Mind, body and medicine: the illusion of separation

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> "There is in the human mind a sufficiently strong propensity not only to make divisions in knowledge where there are none in nature, and then to impose the divisions on nature, making the reality thus comfortable to the idea, but to go further, and to convert the generalisations made from observations into positive entities, permitting for the future these artificial creations to tyrannise over the understanding."[1]

The integrated nature of sports medicine has been a mainstay of good clinical practice for many years. The dichotomy between clinical disciplines and siloed working have given way to an interdisciplinary team focused around athlete health and sports performance. Similarly, the apparent dichotomous approach to holistic patient care is changing. The separation between the mental, physical and sociological aspects related to health is increasingly recognised as a construct that has been created to make operational practice simpler to describe (and control).

The Cartesian basis for much of modern science that viewed content as separable from context has promoted a dualism in medicine that can have a restrictive effect on our understanding of the relationship between the body (bio), mind (psycho) and environment (social). The biopsychosocial approach to management of chronic disease has been popular for decades (eg low back pain)[2]; such an approach is not the preserve of chronic problems but the natural response to finding answers to complex integrated problems.

MULTIFACTORIAL PROBLEMS REQUIRE MULTIFACTORIAL INTERVENTIONS

The association between risk of sports injury in competition and increased anxiety over illness reported by Timpka *et al* ***(see page 955)*** highlights the intricate relationship between psychological factors, sports performance and injury. As such, it is not surprising that cultural and psychosocial influences are considered when designing injury prevention programmes. Taking a pragmatic multifactorial approach to injury prevention, Coles ***(see page 1008)*** proposes a model where the entire high performance team works together to build each block of an injury prevention pyramid within the context of organisational culture and psychosocial influences on each player.

The real-world effectiveness of psychological interventions to reduce sports injury is investigated in a systematic review by Gledhill and colleagues ***(see page 967)***. The authors report the potential for small to large effects of psychological interventions but highlight challenges with reporting bias.

The complex interdependent nature of many physical therapy interventions has repeatedly been a challenge for effective research. Appreciation of multi-factorial interactions, clinical outcomes and research principles for the design of randomised controlled trials are discussed in pages 949 and 950 (*Costa et al & Østerås et al papers*). The interaction of multiple factors is also highlighted in the editorial by Professor Chad Cook ***(see page 950)*** who suggests four good reasons why different interventions can produce the same results. The influence of how we measure effectiveness and the effect of patient - therapist interactions remind us that the benefits of treatment are not always via the mechanism we might think.

THE SPORTING MIND: DIARY DATE

The need for a more holistic approach to patient management highlighted in this issue of the *British Journal of Sports Medicine* (*BJSM*) is also the theme for Physios in Sport (UK) annual study day. The intricate relationship between injury, pain, neurophysiology and exercise science is the central theme of the ACPSEM 2018 Symposium.

How the brain influences sporting performance, the role of sleep and behavioural traits in recovery from injury as well as practical considerations on neuroplasticity and rehabilitation will provide delegates with practical insights and an opportunity to engage with world leaders. The event will be held at the Imperial War Museum in London on 21st-22nd September. For more information and to book your place visit http://physiosinsportevents.co.uk.

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Competing interests None declared.

Patient consent Not required.

Provenance and peer review Commissioned; internally peer reviewed.

To cite Glasgow P, Mutch S. *Br J Sports Med* 2018;**52**:947.

Br J Sports Med 2018;**52**:947.
doi:10.1136/bjsports-2018-099702

REFERENCES

1 Maudsley H. *The physiology and pathology of the mind*. New York: D. Appelton & Co, 1867:323–4.
2 Waddell G. *The back-pain revolution*. London: Churchill Livingstone, 1998.