

The Psychology of Sport Injury and Rehabilitation

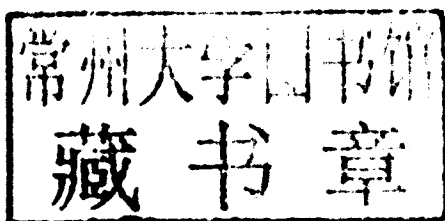
Edited by

**Monna Arvinen-Barrow and
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THE PSYCHOLOGY OF SPORT INJURY AND REHABILITATION

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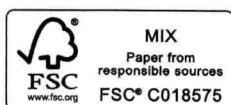
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THE PSYCHOLOGY OF SPORT INJURY AND REHABILITATION

Athletes routinely use psychological interventions for performance enhancement but, perhaps surprisingly, not always to assist in recovery from injury. This book demonstrates the ways in which athletes and practitioners can transfer psychological skills to an injury and rehabilitation setting, to enhance recovery and the well-being of the athlete.

Drawing on the very latest research in sport and exercise psychology, this book explores key psychological concepts relating to injury, explaining typical psychological responses to injury and psychological aspects of rehabilitation. Using case studies in the chapters to highlight the day-to-day reality of working with injured athletes, it introduces a series of practical interventions, skills and techniques, underpinned by an evidence base, with a full explanation of how each might affect an athlete's recovery from injury.

The Psychology of Sport Injury and Rehabilitation emphasises the importance of a holistic, multi-disciplinary approach to sport injury and rehabilitation. No other book examines the psychological aspects of both sport injury and the rehabilitation process from such a holistic perspective, and therefore this is an essential resource for students, scholars and practitioners working in sport psychology, sport therapy, sport medicine or coaching.

Monna Arvinen-Barrow is a British Psychological Society chartered psychologist working as an Assistant Professor at the University of Wisconsin-Milwaukee, USA. Monna has a number of peer-reviewed publications on the psychology of sport injuries and has taught psychology of sport injuries in the United Kingdom, United States and Finland.

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Äidin pienelle enkelille, Amielle (to Mommy's little angel, Amie) and in memory of my Dad. I wish you could have seen this in print.

Monna

To my family, I love you all so much Mum, Chris, Kieron, Ashleigh, Perry, Kaydee-Jayne, Maci-Ann, Keaton-Lee, Bailey and Ruby.

Natalie

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FOREWORD

A book on the psychology of sport injuries is not groundbreaking. I start with this not as a criticism but as an acknowledgement of how this area of study has advanced in recent years. In 1993, two edited texts which could be described as groundbreaking were published in this area, namely *Psychological Bases of Sport Injuries* (edited by David Pargman and published by Fitness Information Technology) and *Psychology of Sport Injury* (edited by John Heil and published by Human Kinetics). These books were the first to focus on sport injuries purely from a psychological perspective to assist practitioners in working with athletes. They were highly successful in reviewing material at the time. Considering the respective content lists of the two 1993 texts alongside the current edition by Monna Arvinen-Barrow and Natalie Walker shows how much has advanced over the past 20 years. Indeed, the preface in Pargman's 1993 text noted how its goal was to provide 'caveats and clues' to practitioners (and those preparing for such careers) in the field. The current edition is able to draw on a far more diverse and established literature and thus to provide clearer evidence-based recommendations with regard to sport injury and rehabilitation.

A consequence of having a greater breadth of coverage is the challenge of not neglecting anything in one volume. The Editors have chosen their chapter authors well, as they have collectively delivered on this challenge. The book impressively considers relevant psychological theories (behavioural, cognitive, developmental, personality, humanist, social psychology and learning theories), major psychological concepts (cognition, attention, emotion, motivation, personality, behaviour, anxiety, interpersonal relationships) and takes into account relevant groups who influence and are influenced by sport injuries (athletes, coaches, psychologists, parents, friends, organisations, doctors, physiotherapist, lifestyle advisors, team mates and others).

The accessibility of *The Psychology of Sport Injury and Rehabilitation* for a range of professionals is one of its greatest strengths. Case studies and testimonies allow

the reader to appreciate and understand the sport experience from the athlete's perspective. Although it was not the objective of the Editors to bring conclusions to the debates associated with how injuries are defined, the book makes a strong case for psychology to be explicitly referred to in such definitions. Without doubt, the book will help further promote interest in the area and stimulate work over the next 20 years and beyond.

David Lavalley
University of Stirling

PREFACE

Monna Arvinen-Barrow and Natalie Walker

I just expect to be able to play...back at the level that I was before I think...just...just to go back to what I did before, I think you just want to be back and able to do what you did before the injury.

(An injured association football player)

The sport injury experience from an athlete's perspective is as diverse as the number of athletes sustaining injuries and types of injuries encountered. Each injury experience is unique, and is influenced by a range of personal and situational biopsychosocial factors that interact not only during but also before and after the injury occurrence. Nevertheless, the above quote in its simplicity may summarise the key hopes and dreams of those injured – to be able to return back to pre-injury levels of function.

As varied as the injury experiences themselves is the terminology surrounding the sport injury literature, research and applied work. For example, sport injuries still lack a unified definition but, given that there are a number of ways in which sport injuries can be classified, such may not be surprising. It is not our aim to bring conclusions to such debates but rather to adopt one view from which this book has been written. As such, for the purposes of this book, sport (and physical activity) injuries will be defined as 'trauma to the body or its parts that result in at least temporary, but sometimes permanent physical disability and inhibition of motor function' (Berger, Pargman and Weinberg, 2007: 186).

Based on the definition above, we see sport injuries as being physical in nature, which, depending on severity, may require assistance from medical professionals to ensure appropriate healing and recovery. To expand the applicability of the content presented in this book across different cultures, in this book, we have adopted the term *sport medicine professionals* as an overarching title for all those working with

injured athletes. This can include (but is not limited to) all those required to assist the injured athlete to return to their pre-injury level physically and psychologically: the physiotherapist, athletic trainer, sport therapist, massage therapist, orthopaedic surgeon, other medical doctors, sport (and exercise) psychologist, counselling and clinical psychologist, psychiatrist, counsellor and other allied health professionals.

Throughout the book, we address the notion that sport injuries, despite being physical in nature, also have psychological facets. It is also believed that psychological skills (that is, mental abilities of athletes) can assist athletes in the rehabilitation process. These skills can be facilitated and enhanced through the use of psychological techniques (that is, methods an athlete can use to rehearse or improve psychological skills). For the purposes of this book, when referring to these psychological techniques (for example, goal setting, imagery, relaxation techniques, self-talk and social support) collectively, the term *psychological interventions* will be used. The book is also underpinned by the notion that psychological interventions are most successful if used as part of a wider rehabilitation programme incorporating a number of aspects deemed important for successful recovery. When discussing the term *rehabilitation* in this book, we consider it to include the treatment provided during all of the different phases of rehabilitation, from the injury onset through the rehabilitation process and up to and including the return to training and competition (including minimising the risk of re-injury). It is also believed that the use of psychological interventions should only be facilitated by professionals who are appropriately trained and skilled to do so.

To assist those interested in learning how to incorporate psychology into the sport injury process, this book demonstrates ways in which this might be achieved. We provide some suggestions as to how sport medicine professionals may amalgamate physical and psychological rehabilitation for it to become an accepted part of a holistic sport injury rehabilitation process, rather than an addition to it. More specifically, the book provides a contemporary overview of the subject area from experts within the field from across the world. The objective of this book is to offer scholars and practitioners alike a text that they will not only find invaluable in terms of knowledge gained but unique and contemporary in terms of practice.

To this end, this book is divided into three parts. Part 1, 'Introduction to the psychology of sport injuries: theoretical frameworks', introduces the key terminology, theories and models used in the book, and highlights the importance of addressing psychological issues during rehabilitation to ensure a full and holistic recovery. More specifically, Chapter 1 provides the reader with a rationale for the book by introducing the concept of psychology of sport injuries, and by providing awareness of the importance of psychology in the sport injury process. Chapter 2 provides an overview of psychological and social factors that can contribute to the onset of injury. It outlines Andersen and Williams' (1988) pre-injury model and provides a summary of a contemporary systematic review of the literature explaining psychological factors affecting the incidence of sport injury. Moreover, the chapter highlights the importance of understanding pre-injury factors in relation

to sport injury rehabilitation and the ways in which these factors can help to facilitate or, in some cases, hinder any subsequent rehabilitation. Chapter 3 then provides a critical overview of the models of response to injury to date. The major focus of the chapter is on the integrated model of response to sports injury and rehabilitation (Wiese-Bjornstal, Smith, Shaffer and Morrey, 1998) with a discussion of its application to real-life injury rehabilitation on a more practical level. This model serves as a foundation for subsequent chapters as, within the model, the idea of interactions between injured athletes' cognitive appraisals, emotional responses and behavioural responses can be used as a framework when designing rehabilitation programmes and choosing appropriate psychological interventions to meet the injured athletes' needs. Chapter 4 concludes Part 1 by outlining adherence to sport injury rehabilitation as a prime area of interest in the psychology of sport injury. As adherence issues are seen as one of the main influences on athletes not recovering successfully, this chapter highlights the importance of addressing adherence during rehabilitation, and thus provides a rationale for Part 2 of the book, 'Psychological interventions in sport injury rehabilitation'.

Part 2 has its focus on the five most popular psychological interventions (goal setting, imagery, relaxation techniques, self-talk and social support). Presented in five distinct chapters, each of the interventions is introduced by discussing the key concepts and demonstrating their usefulness and applicability to sport injury rehabilitation. Each chapter discusses the theoretical underpinnings of the intervention and their use for promoting holistic recovery.

Part 3, 'Delivering psychological interventions in sport injury rehabilitation' introduces the reader to some of the practicalities of integrating psychological and physical rehabilitation. More specifically, Chapter 10 demonstrates the relationship between different phases of physical rehabilitation and how to use rehabilitation profiling as a foundation for designing, planning and implementing appropriate psychological interventions alongside physical rehabilitation. Following on, Chapter 11 highlights the importance of multidisciplinary teams and the integration of sport medicine professionals and significant others as part of psychological rehabilitation from sport injuries. Chapter 12 then discusses the ways in which basic counselling skills could also be beneficial in assisting sport injury rehabilitation. Chapter 13 applies the existing knowledge of psychology of sport injuries in the context of physical activity related injuries, taking into account the differences in personal and situational factors between sport and physical activity participants. Moreover, the possible impact of physical activity related injuries on an individual's future participation will be discussed (such as barriers to physical activity). Finally, Chapter 14 provides conclusions on the psychological processes of sport injury rehabilitation. It draws on the chapters presented in the three distinct parts of the book and summarises the existing knowledge, as well as provides some broad overarching recommendations for applied work, and future research in the field.

Chapters 2–13 are also enhanced with individual case studies specifically focusing on the issues presented in the corresponding chapter. These case studies are accompanied by questions that are aimed to assist the reader to explore their

understanding of the theory and application of the topic discussed. The link between theory and practice will be further enhanced through the use of real-life quotes from sport medicine professionals and injured athletes alike. Moreover, each of the chapters will also highlight some of the key points to be drawn from the chapter by framing them within the text. By doing so, this book aims to provide the reader with a comprehensive view of the process of psychological rehabilitation from sport injuries, by adopting a holistic perspective incorporating theory, research, and applied knowledge.

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Monna and Natalie

I would like to say *KIITOS* to all of my academic friends and colleagues who have had an impact on my career. Natalie, thank you for six great years working together, it has been fun. A special acknowledgement goes to my dear friend/mentor/colleague Dr Brian Hemmings. Thank you for your continued support and guidance, and for always believing in me. A huge thank you goes to my family, who never fail to support me in my crazy endeavours like moving across the world or editing a book. In particular, *ISO KIITOS* to my little angel Amie. The power of your smile always keeps me going.

Monna

xxii Acknowledgements

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Natalie