

# Internet Addiction. A Handbook and Guide to Evaluation and Treatment

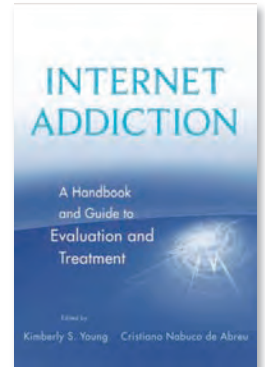
Internet addiction is not universally recognised as a clinical disorder as yet, although it will be included in an appendix of DSM-V. The variety of names used for the condition – including problematic internet use, pathological internet use, online addiction, and internet-enabled compulsive behaviour (135) – perhaps reflect its uncertain nosological status. But the problem is real enough, particularly amongst adolescents, such that in countries such as South Korea public health treatment and prevention programmes are already in place (223-243). Screening tests such as the Internet Addiction Test (22-24) are available.

The link to impulse control disorders, and in particular to pathological gambling, is repeatedly made (20, 47, 144, 224), since all the core components of addiction (i.e. salience, mood modification, tolerance, withdrawal symptoms, conflict, relapse) may be encountered. With its “variable ratio reinforcement schedule” the internet has psychoactive properties (144) which may lead to pathological use in predisposed individuals. Some argue, however, that the syndrome arises from behavioural patterns rather than the medium per se (249).

Treatment is problematic for many reasons. Affected individuals seldom see a problem and hence are difficult to motivate to change their behaviour: attendance at outpatient treatment programmes is poor (unless

parents are also involved: 245-266). A 45-day inpatient treatment facility in the US (214-220, 271) would not seem to be a feasible approach on the global scale. Abstinence, a favoured strategy for other addictions (alcohol, drugs, sex), is not really an option because of the ubiquity of the internet and its unavoidable use in both domestic and occupational settings. In the absence of controlled trials for any treatment option, prevention (via education) would seem to be the most attractive management approach at present. The importance of assessing for and vigorously treating other, concurrent, psychiatric disorders (depression, bipolar disorder, substance abuse) is repeatedly emphasised.

A number of psychosocial models of internet addiction are discussed in the book, but there is little in the way of neurobiology: the basal ganglia and dopamine are only mentioned in passing (e.g. 10, 136, 248), and pathological gambling in Parkinson's disease patients treated with dopamine agonists not at all. When such links are established, and the neurobiology better understood, it may be that this condition will gravitate away from the psychiatric to the neurological sphere. We may already be seeing cases amongst those patients who have “researched” their condition on the internet. ♦



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# Exercise Physiology in Special Populations

*Exercise Physiology in Special Populations* focuses on health conditions that could potentially be improved by increasing physical activity and fitness. The chapters are written by a range of leading UK researchers and exercise science/rehabilitation practitioners specialising in each of the topic areas. These topics include obesity and diabetes, cardiac disease, lung disease, arthritis and back pain, ageing and older people, bone health, ‘the female participant’, neurological and neuromuscular disorders, and spinal cord injuries.

As a rehabilitation medicine trainee, and having had the opportunity to be involved in a regular exercise group organised for patients with neurological problems, I have found that the amount of guidance and evidence in the field is limited. The available guidance is usually targeted at the athlete population. As such, this book comes as a welcome breath of fresh air.

Each chapter is subdivided according to a set pattern, starting with learning objectives and then guiding the reader through aetiology, prevalence, pathophysiology and evidence, finally to ‘exercise prescription’. Graphs and algorithms are incorporated to good effect. ‘Key points’ summarise each chapter. In the exercise guidance section, various forms of exercise such as aerobic endurance, muscular strength and endurance, flexibility, and balance and coordination are discussed. In some cases, this is supplemented by practical hands-on advice in the form of case studies

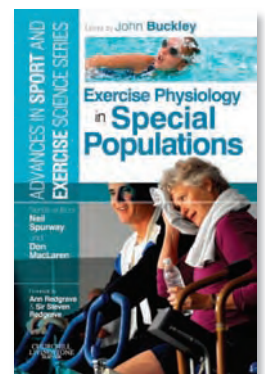
which link theory to real life situations. Comprehensive references and suggestions for further reading are provided at the end of each chapter. The text clearly highlights areas where the evidence is strong, and the gaps in evidence.

The last two chapters were of particular interest as they dealt with exercise physiology in neurological and neuromuscular disorders, specifically stroke, traumatic brain injury, Parkinson's disease, multiple sclerosis, neuropathies and muscular dystrophies, with practical advice about prescribing exercise and some words of precaution.

Two points of mild criticism would be, (1) that the formatting would have benefitted from a clearer differentiation between titles and subtitles, to make the book easier to follow and (2) that case studies and exercise programmes, included very usefully in the arthritis and low back pain chapter, might have been employed more widely.

All in all, I would say this book is a ‘must have’ for rehabilitation/sports and exercise medicine specialists, both those medically-qualified and allied professionals. Individual chapters will also be of interest to other clinicians according to their speciality.

All too often in seeing patients with long term neurological conditions one can be left frustrated at the lack of therapeutic interventions on offer: an ‘exercise prescription pad’ should be exactly what the doctor orders for his consulting room! ♦



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