

Impact case study (REF3)

Institution: Staffordshire University		
Unit of Assessment: UoA 3 Allied Health Professions, Dentistry, Nursing and Pharmacy		
Title of case study: 'Healthy Individuals and Healthy Workplaces': Enhancing psychological health in the workplace.		
Period when the underpinning research was undertaken: January 2000-December 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Names:	Roles:	Period employed:
Dr Matthew Slater	Associate Professor of Sport and Exercise Psychology	Aug 2013-present
Dr Martin Turner	Associate Professor of Psychology	2012-2019
Dr Andrew Wood	Lecturer in Sport and Exercise Psychology	2017-2020
Prof. Marc Jones	Professor of Stress and Emotion	1998-2018
Dr Jamie Barker	Associate Professor in Applied Performance Psychology	2001-2017
Period when the claimed impact occurred: 1 st August 2013-31 st December 2020		
Is this case study continued from a case study submitted in 2014? N		

1. Summary of the impact

Our research focusses on enhancing individual and workplace psychological health. Our impact is evidenced in four key areas:

1. **Improvements in psychological health.** More than 900 people across 7 workplaces in the emergency services, the military, international sport, and business settings have benefited from our research.
2. **Development of a new Psychological Health Policy** at Stoke City Football Club (SCFC).
3. **Changes to Royal Air Force Psychological Health Policy.**
4. **Informed the creation of 6 new roles focussed on psychological health** situated within SCFC (headcount: 3; FTE 3), Hampshire Constabulary (headcount: 1; FTE 1), and Impact International (headcount: 2; FTE 2).

2. Underpinning research

Our impact case study is underpinned by multidisciplinary research on psychological health. It has been funded via GBP264,000 of external funding (2013-2020), including GBP180,000 in PhD collaborative projects with industry partners (with Stoke City Football Club and Impact International) and GBP43,000 through consultancy projects (with [Davies Group](#), Great Britain Rowing, and Staffordshire Fire and Rescue Service). We focus on three cross-cutting areas: (1) Challenge Responses to Stress; (2) Leadership and Belonging Development; and (3) Rational Emotive Behaviour Coaching (REBC):

Challenge Responses to Stress: In the first study of its kind, with international collaborators, we explored the relationship between challenge and threat appraisals, anxiety, and performance in a national medical simulation competition in Italy (SIMCUP). In this medical setting, we found that in stressful circumstances, trainee medics with lower demands and higher resources (i.e., those who showed a challenge response to stress) performed better in the competition [3.1]. Additionally, we have consulted as practitioner psychologists with individuals in the workplace (e.g., Davies Group, TeamGB; GBP43,000) to develop a challenge approach to stress in order to optimise individual and workplace psychological health.

Leadership and Belonging: When working in these contexts, we saw that leadership played a crucial role in stress management. Accordingly, we conducted multiple, highly controlled, laboratory experiments (N = 258) examining the effect of leadership on individuals' psychophysiological health. We found that a threat state (a maladaptive response to stress that reflects low psychological health) was more likely in individuals who perceived a poor connection with their leader [3.2]. As a result, we co-created a leadership and belonging development programme with stakeholders in an international disability sport setting [3.3] and tested it twice, longitudinally, over two years. The results demonstrated that compared to baseline levels,

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individuals reported increased levels of psychological connection with the team and leaders in both years one and two. We moreover found that when managers perceive stress as a challenge (an adaptive indicator of psychological health), rather than a threat (a maladaptive indicator of psychological health), they were more likely to give social support and provide positive feedback to their team. Further, managers who perceive stress as a threat showed an autocratic leadership style and higher levels of irrational beliefs [3.4].

Rational Emotive Behavioural Coaching (REBC): In order to reduce irrational beliefs, we developed an REBC programme for use in the workplace (including one-to-one therapy, group workshops, online resources, and an app called 'Smarter Thinking'). In 2018, we found the application of a REBC programme with elite disability athletes led to short and long-term improvements in psychological health (e.g., anxiety), physiological health (e.g., blood pressure), and performance outcomes [3.5]. Given that we have found irrational beliefs to be pertinent for individuals' psychological health, we developed and validated the first irrational beliefs assessment, the Irrational Performance Beliefs Inventory (iPBI), which has been used and validated internationally [3.6]. The iPBI assesses individuals' four core types of irrational beliefs, providing psychologists with the first validated assessment of their clients' psychological health in response to treatment.

3. References to the research

Between 2013 – 2020, our programme of research yielded more than 50 internationally recognised peer-reviewed publications, more than 50 international conference presentations, and received international awards (e.g., Dr Turner received the Albert Ellis Award for Research in 2018, and an outstanding achievement award in 2019 from the Association for Rational Emotive Behaviour Therapy).

Staffordshire University authors in **bold**:

3.1 Carenzo, L., **Braithwaite, E. C.**, Carfagna, F., Franc, J., Ingrassia, R. L., **Turner, M. J.**, **Slater, M. J.**, & **Jones, M. V.** (2020). Cognitive appraisals and team performance under stress: A simulation study. *Medical Education*. <https://doi.org/10.1111/medu.14050>. ePrints Link – <http://eprints.staffs.ac.uk/6106>

3.2 **Slater, M. J.**, **Turner, M. J.**, Evans, A. L., & **Jones, M. V.** (2018). 'Capturing Hearts and Minds': The influence of leader relational identification on followers' mobilization and cardiovascular reactivity. *The Leadership Quarterly*, 29, 379-388. doi: [10.1016/j.leaqua.2017.08.003](https://doi.org/10.1016/j.leaqua.2017.08.003). ePrints Link - <http://eprints.staffs.ac.uk/3800>

3.3 **Slater, M. J.**, & **Barker, J. B.** (2019). Doing social identity leadership: The efficacy of an identity leadership programme on perceived leadership and mobilization of effort. *Journal of Applied Sport Psychology*, 31, 65-86. doi: [10.1080/10413200.2017.1410255](https://doi.org/10.1080/10413200.2017.1410255). ePrints Link – <http://eprints.staffs.ac.uk/3952>

3.4 Dixon, M., **Turner, M. J.**, & Gillman, J. (2017). Examining the relationships between challenge and threat cognitive appraisals and coaching behaviours in football coaches. *Journal of Sports Sciences*, 35, 2446-2452. <https://doi.org/10.1080/02640414.2016.1273538>. ePrints Link - <http://eprints.staffs.ac.uk/2941>

3.5 **Wood, A.**, **Barker, J. B.**, **Turner, M. J.**, & Sheffield, D. (2018). Examining the effects of Rational Emotive Behaviour Therapy (REBT) on performance outcomes in elite Paralympic athletes. *Scandinavian Journal of Medicine and Science in Sports*, 28, 329-339. doi: [10.1111/sms.12926](https://doi.org/10.1111/sms.12926). ePrints Link - <http://eprints.staffs.ac.uk/id/eprint/3477>

3.6 **Turner, M. J.**, Allen, M., **Slater, M. J.**, **Barker, J. B.**, Woodcock, C., Harwood, C. G., & McFadyen, K. (2018). The development and initial validation of the irrational performance beliefs inventory (iPBI). *European Journal of Psychological Assessment*, 34, 174-180. <https://doi.org/10.1027/1015-5759/a000314>. ePrints Link - <http://eprints.staffs.ac.uk/2694>

Total funding GBP264,000, coming from 7 sources of which 5 were commercial organisations. Including Stoke City Football Club, GBP120,000 2013-2020 (led by Marc Jones); Impact

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International, GBP60,000, 2016-2019 (led by Jamie Barker and Matt Slater); DSEP Research Working Groups, British Psychological Society GBP3,000, 2019-2020 (led by Matt Slater).

4. Details of the impact

Psychological stress is a leading public health problem that can affect all individuals to varying degrees and can lead to severe disease and chronic conditions. In line with the United Nations Sustainable Development Goal Three ('Good Health and Wellbeing'), under our theme of 'Healthy Individuals and Healthy Workplaces', we have: (1) improved the psychological health of more than 900 people in 7 workplaces; (2) informed the creation of 6 new psychological health roles; and (3) created/improved psychological health policies in 2 organisations.

Our research has had significant impact in three sporting contexts: (1) Stoke City Football Club (SCFC); (2) Great Britain Paralympic Archery; and (3) Great Britain Rowing. We then extended our impact's reach by transferring our programmes to: (4) Hampshire Police Constabulary; (5) Staffordshire Fire and Rescue Service; (6) The Royal Air Force; and (7) Impact International. Evidence of the improvements in psychological health, the job roles created, and the new psychological health policies are highlighted below:

Stoke City Football Club (SCFC): In October 2013, to apply our research findings in practice, SCFC funded (GBP60,000) a PhD researcher focussing on challenge responses to stress. As a result of this research, 200 people (adults including athletes, coaches, and support staff and children in mid-late adolescence 16 – 21 years) benefitted from improved psychological health through learning to have a challenge response to stress. In particular, our applied and collaborative research with SCFC involved applying psychological techniques across: (1) individual– (one-to-one psychological work with athletes); (2) team– (interactive workshops on managing stress); and (3) organisational–levels (creating a challenge culture) to benefit psychological health.

Building on this impact, in 2017, SCFC funded (GBP60,000) a second PhD researcher to focus on the psychological health of the early-mid adolescents in the organisation (8 – 15 years). For the first time with younger children, through novel psychological programmes to enable individuals to perceive stress as a challenge, we enhanced the psychological health of a further 200 people (adults including coaches, and support staff and early-mid adolescents). This is the first time the organisation has invested in two funded impact-focused PhD roles (2013 – present) focussed on challenge responses to stress for all the Academy children (8 – 21 years). Due to the success of this research, in 2017, a new job was created (headcount: 1; FTE 1), titled 'Performance Psychologist'. The Performance Psychologist role is the first of its kind at the organisation. *'Because of the underpinning research we have come to understand and conduct with Staffordshire, the approaches both Joe and Jen [Staffordshire University PhD researchers] have implemented, and the endorsement of the psychological work within the club, a Mental Health Policy has been created within the last 12 months (2019). This is the first time that as an organisation we have had this in place' [5.1].*

In 2019, SCFC developed the organisation-wide mental health policy in direct response to the positive effects of our research on challenge responses to stress [5.2]. The policy covers the first team and academy (approximately 1,000 people). In performance terms too, our collaborative research has *'contributed to 7 academy players making their debut in the first team whilst being at the club, comparatively more than in recent years (1 player in over 10 years previously)' [5.1].*

Great Britain Paralympic Archery: In 2014, we coined 'Smarter Thinking' to help individuals and workplaces enhance their psychological health through applying Rational Emotive Behavioural Coaching principles. We implemented a Smarter Thinking programme with eight elite disability athletes. The programme led to short- and long-term improvements in

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psychological health (e.g., anxiety), physiological health (i.e., blood pressure), and on performance outcomes (evidence published in a peer-reviewed journal cited in Section 3: [3.5]).

Great Britain Olympic Rowers: Based on our research on challenge responses to stress, we created a psychophysiological protocol to assess individuals' psychological health. In 2014, as preparation for the Rio de Janeiro Olympic Games (2016), we applied our novel protocol to 40 Olympic rowers) which equipped them to manage their psychological health: *'I believe that through the work completed, we created a structure that has helped athletes become aware of their responses to competitive situations, and approach competitions positively (improving psychophysiological health outcomes).'* In turn, and significantly, Great Britain Rowing 'embedded' our research into their practice with all rowers who were preparing for the Olympic Games. Specifically, our research *'led to interventions in attempting to prepare athletes for the upcoming competition'*, thereby maximising preparation for the Olympic Games: *'From this we were able to better prepare for the games, providing individual support to each of the 40 athletes'* [5.3].

Impact International: Extending outside of sport, in 2016, to build further on our research on belonging and psychological health, Impact International funded a PhD researcher (GBP60,000). Impact International are a global creative change company that maximise human potential through their unique experiential learning practice. They have 17 offices worldwide, working across 40 countries with over 400 clients worldwide (www.impactinternational.com). Our research collaboration focussed on leadership and stress from a social identity perspective led to projects with UK-wide businesses (e.g., the Co-op) and overseas organisations (e.g., Santander, Farmlands - a cooperative based in New Zealand) that, in turn, improved the psychological health in their workforce. For instance, based on our research, psychological programmes were delivered that led to reductions in objective stress levels (measured by hair cortisol) and improved psychological health of 50 people, managers at the Co-op. The PhD research led to Impact International using hair cortisol tests on their clients' workforce for the first time. As a direct result of the success of the PhD project, from November 2019, Impact International created a new role in their organisation – 'Junior Consultant' – focussed on improving psychological health [5.4].

Hampshire Police Constabulary: In 2018, we applied our Smarter Thinking intervention with 50 people, (Constabulary personnel) and reduced their objective stress levels – measured via hair cortisol – thereby enhancing individuals' health. The Assistant Chief Constable (Hampshire Constabulary) stated: *'... the performance psychology approach and perspective that the team brings has helped improve our overall performance, individual well-being and is helping to change the way we operate as a force'*. In direct response to the positive effects of our collaborative research, Hampshire Constabulary created a new psychological health role: *'From this work, the two-year temporary role was created, with the job title being 'Force Performance Psychologist'. This role has recently been evaluated and it has been established that a more permanent arrangement is justified, and has led to the permanent appointment of the psychologist.'* This role has improved workplace psychological health, with the Assistant Chief Constable stating: *'I believe that through the work conducted, we have coped more effectively with the policing challenges over the last few years, and we see reduced sickness absence days, better morale and general wellbeing amongst those who have benefited from her [new Force Performance Psychologist] input'* [5.5].

Royal Air Force: In 2017, Wing Commander Craig White of the Royal Air Force (RAF) began a PhD co-supervised by Slater, focussing on psychological health and resilience. This project developed the 'Leading for Resilience' programme that was co-delivered and evaluated with 350

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people (Royal Air Force personnel) across a range of squadrons. The Commandant of the RAF's Robson Academy of Resilience stated that: *'The research conducted has been innovative and something we haven't seen before in terms of both the content and approach to delivery'*. The research led to psychological health improvements for the 350 personnel involved: *'The sessions have led to personnel reporting improvements in their leadership, sense of belonging, and resilience in terms of their ability to deal with the unique and pressurised demands of being in the RAF, as well as their ability to help others manage stress, too'*. Following the improvements in psychological health as a result of our applied research programme, the Royal Air Force have developed a new resilience-based activity – Resilience Eagle – and have updated their Health and Wellbeing policy. The Resilience Eagle is based on our research and it has been *'embedded within the wider Eagles programme. The Eagles programme delivers a first-class range of activities across the UK and abroad designed to enhance the resilience of RAF personnel'*. Regarding the Health and Wellbeing Policy, the social elements of psychological health are now included (previously they had been overlooked) with White *'leading the progression on the social resilience aspect of RAF policy'* [5.6].

Staffordshire Fire and Rescue: In 2019, our Smarter Thinking programme improved the psychological health of 18 people at Staffordshire Fire and Rescue Service. In an applied control trial, compared to 16 control personnel, 18 personnel improved their psychological health by engaging with our onsite one-to-one Smarter Thinking programme. In this externally funded consultancy project (GBP9,000), the personnel reported benefits including feeling more capable of approaching and dealing with adversities in future, as well as believing that they were more able to respond adaptively to adversity through greater emotional control, empathy for others, and composure facing negative experiences (evidence published in a peer-reviewed journal: [5.7]).

Development of a 'Smarter Thinking' App: In 2018 we created a new platform for measuring psychological health by developing a psychometric tool to assess individuals' Smarter Thinking. The tool is based on Rational Emotive Behavioural Coaching (published in a peer-reviewed journal cited in Section 3: [3.6]). To make this programme open to all, we created www.smarterthinkingprofile.com. In the first 12 months since launch, more than 500 people completed the profile and received a report, raising their awareness of their own psychological health. In addition, we created a smartphone app (SmarterThinking2) to improve individuals' psychological health by promoting rational beliefs, and the app has been fully completed by more than 950 people. This is an ongoing project that will continue to be extended to encourage more 'Healthy Individuals and Healthy Workplaces'.

5. Sources to corroborate the impact

The sources that corroborate the impact include five testimonials from industry, a mental health policy document, and two published research manuscripts (one cited in Section 3: 3.5, and one below):

5.1 Head of Academy Sport Science and Athletic Development at Stoke City Football Club Testimonial.

5.2 Mental Health Policy Document from Stoke City Football Club.

5.3 Chief Medical Officer at Great Britain Rowing Testimonial.

5.4 Senior Consultant at Impact International Testimonial.

5.5 Assistant Chief Constable at Hampshire Constabulary Testimonial.

5.6 Commandant Robson Academy of Resilience in the Royal Air Force Testimonial.

5.7 Wood, A. G., Wilkinson, A., Turner, M. J., Haslam, C., & Barker, J. B. (2021). Into the Fire: Applying Rational Emotive Behavioural Coaching (REBC) to reduce Irrational Beliefs and Stress in Fire Service Personnel. *International Journal of Stress Management*. E-pub ahead of print.