

# Mountaineering and

by Sqn Ldr Sophie Foxen

RAF Medical Officer, RAFMA Publicity Rep

Everyone has mental health. It's a shame people often only speak about mental health when it is suffering. Does mountaineering and climbing have a place to aid good mental health? As a GP I have a science-based background and I wanted to know what evidence is out there. Let's go for a walk through what I found...

## Exercise is good for mental health

This one shouldn't be a surprise!

The mechanisms for exercise-induced mood changes remain unclear, but it is well documented that exercise is good for mood (1). A study published in 2018 included 1.2 million people from the United States looked at how many days per month people felt they had poor mental health. It compared those who exercised to those who didn't. It found that people who did not exercise had 3.4 days of poor mental health a month, compare to 2 days per month for people who exercised. That's almost a day and a half less. Furthermore, for those who stated in their survey that they had been diagnosed with depression and exercised, they had nearly 4 days fewer of poor mental health a month (7.1 days for people who exercised vs 10.9 days for people who didn't exercise) (2). This study did include 75 types of exercise, so it certainly isn't specific to mountaineering or climbing.

## Mountaineering can aid mental health

One of the reasons that the military funds adventurous training and sport is funded by the military is because it develops 'moral and physical courage' (3).

A web-based survey of over 2000 adults in Austria found that there was a lower prevalence of mental problems in those who exercised in the mountains at 14%, compared to their suggested European average of 38% (4).

Furthermore, a study in Iran found that students taken on a mountaineering expedition had improved self-esteem. Interestingly the increase in self-esteem was not affected by whether or not they reached the summit. Nor was this rise in self-esteem affected by previous mountaineering experience. There are methodological flaws with this study, such as it was only a small group and there as not a control group to compare to. Furthermore, whether the effect is sustained remains unclear. However, it fits with many people's experience that the activity of mountaineering makes you feel

good and it isn't just about reaching the summit (5). Indeed, it gives weight to the argument that more research in this area is warranted. Mental health problems cost the NHS a lot of money and they cost the individual as well as their friends and family emotionally.

A pilot study from 2017 of a small group of inpatients with major depression found that rock climbing was more beneficial than a relaxation intervention. Climbing gave patients more positive acute emotion regulatory effects, for example depression markers went down. The mechanisms of how climbing can have this effect were postulated to be due to the concentration and teamwork required in climbing. The authors suggest that overcoming difficulties whilst climbing could be part of the reason that the patients scored themselves more positively when questioned after the climbing. This was just a pilot study and other sports could have similarly beneficial effects, but it is encouraging that climbing could benefit those with severe mental health conditions (6).

## Mountaineering can be dangerous

A survey of young people aged 15 to 18 found that 1% had psychological problems on expeditions, with twice as many females to males being affected. This statistic is not hugely helpful, as the prevalence of mental health difficulties prior to expedition was not clear. That said, it is a useful reminder to be aware to try to build mental resilience as well as physical during training and monitor expedition members (7).

There is a danger to being addicted to the thrill of climbing and mountaineering; there is a dark side, a selfish side which sees people so obsessed with reaching a summit that they die getting there or die getting down. Everest is the world's highest peak and over 280 people have died trying to summit it. That is about 1% of those who climb it. More people are attempting Everest and more people are dying, although the percentage of those who climb and die is falling. Everest is not the most dangerous of the 8000m peaks, for the three most dangerous 8000m peaks (K2, Nanga Parbat and Annapurna for every five successful

summits one person dies (8, 9). What legendary mountaineer Ed Viesturs wrote in his memoirs is pertinent "Getting to the top is optional, getting down is mandatory."

There are a wide range of activities the come under the umbrella of mountaineering; some may enjoy one aspect, and another may not. Part of the reason that mountaineering gives mental robustness is the challenge and the risk. It is a personal choice as to how much risk one is willing to take, and how much enjoyment and benefit one finds. In acknowledging that risk, all British mountaineering clubs, including RAFMA, and climbing walls use the British Mountaineering Council statement 'The BMC recognises that climbing and mountaineering are activities with a danger of personal injury or death. Participants in these activities should be aware of and accept these risks and be responsible for their own actions' (10).

## Many people have personal accounts of how mountaineering has helped them

It seems clear that exercise is beneficial for mental health and more scientific evidence is emerging that climbing and mountaineering specifically can be positive. Mountaineering is not without danger, but this could be said for all forms of exercise.

The amount of anecdotal evidence that mountaineering and climbing contributes to good mental health is huge. Anecdotal evidence is about individuals finding that climbing and mountaineering help them feel happy and positive, as opposed to scientific studies of larger groups. After all, that is why of RAFMA members use their weekends and free time to do these activities. It is because they enjoy them! And RAFMA is not unique, another example, is Vertigirls. They are a group of climbers based in Brighton and Hove. Shelley from Vertigirls said "I have trained my mind to know it can calmly cope with challenges and not be defeated by them" (11).

Military personnel and their families have their own unique challenges. The majority are well and thrive, but some do not. Constantly moving jobs and roles can leave people isolated and fatigued. Additionally, the transition to becoming a

# Mental Health

veteran can be stressful and cause a decline in mental health. The rates of PTSD found in the public, from incidents such as road traffic accidents and assaults, were for years found to be equivalent to those in military veterans. However, a study published in Oct 2018 for the first time found rates of PTSD in veterans to be higher than that of the general public (12). There are charities such as Combat Stress and the Royal British Legion that can support veterans with mental health problems. The Royal British Legion has the Battle Back programme, which uses climbing and mountaineering as part of its rehabilitation since 2010.

Ted went on a Battle Back course and said 'Realising that the mental side can affect you physically, that was life changing for me. I couldn't even stand up for nine months, then there I was with this group of people who've all had similar symptoms, doing physical stuff for an hour. It was a light at the end of the tunnel. Not instantly, but for me, something was there, there was something to say you might get better' (13). The evidence from Battle Back is more than anecdotal. Leeds Beckett University has been investigating the effectiveness of attending the courses in positively influencing aspects of physical and mental wellbeing since

2010. Significant improvements in mental wellbeing are repeatedly reported by participants who attend the 5-day outdoor and indoor climbing skills courses; an average increase in positive mental wellbeing scores is 17.58% amongst 55 participants (14).

There are also organisations such as Veterans Expeditions that focus on Expeditions. The founder of Veterans Expeditions, former US Army Ranger Nick Watson said "Like with a lot of veterans, the wheels in my head just tended to spin. I had a few experiences that I just stewed over. That occupied so much of my energy. I didn't even realize how much until that moment on the mountain. I realized when I was climbing, all I thought about was climbing. That focus is addictive. It's a like a drug, a very good drug, and I was definitely hooked" (15).

I've personally found that there are many aspects to mountaineering that have contributed to positive mental health. It includes the friends I've made through mountaineering and the challenges I've undertaken that make me believe I can achieve. Events coming up give me things to look forward to and helping others get into mountaineering gives me a sense of

satisfaction. Overall, I have fun and that makes me happy!

## What can you do if you're suffering with poor mental health or someone you know is?

Try to speak and try to listen.

Be kind to yourself and others.

Sometimes you feel out of your depth and you don't know what to you.

You can see your padre, medical officer, speak to Samaritans on 116 123 <https://www.samaritans.org/how-we-can-help/contact-samaritan/> or Combat Stress: Veterans and their families can call 0800 138 1619, serving personnel and their families can call 0800 323 4444, you can also text on 07537 404719 and email [helpline@combatstress.org.uk](mailto:helpline@combatstress.org.uk). (Standard charges may apply for texts, please check with your provider). (<https://www.combatstress.org.uk/helpline>)

If you can't speak to anyone you can use self-help from <https://www.moodjuice.scot.nhs.uk/> or the app Headspace

Thank you to Catherine Henshaw, Royal British Legion and Joanne Thomson, Burnett library, and Dr Chris Kay, Leeds Beckett University for their help with this article.

## References

- 1 Lane AM, Jackson A, Terry PC (2005) Preferred modality influences on exercise-induced mood changes. *J Sports Sci Med* 4: 195–200. Accessed at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3880887/>
- 2 Chekroud S, Gueorguieva R, Zheutlin A et al (2018). Association between physical exercise and mental health in 1.2 million individuals in the USA between 2011 and 2015: a cross-sectional study. *The Lancet psychiatry* 5: 739 – 746. Accessed at [https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366\(18\)30227-X/fulltext](https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(18)30227-X/fulltext)
- 3 JSP 419
- 4 Niedermeier M, Hartl A, Kopp M (2017). Prevalence of Mental Health Problems and Factors Associated with Psychological Distress in Mountain Exercisers: A Cross-Sectional Study in Austria. *Front Psychol* 8: 1237. Accessed at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5517492/>
- 5 Saeid Bahaeloo-Horeh, MD; Shervin Assari, MD (2008). Wilderness and Environmental Medicine 19: 181-185. Students Experience Self-Esteem Improvement During Mountaineering. Accessed at [https://www.wemjournal.org/article/S1080-6032\(08\)70182-0/pdf](https://www.wemjournal.org/article/S1080-6032(08)70182-0/pdf)
- 6 Kleinstäuber M, Reuter M, Doll N, Fallgatter AJ (2017). *Psychol Res Behav Manag*; 10: 277–281. Rock climbing and acute emotion regulation in patients with major depressive disorder in the context of a psychological inpatient treatment: a controlled pilot trial Accessed at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5566792/>
- 7 Sadnicka A, Walker R, Dallimore J (2004) *Wilderness and Environmental Medicine*, 15: 181-187. Morbidity and Determinants of Health on Youth Expeditions. Accessed at <https://www.ncbi.nlm.nih.gov/pubmed/15473457>
- 8 BBC News How deadly is mount Everest? (2019) <https://www.bbc.co.uk/news/world-47418215>
- 9 National Geographic. Climbing Mount Everest Explained (2019) <https://www.nationalgeographic.co.uk/2019/02/climbing-mount-everest-explained>
- 10 British Mountaineering Council <https://www.thebmc.co.uk/risk-and-safety>
- 11 Joanna Rowbottom. British Mountaineering Council. How to harness positive mental wellbeing by rock climbing (2017). <https://www.thebmc.co.uk/Positive-mental-wellbeing-through-rock-climbing>
- 12 Stevelink SAM, Jones M, Hull L et al (2018). Mental health outcomes at the end of the British involvement in the Iraq and Afghanistan conflicts: a cohort study. *Br. J. Psychiatry* 213: 690-697. Accessed at <https://www.cambridge.org/core/journals/the-british-journal-of-psychiatry/article/mental-health-outcomes-at-the-end-of-the-british-involvement-in-the-iraq-and-afghanistan-conflicts-a-cohort-study/E77CCC4B6D0B2A3B6A481C0980D29E93>
- 13 Royal British Legion. How attending the Battle Back Centre changed one veteran's life. <https://www.britishlegion.org.uk/stories/how-attending-the-battle-back-centre-changed-one-veterans-life>
- 14 Dr Chris Kay & Richard Simpson (2019). Leeds Beckett University. Battle Back Outdoor Climbing Courses for Wounded, Injured and Sick Military Personnel and Veterans. <https://www.leedsbeckett.ac.uk/cgo/-/media/files/cgo/battle-back-outdoor-climbing-courses-impact-report-2019.pdf>
- 15 Vet Expeditions. Mountaineering can offer vets a chance to get out of their own head <https://www.vetexpeditions.com/mountaineering-can-offer-vets-a-chance-to-get-out-of-their-own-head/>