

ARMY FOUNDATION COLLEGE HARROGATE

# PROJECT ATHENA

**A PILOT PROJECT TO OPTIMISE BASIC TRAINING FOR FEMALE JUNIOR SOLDIERS.**



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# THE PROJECT ATHENA TEAM



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"It's in the small everyday actions"

*Air Vice-Marshal Maria Byford QHDS*



## EXECUTIVE SUMMARY

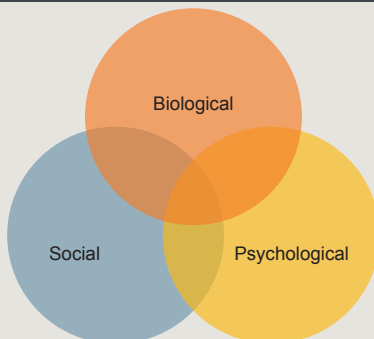
Project (Pj) ATHENA 1 was a six-month long Basic Training pilot that ran from September 2021 to February 2022 at the Army Foundation College Harrogate (AFC(H)). It involved 48 female Junior Soldiers (JS) headed towards non-Ground Close Combat (GCC) roles in the British Army. The Project was initiated in response to College gathered data indicating that female JS arrived at AFC(H) at lower physical standards and then progressed less quickly than their male counterparts. In addition, they were also much more likely to become injured with a linked likelihood to leave training voluntarily through the Discharge as fit Right (DAOR) process. Using non-GCC JS allowed the initial pilot to be completed in six months rather than one year.

Previous interventions had focussed entirely on the physical development (PD) methodology. Pj ATHENA 1 aimed to add wider biological factors, social context and psychology to the approach. Whilst changing so many factors at once makes it hard to pin success or failure to particular aspects, it mirrors best practice in elite sport where the importance of psychology is widely understood.

Pj ATHENA 1 also aimed to address the social injustices faced by servicewomen, recognised by the College and in the 2021 ['Atherton' report](#).<sup>1</sup> The project became a lens through which to view the female JS experience of training and thus many areas for improvement were identified, most of them simple 'tactical' actions.

Pj ATHENA 1 came at a cost to the female JS involved. By necessity, the additional training had to be scheduled around an already busy Common Military Syllabus Junior Entry (CMS(JE)) training programme. For this reason, they had to be extracted from exercise preparation or work later in the evenings. Many of the servicewomen stated a desire to be 'treated the same as the blokes,' perhaps unaware of the benefits Pj ATHENA 1 could bring them. That said, the cohort identified positive aspects from the trial such as an increased sense of belonging, largely through the social events which doubled as discussion forums. The most consistent theme of feedback was the desire for additional PT sessions, something which would need to be balanced against the potential to raise injury rates and their usual ability to access the gym out of hours when COVID regulations abate.

## THE PJ ATHENA MODEL





## KEY FINDINGS

- » Pj ATHENA 1 was created to address the trend of higher injury and lower physical performance amongst female JS. The small sample size and massive effect of COVID mean that it would be improper to draw conclusions about injury levels or physical performance at this stage. Pj ATHENA 1 has provided a baseline of understanding from which Pj ATHENA 2 can be assessed. It has also revealed immediate lessons to be integrated into the Common Military Syllabus (CMS). Wastage was lower for the Pj ATHENA 1 JS than any previous cohort.
- » Pj ATHENA 1 identified shortfalls in understanding about female health issues amongst the staff and JS. The College sought to address this with Continuous Professional Development (CPD) delivered on the menstrual cycle, breast health, prehab and hygiene provision. The CPD empowered male staff to lead their female JS better. Further work will incorporate the CPD into the staff Workplace Induction Programme (WIP), the new CMS 21 (JE) programme and closer work with the Army Recruiting and Initial Training Command (ARITC) Health and Performance team on areas such as increased sports bra provision.
- » A 2020 survey showed the College that the lived experience of female JS included elevated levels of Bullying Harassment and Discrimination (BHD) and a low likelihood of reporting such incidents to the Chain of Command (CoC) – later mirrored by the ‘Atherton’ report. A series of initiatives caused the likelihood of reporting to double by the end of the pilot. However, the types of BHD did not change in the period, something the College aims to address with added content integrated into CMS 21 (JE) and greater mixing of female and male JS within sections from Mar 22.
- » Work by the ARITC Occupational Psychology team identified the reduced ability of female JS to emotionally regulate when compared to their male counterparts. The supplied package by Super North Star (SNS) Ltd did not cause a measurable improvement in this area. Pj ATHENA 2 will therefore use Professor Steve Peters, a known expert in the field of emotional regulation, to deliver his ‘Chimp Management’ programme to staff and JS. This presents a significant comms opportunity for the Army due to his previous work with Team Sky, British Cycling and Liverpool Football Club. Pj ATHENA 1 also identified a shortfall in female role models at AFC(H), especially in PD.

<sup>1</sup> <https://committees.parliament.uk/committee/24/defence-committee/news/156892/report-protecting-those-who-protect-us-women-in-the-armed-forces-from-recruitment-to-civilian-life/>



# THE THREE DOMAINS

## BIOLOGICAL

Prior to Pj ATHENA, the injury rate of female JS during the short course was 48% with an inevitable knock on to wastage rates due to an associated drop in morale. Historical data from 2018-2021 indicated that an average of 12% of female JS chose to DAOR due to injury. In addition, female JS were proportionally less likely improve their Role Fitness Scores compared to the male JS, for example there was 14% decrease in mid-thigh pull performance in female JS compared to a 15% increase for the male JS.

The biological domain was deliberately broadened from traditional PD factors to incorporate all relevant female health issues. Where possible, learnings from previous studies were used, including the 2016 WGCC interim report and ARITC's Army Recruit Health and Performance research on breast health. External expertise from [The Well HQ](#) provided expert support regarding training during the menstrual cycle.<sup>2</sup>

Clinicians from the AFC(H) physiotherapy team engaged with The Well HQ and attended the Menstrual Cycle Course,<sup>3</sup> enabling content creation for female JS menstrual cycle training. This content, not covered by CMS 18, enhanced the Pj ATHENA 1 participants' knowledge and understanding of their bodies relating to the rigours of Basic Training, underpinning the educational theme of the Project.

The clinicians also delivered a 'prehab' session to Pj ATHENA 1 participants; it covered several themes and provided a foundational understanding that could be used when conducting physical training in their own time. They covered a functional movement recap with an enhanced explanation on movement pathways for women. Each participant had a basic biomechanical analysis by a physiotherapist with bespoke advice given. The content was delivered in a less formalised style than traditionally experienced within CMS PD, creating an environment that was more conducive to questioning the staff.

Breast health and the effects of the menstrual cycle were not concepts widely understood by AFC(H) Permanent Staff (male and female). CPD was delivered to reinforce the importance of correctly fitting sports bras and the responsibility of all staff to check JS are correctly equipped for PT sessions. The training has been made available on Defence Connect and will be used in future WIP sessions. Pj ATHENA 1 facing staff attended the Individual Health lessons delivered directly to the female JS, thus further enhancing their personal understanding of the cycle and encouraging an open dialogue for this potentially sensitive subject. Overall, this increased the inclusivity and operational effectiveness of the sections due to greater trust and approachability of staff.

A review of in-barracks provision was conducted, identifying a shortfall in the first six weeks of training. During a remarkably busy phase of the training, servicewomen are moving considerably more than they may have done in the past with the consequence of either unexpected and/or heavier flow. This combined with a potential lack of access to money, or a shop, meant that they were unable to access to sanitary products ('period poverty' is a factor in some cases). This was remedied by a basic provision in the welcome packs given to all servicewomen on arrival, regardless of need and without the need to ask. Out of barracks and building on work started at the Army Training Centre (Pirbright), AFC(H) developed a Female Hygiene in the Field Standard Operating Instruction (SOI). The SOI recognised the requirement to build understanding of the requirement into our core capabilities on exercises, often with a cohort of instructors who have not led women in the field before. The SOI also outlines the logistic chain for resupply of items using a Complete Equipment Schedule (CES) derived from the August 2021 DIN regarding sanitary provision for Service Personnel.<sup>4</sup>

CPD on breast health, menstrual cycle and hygiene issues has been well received by staff, especially those who have not led servicewomen before. They are now informed and empowered to better lead their teams. The transitory nature of military staff in training establishments means this will need to be built into WIP but the effect of the JS can be significant.

<sup>2</sup> [www.thewell-hq.com/](http://www.thewell-hq.com/)

<sup>3</sup> The Powers and Pitfalls of the Menstrual Cycle module, delivered Jul 21.

<sup>4</sup> 2021DIN01-098 - Supply of Emergency Sanitary Products Provision for Service Personnel.

“One of the female JS had struggled during the night with menstrual problems and told me that she had been comfortable in approaching a male staff for help, and that he had been “brilliant” with her, making sure that she had access to sanitary pads etc.”<sup>5</sup>

## SOCIAL

The results of a 2020 Level 1 climate assessment were incredibly positive for Diversity & Inclusivity (D&I) issues, but AFC(H) knew that, as a 90% male organisation, the climate assessment would be ineffective at understanding the lived experience of minority groups (including servicewomen). The social construct surrounding JS is critical to their emotional safety and thus ability to learn and succeed.<sup>6</sup>

In Q3 2020, a preliminary survey was conducted exploring the lived experience of Junior Soldiers at AFC(H). The results of the survey were shocking, but unsurprising. They were later mirrored by the 2021 Atherton report, confirming their validity. 48% of female JS reported Bullying, Harassment or Discrimination (BHD) and only 30% stated that they would report it to their Chain of Command.

In response, AFC(H) ran a 'Women in Defence' study day hearing from inspirational servicewomen from a variety of backgrounds. This gave the JS visible role models and life experiences, and a chance to learn how they had overcome adversity to achieve success in their lives. In addition, discipline relating to female BHD was made highly visible. The Commanding Officer briefed all female JS directly on how to report, why it was important and gave a pledge to act. The approach was designed to encourage higher confidence in reporting.

Replicating networks that exist in wider Defence, AFC(H) established reinvigorated female focus groups integrating JS, military and civilian staff. Those on the Pj ATHENA 1 trial joined a Facebook-based online forum allowing an open forum for questions, moderated by a permanent staff presence, but also allowing the sharing of relevant media.

Over the trial, AFC(H) introduced a zero-tolerance stance on sexism, bringing it into parity with racism. JS were removed from the Service for sexualised language, sexualised behaviour on social media and sexual misconduct.

The focus on the female lived experience helped the College leadership identify barriers for inclusion. The provision of civilian tracksuits was a useful indicator of an institution not thinking about the needs of women. As part of a bulk order of 1000 tracksuits from Craghoppers in September 2021, no female sizes were ordered for the 150 servicewomen arriving. This meant that a female JS arriving at the Quartermaster's dept and asking for a size 12 was met with a blank stare.

Safeguarding for the U18 cohort also creates a false inclusion barrier at lights out (the lines are segregated male/female). Traditionally, sections are therefore formed by their accommodation meaning that they are single sex. This was being extended to daytime training activity as well. During the Project, one of the platoons trialled mixing sexes in the sections for training activity whilst the other platoon remained segregated. The staff and JS preferred the mixed sections, citing better behaviours and better teamwork.

In Q3 2021, the lived experience survey was repeated. Whilst the amount of BHD experience had not decreased, the servicewomen's likelihood of reporting such incidents had doubled from the previous year.<sup>7</sup> Anecdotally, the servicewomen involved in Pj ATHENA 1 were more engaged with the course and more engaging when spoken to. The forums, esprit de corps, high profile visits and environment surrounding the project made them more confident and at ease when speaking out. The wastage rate for the Pj ATHENA 1 cohort was 10%, significantly lower than the College average for the year (30%) and previous female cohorts.

<sup>5</sup> Independent Advisory Panel report – Dec 2021.

<sup>6</sup> Nembhard, Ingrid M., and Amy C. Edmondson. "Psychological safety." In *The Oxford handbook of positive organizational scholarship*. 2012.

<sup>7</sup> The 2020 & 2021 Female JS Lived Experience surveys are Official Sensitive and held at AFC.

## PSYCHOLOGICAL

At the beginning of the pilot, the ARITC Occupational Psychology team surveyed the female JS. The results indicated that they were on a par with their male counterparts when it came to resilience and self-efficacy,<sup>8</sup> but were, on average, less able to emotionally regulate<sup>9</sup> than their male counterparts. Emotional regulation is critical in high performance athletes, as low regulation has a direct and detrimental effect on the cardiovascular system. In short, the servicewomen were more likely to fail a physical test before reaching the start line.

An external contractor, Super North Star Ltd, was used to provide the psychological education for Pj ATHENA 1. Unfortunately, the additional education provided by SNS Ltd did not meet the requirement to improve the emotional regulation of adolescent female JS by psychological education. The additional education also added more 'out of hours' work for the JS and staff. The SNS Ltd package did not lead to a measurable improvement in emotional regulation amongst the pilot cohort.

<sup>8</sup> The 2020 & 2021 Female JS Lived Experience surveys are Official Sensitive and held at AFC.

<sup>9</sup> Self-efficacy, a concept originally proposed by the psychologist Albert Bandura, refers to an individual's belief in their capacity to execute behaviours necessary to produce specific performance attainments.





# THE COVID IMPACT

The global pandemic introduced frictions that have actively hindered the desired aims of the Pj ATHENA 1 trial across all three domains. The Army Force Health Protection Measures (FHPM) mandated Section 'households'. A construct designed to prevent COVID transmission, by preventing intra-household mixing. Equally, this inhibited social mixing between Sections and therefore genders, which introduced an unavoidable organisational barrier to inclusivity in this domain.

The rise of the Omicron variant in late 2021 had an immediate impact on PD progression for all the Pj ATHENA participants. A shift to Virtual Training in December 2021, coupled with COVID recovery pathways after infection and/or vaccination, incurred a sizeable chunk of missed training as the cohort approached the Role Fitness Test (Basic Training) output standards.

Wastage stats and wider G1 observations indicate that the 'COVID cohort' of JS are markedly different from pre-COVID populations. They are observably less physically and mentally resilient, more socially anxious and isolated, and less well prepared (both personally and via the reduced Recruiting Group pipeline) for Basic Training. A lack of on-site freedoms and the dilution of the AFC(H) 'offer',<sup>10</sup> has resulted in a cohort of JS who are intrinsically more psychologically vulnerable and susceptible to a wider range of stressors without the normal mechanisms to remove or mitigate them.

<sup>10</sup> [Sport and Skills, weekend/evening walkouts, battlefield studies, access to the gym, AT, Overseas sports tours, etc.](#)





# AREAS FOR DEVELOPMENT AND PJ ATHENA 2

Pj ATHENA 2 will aim to reduce the burden on the trainee, incorporating the additional training requirement into 'working hours' within CMS 21 (JE). Ideally, the needs of servicewomen should be built into future CMS iterations so that such interventions become unnecessary. This is something that could be considered by Initial Training Group (ITG) as they plan for CMS Future Soldier as part of the Basic Training Adaptation Programme (BTAP).

Pj ATHENA 1 was shared widely on Social Media channels enabling a wide number of stakeholders to become interested in the project, offer support and request any lessons identified.<sup>11</sup> As a unit trial, no formalised feedback was given to Higher HQs until this report. Pj ATHENA 2 must share information faster and be clearer with its measures of effect than Pj ATHENA 1. This will enable better exploitation of results to a wider cohort and better harness the expertise that ARITC can bring to bear. Advice will be taken from the HQ ARITC staff as to how this can best be achieved.

## BIOLOGICAL

For the last two years, the professional fitting of sports bras and issue of three bras to each JS has been a welcome first step. Correctly fitting sports bras reduce injury and enhance athletic performance, this can be the difference between passing and failing a specified fitness standard such as the Role Fitness Test (RFT). Working with the ARITC Health and Performance Team, AFC(H) are now working to increase the provision to 12 bras per JS. This will allow for size fluctuations (during cycles and the training programme), wearing during more activities other than PD (e.g. drill) and better hygiene given the limited laundry provision.

Pj ATHENA 2 will be more precise in data collection and analysis. Harnessing the ARITC Health and Performance scientists, it will examine associations between physiological (e.g. RFT performance) and psychological (e.g. emotional regulation) measures. The trial will use a more appropriate female control group and sample size. Pj ATHENA 2 will record the results and timings of all RFT attempts. Absolute scores, score relative to the pass standard and percentage pass rates will all be measured. Pj ATHENA 2 will incorporate additional muscular-skeletal injury (MSKI) data-fields from the HQ ARITC injury register that will measure the severity (e.g. weeks in rehabilitation) and timing (e.g. week of training injured) of MSKIs.

## SOCIAL

The 2021 lived experience survey shows that whilst confidence to report incidents of inappropriate incidents has risen, the types of BHD suffered have barely changed during the period. Pj ATHENA 2 will benefit from a new syllabus delivered to all JS as part of CMS 21 (JE). Lessons on inclusive leadership, followership and female health considerations aim to improve behaviours in those headed for junior leadership. We know from experience and reports by sensors, such as the Independent Advisory Panel, that attitudes and behaviours towards female JS are best where they are integrated within a platoon. The mixed section trial reinforced this belief, and the College will mix as many sections as possible from the March 2022 intake onwards. Segregation will continue in the accommodation but, at all other times, platoons with female JS will train in mixed sections.<sup>12</sup>

## PSYCHOLOGICAL

For Pj ATHENA 2, AFC(H) will pilot 'Skills for Life', an education package provided by Professor Steve Peters and his 'Chimp Management' Company. The programme 'explains and simplifies the neuroscience of the mind, helping participants to understand how their mind works and offers practical guidance to help them manage their mind'.<sup>13</sup> Working with Professor Peters offers the Army a significant comms opportunity as his previous work has been with well known 'brands' such as British Cycling, Team Sky and individual athletes, including Victoria Pendleton. Working with the Chimp Management team will help to show the British Army is serious about investing in its servicewomen and meeting its target of 30% by 2030.

<sup>11</sup> [Twitter - @CO\\_AFC](#), [Instagram - @armyfoundationcollege](#), [Facebook - afcharrogate](#)

<sup>12</sup> The College is currently limited to a maximum of 6 mixed platoons of 28 due to infra constraints. Work is underway to increase this to 8 during the financial year.

<sup>13</sup> <https://chimpmanagement.com/what-we-do/mind-management-skills-for-life/individual/>

The lack of female role models is a significant shortfall which remains out of College control. Whilst visibility everywhere is important, it is in the PD area where the need is most pressing due to the power of same-sex role models.<sup>14</sup> Currently, only one of the 31 PD staff at AFC(H) is a servicewoman. As most of the College's All Arms Physical Training Instructors (AAPTIs) posts are tied to the Infantry, an area of the Army with low female representation, this is unlikely to change soon. The Army Personnel Centre (APC) and HQ ARITC are alive to the issue and are staffing a paper to HC for APC approval of post reallocation. This move alone will not furnish AFC(H) with sufficient numbers as female AAPTIs and Royal Army Physical Training Corps Instructors (RAPTCI) are an incredibly scarce resource.<sup>15</sup> Consideration should be given to PTIs aligned to physical employment standards (PES), rather than a single GCC standard. As it stands, all AAPTIs must be able to work in every type of unit: GCC and non-GCC. Whilst the conceptual training cannot be compromised, more radical solutions to create more female AAPTIs could be considered to provide adequate representation for training establishments.

## **SUMMARY**

Whilst a small pilot, Pj ATHENA 1 helped AFC(H) rapidly increase understanding of the institutional barriers for inclusion that exist for female JS. Whilst this trial was focused on the U18 cohort, it is likely these barriers exist elsewhere in the training pipeline and apply to the wider adolescent cohort in Standard Entry. The pilot grew in scope as the College realised the multitude of factors that would need to be developed to address the barriers. Pj ATHENA 1 baselined the College's dataset and methodology, giving us a start point and pathway for the next trial, Pj ATHENA 2, summarised by a new mission statement:

# **PROJECT ATHENA 2 MISSION**

**ADAPT BASIC TRAINING TO THE NEEDS OF ADOLESCENT SERVICEWOMEN THROUGH PSYCHOLOGICAL EDUCATION, INSTITUTIONAL CHANGE AND BIOLOGICAL UNDERSTANDING IN ORDER TO REMOVE BARRIERS TO INCLUSIVITY, REDUCE INJURY IMPACT AND INCREASE RETENTION.**

<sup>14</sup> Midgley, C., DeBues-Stafford, G., Lockwood, P. et al. She Needs to See it to be it: The Importance of Same-Gender Athletic Role Models. *Sex Roles* 85, 142–160 (2021).

<sup>15</sup> APC figures show that servicewomen represent just 21 of 450 in the RAPTC and 71 of 3126 AAPTIs. Of those 71, 42 are in the rank range (LCpl / Cpl) required for AFC PIDs.

# TABLE OF FINDINGS AND RECOMMENDATIONS







SER	DOMAIN	TOPIC	FINDINGS	RECOMMENDATIONS	STAKEHOLDERS
1	Overall	Academic replication / upscaling.	<p>The genesis of Pj ATHENA 1 is rooted in an observable data trend that suggested the rate of injury and wastage in our female JS population was significantly higher than their male counterparts. This generated a working hypothesis that CMS(JE) was exclusive by design, with an inherent bias for male JS. An organisational inclusivity barrier. All the work that followed at College level built upon this hypothesis, looking to remove those barriers across three domains.</p>	<p>A similar analysis of the injury and wastage rates across all BT/ITT and STT courses should be conducted, to identify if similar gender inclusivity barriers are present at course design/delivery level across the Army.</p>	ARITC, LWC.
2	Overall	Reporting and sharing of trial results.	<p>Pj ATHENA 1 relied on internal sharing and advertising of the concept using Social Media channels. Whilst effective at spreading the message and intent to a wide audience, SM is not the most effective method for organisational learning or evaluation.</p>	<p>Pj ATHENA 2 must have a deliberate, through pilot, evaluation and reporting strategy.</p>	AFC(H) SO3 Eval, ARITC
3	Overall			<p>CO AFC(H) to liaise with SO1 Comms at HQ ARITC to establish an endorsed comms/ media plan.</p>	SO1 Engagement ARITC



SER	DOMAIN	TOPIC	FINDINGS	RECOMMENDATIONS	STAKEHOLDERS
4	Overall	Approach to inclusion in training	Focusing only on the physical approach to female training (as in CMS 18) did not recognise the required difference in approach, socially and psychologically.	Other training units might consider a deep dive (such as a lived experience survey / focus group) into the social context surrounding their servicewomen to define any issues in their unit, ensuring their CRA and SCD capture the lived experience of minority groups.	AFC(H), All units, esp. Trg establishments within ARITC / LWC
5	Overall			CO AFC (H) to amend Pj ATHENA 2 mission statement to include all three domains.	AFC(H)
6	Overall	Permanent Staff Endorsement	Some PS within the Pj ATHENA 1 Training Teams did not fully support the project, questioning why the female JS were being given 'special treatment'.	AFC(H) to conduct ATHENA workshops with involved PS NLT week 3 of Pj ATHENA 2 in order to explain ATHENA intent, the PS role in it and the evaluation strategy.	AFC(H) LDA
7	Overall	Timetabling	Much of the additional content was added late into the CMS 18 programme, causing out of hours work for the Pj ATHENA 1 cohort. This was inevitably unpopular and increased the sense of being 'singled-out'	AFC(H) LDA to ensure all suitable considerations from ATHENA 1 are included in the CMS21(JE) re-write.	AFC(H) LDA

SER	DOMAIN	TOPIC	FINDINGS	RECOMMENDATIONS	STAKEHOLDERS
8	Overall	Equality of treatment	Many of the servicewomen stated a desire to be treated the same as their male colleagues during training.	PJ ATHENA 2 must ensure the purpose of any female specific serials are clearly briefed ahead of the events not prevent misunderstandings by the participants.	AFC(H) ATHENA 2 staff
9	Overall			PJ ATHENA 2 to ensure the evaluation plan specifically captures female JS perceptions of all separated serials to contrast with PJ ATHENA 1.	AFC(H) SO3 Eval
10	Overall	Reporting and sharing of lessons	Generally training delivery and management issues and/or lessons identified within the Schools are not being captured in a timely manner. HQ ARITC should implement a pan-Command process by which Schools and Op Gps can evidence issues, make recommendations and seek advice not resolve or mitigate as appropriate	Trg Ops to develop and implement a lessons process underpinned by ACSO 1118 across ARITC.	HQ ITG L&D DCOS ARITC
11	Overall			HQ ARITC to review all the following unit level recommendations in order to exploit across the Command as appropriate.	Trg Ops



SER	DOMAIN	TOPIC	FINDINGS	RECOMMENDATIONS	STAKEHOLDERS
12	Biological	Hygiene in the field	Knowledge of female hygiene needs was inadequate amongst the staff, as was formalised provision of sanitary products for in the field emergencies.	AFC(H) to ensure an SOI is established with appropriate comms plan to ensure knowledge of female hygiene needs is adequate amongst the PS. SOI to be shared with other ARITC Units.	SO2 EH ARITC, ARITC
13				PjATHENA 2 to evaluate the impact of the female hygiene SOI.	AFC(H)
14	Biological	Hygiene in the field	Use of the current 2021DIN01-098 is limited to exercises and deployments and does not account for a very heavy bleed.	AFC(H) believe the provision should be increased to all off-site training (for example ranges) and that spare trousers (in various sizes) should be added to the box.	Army HQ (D PERS Lead), SO2 EH ARITC, Team Leidos
15	Biological	Hygiene in the field	Disposal of female sanitary products is not possible through current DIO provision on UK training areas.	A formalised biowaste disposal chain should be established on UK training areas or by units to safely backload sanitary products.	Army HQ, DIO, Team Leidos
16	Biological	Wastage due to injury	Injury, especially long term, leads to a higher chance of the JS wishing to leave training.	When injured, the welfare / command wrap around the individual is critical. AFC(H) Phoenix Platoon will liaise with ITG units to discover best practice in this area.	AFC(H), ITG

SER	DOMAIN	TOPIC	FINDINGS	RECOMMENDATIONS	STAKEHOLDERS
17	Biological	Wastage due to injury	The Pj ATHENA 1 trial has helped forge stronger links between the physio/rehab team and the Fox Coy PD delivery team creating synergies for training delivery. Trg Team and med staff communication still needs development.	AFC(H) will instigate Med Centre familiarisation at part of WIP for Platoon Commanders.	AFC(H) WIP, ITG
18	Biological	PjATHENA 2 specific Medical Centre LO	There is a requirement to collect and track female JS health and wellbeing data for the trial and to improve medical outcomes.	AFC(H) recommend a WGCC Specific Medical including a biomechanical assessment (exclusive to the IMA). A specific CMT will be allocated to track any trends for Pj ATHENA 2 participants.	AFC(H) Med Centre, ARITC H&P Team
19	Biological	PD Pathway	PjATHENA 1 benefitted from the first iteration of CMS 21 PD, more focused on the need of the individual.	Prof Dev Br to review the PD Pathway (now at the 12-month point) to ensure it adequately caters for the needs for servicewomen.	ITG PD ARITC PD Prof Dev Br, D Pers
20	Biological	Female Health Understanding	There was shortfall in the understanding of female health issues relating to physical training especially the menstrual cycle and breast health.	AFC(H) to include female health CPD elements for all Trg Team staff during WIP. ASLS to absorb this requirement.	AFC(H) WIP, ASLS



SER	DOMAIN	TOPIC	FINDINGS	RECOMMENDATIONS	STAKEHOLDERS
21	Biological	Female Health Understanding	There was shortfall in the understanding of female health issues relating to physical training especially the menstrual cycle and breast health.	SO2 PD to establish the female health specific content for the AAPTII case.	ITG PD SO2 PD, ARITC
22	Biological	Access to previous studies / information	Throughout the trial, it became apparent to us that there is a lot more information and expertise within Defence than we had realised. It's often brilliant but focused in a narrow area (such as WGCC 2016) or hard to find (from a unit perspective). As an example, a search for Breast Health on MOD SharePoint brings up two pages of information relating to breast cancer but little of use to training.	A single repository for information is available at the Army Research Reports Repository.	ARITC H&P Team ITG ITG Units
23	Biological			Monthly research meetings to be instigated between ARITC H&P Team and ITG Units.	ARITC H&P Team
24	Biological	GCC Vs All Arms focus	Recent studies have been understandably focused on servicewomen joining or integrating into GCC roles. In reality, there is more work to be done to better integrate servicewomen into basic training for all arms.	AFC(H) LDA to shape CMS 21 (JE), within the TDA remit, training events which cater for the needs of the individual, including those of female soldiers.	ARITC L&D Br PD (ITG & ARITC) Occ Psych ARITC

SER	DOMAIN	TOPIC	FINDINGS	RECOMMENDATIONS	STAKEHOLDERS
25	Biological	GCC Vs All Arms focus		ARITC and ITG to evaluate the implementation of CMS 21(JE) iot to inform the BTAP CMS course design.	ARITC L&D Br PD (ITG & ARITC) Occ Psych ARITC
26	Biological	Prehab	More time invested in teaching the functional movements appears to have reduced the number of chronic injuries suffered. Delivery was altered to a more Socratic style rather than the traditional BT style. PT delivery is often formal with little opportunity for JS to ask questions or clarify points. The combined ERI / Physio / PTI approach is worth taking forward at the beginning of training, when JS are less militarised.	PIATHENA 2 to insert 2 x injury prevention workshops (1 x 1st 6wks and 2nd at mid-cse point) into ATHENA 2.	PD (ITG and ARITC)
27	Biological			QMSI PD will deliver a female specific load carriage brief (weight distribution in kit/ equipment) for Load Carriage 1 on Ex LIONS RESOLVE.	PD (ITG and ARITC)

SER	DOMAIN	TOPIC	FINDINGS	RECOMMENDATIONS	STAKEHOLDERS
28	Biological	Breast Health	Currently, JS have an initial issue of 3 professionally measured and fitted sport bras, issued at the start of training. We know that servicewomen change shape and size over the period of training and their menstrual cycle. This, combined with the degradation of bras over time due to washing means that the issue of three is insufficient.	ARHPR to elevate and evidence the requirement for additional sports bras. This will increase in provision to 12, allowing for sports bras to be worn for more elements of training (Drill etc).	ARITC Health and Performance team
29	Biological	Prehab - Physio Dept	Currently, there is no physiotherapist input until a JS becomes injured.	Pj ATHENA 2 to ensure there are sufficient SQEP personnel (Physio / ERI) to ensure functional movements are conducted appropriately in early lessons (therefore reducing risk of injury).	DCOS ARITC
30	Biological	Period Poverty	A small number of JS arrive with no money and are unable to access sanitary products.	AFC to provide Sanitary products in the 'get you in pack' for all female JS, regardless of need to avoid awkwardness or embarrassment getting in the way of a basic requirement. AFC(H) will also scope 'Caught Short' packs in all female toilets.	DCOS ITG. DCOS ARITC



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SER	DOMAIN	TOPIC	FINDINGS	RECOMMENDATIONS	STAKEHOLDERS
31	Social	Bullying, Harassment and Discrimination towards Female JS.	A direct and personal brief from the CO to all female JS regarding bullying, sexual harassment discrimination and methods of reporting caused an increase in reporting of such incidents.	CO AFC(H) will brief twice a year, to match our intakes in Mar and Sep. This method could be easily used by other units. If used, units must be aware of the requirement for a 'welfare wrap' (Padres / WRVS / RMP) around the meeting as immediate reporting is highly likely.	DCOS ITG. DCOS ARITC
32	Social		A dedicated Women in Defence study day gave female JS a chance to be inspired by role models and the male JS to see the benefits of inclusion for operational effectiveness.	CMS 21 (JE) will include minority group role model serials throughout both JE(S) and JE(L), dovetailing with Op TEAMWORK and captured in the SCD.	DCOS ITG DCOS ARITC SO2 D&I
33	Social	Integrated training	U18 safeguarding regulations and AFC(H) infrastructure requires single sex accommodation but this creates a false barrier for inclusion which does not need to be replicated during the day. Behaviours towards female JS are better when they are integrated into the team rather than viewed (with suspicion) from a distance.	AFC will maximise mixed gender platoon orbits and planned activities as far as practicable whilst maintaining a female 'critical mass' within each construct.	DCOS ITG DCOS ARITC SO2 D&I
34	Social	Understanding the problem.	L1 climate assessments must be judged on the demographic of the unit. If respondents are 90% males, it is unlikely that a problem will emerge in the data. Running a focussed survey on minority demographics (esp. women) will reveal a truer picture.	AFC to elevate the observation of the impact of demographic bias on Climate Assessments to APSG via SO2 D&I, ARITC.	DCOS ITG DCOS ARITC SO2 D&I



SER	DOMAIN	TOPIC	FINDINGS	RECOMMENDATIONS	STAKEHOLDERS
35	Social	Bullying, Harassment and Discrimination education.	The Pj ATHENA 1 pilot identified that the experience of AFC(H) servicewomen mirrors that of the responders to the 'Atherton' report. Given the early nature of service life at AFC(H), it suggests the behaviours are imported from society, but highlights that AFC(H) has a responsibility to educate rapidly to reduce the continuation of such issues into trade training and the Field Army.	CMS 21 (JS) will start to redress a shortfall in education in inclusive Leadership with the aim of reducing BHD. AFC(H) should monitor and record evidence of the impact CMS21(JE) has on BHD iot inform the BTAP CMS re-write.	ITG G7 L&D DCOS ITG DCOS ARITC SO2 D&I
36	Social	Social events	Social events during the project created forums for discussion and an increased feeling of belonging. It also increased the ability and willingness of Junior Soldiers to raise issues with the staff.	Pj ATHENA 2 to include sufficient social events aimed to increase the feeling of belonging and increasing JS/PS interaction.	ITG G7 L&D SO2 D&I
37	Social			Pj ATHENA 2 evaluation strategy to record impact of social events to inform BTAP CMS dev.	ITG G7 L&D SO2 D&I
38	Social	Discipline	A zero-tolerance approach to sexism (treating transgressions akin to racism) had a rapid effect in improving behaviours amongst junior soldiers. Where action was taken (such as removal from service), it was advertised widely to ensure the standard was clear to all.	Commanders at all levels should seek out opportunities to stamp on sexist behaviours. This spans from people not using gender neutral language, through low level sexism to sexual harassment. Banter in this area opens doors which are difficult to close.	DCOS ITG DCOS ARITC SO2 D&I

SER	DOMAIN	TOPIC	FINDINGS	RECOMMENDATIONS	STAKEHOLDERS
39	Psychological	Emotional regulation.	A study by the ARITC Occupational Psychology team showed that, at the end of the course, the Pj ATHENA 1 cohort were less able to emotionally regulate than their male counterparts with a potential knock-on effect regarding physical performance.	PjATHENA 2 will use 'Chimp Management' as the psychological education provider. AFC(H) with ARITC support will gather evidence of any impact on the cohort.	ARITC Occ Psych and LD
40				ARITC Occ Psych to research resilience changes in Standard Entry recruits.	ARITC Occ Psych and LD
41	Psychological	Representation - Training Teams	The 8005 for AFC(H) does not guarantee appropriate representation of Servicewomen on the staff. Some companies are currently without any female instructors and female instructors from other companies are often bought across to support sections with female JS (increasing their workload)	Basic Training units must visibly represent the proportion of servicewomen in the Army and should probably be ahead of that number (in line with aims to increase female inflow to 30% by 2030). ARITC Plans to explore means of increasing the female PS presence at BT establishments.	HQ ARITC
42	Psychological	Representation - Physical Development Staff	The 8005 for AFC(H) does not guarantee appropriate representation of Servicewoman on the staff. Only 1 of the 31 AFC(H) PD staff is a servicewoman. In the Army, only 2% of AAPTIs are servicewomen.	Current AAPTI selection makes it very unlikely that adequate numbers of AAPTIs will be available to fund 10% of AFC(H) AAPTI PIDs. Combined with PIDs which are largely tied to Infantry Units, the issue may need some firm action to rectify. RAPTC should consider the need to provide adequate female AAPTIs a priority.	PD ITG PD ARITC





# TECHNICAL REPORTS







# TECHNICAL REPORTS

**MARK WATTON, PRINCIPAL OCCUPATIONAL PSYCHOLOGIST, ARITC**

The occupational psychology team was kindly invited to support the training evaluation of Pj ATHENA 1. The attached report outlines the training evaluation which used several self-report measures exploring Coping strategies; Ability to bounce back; General resilience and resilience in the face of adversity; Self-Efficacy (confidence); and Difficulties in Emotional Regulation.

The platoon of female recruits participating in Pj ATHENA 1 were asked to complete the measures pre and post the training, as was a comparison male (non-ATHENA) recruit platoon.

Female and male scores were similar on all measures at pre-training.

Female scores on post training fell for nearly all scales compared to the female pre-training scores.

Female post training scores on the emotional regulation scales were lower than those for the male recruits.

Male scores on the ability to bounce back and emotional regulation measure fell compared to male pre-training, but not to the same extent as the female recruits.

Based on the reasonable assumption that Pj ATHENA 1 had no negative impact on the psychological state of recruits in the areas measured, the overarching conclusions are:

- » As recognised by those initiating Pj ATHENA 1, female recruits appear more susceptible to the stressors of training life and the project was correct to target support to female recruits. However, the evaluation also indicates that male recruits would benefit from inclusion in the programme.
- » The aspect of training targeted at improving psychological state did little to overcome the erosion of resilience as measured and noted above, with plausible cause known.
- » The erosion of resilience is assumed to have been a broader and natural consequence of attendance on the AFC(H) programme, recognising that initial military training is designed to provide a physically and mentally stretching developmental environment.
- » Further research is needed to understand the erosion of resilience, for instance the evaluation cannot specify whether this is temporary and part of an experiential resilience development cycle, or more permanent in nature.

On review of Pj ATHENA 1 content there is no indication the programme would be expected to have a negative effect on resilience, self-efficacy or emotional regulation. The programme may have increased time in the classroom but over the time of the programme this is unlikely to have been onerously burdensome to the extent of increasing individual strain.

**CONCLUSION 1.** The Pj ATHENA 1 team should be recognised for correctly identifying the additional needs of the female recruits. However, training evaluation also identified a downward shift in some areas for the males. This may have been less obvious with the more prominent responses of the female recruits. The training evaluation indicates Male recruits would benefit from inclusion in the programme.

**CONCLUSION 2.** Observations on the psychological aspect of the training programme, and shared detail on scheduling indicate it was not necessarily tailored to the learning outcomes assessed and also experienced scheduling difficulties hindering the delivery. Based on the findings in this evaluation the decision to reconfigure the psychological training appears appropriate.

**CONCLUSION 3 & 4.** The measures explore a combination of psychological state, introspection on own behaviours and consideration of capability. All of which were comparatively buoyant at pre-training. An underpinning of initial training is to provide a challenging but supportive training environment. Providing experiential resilience development, allowing recruits to test, develop and gain confidence in their capability. Arguably, the results are testimony to a challenging environment.

The results indicate that resilience does not develop in a clear linear manner over the time of the course. Further research will define the cycle of resilience development. It may be the case that experiential resilience development delivers during recuperation and reflection on successes. Being a process akin to that experienced in post-traumatic growth. However, this is far more complex than suggested, with individual differences and other factors playing their part. Suffice to note, this training evaluation clearly points to further research to understand the development of resilience in Army recruits.

Further queries on this work are welcomed and should be addressed to the ARITC Occupational Psychology Team.





# EVALUATION OF THE PSYCHOLOGICAL OUTCOMES OF PROJECT ATHENA

DR CATHERINE SMITH, SO2 PSYCH, ARITC

## BACKGROUND

1. Project ATHENA 1 was created to address a gender difference in both injury rates and the number of attempts to pass a final physical assessment at AFC Harrogate, where the female recruits were reporting injured more often and taking more attempts to pass their assessments. Anecdotal evidence suggested that female recruits had a lack of self-confidence when it came to these assessments and felt like they were going to fail even before attempting them, as well as a difficulty in overcoming these negative emotions. It was suggested that there was a possible link between this lack of confidence and poorer performance. To address these issues, a biopsychosocial programme was created which would support female recruits in three main areas; additional biological information and health briefs, social events including the promotion of other women in Defence and a psychological programme aiming to increase the emotional regulation and self-efficacy of the recruits. The ARITC Occupational Psychology team conducted an evaluation of the psychological elements of the programme to assess the effectiveness of the delivered sessions.

## METHOD

2. **Participants and Procedure:** 42 female recruits between the ages of 16-18 were allocated to take part in Project ATHENA 1 on arrival to start Basic Training at AFC(H) and completed a baseline questionnaire prior to starting the activities involved in the programme. To provide a comparison group, 42 male recruits from the same training company but not taking part in the project also completed the questionnaires on inception and completion of the programme. No female control group was available at the time of the evaluation and the male cohort was offered as the best alternative. There were benefits in this as it also provided an opportunity to identify gender differences in outcomes.

3. In addition to regular training, the female recruits took part in several additional activities as part of Project ATHENA 1 including additional health briefs and social events. For the psychological element of the programme, they also received 10 psychological sessions with an external provider, Super North Star Limited which included goal setting activities, development of a growth mindset and the role of personal ethos and values. After the final session of the project, both groups were asked to complete the questionnaire again. 31 female recruits and 29 male recruits completed the survey after the project.

4. **Measures:** Discussions were held with the project management team to explore both their experience of the female recruits, what led them to develop the programme and the training objectives to be assessed. As a result, the factors chosen for inclusion in the evaluation questionnaire were:

- a. Emotional regulation which was the key training objective of the programme
- b. Self-efficacy which anecdotal evidence suggests could be lower in the female group
- c. Resilience to provide a comparison with existing Mental Resilience Training (MRT) which is felt to be sub-optimal for this cohort. Resilience has also been shown to be linked to emotional regulation in adolescents (Mestre et al, 2017).





5. Once the target variables had been identified, a literature search was conducted to identify potentially suitable measures for inclusion. The measures gathered were evaluated on validity as well as length to ensure survey fatigue was avoided, and the following scales were chosen, with further detail included below:

- a. Brief Resilient Coping Scale (BRCS) which measures coping strategies
- b. Brief Resilience Scale (BRS) which measures the ability to bounce back
- c. Connor-Davidson Resilience Scale (CDRS) which measures coping with adversity
- d. Self-Efficacy Scale (SE) which measures general self-efficacy
- e. Difficulties in Emotional Regulation Scale (ER) - containing 4 subscales:
  - i. Clarity (ER1) - extent of emotional clarity
  - ii. Impulse (ER2) - extent of impulse control difficulty when distressed
  - iii. Goals (ER3) - difficulty engaging in goal directed activities when distressed
  - iv. Strategies (ER4) - access to emotion regulation strategies

6. **Brief Resilient Coping Scale (BRCS) (Sinclair and Wallston, 2004):** The Brief Resilient Coping Scale is a 4-item scale developed by Sinclair and Wallston in 2004 to measure coping strategies and is scored on a Likert scale from 1 = does not describe me at all to 5 = described me very well. The measure has a Cronbach's alpha of 0.69 and a test-retest reliability of 0.71 over 6 weeks, and of 0.68 over three months. It is also correlated with other measures such as optimism, self-efficacy and psychological well-being.

7. **Brief Resilience Scale (Smith et al, 2008):** The Brief Resilience Scale, developed by Smith et al in 2008, is a 6-item scale which aims to assess the ability to bounce back and recover from stress, in line with definitions of resilience. Three items are positively worded and three are negatively worded and is scored on a 5-point Likert scale from strongly disagree to strongly agree. The measure has a Cronbach's alpha between 0.80-0.91 and a test-retest reliability of 0.60 over one month and 0.62 over three months, and was found to be negatively related to anxiety, depression and negative affect.

8. **Connor-Davidson Resilience Scale (CDRS) (Connor and Davidson, 2003):** The Connor-Davidson Resilience Scale (2003) is a 25-item scale which measures the ability to cope with adversity. It is scored using a 5-point Likert scale from 1 = not true at all to 5 = true nearly all of the time and includes items such as "I can handle unpleasant feelings". Connor and Davidson (2003) found a Cronbach's alpha of 0.89 in a general population sample. A 10-item version of the CDRS was used in an evaluation of the Mental Resilience Training (MRT) by the Defence Science and Technology Laboratory (DSTL). A 17-item version of the scale was in this evaluation to include the 10-items used in the DSTL evaluation but to reduce the length of the questionnaire. The BRCS, the BRS and the CDRS combine to give a total score for resilience.

9. **Self-Efficacy Scale (Sherer et al, 1982):** The Self-Efficacy Scale (Sherer et al, 1982) is formed of two factors; a 17-item general self-efficacy scale and a 6-item social self-efficacy scale scored on a 5-point Likert scale from strongly agree to strongly disagree. The general self-efficacy scale will be used in this evaluation which had a Cronbach's alpha of 0.86 and was found to predict past success in vocational, educational and military goals.

10. **Difficulties in Emotional Regulation Scale (Gratz and Roemer, 2004):** The Difficulties in Emotional Regulation Scale (DERS) is a 40-item questionnaire scored with a 5-point Likert scale from almost never to almost always. The total scale has a Cronbach's alpha of 0.93. Factor analysis identified 6 factors; Non-acceptance of Emotional Responses (NONACCEPTANCE), Difficulties Engaging in Goal-Directed Behaviours (GOALS), Difficulties with Impulse Control when Distressed (IMPULSE), Lack of Emotional Awareness (AWARENESS), Limited Access to Emotion Regulation Strategies (STRATEGIES) and Lack of Emotional Clarity (CLARITY). Neumann et al (2010) demonstrated internal consistency and validity for scale usage with an adolescent sample and found gender differences on four of the six subscales. For this evaluation, four of the subscales are used; CLARITY (ER1), IMPULSE (ER2), GOALS (ER3) and STRATEGIES (ER4), which were combined to give a total ER score.

## RESULTS

11. Once the responses had been collected, the data was cleaned to remove any incomplete responses. If a participant had left out one question, this was left blank in the data table, as was any totals it contributed to. The baseline and post-intervention responses were then matched by their identifying numbers. 42 female and 42 male recruits completed the survey at baseline, but following matching there were 31 matched female pairs and 29 matched male pairs for analysis. Given the slightly larger sample size at baseline, the independent samples analysis was conducted on both the baseline and the matched pair samples.

12. **Descriptive Statistics:** Table 1 below shows the mean, standard deviation, minimum score and maximum score for each of the variables. In the baseline sample, the female group had lower mean scores than the male group for all variables. In the mixed pair sample at Time 1, both groups had the same mean for the BRCS, the female group had a higher mean for SE and ER 1 and the male group had a higher mean on the remaining measure. At Time 2, the female group had a lower mean than the male group for all variables. For both the female and the male mixed pair groups, the mean score for total resilience, self-efficacy and total emotional regulation were lower post-programme than pre-programme and these differences were larger in the female group for all three variables. Figures 1, 2 and 3 demonstrate these differences.



BASELINE												
		BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total	
TIME 1	FEMALE	N	39	42	42	39	41	42	42	42	42	42
		Mean	13.85	19.29	64.14	97.67	62.88	17.02	23.21	16.86	30.71	87.81
		SD	2.207	4.026	9.809	14.532	9.103	5.210	4.693	5.399	7.737	20.011
		Min	9	12	42	67	40	5	12	5	9	35
		Max	17	26	83	126	79	25	30	25	40	117
	MALE	N	42	41	42	41	42	42	42	42	42	42
		Mean	14.38	20.51	65.29	100.15	63.79	18.19	25.02	18.71	33.86	95.79
		SD	1.794	2.776	7.661	10.746	8.663	4.738	3.917	3.763	4.280	12.893
		Min	9	15	48	75	43	7	17	10	23	65
		Max	17	26	79	116	80	25	30	25	39	119

POST-ATHENA MATCHED PAIRS												
		BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total	
TIME 1	FEMALE	N	29	31	31	29	30	31	31	31	31	31
		Mean	14.31	19.52	66.23	100.62	65.97	17.87	23.55	17.16	31.61	90.19
		SD	2.156	4.007	8.947	13.547	6.891	4.559	4.871	5.398	7.046	19.272
		Min	9	12	51	72	49	7	12	6	9	35
		Max	17	26	83	126	79	25	30	25	40	117
	MALE	N	29	28	29	28	29	29	29	29	29	29
		Mean	14.31	21.04	66.45	101.79	64.24	17.45	25.21	19.07	34.48	96.21
		SD	19.84	2.822	7.491	10.833	8.496	5.068	3.802	3.545	3.988	12.508
		Min	9	15	48	75	43	7	17	11	23	65
		Max	17	26	79	116	80	25	30	24	39	116
TIME 1	FEMALE	N	29	31	31	29	30	31	31	31	31	31
		Mean	14.31	19.52	66.23	100.62	65.97	17.87	23.55	17.16	31.61	90.19
		SD	2.156	4.007	8.947	13.547	6.891	4.559	4.871	5.398	7.046	19.272
		Min	9	12	51	72	49	7	12	6	9	35
		Max	17	26	83	126	79	25	30	25	40	117
	MALE	N	29	28	29	28	29	29	29	29	29	29
		Mean	14.31	21.04	66.45	101.79	64.24	17.45	25.21	19.07	34.48	96.21
		SD	19.84	2.822	7.491	10.833	8.496	5.068	3.802	3.545	3.988	12.508
		Min	9	15	48	75	43	7	17	11	23	65
		Max	17	26	79	116	80	25	30	24	39	116

TABLE 1: Descriptive Statistics for the Baseline and Matched Pairs samples split by gender

# TOTAL RESILIENCE SCORE



FIGURE 1: Mean total resilience scores pre- and post-intervention split by gender

# SELF EFFICACY SCALE



FIGURE 2: Mean self-efficacy scores pre- and post-intervention split by gender

# EMOTIONAL REGULATION



FIGURE 3: Mean emotional regulation scores pre- and post-intervention split by gender





13. **Normality:** Table 2 below shows figures for skewness and kurtosis, as well as the significance results of normality tests. Both the Kolmogorov-Smirnov test (K.S) and the Shapiro-Wilk test (S.W) are included but given the sample size in both instances is below 50, the Shapiro-Wilk is the more suitable to consider as it is more sensitive to variations from the normal distribution (Mishra et al, 2019). Using the outcomes of this test, at the baseline measurement 4 variables showed non-normal distributions in the female group and 5 variables showed non-normal distributions in the male group. The BRCS, ER2 and ER3 scales were non-normal in both of these groups. Across the matched pairs, 3 variables had a non-normal distribution for both groups at both Time 1 and Time 2. For the female group, the BRCS and ER3 scales were non-normally distributed at both time points and for the male group, the ER2 and ER4 scales were non-normally distributed at both time points.

BASELINE												
		BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total	
TIME 1	FEMALE	N	39	42	42	39	41	42	42	42	42	42
		Skew	-0.306	-0.156	-0.242	-0.195	-0.579	-0.376	-0.455	-0.617	-1.023	-0.667
		Kurt.	-0.317	-0.773	-0.403	-0.683	0.181	-0.532	-0.677	-0.770	0.698	0.035
		K.S (p)	0.113	0.138	0.200	0.200	0.200	0.200	0.010*	0.002*	0.200	0.020*
		S.W (p)	0.042*	0.198	0.692	0.548	0.284	0.267	0.029*	0.019*	0.016*	0.091
	MALE	N	42	41	42	41	42	42	42	42	42	42
		Skew	-0.662	-0.231	-0.670	-0.768	-0.547	-0.597	-0.551	-0.579	-0.900	-0.523
		Kurt.	0.590	-0.603	-0.223	-0.140	0.291	-0.327	-0.666	-0.268	0.347	-0.163
		K.S (p)	0.002*	0.200	0.004*	0.038*	0.200	0.200	0.063	0.052	0.093	0.200
		S.W (p)	0.028*	0.397	0.027*	0.019*	0.334	0.069	0.009*	0.07	0.002*	0.245
POST-ATHENA MATCHED PAIRS												
		BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total	
TIME 1	FEMALE	N	29	31	31	29	30	31	31	31	31	31
		Skew	-0.501	-0.121	-0.016	-0.138	-0.125	-0.272	-0.631	-0.656	-1.201	-0.834
		Kurt.	-0.026	-0.634	-0.915	-0.706	0.118	-0.429	-0.478	-0.830	2.108	0.611
		K.S (p)	0.105	0.200	0.200	0.200	0.200	0.200	0.001*	0.000*	0.200	0.134
		S.W (p)	0.023*	0.237	0.380	0.328	0.717	0.252	0.009*	0.008*	0.065	0.074
	MALE	N	29	28	29	28	29	29	29	29	29	29
		Skew	-0.641	-0.550	-0.860	-1.081	-0.570	-0.455	-0.950	-0.629	-1.396	-0.897
		Kurt.	0.270	0.029	0.436	0.711	0.474	-0.667	0.251	-0.454	2.309	0.428
		K.S (p)	0.160	0.200	0.023*	0.029*	0.200	0.200	0.012*	0.076	0.200	0.093
		S.W (p)	0.143	0.253	0.063	0.033*	0.823	0.186	0.004*	0.090	0.002*	0.060
TIME 1	FEMALE	N	31	31	30	30	28	30	30	30	31	28
		Skew	-1.218	-0.990	0.064	-0.464	0.084	-0.638	0.427	-0.042	-0.129	-0.112
		Kurt.	1.696	1.309	-0.371	0.207	0.612	0.272	-0.560	3.575	-0.068	0.607
		K.S (p)	0.200	0.083	0.200	0.200	0.200	0.007*	0.200	0.039*	0.093	0.200
		S.W (p)	0.017*	0.033*	0.980	0.806	0.423	0.089	0.622	0.009*	0.141	0.112
	MALE	N	29	29	29	29	28	29	29	29	29	29
		Skew	-0.070	1.877	0.248	0.707	0.321	-0.041	-0.595	-0.429	0.004	0.123
		Kurt.	-0.555	3.829	-0.688	0.117	-0.888	-0.639	-0.565	-0.057	-1.194	-1.244
		K.S (p)	0.093	0.001*	0.200	0.200	0.200	0.193	0.031*	0.200	0.200	0.200
		S.W (p)	0.124	0.000*	0.514	0.242	0.148	0.416	0.008*	0.244	0.050*	0.099

TABLE 2: Normality Statistics for the Baseline and Matched Pair samples split by gender

14. **Correlations:** The tables in Appendix A show the correlations between the variables in the baseline sample split by gender, and the correlations between the variables for the matched pairs, both pre- and post-intervention split by gender.

15. **Baseline gender differences:** Given the mixture of normal and non-normally distributed data and the sample sizes, it was considered a more conservative to use non-parametric tests for all analyses. The first stage was to look at possible gender differences in the baseline samples using the Mann-Whitney test which found no significant differences for any of the variables. Table 3 below shows the output of the tests.

**No significant gender difference was identified in the scores at the start of Project ATHENA.**

	BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total
Mann-Whitney U	695.5	709	818	709.5	816	764.5	694	731	700	698.5
Wilcoxon W	1475.5	1612	1721	1489.5	1677	1667.5	1597	1634	1603	1601.5
Z	-1.182	-1.390	-0.573	-0.867	-0.410	-1.054	-1.688	-1.356	-1.632	-1.643
Asymp. Sig.	0.237	0.164	0.566	0.386	0.682	0.292	0.091	0.175	0.103	0.100

**TABLE 3:** Baseline gender differences (Mann-Whitney U test output)

16. **Matched pairs gender differences (Time 1):** The Mann-Whitney U test was repeated on the matched pairs data at both time points. At Time 1 (baseline collection), the results were still non-significant for any gender differences at this stage, although as the sample size has decreased it was unlikely that any differences would have been found. Table 4 below shows the outputs for this analysis.

	BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total
Mann-Whitney U	417.5	329	436	379	396.5	436	372.5	365.5	348	378
Wilcoxon W	852.5	825	932	814	831.5	871	868.5	861.5	844	874
Z	-0.047	-1.601	-0.200	-0.431	-0.585	-0.200	-1.145	-1.249	-1.505	-1.058
Asymp. Sig.	0.962	0.109	0.841	0.666	0.559	0.841	0.252	0.212	0.132	0.290

**TABLE 4:** Matched pairs gender differences (Time 1) (Mann-Whitney U test output)

17. **Matched pairs gender differences (Time 2):** However, when the analysis was run on the matched pair data at Time 2 (post-intervention) several significant gender differences were found in the emotional regulation subscales. These significant differences were shown in ER 2 ( $U = 134.5$ ,  $p = 0.000$ ), ER 3 ( $U = 256$ ,  $p = 0.006$ ), ER 4 ( $U = 214.5$ ,  $p = 0.000$ ) and ER Total ( $U = 193$ ,  $p = 0.001$ ). The means show that the female group scored significantly lower on each of these measures than the male group, suggesting that the female group have greater difficulties controlling impulsive behaviours when distressed, increased difficulty in engaging in goal-directed behaviours when distressed and fewer emotional regulation strategies than their male counterparts following the intervention period. The full output from the analysis is in Table 5 below.

**POST-TRAINING, FEMALE RECRUITS SCORED SIGNIFICANTLY LOWER THAN THE MALE RECRUITS ON IMPULSE CONTROL WHEN DISTRESSED, ABILITY TO ENGAGE IN GOAL DIRECTED BEHAVIOURS WHEN DISTRESSED AND EMOTIONAL REGULATION STRATEGIES.**

	BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total
Mann-Whitney U	333	424.5	321	322.5	286	404	134.5	256	214.5	193
Wilcoxon W	829	920.5	786	787.5	692	869	599.5	721	710.5	599
Z	-1.741	-0.374	-1.730	-1.707	-1.740	-0.473	-4.565	-2.730	-3.484	-3.404
Asymp. Sig.	0.082	0.709	0.084	0.088	0.082	0.636	0.000*	0.006*	0.000*	0.001*

**TABLE 5:** Matched pairs gender differences (Time 2) (Mann-Whitney U test output)

18. **Differences between pre- and post-intervention** measures were analysed in the matched pairs using the Wilcoxon Sign-Rank test. For the female group, all measures except the BRS and ER 3 showed a significant difference between Time 1 and Time 2 – BRCS ( $Z = -2.691$ ,  $p = 0.007$ ), CDRS ( $Z = -2.785$ ,  $p = 0.005$ ), ResTotal ( $Z = -2.910$ ,  $p = 0.004$ ), SE ( $Z = -4.355$ ,  $p = 0.000$ ), ER 1 ( $Z = -2.462$ ,  $p = 0.014$ ), ER 2 ( $Z = -3.488$ ,  $p = 0.000$ ), ER 4 ( $Z = -3.323$ ,  $p = 0.001$ ) and ER Total ( $Z = -3.370$ ,  $p = 0.001$ ). Means indicate that his represents a significant decrease in these variables when comparing Time 1 and Time 2 across the intervention period.

**In the female group there was a significant decrease in resilience, self-efficacy, emotional clarity, the ability to control impulses when distressed, and access to emotional regulation strategies after the training period.**

19. In the male group, three variables showed a significant change between Time 1 and Time 2 – BRS ( $Z = -2.150$ ,  $p = 0.032$ ), ER 4 ( $Z = -2.356$ ,  $p = 0.004$ ) and ER Total ( $Z = -2.066$ ,  $p = 0.039$ ). The means shows that these are also significant decreases. All other changes were not significant. The full output for the test is shown below in Table 6.

**In the male control group there was a significant decrease in their reported ability to bounce back, in access to emotional regulation strategies and their overall emotional regulation scores after the training period.**

		BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total
<b>FEMALE</b>	Z	-2.691	-1.839	-2.785	-2.910	-4.355	-2.462	-3.488	-1.257	-3.323	-3.370
	Asymp. Sig.	0.007*	0.066	0.005*	0.004*	0.000*	0.014*	0.000*	0.209	0.001*	0.001*
<b>MALE</b>	Z	-0.646	-2.150	-0.349	-0.456	-1.119	-1.671	-1.201	-0.228	-2.856	-2.066
	Asymp. Sig.	0.518	0.032*	0.727	0.648	0.263	0.095	0.230	0.820	0.004*	0.039*

**TABLE 6:** Differences between pre- and post-intervention (Wilcoxon Sign-Rank test output)





## CONCLUSIONS

20. Non-parametric testing was conducted due to the mixture of normal and non-normal distributions and small sample sizes across all groups to identify gender differences and the impact of the psychological training on resilience, self-efficacy and emotional regulation. The main findings were as follows:

**a. No significant gender difference in any of the variables was identified at the start of Project ATHENA 1.**

**b. In the female group there was a significant decrease in resilience, self-efficacy, emotional clarity, the ability to control impulses when distressed, and access to emotional regulation strategies after the training period.**

**c. In the male control group there was a significant decrease in their reported ability to bounce back, in access to emotional regulation strategies and their overall emotional regulation scores after the training period.**

**d. Post-training, female recruits scored significantly lower than the male recruits on impulse control when distressed, ability to engage in goal directed behaviours when distressed and emotional regulation strategies.**

21. We can therefore infer that the male and female groups starting at Time 1, pre-Project ATHENA 1, have similar capacity for resilience, similar self-efficacy and similar emotional regulation abilities. At the end of the programme, findings indicate that the female group were more likely than the male group to have greater difficulties controlling impulsive behaviours when distressed, increased difficulty in engaging in goal-directed behaviours when distressed and fewer emotional regulation strategies at the time of measurement. The decreases between the pre- and post-intervention measurement suggests that the female group became less resilient and showed less self-efficacy and emotional regulation at the end of the measurement period.

22. These decreases across time could have contributed to the gender gap at Time 2, as while the male group decreased on some measures, the females decreased on almost all suggesting that the experience between the measurements had a greater negative impact on the females than the males. However, although the data indicates why female recruits would have been prioritised, as they experience a relatively worse erosion of emotional regulation, the evaluation also indicates that male recruits experienced a statistically significant fall in emotional regulation. This indicates that some of the male recruits would likely also benefit from access to the same support. Both groups would have received Mental Resilience Training (MRT) as part of their regular training programme, which these findings suggest has not buffered against the demonstrated decreases in emotional regulation in both groups. Future work could investigate this further.

23. Given the complex nature of the training environment and the potential confounding factors that haven't been accounted for in this evaluation, it is not possible to say for certain whether this negative effect has been caused by Project ATHENA 1 or by the wider experience of training for female recruits. Review of the Project ATHENA 1 content does not indicate a particular aspect which would have a negative effect on the characteristics measured. In the separate evaluation of the psychological training no obvious criticism was raised other than it taking time away from other training serials. The decrease in emotional regulation also shown in the male group would suggest that an element of the regular training programme is more likely to have contributed.

24. It can be said that the contracted psychological programme delivered during Project ATHENA 1 has not shown any positive impact on the variables measured in this evaluation. Given the content of this programme, it is unlikely that it has contributed to any decrease in resilience, self-efficacy or emotional regulation, but it is more likely that it has not provided a buffer against these effects. It can also be noted that the contracted programme was not originally designed with the aim of increasing emotional regulation, and that elements of the programme may not have been delivered exactly as intended due to practical limitations. The evidence therefore suggests that the delivery of the psychological element of Project ATHENA 1 provided insufficient positive impact to overcome the factors negatively influencing resilience in the female cohort.

25. In summary, there was a decrease in emotional regulation in both the Project ATHENA 1 participants and the male control group, with a larger decrease in the female group leading to a statistically significant gender difference following the programme whereby female recruits reported lower emotional regulation ability. The psychological training delivered as part of Project ATHENA 1 has shown no significant impact in protecting against this decrease.





# APPENDIX A: CORRELATION TABLES

FEMALE (BASELINE)		BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total
BRCS	Corr.	1	0.604**	0.598**	0.725**	0.599**	0.565**	0.653**	0.475**	0.455**	0.623**
	Sig.	-	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.004	0.000
BRS	Corr.	0.604**	1	0.705**	0.845**	0.584**	0.480**	0.682**	0.730**	0.714**	0.758**
	Sig.	0.000	-	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
CDRS	Corr.	0.598**	0.705**	1	0.965**	0.801**	0.687**	0.529**	0.664**	0.677**	0.744*
	Sig.	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Res Total	Corr.	0.725**	0.845**	0.965**	1	0.825**	0.687**	0.627**	0.721**	0.733**	0.828**
	Sig.	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000
SE	Corr.	0.599**	0.684**	0.801**	0.825**	1	0.579**	0.510**	0.629**	0.576**	0.662**
	Sig.	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000
ER 1	Corr.	0.565**	0.480**	0.687**	0.687**	0.579**	1	0.518**	0.577**	0.711**	0.812**
	Sig.	0.000	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000
ER 2	Corr.	0.653**	0.682**	0.529**	0.627**	0.510**	0.518**	1	0.712**	0.674**	0.822**
	Sig.	0.000	0.000	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000
ER 3	Corr.	0.475**	0.730**	0.664**	0.721**	0.629**	0.577**	0.712**	1	0.743**	0.874**
	Sig.	0.002	0.000	0.000	0.000	0.000	0.000	0.000	-	0.000	0.000
ER 4	Corr.	0.455**	0.714**	0.677**	0.733**	0.576**	0.711**	0.674**	0.743**	1	0.930**
	Sig.	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	0.000
ER Total	Corr.	0.623**	0.758**	0.744**	0.828**	0.662**	0.812**	0.822**	0.874**	0.930**	1
	Sig.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-

TABLE 1: Correlations between variables for the female Baseline sample







MALE (BASELINE)		BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total
BRCS	Corr.	1	0.460**	0.540**	0.681**	0.600**	0.212	0.339*	0.295	0.242	0.347*
	Sig.	-	0.002	0.000	0.000	0.000	0.177	0.028	0.058	0.122	0.024
BRS	Corr.	0.460**	1	0.570**	0.747**	0.591**	0.038	0.546**	0.673**	0.565**	0.571**
	Sig.	0.002	-	0.000	0.000	0.000	0.813	0.000	0.000	0.000	0.000
CDRS	Corr.	0.540**	0.570**	1	0.960**	0.771**	0.166	0.390*	0.538**	0.593**	0.534**
	Sig.	0.000	0.000	-	0.000	0.000	0.292	0.011	0.000	0.000	0.000
Res Total	Corr.	0.681**	0.747**	0.960**	1	0.810**	0.180	0.480**	0.621**	0.623**	0.605**
	Sig.	0.000	0.000	0.000	-	0.000	0.260	0.002	0.000	0.000	0.000
SE	Corr.	0.600**	0.591**	0.771**	0.810**	1	0.192	0.607**	0.701**	0.649**	0.675**
	Sig.	0.000	0.000	0.000	0.000	-	0.222	0.000	0.000	0.000	0.000
ER 1	Corr.	0.212	0.038	0.166	0.180	0.192	1	0.368*	0.173	0.398**	0.662**
	Sig.	0.177	0.813	0.292	0.260	0.222	-	0.017	0.274	0.009	0.000
ER 2	Corr.	0.339*	0.546**	0.390*	0.480**	0.607**	0.368*	1	0.624**	0.552**	0.804**
	Sig.	0.028	0.000	0.011	0.002	0.000	0.017	-	0.000	0.000	0.000
ER 3	Corr.	0.295	0.673**	0.538**	0.621**	0.701**	0.173	0.624**	1	0.717**	0.783**
	Sig.	0.058	0.000	0.000	0.000	0.000	0.274	0.000	-	0.000	0.000
ER 4	Corr.	0.242	0.565**	0.593**	0.623**	0.649**	0.398**	0.552**	0.717**	1	0.855**
	Sig.	0.122	0.000	0.000	0.000	0.000	0.009	0.000	0.000	-	0.000
ER Total	Corr.	0.347*	0.571**	0.534**	0.605**	0.675**	0.662**	0.804**	0.783**	0.855**	1
	Sig.	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-

TABLE 2: Correlations between variables for the male Baseline sample

**TABLE 3:** Correlations between the variables for the Matched Pairs samples

FEMALE (MATCHED PAIRS)		TIME 1									
		BRCs	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total
BRCs	Corr.	1	0.750**	0.711**	0.837**	0.623**	0.514**	0.644**	0.576**	0.603**	0.690**
	Sig.	-	0.000	0.000	0.000	0.000	0.004	0.000	0.001	0.001	0.000
BRS	Corr.	0.750**	1	0.710**	0.848**	0.555**	0.533**	0.731**	0.693**	0.690**	0.757**
	Sig.	0.000	-	0.000	0.000	0.001	0.002	0.000	0.000	0.000	0.000
CDRS	Corr.	0.711**	0.710**	1	0.958**	0.770**	0.701**	0.595**	0.708**	0.574**	0.724**
	Sig.	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Res Total	Corr.	0.837**	0.848**	0.958**	1	0.788**	0.649**	0.650**	0.716**	0.614**	0.773**
	Sig.	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000
SE	Corr.	0.623**	0.555**	0.770**	0.788**	1	0.526**	0.590**	0.701**	0.456*	0.635**
	Sig.	0.000	0.001	0.000	0.000	-	0.003	0.001	0.000	0.011	0.000
ER 1	Corr.	0.514**	0.533**	0.701**	0.649**	0.526**	1	0.545**	0.631**	0.722**	0.815**
	Sig.	0.004	0.002	0.000	0.000	0.003	-	0.002	0.000	0.000	0.000
ER 2	Corr.	0.644**	0.713**	0.595**	0.650**	0.590**	0.545**	1	0.727**	0.783**	0.872**
	Sig.	0.000	0.000	0.000	0.000	0.001	0.002	-	0.000	0.000	0.000
ER 3	Corr.	0.576**	0.693**	0.708**	0.716**	0.701**	0.631**	0.727**	1	0.717**	0.875**
	Sig.	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	0.000
ER 4	Corr.	0.603**	0.690**	0.574**	0.614**	0.456*	0.722**	0.783**	0.717**	1	0.935**
	Sig.	0.001	0.000	0.001	0.000	0.011	0.000	0.000	0.000	-	0.000
ER Total	Corr.	0.690**	0.757**	0.724**	0.773**	0.635**	0.815**	0.872**	0.875**	0.935**	1
	Sig.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

MALE (MATCHED PAIRS)		TIME 1									
		BRCs	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total
TIME 2	Corr.	0.743**	0.640**	0.564**	0.662*	0.498**	0.400*	0.455*	0.574**	0.585**	0.584**
	Sig.	0.000	0.000	0.000	0.000	0.005	0.026	0.010	0.001	0.001	0.001
	Corr.	0.791**	0.778**	0.600**	0.711**	0.479**	0.486**	0.534**	0.483**	0.549**	0.586**
	Sig.	0.000	0.000	0.000	0.000	0.007	0.006	0.002	0.006	0.001	0.001
	Corr.	0.651**	0.604**	0.542**	0.596**	0.377*	0.426*	0.391*	0.316	0.543**	0.486**
	Sig.	0.000	0.000	0.002	0.001	0.044	0.019	0.033	0.089	0.002	0.006
	Corr.	0.789**	0.724**	0.623**	0.710**	0.473**	0.483**	0.490**	0.456*	0.609**	0.587**
	Sig.	0.000	0.000	0.000	0.000	0.010	0.007	0.006	0.011	0.000	0.001
	Corr.	0.313	0.383*	0.500**	0.454*	0.542**	0.584**	0.398*	0.420*	0.430*	0.513**
	Sig.	0.120	0.044	0.007	0.020	0.003	0.001	0.036	0.026	0.022	0.005
Corr.	0.096	-0.172	-0.159	-0.069	-0.210	-0.030	-0.132	0.009	-0.137	-0.089	
Sig.	0.629	0.365	0.401	0.726	0.275	0.875	0.487	0.964	0.472	0.642	
Corr.	-0.319	-0.440*	-0.535**	-0.453*	-0.393*	-0.527**	-0.572**	-0.410*	-0.534**	-0.575**	
Sig.	0.098	0.015	0.002	0.015	0.035	0.003	0.001	0.028	0.002	0.001	
Corr.	-0.374*	-0.440*	-0.569**	-0.479**	-0.411*	-0.598**	-0.529**	-0.490**	-0.629**	-0.644**	
Sig.	0.050	0.015	0.001	0.010	0.024	0.000	0.003	0.006	0.000	0.000	
Corr.	-0.250	-0.366*	-0.374*	-0.332	-0.284	-0.432*	-0.344	-0.302	-0.447*	-0.437*	
Sig.	0.191	0.043	0.038	0.079	0.128	0.015	0.058	0.098	0.012	0.014	
Corr.	-0.320	-0.450*	-0.496**	-0.418*	-0.369	-0.526**	-0.485**	-0.423*	-0.588**	-0.585**	
Sig.	0.111	0.016	0.007	0.034	0.053	0.004	0.009	0.025	0.001	0.001	

TABLE 3 (CONT.): Correlations between the variables for the Matched Pairs samples

**TABLE 3 (CONT.):** Correlations between the variables for the Matched Pairs samples

FEMALE (MATCHED PAIRS)		TIME 2									
		BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total
BRCS	Corr.	1	0.723**	0.723**	0.862**	0.192	0.033	-0.353	-0.318	-0.170	-0.327
	Sig.	-	0.000	0.000	0.000	0.328	0.864	0.056	0.087	0.361	0.089
BRS	Corr.	0.723**	1	0.701**	0.865**	0.303	-0.264	-0.466**	-0.485**	-0.392*	-0.522**
	Sig.	0.000	-	0.000	0.000	0.117	0.159	0.010	0.007	0.029	0.004
CDRS	Corr.	0.723**	0.701**	1	0.949**	0.436*	-0.153	-0.427*	-0.547**	-0.345	-0.530**
	Sig.	0.000	0.000	-	0.000	0.020	0.429	0.021	0.002	0.062	0.004
Res Total	Corr.	0.862**	0.865**	0.949**	1	0.382*	-0.151	-0.460*	-0.539**	-0.349	-0.526**
	Sig.	0.000	0.000	0.000	-	0.045	0.433	0.012	0.003	0.058	0.005
SE	Corr.	0.192	0.303	0.436*	0.382*	1	0.015	-0.443*	-0.430*	-0.320	-0.331
	Sig.	0.328	0.117	0.020	0.045	-	0.942	0.021	0.022	0.097	0.099
ER 1	Corr.	0.033	-0.264	-0.153	-0.151	0.015	1	0.398*	0.324	0.548**	0.712**
	Sig.	0.864	0.159	0.429	0.433	0.942	-	0.032	0.087	0.002	0.000
ER 2	Corr.	-0.353	-0.466**	-0.427*	-0.460*	-0.443*	0.398*	1	0.607**	0.564**	0.801**
	Sig.	0.056	0.010	0.021	0.012	0.021	0.032	-	0.000	0.000	0.000
ER 3	Corr.	-0.318	-0.485**	-0.547**	-0.539**	-0.430*	0.324	0.607**	1	0.458*	0.685**
	Sig.	0.087	0.007	0.002	0.003	0.022	0.087	0.000	-	0.011	0.000
ER 4	Corr.	-0.170	-0.392*	-0.345	-0.349	-0.320	0.548**	0.564**	0.458*	1	-0.916**
	Sig.	0.361	0.029	0.062	0.058	0.097	0.002	0.000	0.011	-	0.000
ER Total	Corr.	-0.327	-0.522**	-0.530**	-0.526**	-0.331	0.712**	0.801**	0.685**	0.916**	1
	Sig.	0.089	0.004	0.004	0.005	0.099	0.000	0.000	0.000	0.000	0.000



MALE (MATCHED PAIRS)		TIME 1									
		BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total
BRCS	Corr.	1	0.479**	0.603**	0.744**	0.659**	0.185	0.346	0.251	0.238	0.327
	Sig.	-	0.010	0.001	0.000	0.000	0.338	0.066	0.190	0.214	0.083
BRS	Corr.	0.479**	1	0.538**	0.727**	0.537**	0.019	0.433*	0.611**	0.468*	0.470*
	Sig.	0.010	-	0.003	0.000	0.003	0.922	0.021	0.001	0.012	0.012
CDRS	Corr.	0.603**	0.538**	1	0.958**	0.764**	0.220	0.390*	0.459*	0.606**	0.531**
	Sig.	0.001	0.003	-	0.000	0.000	0.251	0.036	0.012	0.000	0.003
Res Total	Corr.	0.744**	0.727**	0.958**	1	0.801**	0.207	0.452*	0.539**	0.605**	0.575**
	Sig.	0.000	0.000	0.000	-	0.000	0.291	0.016	0.003	0.001	0.001
SE	Corr.	0.659**	0.537**	0.764**	0.801**	1	0.150	0.622**	0.655**	0.607**	0.629**
	Sig.	0.000	0.003	0.000	0.000	-	0.437	0.000	0.000	0.000	0.000
ER 1	Corr.	0.185	0.019	0.220	0.207	0.150	1	0.394*	0.143	0.410*	0.696**
	Sig.	0.338	0.922	0.251	0.291	0.437	-	0.035	0.458	0.027	0.000
ER 2	Corr.	0.346	0.433*	0.390*	0.452*	0.622**	0.394*	1	0.664**	0.504**	0.812**
	Sig.	0.066	0.021	0.036	0.016	0.000	0.035	-	0.000	0.005	0.000
ER 3	Corr.	0.251	0.611**	0.459*	0.539**	0.655**	0.143	0.664**	1	0.629**	0.744**
	Sig.	0.190	0.001	0.012	0.003	0.000	0.458	0.000	-	0.000	0.000
ER 4	Corr.	0.238	0.468*	0.606**	0.605**	0.607**	0.410*	0.504**	0.629**	1	0.816**
	Sig.	0.214	0.012	0.000	0.001	0.000	0.027	0.005	0.000	-	0.000
ER Total	Corr.	0.327	0.470*	0.531**	0.575**	0.629**	0.696**	0.812**	0.744**	0.816**	1
	Sig.	0.083	0.012	0.003	0.001	0.000	0.000	0.000	0.000	0.000	-

TABLE 3 (CONT.): Correlations between the variables for the Matched Pairs samples

TABLE 3 (CONT.): Correlations between the variables for the Matched Pairs samples

FEMALE (MATCHED PAIRS)		TIME 1									
		BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total
BRCS	Corr.	0.491**	0.084	0.510**	0.475*	0.430*	0.103	0.251	0.039	0.305	0.227
	Sig.	0.007	0.670	0.005	0.011	0.020	0.594	0.190	0.839	0.107	0.237
BRS	Corr.	0.215	0.333	0.524**	0.498**	0.365	-0.133	0.194	0.163	0.195	0.114
	Sig.	0.263	0.084	0.004	0.007	0.051	0.492	0.312	0.397	0.311	0.557
CDRS	Corr.	0.469*	0.338	0.691**	0.662**	0.591**	0.190	0.434*	0.362	0.398*	0.438*
	Sig.	0.010	0.078	0.000	0.000	0.001	0.324	0.019	0.054	0.033	0.017
Res Total	Corr.	0.462*	0.328	0.692**	0.660**	0.571**	0.116	0.390*	0.294	0.375*	0.368*
	Sig.	0.012	0.089	0.000	0.000	0.001	0.548	0.037	0.121	0.045	0.049
SE	Corr.	0.309	0.085	0.576**	0.502**	0.401*	0.195	0.284	0.173	0.311	0.319
	Sig.	0.110	0.673	0.001	0.008	0.034	0.319	0.143	0.379	0.108	0.098
ER 1	Corr.	0.106	-0.005	0.386*	0.313	0.272	0.531**	0.365	0.236	0.387*	0.516**
	Sig.	0.585	0.982	0.038	0.105	0.153	0.003	0.052	0.218	0.038	0.004
ER 2	Corr.	0.214	0.259	0.377*	0.374	0.400*	0.426*	0.644**	0.422*	0.424*	0.623**
	Sig.	0.265	0.183	0.044	0.050	0.032	0.021	0.000	0.023	0.022	0.000
ER 3	Corr.	0.116	0.074	0.346	0.285	0.284	0.298	0.469*	0.216	0.362	0.440*
	Sig.	0.551	0.706	0.066	0.142	0.135	0.116	0.010	0.260	0.054	0.017
ER 4	Corr.	0.072	0.221	0.393*	0.348	0.296	0.291	0.477**	0.396*	0.430*	0.512**
	Sig.	0.710	0.259	0.035	0.070	0.119	0.126	0.009	0.033	0.020	0.004
ER Total	Corr.	0.139	0.167	0.423*	0.370	0.352	0.429*	0.549**	0.369*	0.453*	0.590**
	Sig.	0.473	0.395	0.022	0.053	0.061	0.020	0.002	0.049	0.013	0.001

MALE (MATCHED PAIRS)		TIME 2									
		BRCS	BRS	CDRS	Res Total	SE	ER 1	ER 2	ER 3	ER 4	ER Total
BRCS	Corr.	1	0.590**	0.650**	0.769**	0.739**	0.600**	0.587**	0.749**	0.511**	0.668**
	Sig.	-	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.005	0.000
BRS	Corr.	0.590**	1	0.687**	0.819**	0.622**	0.318	0.304	0.468*	0.192	0.339
	Sig.	0.001	-	0.000	0.000	0.000	0.093	0.108	0.010	0.318	0.072
CDRS	Corr.	0.650**	0.687**	1	0.968**	0.875**	0.599**	0.539**	0.622**	0.504**	0.624**
	Sig.	0.000	0.000	-	0.000	0.000	0.001	0.003	0.000	0.005	0.000
Res Total	Corr.	0.769**	0.819**	0.968**	1	0.883**	0.595**	0.549**	0.674**	0.484**	0.630**
	Sig.	0.000	0.000	0.000	-	0.000	0.001	0.002	0.000	0.008	0.000
SE	Corr.	0.739**	0.622**	0.875**	0.883**	1	0.682**	0.645**	0.701**	0.620**	0.735**
	Sig.	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000
ER 1	Corr.	0.600**	0.318	0.599**	0.595**	0.682**	1	0.640**	0.702**	0.677**	0.839**
	Sig.	0.001	0.093	0.001	0.001	0.000	-	0.000	0.000	0.000	0.000
ER 2	Corr.	0.587**	0.304	0.539**	0.549**	0.645**	0.640**	1	0.840**	0.773**	0.907**
	Sig.	0.001	0.108	0.003	0.002	0.000	0.000	-	0.000	0.000	0.000
ER 3	Corr.	0.749**	0.468*	0.622**	0.674**	0.701**	0.702**	0.840**	1	0.752**	0.906**
	Sig.	0.000	0.010	0.000	0.000	0.000	0.000	0.000	-	0.000	0.000
ER 4	Corr.	0.511**	0.192	0.504**	0.484**	0.620**	0.677**	0.773**	0.752**	1	0.916**
	Sig.	0.005	0.318	0.005	0.008	0.000	0.000	0.000	0.000	-	0.000
ER Total	Corr.	0.668**	0.339	0.624**	0.630**	0.735**	0.839**	0.907**	0.906**	0.916**	1
	Sig.	0.000	0.072	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-

TABLE 3 (CONT.): Correlations between the variables for the Matched Pairs samples

# EVALUATION OF THE RECRUIT EXPERIENCE OF PJ ATHENA 1

DR CATHERINE SMITH, S02 PSYCH, ARITC

## BACKGROUND

1. Project ATHENA is a biopsychosocial programme conducted at AFC(H) with the aim of improving the training experience for female recruits, increasing their emotional regulation and resilience, and to reduce injury rates and attempts needed to pass physical assessments, in which there is a gender gap. The programme included educational and health briefs, social events, external speakers, and a psychological training programme over the course of the training programme. An evaluation was conducted to understand the general impact of the programme and the experience of the recruits taking part in the activities which consisted of a survey and a focus group.

## METHOD

2. Once the final activity in Project ATHENA has been completed, the recruits who had taken part were given a final questionnaire to evaluate their experience of the project. 41 female recruits completed the survey which asked about their overall experience of the project and how enjoyable and useful they found each of the activities included in ATHENA which may help inform the balance of activities included in future programmes. Initially there were 48 participants in the project but some were lost due to discharge so 85% of those involved in the project completed this evaluation. A focus group was also conducted towards the end of the ATHENA programme to further understand the participants' experience of being a female in training. The results of both sections are presented here to give an overall picture of the project experience.

## TRAINING EXPERIENCE

3. The first section of the survey asked the participants about their general experience of taking part in Project ATHENA. Many of the responses across the questions were clustered around the neutral answer, with some variation but few respondents choosing the strongly agree or strongly disagree options. The responses are shown in Table 1 below. The most positive responses were 56% of respondents agreeing that they felt supported as part of the project, 51% of respondents agreeing that they enjoyed being a part of the project and 51% of respondents agreeing that they felt fairly treated in comparison to the male recruits. 41% of respondents also agreed that they would recommend being a part of the project to future female recruits and 44% agreed that they would like to see it continue for future groups at AFC(H).

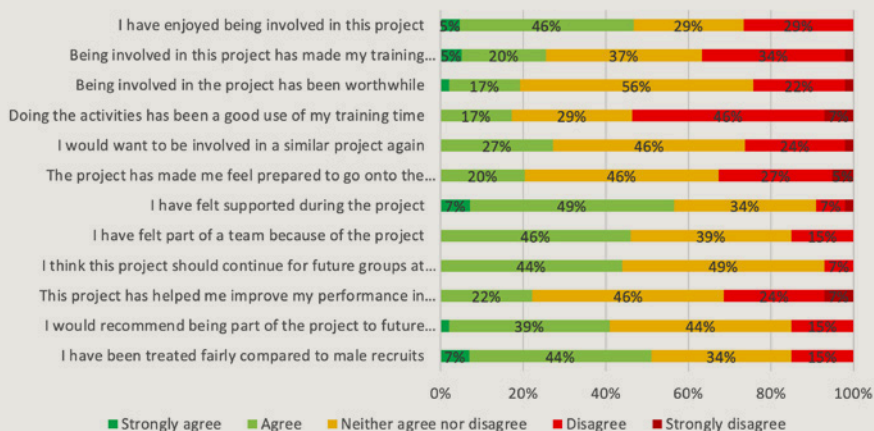
4. The least positive elements were 53% of respondents disagreeing that doing the activities had been a good use of their training time, 34% disagreeing that the project had made their overall training experience better, 32% disagreeing that the project had helped to prepare them for the next stage of training and 31% disagreeing that the project had helped to improve their performance in training. A graph outlining these figures is included as Figure 1.





	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE
I have enjoyed being involved in this project	5%	46%	29%	29%	0%
Being involved in this project has made my training experience better	5%	20%	37%	34%	2%
Being involved in the project has been worthwhile	2%	17%	56%	22%	2%
Doing the activities has been a good use of my training time	0%	17%	29%	46%	7%
I would want to be involved in a similar project again	0%	27%	46%	24%	2%
The project has made me feel prepared to go onto the next stage of training	0%	20%	46%	27%	5%
I have felt supported during the project	7%	49%	34%	7%	2%
I have felt part of a team because of the project	0%	46%	39%	15%	0%
I think this project should continue for future groups at AFC(H)	0%	44%	49%	7%	0%
This project has helped me improve my performance in training	0%	22%	46%	24%	7%
I would recommend being part of the project to future female recruits	2%	39%	44%	15%	0%
I have been treated fairly compared to male recruits	7%	44%	34%	15%	0%

**TABLE 1:** JS responses to the training experience evaluation survey



**FIGURE 1:** Graphical display of the responses to the training experience evaluation survey

## PROGRAMME ACTIVITIES

5. In the second part of the survey, the respondents were asked about each type of activity they had conducted during the project and were asked to rate how much they had enjoyed the activity, how useful they had found it and whether they felt there was the right number of sessions of that activity included in the programme. Finally, the respondents were asked to rank the activities by how important they felt they were. The results of these questions are included in Table 2 below. The activity rated as the most enjoyable was social events (64%), followed by discussion groups (48%) and live external speakers (32%). The activities rated as most useful were the discussion groups (76%) followed by social events (69%) and live external speakers (54%). Videos of external speakers were rated as the least enjoyable (12%) and the least useful (26%).

6. When asked about the amount of each activity in the programme, 78% of respondents stated that they would like to see more or much more extra physical training. When asked to rate the activities by enjoyment and usefulness, at least 41% of respondents stated that they had not received any additional physical training as part of the project. When rating the activities by how important they were, extra physical training sessions were rated as the most important by 19 respondents (46%). 52% also said they would like to see more social events as part of the programme, which were rated the third most important activity. 44% thought there was about the right amount of discussion groups, which were the rated as the second most important activity.

7. The respondents were split on the live speakers, with just under a third wanting more, about a third thinking that they received the right amount, and about a third wanting to see less in the programme. For the remaining activity, respondents wanted to see less of these serials – 49% would like less education and extra briefings, 41% wanted less live psychology sessions and 48% wanted less videos. When asked about what activities they would like introduced, most respondents added no comments, but there was one request for additional team building activities outside of camp and one request for more opportunity to do sports.

8. Finally in the survey, the participants were asked what they felt the best part of the project had been, and which areas they would like to see improved in future versions. The two most mentioned best aspects were the discussion groups and getting to work in a team and socialise with girls from other sections (8 comments each). Other positive aspects mentioned included speaking to women and getting inspiration from messages, speakers and from each other. The main areas of improvement recommended was to improve the schedule to ensure the ATHENA activities didn't take away from the training time (15 comments). One respondent noted that "It took us out of precious military training time so the boys had an advantage with training over us girls". Also suggested were less briefs, less repetition and more physical training sessions. Finally, they mentioned that it would be helpful to include the boys in the activities and "no special treatment to cause a divide between the lads".



	REALLY ENJOYED THIS	ENJOYED THIS	NEUTRAL	DID NOT ENJOY THIS	REALLY DID NOT ENJOY THIS	NOT APPLICABLE – I DID NOT DO THIS	VERY USEFUL	QUITE USEFUL	NOT USEFUL	REALLY NOT USEFUL	NOT APPLICABLE - I DID NOT DO THIS	THERE SHOULD BE A LOT MORE OF THIS	THERE SHOULD BE MORE OF THIS	THERE WAS THE RIGHT AMOUNT OF THIS	THERE SHOULD BE LESS OF THIS	THERE SHOULD BE A LOT LESS OF THIS	THERE SHOULD NOT BE INCLUDED
Extra physical training sessions	2%	24%	27%	5%	0%	41%	10%	27%	17%	0%	46%	34%	44%	15%	5%	2%	0%
Extra briefs and education e.g. health presentations	5%	10%	39%	44%	0%	0%	5%	39%	41%	15%	0%	2%	12%	34%	44%	5%	2%
Live psychology sessions	2%	17%	44%	27%	0%	2%	0%	41%	44%	12%	2%	2%	10%	44%	29%	12%	2%
Videos of external speakers	0%	12%	54%	27%	0%	2%	2%	24%	54%	17%	2%	2%	7%	39%	41%	7%	2%
Live external speakers	0%	32%	39%	20%	0%	0%	10%	44%	32%	12%	2%	12%	12%	37%	29%	7%	2%
Social events	15%	49%	32%	2%	0%	2%	15%	54%	22%	5%	2%	15%	37%	32%	12%	2%	2%
Discussion groups	7%	41%	39%	7%	0%	2%	20%	56%	15%	7%	2%	15%	20%	44%	12%	2%	5%

**TABLE 2:** JS responses to the most important part of Project ATHENA 1



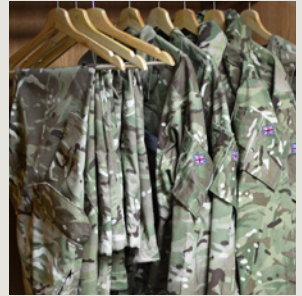


## FOCUS GROUP

9. In January 2022, towards the end of the ATHENA project, a focus group was conducted with the participants to gain further insight into the experience of female recruits in training, how the programme was supporting them, and if anything, what else needed to be done. 5 general themes were identified during the session; physical differences between men and women, equipment issues, dealing with periods, the need for mixed platoons and the experience of ATHENA. In addition to these, the participants were also asked what advice they would give future female recruits joining the Army, and how they kept themselves motivated when things were challenging.

10. **Physical differences:** One of the first comments made during the session was to note that the female recruits felt the male recruits were biologically stronger and had a physical advantage over them in training. They reported struggling when the male recruits set the pace and often felt they were following behind and at the back of the group, which they found demoralising and felt that the progression of weight training was more suited to a male physique. It was noted that generally, the males are taller and heavier and so the female recruits are carrying a heavier percentage of their bodyweight. Additionally, they felt that the male recruits “think that they are higher up and better” and “use it against them”. To reduce this, some of the participants felt that female only PT sessions would be useful to prevent this comparison, but others felt that it was useful to have a benchmark to set themselves against and wanted to keep mixed sessions.

11. **Equipment issues:** The second theme was several issues with equipment which was affecting the female recruits, several of which have already been recognised. They noted that the body armour specifically didn't fit them but also stated that most, if not all, of their kit could fit better and that there are not enough short-back bergens. It was noted that originally, the college tracksuits were not fit to women and that some people didn't even know women's sizing was available. In addition to this, the recruits were asked what else could be provided for them and they would like to see more functioning microwaves in the accommodation so they can use heat packs or hot water bottles when needed.



12. **Dealing with periods:** This led onto a discussion about dealing with menstruation during training. The girls felt that they could speak to their staff about it if they needed to but didn't really want to and didn't feel the need to as they felt it shouldn't really be that relevant to training. Girls from the mixed platoon noted that their staff had been “amazing” and that they wanted to learn and that they didn't actually expect them to be so helpful such as providing a red box of supplies, but this did recognise that this experience may not be the same in all platoons. There are certain staff members they find very supportive who know when support is needed over building resilience. One suggestion noted for staff support was that they would like to have the same PTI throughout training to build a relationship with them and so the PTI would know what you struggle with and how to motivate you. The participants also felt that both the staff and the boys needed education about periods but felt that they needed to know about the impacts and effect of hormones changes rather than the details about products. When asked about advice for future recruits they recommended bringing extra sanitary products (above what the kit list says) as the shop is too expensive and you can't go in the first six weeks.

13. **Mixed platoons:** A further theme identified during the discussion was the benefits of being in mixed platoons during training. The group felt that male and female recruits generally work well together in the mixed sections, that working together builds understanding and that communication between genders seems better in the mixed sections. In the non-mixed sections, they feel that the boys don't listen to the girls and sometimes tell them to shut up and don't appreciate their input to tasks. They noted that in a non-mixed section they are completely separated from the boys and any contact is seen as fraternisation and is punished strongly, which leads to a big divide and no experience of working together. They think that this could make it harder in Phase 2 or in Field Army as the men would not

be used to working with women and they would not be used to being the only women on a team which could be likely later in their career. They also find that sometimes living with just girls is difficult and they appreciate the chance to get away from the people they live with and spend time with the boys in their section. They noted that the attitude of the male recruits varied, some of them are respectful but some are not, and they felt this was driven by both personality and previous experience of living with women, such as sisters. Therefore, they felt experience working together was beneficial for all.

14. **ATHENA experience:** There were three points raised about their experience of Project ATHENA. The first was that they felt ATHENA has been a good experience but that it had taken away from their training time and their perception was that the boys were benefitting further from what they were doing whilst the girls were taking part in ATHENA sessions. They would like to see the boys join in on the ATHENA sessions as they think they would benefit from learning about the differences too. Secondly, they noted they had only had 1 or 2 additional physical training session as part of Project ATHENA but that they would have liked more as they felt they needed more support for physical resilience than mental resilience. Finally, they found the psychological sessions delivered to be repetitive and felt they were receiving the same messages in each session.

15. **Motivation:** The participants in the group were also asked about what strategies they used to motivate themselves when they felt challenged. They reported using positive self-talk and affirmations, visualisation of their end goals which for many was the passing out parade or focusing on joining their desired capbadge, reminding themselves that the exercises are temporary and they have to complete them to move on and motivating each other during exercises by remembering that they are all in it together. This suggests that they do have some strategies to motivate themselves and build their resilience.

16. **Advice for future female recruits:** When asked what advice they would give to female recruits joining the Army in the future, the strong theme was that training was going to be difficult and tough, but that the end results would be worth it. One noted that it could feel like they were upset on every exercise but that actually there were good points along the way too. They felt like training had to be difficult to build resilience and to filter out those who were not right for the Army and who wouldn't be able to cope with an Army career and lifestyle. They noted that when you feel like you aren't going to cope, that is where you grow the most and become stronger. This shows that whilst they have faced challenges during training, they have felt that it was a worthwhile experience and recognise the changes that it had made to them.



## CONCLUSIONS

17. A combination of a qualitative survey and a focus group conducted with Project ATHENA participants were used to investigate the experience of being part of the programme. The best activities included in the project were the discussion groups and the social events, particularly the opportunity to work in a team with other female recruits, which were rated as the most enjoyable and most useful as well as being mentioned in open comments. Just under 50% of survey respondents enjoyed being part of the project, would recommend being part of it to future female recruits and would like to see the project continue in the future. The main recommendation to improve this was the change the schedule of the events to ensure that they didn't clash with training serials and take time away from those activities. Respondents also would like to see less briefs and more physical training for female recruits, which was mentioned across all areas of the evaluation. The perception that they need additional physical training to keep up with the male recruits could be contributing to their slightly reduced feelings of preparation for their final physical assessment. Finally, it was noted that the male recruits could also benefit from ATHENA sessions and that working together increased communication between the genders.



# EVALUATION OF THE BIOLOGICAL OUTCOMES OF PJ ATHENA 1

KATE GHOSH, BETHANY MOXHAM AND HENRY OGDEN

## SUMMARY

Historically, female junior entry recruits have a higher prevalence of musculoskeletal injury and lower 1st time pass rate on the role fitness test (RFT) than male junior entry recruits at Army Foundation College, Harrogate (AFC(H)). Anecdotally, female junior entry recruits have lower self-confidence than male junior entry recruits, which is a potential explaining poorer health and performance outcomes. Pj ATHENA 1 is a biopsychosocial programme that was created to provide additional support to female junior recruits in three main areas: (1) biological information and health briefs; (2) social events including the promotion of other women in Defence; and (3) a psychological programme aiming to increase the emotional regulation and self-efficacy of the recruits. The aim of this report is to retrospectively evaluate the impact of Pj ATHENA 1 on RFT(BT) performance and MSKI injury prevalence.

In total, 42 female junior entry short-course recruits enlisted in Waterloo Coy 65 at AFC(H) were allocated into the Pj ATHENA 1 intervention group. A female control group from Waterloo Coy 65 was unavailable, therefore comparisons were made with: (1) males in Waterloo Coy 65 (n = 280) and 63 (n = 239); and (2) females on Waterloo Coy 63 (n = 35). RFT entry (RFT(E)) and basic training (RFT(BT)) data was collated from the AFC(H) RFT Stats Master database. MSKI prevalence was collated across the entirety of the 23-weeks basic training from the Army Recruit Health and Performance injury register. A two-way mixed-model analysis of variance (ANOVA) was used to clarify within-subjects and between group interactions in RFT(E) and RFT(BT) performance attributable to: (1) sex (male vs females on Waterloo Coy 65); and (2) platoon (Waterloo Coy 63 vs 65).

Male junior entry recruits performed better in the mid-thigh pull, medicine ball throw and 2-km run than female junior entry recruits. There was no difference in RFT performance between female junior entry recruits in Waterloo Coy 65 or 63. Male and female junior entry recruits both improved mid-thigh pull and medicine ball throw performance to a comparable extent from RFT(E) to RFT(BT). For the 2-km run, female junior entry recruits demonstrated a greater improvement in performance from RFT(E) to RFT(BT) than male junior entry recruits. The improvement in RFT performance from RFT(E) and RFT(BT) in female junior recruits was comparable in Waterloo 65 vs. 63. MSKI prevalence was circa 2-fold greater in female junior recruits (33.9%) than male junior recruits (14.6%) between March 2018 – March 2021. In Waterloo Coy 65, MSKI prevalence was 15.4% in male junior recruits and 31.3% in female junior recruits. Concordant with overall MSKI prevalence, the prevalence of MSKIs resulting in Discharge as of Right (DAOR) were approximately double in female versus male junior recruits (3.2% vs 1.8%) between March 2018 – March 2021. For Waterloo Coy 65, DAOR prevalence was lower than previous years from both male (0.4%) and female (2.1%) junior recruits.

Overall, Pj ATHENA 1 did not improve RFT performance or MSKI prevalence in female junior entry recruits. The rise of the Omicron COVID-19 variant in late 2021 had an immediate impact on PD progression for recruits in Waterloo Coy 65. A shift to Virtual Training in December 2021, coupled with COVID recovery pathways after infection and/or vaccination incurred a sizeable chunk of missed training as the cohort approached the Role Fitness Test (Basic Training) output standards.



## KEY FINDINGS

- » Male junior recruits outperform female junior recruits on RFT (E) and RFT(BT).
- » Performance improvement between RFT(E) and RFT(BT) was similar or better in female vs. male Junior Recruits but the RFT(BT) first time fail rate was 59% for the Pj ATHENA 1 cohort despite this improvement.
- » RFT performance was similar for female junior Recruits on ATHENA1 and female controls.
- » Musculoskeletal injury prevalence in female junior recruits was double male junior recruits.
- » Musculoskeletal injuries resulting in Discharge as of Right were 3.2% in female and 1.8% in male junior recruits.
- » Musculoskeletal injuries resulting in Discharge as of Right was 2.1% in Pj ATHENA 1 .

## METHODS

1. **Participants.** Forty-two female Junior Entry (JE) recruits were allocated to participate in Pj ATHENA 1 on arrival to start Basic Training at AFC(H). All recruits were enlisted on the JE short course (23-weeks) commencing in September 2021 (Waterloo Coy 65). No female control group was available from Waterloo Coy 65, therefore comparisons are made with both: (1) men in Waterloo Coy 65 (n = 280); and (2) women in Waterloo 63 who commenced Basic Training in March 2021 (n = 32). Other historical control groups were considered but determined inappropriate due to the impact of CMS-21 roll-out in March 2021 and training restrictions attributable to the COVID-19 pandemic on primary outcome variables.

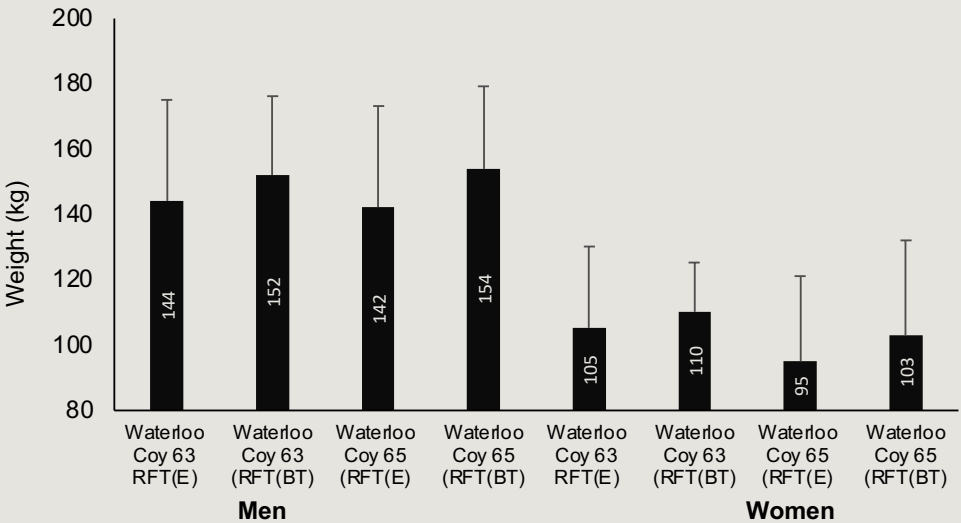
2. **Role Fitness Test (RFT).** Data was collated from the AFC(H) RFT Stats Master database. Each recruit's best performance was reported for both RFT(E) and RFT(BT). A limitation to this data is the lack of information reported on the number of pass attempts each individual recruit was given, the date of these attempts and the standardisation of testing (e.g. encouragement, fatigue). Reported data is presumed to be an individual's 1st attempt unless otherwise stated.

3. **Musculoskeletal Injuries (MSKIs).** Data was collated from the HQ ARITC MSKI database for patients presenting to AFC(H) primary care rehabilitation facility physiotherapists. For each MSKI, the following data were collected: sex, date of MSKI/medical presentation (week of training injured), cause of MSKI and anatomical location of MSKI. MSKI type was classified as either overuse (i.e., repetitive stress resulting in cumulative microtrauma, including stress fracture and medial tibial stress syndrome (MTSS)) or trauma (i.e., caused by an energetic overload such as a trip or fall). MSKIs sustained directly because of training or non-military sport were included. Domestic MSKIs were excluded. Due to the small number of MSKIs, sub-analysis for different types, causes or sites of injury were not conducted.

4. **Statistical Analysis.** Manual data handling was performed in Microsoft Excel and analysis in the statistical package for the social science (SPSS, IBM, Version 25, USA). MSKI prevalence (%) was calculated by dividing the MSKI incidence by the number of recruits in training. Recruits missing either RFT(E) or RFT(BT) data were removed from both sets of analysis. Prior to formal statistical analysis data was assessed for normality using a Shapiro-Wilk test. A two-way mixed-model analysis of variance (ANOVA) was used to clarify between- and within group interactions in RFT(E) and RFT(BT) performance attributable to both (1) sex (men vs women) and (2) intake in female recruits only (Waterloo Coy 65 vs Waterloo Coy 63). For aspherical data, Greenhouse-Geiser corrections were applied for  $\epsilon < 0.75$ , whilst the Huynh-Feldt correction was applied for  $\epsilon > 0.75$ . All data are presented as mean  $\pm$  standard deviation (SD).

## RESULTS

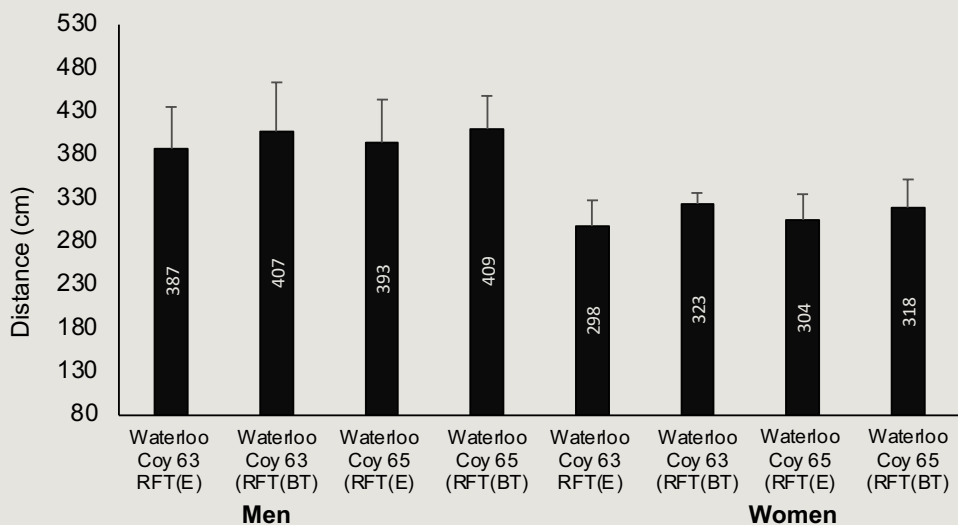
5. **Mid-Thigh Pull.** Male junior recruits in Waterloo Coy 65 lifted heavier than female junior recruits in the mid-thigh pull ( $p < 0.001$ ). Both male and female recruits in Waterloo Coy 65 improved their mid-thigh pull performance between RFT(E) and RFT(BT) ( $p < 0.001$ ). The absolute improvement in mid-thigh pull performance between RFT(E) and RFT(BT) performance was comparable between male and female junior recruits ( $p = 0.397$ ), who improved by 8.5% (12 kg) and 8.4% (8 kg), respectively (Figure 1). Mid-thigh pull performance was not different for female junior recruits in Waterloo Coy 65 and Waterloo Coy 63 ( $p = 0.067$ ). Both intakes of female junior recruits improved their mid-thigh pull performance between RFT(E) and RFT(BT) ( $p = 0.049$ ). The absolute improvement in MTP performance between RFT(E) and RFT(BT) was comparable between female junior recruits on Waterloo Coy 65 and 63 ( $p = 0.397$ ), who improved by 4.8% (5 kg) and 8.4% (8 kg), respectively (Figure 1).



**Figure 1.** RFT(E) and RFT(BT) mid-thigh pull performance in male and female junior recruits for Waterloo Coy 63 and Waterloo Coy 65.

6. **Medicine Ball Throw.** For Waterloo Coy 65, male junior recruits threw further than female junior recruits in the medicine ball throw ( $p < 0.001$ ). Both male and female junior recruits in Waterloo Coy 65 improved their medicine ball throw performance between RFT(E) and RFT(BT) ( $p < 0.001$ ). The absolute improvement in medicine ball throw performance between RFT(E) and RFT(BT) performance in Waterloo Coy 65 was comparable between male and female junior recruits ( $p = 0.887$ ), who improved by 4.1% (16 cm) and 4.6% (14 cm), respectively (Figure 2).

Medicine ball throw performance was not different for female junior recruits in Waterloo Coy 65 and Waterloo Coy 63 ( $p = 0.235$ ). Both intakes of female junior recruits improved their mid-thigh pull performance between RFT(E) and RFT(BT) ( $p < 0.000$ ). The absolute improvement in medicine ball throw performance between RFT(E) and RFT(BT) was comparable between female junior recruits on Waterloo 65 and 63 ( $p = 0.265$ ), who improved by 8.4% (25 cm) and 4.6% (14 cm), respectively (Figure 2).

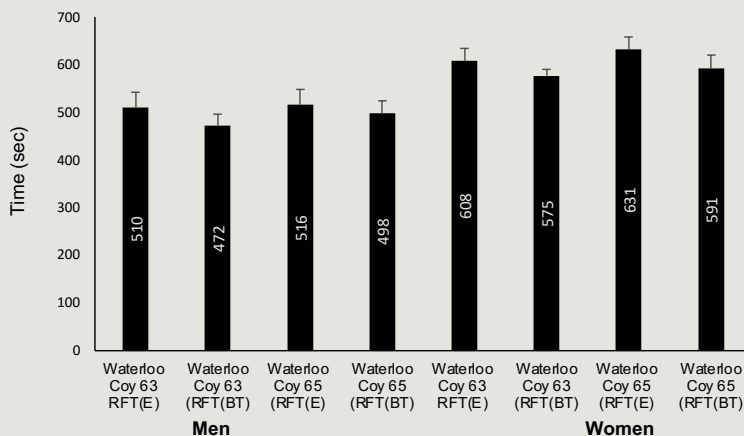


**Figure 2.** RFT(E) and RFT(BT) medicine ball throw performance in male and female junior recruits for Waterloo Coy 63 and Waterloo Coy 65.

7. **2 km Run.** Male junior recruits in Waterloo Coy 65 were faster than female junior recruits in the 2-km run ( $p < 0.001$ ). Both male and female recruits in Waterloo Coy 65 improved their 2-km run performance between RFT(E) and RFT(BT) ( $p < 0.001$ ). The absolute improvement in 2-km performance between RFT(E) and RFT(BT) performance was better in female junior recruits (6.3%; 38 secs) compared with male (3.5%; 18 secs) junior recruits ( $p = 0.005$ ) (Figure 3).

Run performance was not different for female junior recruits in Waterloo coy 65 and Waterloo Coy 63 ( $p = 0.077$ ). Both intakes of female junior recruits improved their 2-km run performance between RFT(E) and RFT(BT) ( $p < 0.001$ ). The absolute improvement in 2-km run performance between RFT(E) and RFT(BT) was comparable between female junior recruits on Waterloo Coy 65 and Waterloo Coy 63 ( $p = 0.480$ ), who improved by 5.4% (33 secs) and 6.3% (40 secs), respectively (Figure 3).





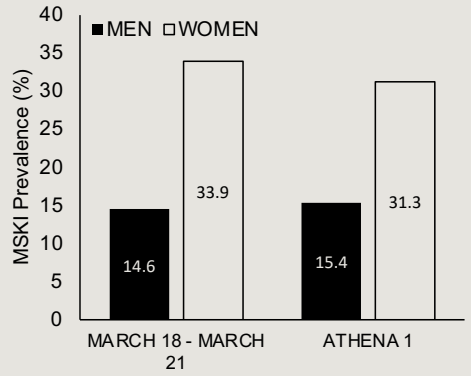
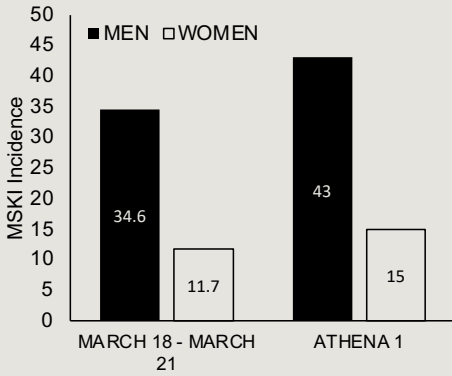
**Figure 3.** RFT(E) and RFT(BT) 2-km run performance in male and female junior recruits for Waterloo Coy 63 and Waterloo Coy 65.

8. **RFT Pass-Rate.** For Waterloo Coy 65, 100% of male and female junior recruits passed RFT(E). For RFT(BT), 100% of male junior recruits passed on first attempt, whereas only 41% (12 of 29) female junior recruits passed on first attempt. Of those 17 female junior recruits who failed RFT(BT) on first attempt, 2 failed the mid-thigh pull, 8 failed the medicine ball throw, 4 failed the 2-km run and 3 failed both the mid-thigh pull and medicine ball throw. On second attempt, 10 female junior recruits passed RFT(BT), 3 failed the medicine ball throw, 1 failed the 2-km run and 3 did not re-test.

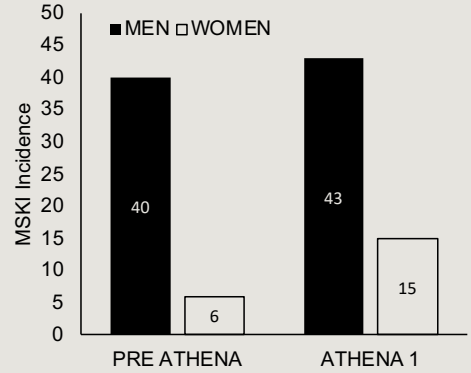
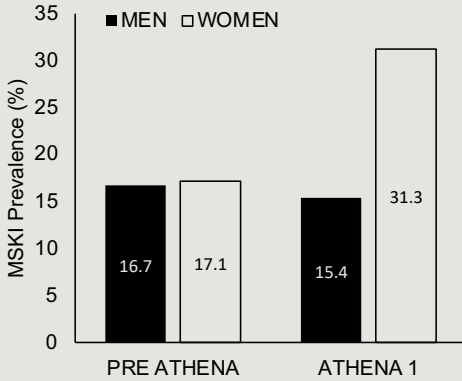
For intake 63, 100% of male and 88% of female (28 of 32) junior recruits passed RFT(E). Of the 4 female junior recruits who failed RFT(E), 1 failed the mid-thigh pull, 1 failed the medicine ball throw and 2 failed the 2-km run. For RFT(BT), 100% of male and female junior recruits passed on first attempt.

9. **MSKI.** For Waterloo Coy 65, 43 male and 15 female junior entry recruits suffered from an MSKI that required visiting a primary care rehabilitation facility (Figure 4a). The prevalence of MSKI relative to the number of recruits in training was 17.1% in male junior recruits and 31.3% in female junior recruits, respectively (Figure 4b). For male junior recruits, MSKI prevalence was comparable to Waterloo 63 (16.7%), but for female junior recruits the MSKIs prevalence had doubled compared with Waterloo Coy 63 (15.4%, n = 6; figure 4b). Year-on-year there is considerable variability in MSKI incidence and prevalence between platoons in both male and female junior recruits enlisted on the 23-week SC at AFC(H), making it difficult to attribute causality to the Pj ATHENA 1 intervention (Figure 5). For Waterloo Coy 65, MSKI incidence (Figure 5a) and prevalence (Figure 5b) was comparable with the mean short-course intake between March 2018 and March 2021. For Waterloo Coy 63, 7 male (2.9% prevalence) and 0 female (0% prevalence) junior recruits had an MSKI resulting in a Discharge as of Right. For Waterloo Coy 65, 1 male (0.4% prevalence) and 1 female (2.1% prevalence) junior recruits had an MSKI resulting in a Discharge as of Right. For all AFC(H) short-courses commencing between March 2018 – March 2021, there was a total of 28 male (1.8% prevalence) and 8 female (3.2% prevalence) junior recruits who had an MSKI resulting in a Discharge as of Right.





**Figure 4.** MSKI incidence (A) and prevalence (B) in male and female junior entry recruits in Waterloo Coy 62 (PRE ATHENA) and Waterloo Coy 65 (Pj ATHENA 1).



**Figure 5.** MSKI incidence (A) and prevalence (B) in male and female junior entry short-course intakes from March 2018 – March 2021 and Waterloo Coy 65 (Pj ATHENA 1).



# REFERENCE DOCUMENTS







# PJ ATHENA 1 TERMS OF REFERENCE

## BACKGROUND

1. The MOD has a duty of care to its Service Personnel to ensure they are sufficiently trained to withstand the rigours of military life. This is particularly true for those undertaking basic training under the age of 18, where they are still developing physically, emotionally and psychologically. Our female Junior Soldiers often face a greater challenge with a higher risk of injury.

## AIM

2. Pj ATHENA is an AFC(H) initiative to improve the physical standards and resilience of female Junior Soldiers by empowering them to be the best version of themselves. It will follow the proposed 'Bio-Psycho-Social' model and use coaching, self-development strategies and physical training.

## CONSIDERATIONS

3. The following areas are to be considered during this initiative:

a. **Biological Factors.**

- (1) Recognise the differences in male and female training requirements and facilitate a dedicated PT program to support female JS, through Fox Company.
- (2) Educate all female JS regarding injury prevention.
- (3) Understand all elements of the menstrual cycle and contraception, working with the physiotherapy and medical team to ensure additional education of both JS and PS IOT optimise their performances.
- (4) Work alongside nutritional experts to educate the JS on the importance of nutrition and associated performance outputs.

b. **Psychological Factors.**

- (1) Allow JS to understand and manage their minds, with an approach grounded in neuroscience. Provide explanations of the mind and explain how to improve quality of life and optimise performance. Understand the separate but interlocking systems within the mind, allowing JS to manage their mind and emotions to their advantage.

c. **Social Factors.**

- (1) Bring all female JS together and foster a sense of belonging.
- (2) Provide a safe environment to discuss and understand socio-environmental and cultural factors, such as work issues, family circumstances and economic situation on their performance and the working mind.
- (3) Introduce the JS to other female role models, both Military and civilian to see their potential.

## RESPONSIBILITIES

4. For Pj ATHENA to be successful, the following tasks will be required:

a. **Biological element.**

- (1) ERI to deliver female specific PT sessions.
- (2) Physiotherapist to deliver specific program focusing on reducing injury.
- (3) Physiotherapist to consider the impact of the menstrual cycle and contraception on females in basic training.
- (4) Physiotherapist to liaise with the medical centre staff regarding current female educational programs delivered.
- (5) Pj ATHENA team to communicate with nutritional specialists both military and civilian.



**b. Psychological element.**

- (1) Outsource an appropriate deliverer of a psychological education programme for the JS.
- (2) Deliverer to provide a short training package to a broad range of AFC(H) staff.
- (3) Pj ATHENA team to liaise with Catherine Smith (SO2 Psychologist HQ ARITC) to ensure best psychological evidence is captured.

**c. Social element.**

- (1) OC Waterloo Company to engage with female JS through centralised presentations to ensure they understand the aims of OP ATHENA and are to engage in the process.
- (2) Pj ATHENA team to organise visits from female role models both military and civilian.
- (3) Pj ATHENA team to inculcate a sense of belonging through better military and PT issued clothing and Adventurous Training equipment.

**DELIVERABLES**

5. Through qualitative data we have seen that female JS are more susceptible to injury, have a lower first-time pass rate regarding the summative output test (Loaded March) and lack confidence and mental resilience whilst preparing for, or under test conditions.

6. Course delivered to a select AFC (H) Permanent Staff cohort (workshops TBC). This course will allow the PS to better understand how the JS are thinking and will therefore help them understand how to better manage decision making, errors and setbacks, effective communication and optimising team working (ethos).

7. Pj ATHENA Team is scoping possible outcomes and measures (tangible and evidence-based metrics). This work is currently underway and will be aimed at agreeing outcomes, measures and monitoring change/improvement for the JS (through a series of workshops, up to and including RFT (E)). We are keen that the change and improvement plan is demonstrable. These skills will be developed for the JS that will be applied to both Military and other areas of life. These skills can then be applied to all arenas and will stay with the Junior Soldier for their whole career. The roll out for this with Waterloo Coy JS is March 2021.

8. A written report will be submitted to ITG upon the conclusion of Pj ATHENA with a view to a roll out across the Group if deemed a success.

**SUMMARY**

9. Pj ATHENA is a multi-agency initiative intended to improve the physical, emotional and psychological standards of the female Junior Soldiers at AFC Harrogate. Commanders at all levels are duty bound to ensure all our soldiers are given every opportunity to succeed and this initiative will go some way to ensuring our female junior soldiers do exactly that.



# AFC(H) SOI – HYGIENE IN THE FIELD

AFC SOI - 19 - FEMALE HYGIENE IN THE FIELD V2			
SO-19	16 December 2021		16-Dec-21
AFC(H)	Female Focus Lead	Commanding Officer	Trg Coys HQ ITG
References			
A. <a href="http://www.nhs.uk/conditions/periods/">Http://www.nhs.uk/conditions/periods/</a>			
B. 20201207-Female_Lived_Experience_Survey_AFC_Sgt_Kenny			
C. 20210823_DIN 2021DIN01-098: Supply of Emergency Sanitary Products Provision for Service Personnel			
D. <a href="https://www.rcn.org.uk/clinical-topics/womens-health/promoting-menstrual-wellbeing/period-poverty">https://www.rcn.org.uk/clinical-topics/womens-health/promoting-menstrual-wellbeing/period-poverty</a>			
E. <a href="https://www.nhs.uk/conditions/toxic-shock-syndrome/">https://www.nhs.uk/conditions/toxic-shock-syndrome/</a>			
Remarks			
This SOI is applicable for AFC Harrogate only.			













## INTRODUCTION

1. Around 10% of the Army Foundation College cohort are female Junior Soldiers (JS). The majority of which will have a menstrual cycle every month that lasts between 3-8 days, losing 30 to 72ml (5 to 12 teaspoons) of blood. The cycle changes the subject's hormone levels often resulting in mood swings, tiredness and headaches. Abdominal pain lasting 48 to 72 hours can also occur, presenting as painful muscle cramps in the stomach, that can spread to the back and thighs.
2. Historical understanding of, and provision of support for, female service personnel during their menstrual cycles was poor. The 2020 AFC Harrogate Female JS Lived Experience Survey identified that many did not have access to a sufficient quantity of sanitary products in the first six weeks of Basic Training. Citing a lack of access to the NAAFI, 'period poverty', combined with a delayed pay-run for new enlisters as contributory factors. Female JS also felt embarrassed to open post that contained sanitary products in front of their Permanent Staff (PS). It was not uncommon for JS to menstruate on their bedsheets due to the lack of sanitary products, adding a layer of unnecessary friction for female JS during an already stressful part of their training.
3. The same issues presented for the first six weeks in camp, extend to management of the menstrual cycle in the field. Where, without support, hygiene is more important and more difficult, with access to sanitary products even more constrained.

## AIM

4. The aim of this document is to detail the College provision of sanitary products for female JS, both in the first six weeks and when in the field. The document will provide CQMSs direction on what is available and to obtain it. Training Teams (TT) can use this document for guidance on how to facilitate and manage the provision. It will also outline current policy and the financial element of product purchase.



Ser	Description		UoI	Qty	
1	Tote Red Box		EA	1	Through Repro, Stationary Request from Ask for Red Container with Attached Lid 375816, code: SBY21377.
2	Small Combat Trousers		EA	1	Through Clothing Store, size: 75/84/100, NSN: 8415-99-317-8277.
3	Medium Combat Trousers		EA	1	Through Clothing Store, size: 80/88/104, NSN: 8415-99-317-8284.
4	Large Combat Trousers		EA	1	Through Clothing Store, size: 85/84/100, NSN: 8415-99-317-8290.
5	Clear Plastic Bag		EA	10	Through G1098 demand NSN: 8105-99-869-4302 come in a CT of HD
6	Large Latex Gloves		PK	1	Through G1098 demand NSN: 8415-99-789-6048 come in a BX of HD
7	Plastic Cable Ties		PK	1	Through G1098 demand NSN: 5340-99-195-5122 come in a PK of HD
8	Tampax Super		PK	1	20 per PK, through ePC via Korea Coy CQMS
9	Tampax Regular		PK	1	20 per PK, through ePC via Korea Coy CQMS
10	Always Sanitary Towel Normal		PK	2	26 per PK, through ePC via Korea Coy CQMS
11	Always Sanitary Towel Long		PK	2	26 per PK, through ePC via Korea Coy CQMS
12	Odour Neutralising Nappy Bags with Tie Handles		PK	1	150 per PK, through ePC via Korea Coy CQMS
13	Freshening and Soothing Wipes		PK	1	25 per PK, through ePC via Korea Coy CQMS

**TABLE 1.** Contents of the Emergency Sanitary Product Supply Box.



6. Individual Welcome Pack. Para 2 highlighted the requirement for female sanitary additions to the established 'Get You in Pack' on arrival. Providing emergency sanitary products for the first six weeks and a sanitary bag to pack when deploying on exercise. The pack will include a leaflet teaching female JS about how to store sanitary products and what to bring on exercise. The welcome pack is to be placed on every female JS bedspace pre-arrival and included in their initial issue. Each TT should be briefed on its use and verbally brief it to the female JS. JS should feel comfortable to ask their TT for help regarding sanitary provision, regardless of TT gender. It is recommended that the welcome pack is contained in a small black or olive green dry / wax bag, this could be provided by available dry / wax bags already in the system. The welcome pack is to include:

- a. 2x Sanitary Pads
- b. 1x Tampax Tampons (box)
- c. 1x Sanitary Bags

#### **FINANCIAL**

7. A supply box is available for each CQMS to indent for from the supply chain (NSN: DAS6 6150-99-979-4979), this will be paid for through the military chain. An Application for Expenditure Proposal has been successfully submitted for use of the Junior Soldier Apprentice Grant to purchase the Individual Welcome Pack. This has been initially costed at £6.50 per pack, with female JS making up roughly 100 JS per intake the cost of this will be approximately £650, at a cost of £1300 per year.

#### **SUMMARY**

8. The provision and consideration of sanitary support for female JS is a welcome and beneficial introduction for the March 2022 intake and beyond. The 'Battle Bag' will allow Training Teams and CQMS department to provide adequate emergency sanitary products for their female JS on exercise and is in accordance with DIN01-098, thus maintaining appropriate hygiene standards in the field. Similarly, the female sanitary additions to the 'Get you in Pack' will ensure female JS are given appropriate support during their initial six weeks and allows them to take ownership of their own needs. Beyond this TT provision, advice and guidance on what is required / recommended on exercise.

Original Signed

Original Signed

Maj J Russell ETS  
Second in Command  
Army Foundation College (Harrogate)

Lt Col S Farebrother MC QDG  
Commanding Officer  
Army Foundation College (Harrogate)

# PROJECT ATHENA 1 PROGRAMME

DATE TY 21/22	DOMAIN	CONTENT
20 SEP 21	Social	Meet and Greet. Key ATHENA / female-focus representatives and CO visit. ATHENA Facebook group registration.
21 SEP 21	Biological	Female soldier health. Contraception and menstrual health (1), with physio delivery.
6 OCT 21	Social	VERITAS Series. Women in Defence Study Day. Inspirational speakers and discussion.
10 OCT 21	Biological	Biomechanical screening. Scanning movement patterns and posture to predict injuries and movement injury.
19 OCT 21	Psychological	1. Define each student's Compass for Life Map. Maintain and develop mental and physical resilience.
20 OCT 21	Biological	Practical/education. Fundamental movement patterns to prevent typical areas of increased MSKI risk for females (prehab).
20 OCT 21	Biological	Menstrual cycle - training advice. Explain the pre/post cycle requirements and nutrition, how the cycle affects training and recovery.
4 NOV 21	Biological	Load carry. Female specific training, focussing on PT equipment preparation, warm-ups and load carry coaching points.
10 NOV 21*	Psychological	2. Understand the mind and how it functions (Focus - female-specific neuroscience)
22 NOV 21	Psychological	3. Dealing with stress, anxiety and worry, anchoring techniques*
23 NOV 21	Social / bio	Voice of experience. PTi guest speaker, combined with PT session.
24 NOV 21	Social	Q&A session. Meet serving Permanent Staff role models over lunch.
26 NOV 21	Social	Team building. Understanding group dynamics and female support networks.
15 DEC 21*	Psychological	4. Physical capabilities and how the body works.
DEC 21 TBC*	Psychological	5. Ethos and values, how these principles guide our thinking and behaviour.
1 DEC 21	Biological	Physio focus. Review injury-prevention schedule and focus on nutrition. PS training
7 JAN 22	Psychological	5. Ethos and values, how these principles guide our thinking and behaviour.
13 JAN 22	Psychological	6. Understand the importance of being strategic, setting clear milestones and developing good habits.
21 JAN 22	Psychological	7. Advanced communication; empathy, energy and inclusion in teams.
JAN 22 TBC	Social	Social event. Evening social event to foster team spirit.
7 FEB 22	Psychological	8 & 9. Advanced training on mental and physical resilience, legacy and coaching others.
6 FEB 22	Bio / Psych / Soc	Final team challenge event. Netball and Inflatable Assault course with Closing Address in WVRS from CO and RSM.



yeah good.

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## THE ARMY FOUNDATION COLLEGE

The Army Foundation College trains over 1,700 Junior Soldiers every year, providing 16 and 17 year-olds with military training and education prior to starting careers in the British Army.

The site has been in almost continuous use for training soldiers since the start of the Second World War, when the 9th Field Training Regiment of the Royal Artillery used the nearby moors to practice targeting. In 1947 the site was renamed 'The Army Apprentices' College' and trained tradesmen for the Royal Engineers, Artillery, Ordnance Corps, Electrical and Mechanical Engineers, Army Service Corps, and Signals.

Between 1985 – 1996 the barracks was used to train Junior Leaders; these individuals had the potential to join the Royal Signals in technical roles alongside their apprentice colleagues at the College. The Army Apprentices' College closed in 1998.

The barracks was reopened later that year as the Army Foundation College. Two years later the MoD and a private consortium signed a Private Finance Initiative agreement for the provision of a new purpose built college. The construction of the current College was completed at the end of 2002, when it was officially opened.

Today the Army Foundation College runs two different courses for training the youngest soldiers in the British Army. The long course is 42 weeks for those joining the Household Cavalry, Royal Armoured Corps, Royal Artillery, Infantry, and Royal Logistic Corps. The short course is 21 weeks long and is for those joining the Royal Engineers, Royal Signals, Army Air Corps, Royal Logistic Corps (all trades except drivers who do the long course), Royal Army Medical Corps, Royal Electrical and Mechanical Engineers, Adjutant General's Corps, and Corps of Army Music.

Vocational Education delivered by civilian tutors is an important part of the programme at the Army Foundation College. It supports the Junior Soldiers through their training at Harrogate and by improving their literacy, numeracy and IT skills contributes to making them more effective soldiers in their careers to come. All Junior Soldiers are enrolled onto the Army Apprenticeship Programme, itself one of the largest civilian Apprenticeship Schemes in the UK. As part of this Scheme, Junior Soldiers take examinations in

civilian recognised qualifications of Functional Skills, English, Mathematics and Information Computer Technology. The number and type of Functional Skills offered is dependant on the Junior Soldiers school achievement and offers a second opportunity to gain recognised educational qualifications.

All Junior Soldiers have opportunities to learn and undertake Sport and participate in competitions. Junior Soldiers on the Long Course will all also undertake the Duke of Edinburgh Award involving Sport & Skills, Expeditions in the Outdoors and a contribution to the local Community in Volunteer Service. The AFC runs the largest and most successful DofE Scheme in the UK.

## GLOSSARY

AFC(H)	Army Foundation College (Harrogate)
ARITC	Army Recruiting and Initial Training Command
BTAP	Basic Training Adaptation Programme
CMS	Common Military Syllabus
DAOR	Discharge As Of Right
FHPM	Force Health Protection Measures
GCC	Ground Close Combat
ITG	Initial Training Group
JE	Junior Entry
JS	Junior Soldiers
MSKI	Muscular-skeletal Injuries
PD	Physical Development
PES	Physical Employment Standards
PT	Physical Training
SE	Standard Entry
SOI	Standard Operating Instruction



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