

Institution: York St John University		
Unit of Assessment: UoA 24 Sport and Exercise Sciences, Leisure and Tourism		
Title of case study: Improving return to sport from injury practices in national and international sport		
Period when the underpinning research was undertaken: 2015 - 2018		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Dr Dale Forsdyke	Senior Lecturer in Sport Injury Management	November 2013 – present
Dr Daniel Madigan	Senior Lecturer in Sport and Exercise Psychology	September 2016 – present
Professor Andrew Hill	Professor of Sport and Exercise Psychology	September 2014 – present February 2009 - August 2012
Period when the claimed impact occurred: 2015 - 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact (indicative maximum 100 words)		
<p>Research at York St John University has changed return to sport practices in national and international sport to improve injury outcomes for athletes. Specifically, our research recommends changes in how the psychological aspects of injured athletes are monitored and return to sport decisions are made. This has led to changes in the practices of (1) professional bodies (e.g., The Society of Sports Therapists), (2) sports coach educators and coaches, (3) sports medicine clinics in the UK and overseas, and (4) national and international sports teams (e.g., Hull FC Rugby League, Basketball England, Egypt International Football Team).</p>		
2. Underpinning research (indicative maximum 500 words)		
<p>The burden of injury in sport is high, and at the same time, return to sport outcomes for athletes following injury are notoriously poor. This suggests that current return to sport practices require improvement. In comparison to the physical factors predicting successful return to sport, psychological factors are less well understood in research and practice. This is where the research of Dr Forsdyke and his colleagues has had significant impact.</p> <p><u>Examining the Importance of Psychological Factors and Studying Psychological Readiness to Return to Sport</u></p> <p>This line of research began by providing the first mixed studies systematic review of the psychosocial factors related to sports injury [3.1]. In doing so, this work proposed the first comprehensive conceptual definition of psychological readiness to return to sport. This highly cited review (87 citations since 2016) also found that an athlete's emotions, cognitions, and behaviours are related to sport injury rehabilitation outcomes and that practitioners need to recognise this in order to augment an athlete's injury outcomes.</p> <p>Dr Forsdyke subsequently published several editorials [3.2;3.3] aimed at raising further awareness of these issues, and for the first time, providing explicit and research-informed guidelines for return to sport practices regarding the assessment of psychological readiness. These have provided a heuristic for practitioners and researchers alike.</p>		

Research was also conducted aimed at understanding injury more broadly. In this regard, Dr Forsdyke published the most comprehensive review of real-world effectiveness of interventions to reduce sports injury [3.4], which found that psychological interventions are efficacious by having a positive effect on injury rates and are efficient in the sense that a relatively low exposure to interventions can lead to a reduction in injuries. Importantly, if injury risk can be reduced, then return to sport practices can be improved by using psychological interventions to reduce the risk of re-injury.

In a third strand, with colleagues, Dr Forsdyke adopted innovative and advanced designs to further understand risk factors for injury [3.5]. The findings from the first prospective study in this area were that perfectionism predicted injury risk in junior academy athletes over time. Finally, Dr Forsdyke conducted research aimed at understanding the psychological processes underpinning the experience of injury [3.6]. This study found that perfectionistic tendencies predicted coping strategies in injured marathon runners. Taken together, these studies provided the first evidence that personality traits influence psychological readiness for returning to sport.

Overall, this research has significantly advanced our understanding of psychological readiness to return to sport and has provided a heuristic to enhance decision making. The findings of the work have also influenced several high-profile consensus statements aimed at improving the management of athletes (e.g., International Olympic Committee Consensus Statement on Mental Health in Elite Athletes). The present case study describes the uptake and application of these guidelines in national and international return to sport practices.

3. References to the research (indicative maximum of six references)

- [3.1] **Forsdyke, D.**, Smith, A., Jones, M., & Gledhill, A. (2015). Psychosocial factors associated with sports injury outcomes in competitive athletes: a mixed studies systematic review. *British Journal of Sports Medicine*, 50, 537-544. <http://dx.doi.org/10.1136/bjsports-2015-094850>
- [3.2] **Forsdyke, D.**, Gledhill, A., & Ardern, C. (2016). Psychological readiness to return to sport: three key elements to help the practitioner decide whether the athlete is REALLY ready? *British Journal of Sports Medicine*, 51, 555-556. <http://dx.doi.org/10.1136/bjsports-2016-096770>
- [3.3] Gledhill, A., & **Forsdyke, D.** (2018). An ounce of prevention is better than a pound of cure: shouldn't we be doing EVERYTHING to reduce sports injury incidence and burden? *British Journal of Sports Medicine*, 52, 1292-1293. <http://dx.doi.org/10.1136/bjsports-2018-099208>
- [3.4] Gledhill, A., **Forsdyke, D.**, & Murray, E. (2018). Psychological interventions used to reduce sports injuries: a systematic review of real-world effectiveness. *British Journal of Sports Medicine*, 52, 967-971. <http://dx.doi.org/10.1136/bjsports-2017-097694>
- [3.5] **Madigan, D. J.**, Stoeber, J., **Forsdyke, D.**, Dayson, M., & Passfield, L. (2018). Perfectionism predicts injury in junior athletes: Preliminary evidence from a prospective study. *Journal of Sports Sciences*, 36, 545-550. <https://doi.org/10.1080/02640414.2017.1322709>
- [3.6] Jowett, G. E., **Hill, A. P.**, **Forsdyke, D.**, & Gledhill, A. (2018). Perfectionism and coping with injury in marathon runners: A test of the 2 × 2 model of perfectionism. *Psychology of Sport and Exercise*, 37, 26-32. <https://doi.org/10.1016/j.psychsport.2018.04.003>

All referenced studies are published in international peer-reviewed journals.

4. Details of the impact (indicative maximum 750 words).

Influencing Professional Accrediting Bodies

Dr Forsdyke's research has significantly influenced members of professional accrediting bodies. This includes the Society of Sports Therapists (SST), which is the largest professional body

accrediting sports therapists in the UK with ~4,500 members. Here, Dr Forsdyke's publications were made available to members, he recorded a podcast based on his research, and he was invited to represent the SST at the 2019 British Association of Sport and Exercise Medicine (BASEM) Conference [5.1]. In 2017, Dr Forsdyke delivered an invited webinar based on his research for the British Association of Sport and Exercise Scientists (BASES), the largest sport and exercise sciences network in the UK with ~2,500 members. In addition, the Vice Chair for Education of the BASEM [5.2], which has ~1,000 members, has highlighted the relevance of Dr Forsdyke's research to its members by stating *"[At the] BASEM we recognise the importance of this research and our members are aware of this research with this featuring in our professional body magazine and had presence at our annual conference"*.

Changes to Coaching Practices

Dr Forsdyke's research has also affected FA Coach Educators and team coaches [5.3; 5.4]. FA Coach Educators are responsible for training and mentoring ~100 coaches per year. The content of Dr Forsdyke's research has been cascaded down to coaches to develop their practice. For example, one such individual highlighted [5.3]: *"I use Dale's research to get coaches to reflect on their own experience of injury and coaching practice to highlight the psychological aspect of injury and returning to football is very rarely considered. I want the coaches I am involved in developing at all levels of the football pyramid to feel more confident to contribute to return to sport decisions and feel empowered to talk to players about how psychologically prepared they are."* Additionally, team coaches from the UK and overseas have provided testimony that the research has positively impacted their roles. A Director of Football for Ytterhogdals IK and Head Coach for Hull City Ladies FC [5.4] wrote: *"the research has made me more aware about how important the psychological side of injury is, and I feel more empowered as a coach to keep checking in with injured players about their thoughts and feelings. I now see this as an important part of my role."*

Changes to Sports Medicine Clinics

Changes to practice have also been made by Sports Medicine Clinics. This includes clinics in the UK (e.g., Yorkshire Sports Medicine Clinic, Excel Sports Injury Clinic) and overseas (e.g., Glen Sather Sport Medicine Clinic, Canada). Testimonials from all relevant clinics have confirmed these changes were because of Dr Forsdyke's research [5.2; 5.5; 5.6]. The Lead Physiotherapist for the Glen Sather Sports Medicine Clinic [5.5] highlighted: *"we began integrating self-efficacy and confidence checks throughout our program, objectively measuring psychological readiness testing... This shift is, in part, due to the impact of Dale Forsdyke's review and editorial published in BJSM. His research strongly resonates with our clinic."* Collectively, ~3,600 people visit these clinics a year. These changes apply to all patients and have been in effect since 2017, as such, ~10,800 athletes and patients will have directly benefited from these changes.

Changes to National and International Sports Teams

Most notably, numerous national and international sports teams have changed their return to sport practices because of Dr Forsdyke and his colleagues' work. This includes professional football teams in the UK (e.g., York City FC; [5.2]) and Sweden (e.g., Ytterhogdals IK; [5.4]), professional rugby league teams (e.g., Hull FC Rugby League; [5.7]), and international basketball (e.g., Basketball England; [5.2]) and football teams (e.g., Egypt Football Team [5.8], Chinese Taipei Football Team [5.9]). Testimonials from sports medicine practitioners have confirmed the benefits of these changes. For example, the Senior Team Lead Physiotherapist for Hull FC [5.7] is quoted as saying: *"the research has positively affected our practice by adapting rehabilitation to meet player's needs. Prior to this we primarily made clinical decisions based on physical factors"*. These changes, which took place in 2017, are significant in context of UK football, English basketball, and international football, where many matches and tournaments have been played since the introduction of these changes (e.g., FIFA World Cup). In the case of Egypt's international football team, the team doctor [5.8] has confirmed the

importance of these changes: *"In part, making sure players are physically and psychologically ready to play has contributed to our recent success"*.

5. Sources to corroborate the impact (indicative maximum of ten references)

- [5.1] Testimonial: Board of Directors, Society of Sports Therapists
- [5.2] Testimonial: Chief Medical Officer for Basketball England, Club Doctor for York City FC, Club Doctor for York City Knights RLFC, England Girls U16 Doctor, Co-owner of Yorkshire Sports Medicine Clinic and Vice Chair of Education for the British Association of Sport and Exercise Medicine
- [5.3] Testimonial: FA Regional Coach Educator
- [5.4] Correspondence: Director of Football of Ytterhogdals IK and Head Coach of Hull City Ladies FC
- [5.5] Testimonial: Lead Physiotherapist, Glen Sather Sports Medicine Clinic, Edmonton, Alberta, Canada
- [5.6] Testimonial: Clinic Owner and Sports Therapist, Excel Sports Injury Clinic
- [5.7] Testimonial: Senior Team Lead Physiotherapist, Hull FC
- [5.8] Testimonial: Egyptian National Team Doctor
- [5.9] Testimonial: Sunderland FC Sports Therapist and Chinese Taipei National Team Sports Therapist