

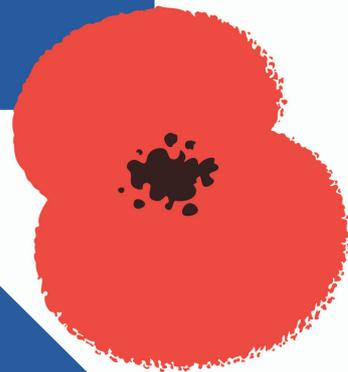
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The Battle Back Centre



SUSTAINABLE IMPROVEMENTS
IN THE MENTAL WELL-BEING OF
BATTLE BACK PARTICIPANTS

THE ROYAL BRITISH
LEGION



LEEDS BECKETT UNIVERSITY

CARNEGIE

GREAT OUTDOORS

THE MULTI ACTIVITY COURSE



An introduction



This is the first longitudinal research study into the effects of an adaptive sport and adventurous training recovery course on the mental well-being of in-service, wounded, injured and/or sick (WIS) UK armed forces personnel.

The Multi Activity Course (MAC) being studied in this research is delivered to serving participants who have been reassigned to being no longer actively serving in their intended job role due to injury or illness. Once an individual of the Army or RAF has been WIS for 28 days they should attend the mandatory MAC at The Battle Back Centre. 24 MACs are delivered annually with a maximum of 24 participants per course.

The study offers a robust and novel investigation into the long-term efficacy of the 5-day MAC in influencing the mental well-being of WIS armed forces over a 12-month research period. The course was designed and piloted to ensure high quality delivery of a person-centred, adaptive sport and adventurous training experience before moving to full operational capacity. Research data from each course informs the development of the programme maintains an evidence based practice. It was also developed with an inclusivity rationale that addresses universal recovery issues while providing a safe and enjoyable experience, delivered to international standards. The adaptive sports included in the MAC are indoor climbing and caving, wheelchair basketball, clay pigeon shooting, indoor bowls, kayaking, archery, seated volleyball and mountain biking.

An overview

THE METHOD



Consent

Prior to arriving at the Battle Back Centre for the MAC, WIS personnel received an information sheet and informed consent form within their military joining instructions. This provided detailed information on the research and invites individuals to participate in the study. This process also provided personnel with more than 24 hours to consider voluntary consent. On arrival at the Battle Back Centre personnel were reminded about the research, this time verbally by a research staff member and, again, invited to participate. Written informed consent was then obtained from willing participants. Continued consent was confirmed online, prior to completing each of the four follow-up surveys.

Ethical Approval

Ethical approval was awarded by Leeds Beckett University and The Ministry of Defence (MoD) Research Ethics Committee.

Data Collection

Upon arrival at the Centre and prior to any formal interaction with centre staff or activities a non-military member of the Leeds Beckett University research staff met with all the participants. The research staff informed the participants about the aims of the research and obtained consent from volunteers. Following this, Participants then completed two surveys - Warwick-Edinburgh Mental Well-being Scale (WEMWBS) and the Basic Need Satisfaction in General Scale to provide a baseline measure of positive mental health and basic psychological need satisfaction.

Throughout the whole research period, data was requested at 6-time points over a 12-month period from each participant; upon arrival on the MAC, at the end of the MAC, then at four post-MAC time points; two weeks, three months, six months and 12 months later.

ENCOURAGING SELF DETERMINATION AT BATTLE BACK

The design and delivery of the MAC derives from the principles of the Self Determination Theory (SDT).

The SDT proposes that all humans have three basic psychological needs; competence, autonomy and relatedness.



COMPETENCE

Competence concerns our achievements, knowledge, and skills; individuals have a need to build competence and develop mastery over tasks that are important to them. Sport offers a rich context for experiencing competence at a range of levels.



AUTONOMY

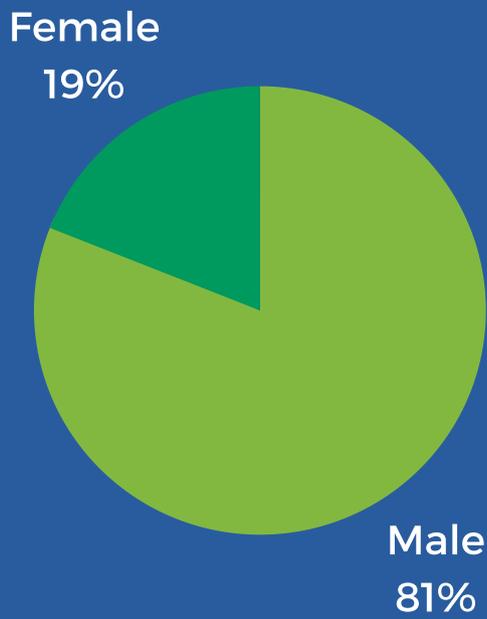
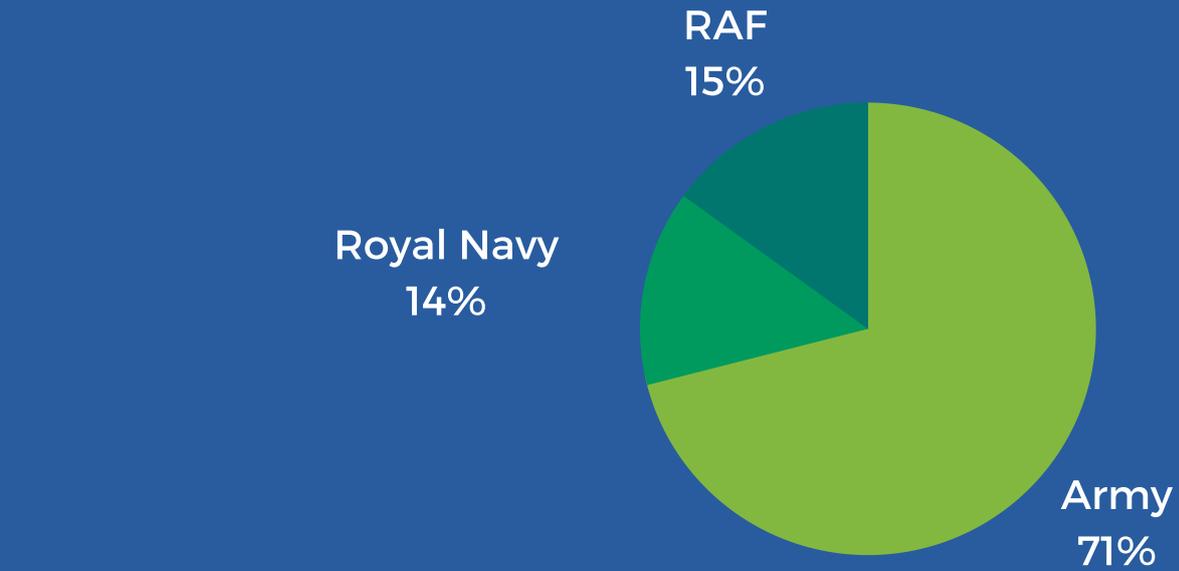
Autonomy is the need for individuals to feel in control of their lives and their future. Most importantly, this centres on individuals making their own decisions. Battle Back coaches encourage 'challenge by choice'.



RELATEDNESS

Given the human imperative for feeling a sense of belonging and connectedness with others, relatedness is the third SDT theme.

Coaching approach: Having these considerations underpinning the delivery by the coaching staff is the foundation to initiating positive change in the participants well-being. All staff embed the SDT principles in their support with the participants throughout their health coaching at Battle Back.



WHO TOOK PART?

Within the research time period, November 2016 to December 2018, 804 participants attended a MAC. Participants taking part in the research were 81% Male, 19% Female, ranging from 20 to 52 years of age. Their military distribution was; 71% Army, 15% RAF and 14% Royal Navy. The most common rank was Corporal. Self-reported, 6% of participants considered themselves to be wounded (battle casualty), 45% injured (non-battle casualty) and 66% Sick (physical or mental ill health).

Improvements in

POSITIVE MENTAL WELL-BEING

The WEMWBS is a positively worded scale measuring an individual's positive mental well-being. It was used in the UK National health survey every year between 2010-2016.

33%

*Increase by the end of
the 5-day course*

13%

*Increase sustained at
12 months*



The 14-item scale measures aspects of positive mental well-being widely accepted as key components of well-being within the literature of mental well-being research, including positive affect, positive relations with others and positive functioning. As displayed in Figure 1, upon arriving at The Battle Back centre, the average positive mental well-being score was 39.69. (The 2016 UK national average is 49.85).

This increased by 33% to 52.76 by the end of the 5-day course and now above the 2016 national average. WEMWBS scores for the duration of the research period show a gradual reduction over 12 months to 44.75. Despite this reduction, average scores at all other time points were significantly higher than the pre-course scores, showing the short and longer-term impact.



6%
Increase in **Autonomy** sustained at 6 months

11%
Increase in **Competence** sustained at 6 months

4%
Increase in **Relatedness** sustained at 6 months

8%
Total increase sustained at 6 months

CHANGES IN PSYCHOLOGICAL NEED SATISFACTION

- The study identified an increase in all three aspects of psychological need satisfaction by the end of the 5-day MAC.
- Feelings of competency increased by 12.81%, autonomy improved by 7.59%, and relatedness by 7.15%.
- Average reported measures at the four-time points after attending the course are shown above.
- Levels of reported competence increased most and remained comparatively highest at 12 months.
- Changes in autonomy remained significantly higher until 6 months and relatedness was only significantly increased between the beginning and the end of the course.



91%

of respondents indicated that the personal impact of the MAC was “Positive or Mostly Positive” two weeks after attending.

89%

of respondents indicated that the personal impact of the MAC was “Positive or Mostly Positive” 12 months after attending.

74%

reported making "changes in day-to-day life since being at the Battle Back Centre", with 75% of 82 participants sustaining this 12-months later.

40%

had either stopped things related to having a "negative mindset", "worrying about things out of their control", "bottling things up", "being hard" on themselves or "avoiding thoughts and feelings".

14%

commented on stopping behaviours such as "drinking alcohol", "smoking" or using "recreational drugs".

13%

had stopped "finding excuses" and were now "taking responsibility for their recovery", "stopped isolating themselves" and/or "feeling less self-pity".

IMPLICATIONS

This study provides important data showing long-term effects of exposure to a bespoke programme for serving military personnel. The self-reported well-being measures of competence, total psychological need satisfaction and positive mental well-being showed a significant and sustainable improvement over the 12 months following MAC attendance.

These improvements in mental well-being scores were not only statistically significant but also likely to represent ‘meaningful change’ for individuals. When compared to reported changes in mental well-being of interventions with UK military personnel, our data regularly shows greater improvements, often secured in a shorter time.

WHAT NEXT?

Research conducted with in-service military personnel, like this work at Battle Back, is rare.

All the research conducted on MACs since the initial pilots in 2011 has been deliberately designed to inform the delivery and practice of the courses. From a practical perspective, this approach continues to ensure that all coaching staff are well-versed in both the programme philosophy and the key sub scales that determine overall impact.

Our findings are timely for commissioners and service providers when developing present activity in military personnel care. Early interventions upstream of medical services have been called for and this work contributes to the understanding of the positive influence they can have on recovering military personnel.