of personality traits that should be desired to face Canada's future. "Competitiveness is conceptualized as a desire to engage in and strive for success in sport achievement situation."²³ Multiple studies have revealed that elite sports athletes have exhibited higher levels of competitiveness than non-athletes. Competitiveness is also something that can be fostered through organizational culture and coaching (leadership).²⁴ This opens the door for the CAF to justify attempting to increase the competitiveness of its members using the correct tools and setting up the right environment. As a caveat, it would be unwise to only recognize competitiveness as a sought after personality trait for CAF soldiers, as high levels of competitiveness have also been linked to unnecessary aggressive behavior.²⁵ The CAF are also seeking to diversify its soldier population, it would be counterproductive to solely seek competitiveness in warfighting.²⁶ Unfortunately as it will be demonstrated further in the policy analysis section of this paper, competitiveness is not represented as a benefit of physical activity or sports. It is for this reason that the author weighs in on the significance of acknowledging competitiveness as an enabler in facing future challenges. Elements 1. Integrated

²³ Peter A. Crocker, *Sports Psychology: a Canadian perspective*. Toronto: Pearson Education Canada, 2007, 63.

²⁴ *Ibid*, 68.

²⁵ *Ibid*, 171.

²⁶ Canada, Department of National Defence, "Strong, Secure, Engaged . . .", 23.

Operational Approach and 13. Operationalized Culture of the PFEC would profit from adopting competitiveness as a key trait in CAF soldiers.

SPORTS IN THE CAF TODAY

The CAF's Sports Program today involves over 21,000 participants every year at Base/Wing, regional, national and international levels. It spans over 50 different sports recreationally and conducts National Championships for 17 different disciplines. Canada is also a long standing member (1985) of the International Military Sports Council (CISM), which currently encompasses 140 countries.²⁷ On the international scene, the CAF have 260 athletes involved in 12 different sports.²⁸ Altogether, the CAF have a comprehensive and layered sports system demonstrating the recognition and appetite for sports in the CAF. Unfortunately, it only reaches roughly one fifth of its members including the Regular and Reserve Forces. Recreational sports represent the vast majority of participants in the CAF, with close to 20,000 participants. As previously stated, recreational sports are known to be the most beneficial for adults.²⁹ This then represents the area where most efforts should be focused by the CAF in order to ensure the best return on investment. Motivating personnel to participate in recreational sports also has the potential to feed more and higher quality players at the regional, national and international levels.

²⁷ Conseil international du sport militaire, "Member Nation, Canada", last visited 27 April 2022, <https://www.milspport.one/cism/members-nations/america/canada-can>.

²⁸ Canada, Department of National Defence, Game Changer, the Canadian Armed Forces Sports Strategy, Ottawa, DND, 9.

²⁹ Rochelle M. Eime et al., "A Systematic Review of the Psychological and Social Benefits of Participation in Sport for Adults . . .", 13.

Unfortunately, due to budget restrictions in 2020, sports like slow-pitch softball, golf, badminton and squash had to be cut at the national level. This rendered the running of regional and base championships unnecessary. Also the same year, sports like sailing, shooting, golf, basketball (both men and women), volleyball (men only) and soccer (women only) were cut from the international programs. These are all sports with no certainty of ever coming back to the program, which has likely affected the motivation of athletes who wish to compete at higher levels and in turn, those who they help, coach, train with, etc. Regrettably, this was a step back in providing a variety of opportunities for members with different preferences. These cuts could also have an impact on the readiness of the CAF, as data collected from all CAF members' participation in their yearly physical fitness test demonstrated that soldiers who participated in sports weekly, at the national or international programs, out-performed their peers in average scores (Figure 1). Removing sports from the program for financial reasons while all the necessary infrastructure is in place seems counterproductive and hopefully funding will return in the near future to avoid losing all of the related expertise and corporate knowledge.

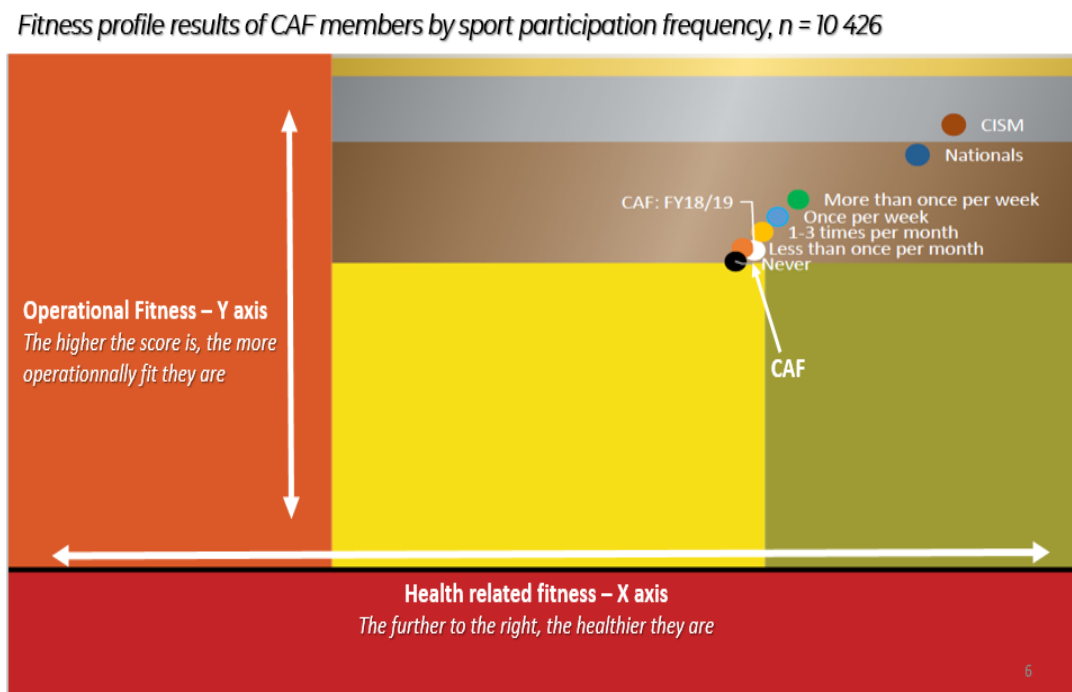


Figure 1 – Fitness profile results of CAF members by sport participation

Canada, Canadian Armed Forces Sports Program, Presentation of the CAF Sport Program Strategy, 07 February 2022, slide 9.

CAF SPORTS POLICY REVIEW

Strong, Secure, Engaged

With its Total Health and Wellness Strategy, the 2017 Strong, Secure, Engaged (SSE) Defence Policy sought to include key initiatives that support health and resilience, promote a culture of healthy behaviour and support military families.³⁰ Significant investments are made to support the spiritual, mental and physical well being of CAF members. Although not explicitly identified, the CAF Sports Program is clearly a key enabler in the pursuit of total health and wellness and is therefore poised to leverage this policy to resecure perhaps even increase funding and priority. As physical activity or

³⁰ Canada, Department of National Defence, “Strong, Secure, Engaged . . .”, 25.

sports are not mentioned in this chapter of SSE, they need to be considered in addressing the global context described in chapter four. Although SSE is already five years old at the time this essay was written, state rivalry is singled out as a an emerging trend and therefore, the importance of having a competitive approach to navigate the waters ahead should be considered. The Defence Policy's successor needs to emphasize the importance of competitiveness, particularly when it comes to the CAF's capabilities and capacity to conduct operations at home and abroad.

Balance, the Canadian Armed Forces Physical Performance Strategy

Following the publication of SSE, the CAF produced Balance, the Canadian Armed Forces Physical Performance Strategy. This document put into practice the initiatives mentioned in chapter one of SSE and provides guidelines for CAF members and the whole Chain of Command as to how important the Total Health and Wellness Strategy is. All of the components of physical health, physical activity, nutrition, sleep, injury and physical performance were integrated into one document that would foster better CAF members for an improved organization.

In the foreword, the Chief of Defence Staff (CDS) made it clear that the CAF “have a collective responsibility within the Canadian Armed Forces (CAF) to develop and sustain a strong, healthy and fit military.”³¹ In this statement, it is obvious that the CDS is mainly focused on the general benefits of a healthy lifestyle, not necessarily on the performance of CAF members in the field or on operations. In the purpose and scope section, the CAF members are put in the center for all of the CAF's success. In order to

³¹ Canada, Department of National Defence, Balance, the Canadian Armed Forces Physical Performance Strategy, Ottawa, DND, 2018, VIII, <https://www.cafconnection.ca/National/Programs-Services/For-Military-Personnel/Military-Fitness/BALANCE-Strategy.aspx>.

achieve success, the CAF need to maintain the highest possible levels of operational readiness.³² In the principle of universality of service, the CAF strive to achieve minimal levels of fitness allowing “CAF personnel [to] be able to perform general military duties and common defence and security duties in addition to their military occupation or occupational specification.”³³ Unfortunately, with this statement, extrinsic incentives to pursue higher than basic levels of health and physical fitness are removed. It leaves CAF members with solely intrinsic motivation to strive for new heights. Studies have shown that the combination of both intrinsic and extrinsic motivation are key to influence sports commitment.³⁴

In the Purpose and Scope section, Balance acknowledges potential gains from improving on the four behaviors for total health which include physical activity, performance nutrition, sleep and injury prevention, labeled as P4. Interestingly, Balance then advances that “by acting on these behaviors, it is anticipated that improvements can also be expected well beyond the realm of physical performance, including in mental/cognitive alertness and performance.”³⁵ Although this statement is very promising, it does not identify how this can be achieved and therefore leaves a gap in fully recognizing the benefits of physical activity.

Further, Balance recognizes that fitness comprises two distinct, but complementary elements. Operational and health-related fitness. These elements are measured by the Common Military Task Fitness Evaluation in the form of the FORCE

³² Canada, Department of National Defence, Balance . . . , 11.

³³ *Ibidem*.

³⁴ Peter A. Crocker, *Sports Psychology* . . . , 95.

³⁵ Canada, Department of National Defence, Balance . . . , 13.

test. The FORCE test was designed to quantify members' cardiovascular endurance, muscular strength and endurance, flexibility and body composition.³⁶ These metrics provide valuable predictors of physical performance, but do not assess critical combat-related attributes, such as cognitive pattern recognition, decision-making and problem solving. Balance then emphasizes the importance of physical activity in everyday life in today's society compared to sedentary time. Once again prioritizing general wellbeing over the development of combat-relevant skills and attributes.

Balance cautions that sports and physical activities account for the most prominent reason why Regular Force personnel are not eligible for deployment due to injuries.³⁷ This is particularly significant as studies have shown that physical literacy is the best way of avoiding acute or repetitive stress injuries.³⁸ In the final section relevant to this study, accountability for having a healthy organization is highlighted as a shared responsibility among the individual, leadership and the institution. This aligns perfectly with the argument that the CAF policies must align with its goals. In the intent of achieving Total Health and Wellness, Balance supports the necessary components, but it falls short in fully preparing soldiers for future war. If the CAF are to be employed in an environment that requires more than basic physical fitness, including enhanced skills such as astute decision-making, forward looking problem-solving and planning abilities, Balance needs to better associate with the PFEC.

CAF Sports Strategy

³⁶ Canada, Department of National Defence, Balance . . . , 21.

³⁷ *Ibid*, 24.

³⁸ Canada, Department of National Defence, Game Changer . . . , 12.

The CAF Sports Strategy called “Game Changer” is a recently created document that has yet to be fully approved for publication at the time this paper was written, but is expected to be so by the summer of 2022. Game Changer is aiming to integrate sports as a key component of the Total Health and Wellness Strategy previously described in both SSE and Balance (Figure 2).

Defence Policy: Strong, Secure and Engaged



Figure 2 - CAF Strategic Context

Canada, Department of National Defence, Game Changer, the Canadian Armed Forces Sports Strategy, Ottawa, DND, 7.

Highlighted in the executive summary are key benefits of sports such as:

“improve fitness, build morale, solidify unit cohesion and develop core military attributes such as teamwork, self-discipline, loyalty, leadership, esprit de corps, perseverance and resilience.”³⁹ This is a significant step in the recognition of what separates sport from

³⁹ Canada, Department of National Defence, Game Changer . . . , 3.

physical activity, but it does not stipulate some of the more soldier specific cognitive skills that sports help develop or how it will fit in the preparation for the FoE. At this point, it is necessary to remind readers that not all sports solicit the same body parts or develop the same cognitive attributes; it is for this reason that the author restricted the scope of the study to social functioning, spatial abilities, transfer of pattern recognition skills, decision-making and problem-solving, and competitiveness. Game Changer's purpose clearly emphasizes the importance of the chain of command in the promotion of sports: "This document is written for all levels of leadership and those who support, administer and participate in the CAF Sports Program."⁴⁰ Game Changer also sets the program objectives via various metrics such as awareness, participation and satisfaction. This will be key in evaluating the program in the future. Where Game Changer falls short is in the granularity for what the FoE will demand of soldiers in terms of competition and other key cognitive abilities. This could have been leveraged to further justify the *raison d'être* of the CAF Sports Program. Finally, the CAF Leadership is identified as the CAF Sports Program's center of gravity. In doing so, Game Changer cleverly quotes CAF members of all ranks, but particularly general officers such as Lieutenant-General (LGen) Frances Allen, Vice Chief of Defence Staff, LGen Al Meinzinger, Commander Royal Canadian Air Force and Chief Warrant Officer (CWO) Marco Côté, CWO at the Director General of the Morale Wellness Services.⁴¹ This shows the acknowledgement from members of the upper chain of command of what sports and the CAF Sports Program

⁴⁰ Canada, Department of National Defence, *Game Changer* . . . , 5.

⁴¹ *Ibid*, 5, 7, 1 and 17.

bring to the organization. According to sports psychology literature, social support is one of the primary determinants of sport commitment of adults.⁴²

DAOD 5023-0, 5023-1 and 5023-2

The Department of National Defence's Defence Administrative Orders and Directive (DAOD) 5023-0, Universality of Service, defines the authority under which the CAF can utilize soldiers in the defence of Canada. In order to achieve this mission, CAF soldiers must meet the criteria defined under the principle of universality of service.⁴³

This principle is defined as:

"The principle of universality of service or "soldier first" principle holds that CAF members are liable to perform general military duties and common defence and security duties, not just the duties of their military occupation or occupational specification. This may include, but is not limited to, the requirement to be physically fit, employable and deployable for general operational duties."⁴⁴

This definition then gives the rein to the CAF to determine what represents *general military duties and common defence and security duties*. This is achieved in DAOD 5023-1. Based on the CAF's assessment of the FoE, one could argue that considering cognitive skills development could be added to physical and mental preparation of soldiers for the mission of defending Canada.

⁴² Peter A. Crocker, *Sports Psychology* . . . , 93.

⁴³ Canada, Department of National Defence, Defence Administrative Orders and Directives 5023-0, Universality of Service, Ottawa, DND, article 2.2, <https://www.canada.ca/en/department-national-defence/corporate/policies-standards/defence-administrative-orders-directives/5000-series/5023/5023-0-universality-of-service.html>.

⁴⁴ *Ibid*, article 2.4.

As previously mentioned, DOAD 5023-1, Minimum Operational Standards Related to Universality of Service, addresses the minimum operational standards to be achieved which include to be physically fit, to be employable and to be deployable. Under the “be deployable” banner falls the requirement to “perform duties under physical and mental stress.”⁴⁵ The author argues that it is under this requirement that further granularity could be added to include decision-making skills, problem-solving, cognitive pattern recognition, which would therefore better prepare soldiers for the FoE.

DAOD 5023-2, Physical Fitness Program, builds on 5023-0’s general military duties and add that “The CAF is committed to maintaining high levels of operational effectiveness and readiness.”⁴⁶ 5023-2 mandates unit Commanding Officers to allow CAF members to participate in physical activity for at least sixty minutes a minimum of five times per week. This many opportunities per week allows for a broad range of different sessions that could cover all the components related to health fitness described in Balance, but also for the prioritization of sports. Inserting comments on sports and their social, behavioral and cognitive benefits would help shape the content of the training sessions.

DAOD 5045-1, Canadian Armed Forces Sports Program

⁴⁵ Canada, Department of National Defence, Defence Administrative Orders and Directives 5023-1, Minimum Operational Standards Related to Universality of Service, Ottawa, DND, article 2.4, <https://www.canada.ca/en/department-national-defence/corporate/policies-standards/defence-administrative-orders-directives/5000-series/5023/5023-1-minimum-operational-standards-related-to-universality-of-service.html>.

⁴⁶ Canada, Department of National Defence, Defence Administrative Orders and Directives 5023-2, Physical Fitness Program, Ottawa, DND, article 3.1, <https://www.canada.ca/en/department-national-defence/corporate/policies-standards/defence-administrative-orders-directives/5000-series/5023/5023-2-physical-fitness-program.html>.

Like Game Changer, the last piece of legislation covered has yet to be published, but it is expected to be by 2023. It contains very positive elements such as a distinct definition of sports, which is different from all other publications related to the Total Health and Wellness Strategy. DAOD 5045-1 defines sports as:

“A set of physical exercises, requiring physical efforts and skills that are played or done according to rules. Sport can be in the form of individual or team participation, generally giving rise to competition and enjoyment. Sport also involves procedures and requires the use of tactics and strategies.”⁴⁷

It then acknowledges that sports require competition between individuals or teams, it also puts forward that it prepares for competition as a whole. This represents an important step towards recognizing sports as a key component in training of soldiers for the FoE. DAOD 5045-1 reaffirms the objectives of the CAF Sports Program which are: strengthen, social and physical wellness, develop attributes consistent with military core competencies, and develop esprit de corps and morale.⁴⁸ For the purpose of this document, the attributes consistent with military core competencies are what appear to be most relevant. Unfortunately like Balance, no granularity is provided as to what those competencies entail. Future review of this policy could integrate the advantages of competition and other key cognitive skills that stem from sports.

CONCLUSION

By analyzing the characteristics that future conflicts represent and by contextualizing the elements by which the CAF’s plan to address them, this paper attempted to answer this question: can sports render the CAF better prepared and more

⁴⁷ Canada, Department of National Defence, Defence Administrative Orders and Directives 5045-1, Canadian Armed Forces Sports Program, Ottawa, DND, article 2.5.

⁴⁸ Canada, Department of National Defence, DAOD 5045-1 . . . , article 2.1.

competitive for the challenges that lie ahead in great power competition? By demonstrating the social, cognitive and behavioral advantages that sports represent and by linking them to the fourteen elements of the PFEC, the author confirmed that sport should be prioritized over physical activity in the preparation of soldier for the FoE. Through a comprehensive examination of current and soon to be published CAF policies, the author recommends that future review of those policies adjust the vocabulary employed to better address the many and complex problems that the FoE represents. This can be achieved by recognizing the importance of competition, the social and cognitive advantages that sports have over physical activity and behavioral traits like competitiveness that are fostered with the right leadership posture, culture and policies to support it all. By funding the full complement of CAF sports and even venture into new trendy disciplines, the population of CAF members that participate in the organization's Sports Program can only increase. By implementing these recommendations and striving to achieve the goals set in Game Changer, the CAF may better position itself to compete in the great power competition. It is the author's opinion that percentages, quantities, quotas or ratios of sports to physical activities should not be looked into as they become restrictive and as demonstrated in this paper and could meddle with CAF members' extrinsic motivation to participate in the endeavors. Simple prioritization, education and communication should be considered. Future research into this field could look into the most effective and efficient sports that the CAF should invest into.

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