

Tentative Outline

Neuroscience and clinical effectiveness of physical activity and body work in mental health: a comparison to pharmacological interventions

Guest Editors: Prof. Hector Tsang, Dr. Georg S. Kranz

• Scope of the Thematic Issue:

While medication remains the first-line treatment for the majority of psychiatric disorders, clinical experience has always also indicated the high appeal of non-pharmacological interventions for mental health, which can be alternatives to pharmacological treatments or complementary treatments to improve the outcome. For example, the therapeutic application of physical activity and body work for the maintenance of well-being has a long history. Applications include aerobic exercise, mind-body exercise (yoga, qigong, etc.), acupuncture and acupressure, therapeutic massage, among others. Accumulating scientific evidence during the past two decades has substantiated their benefits for mental health. Compared with pharmacological treatments, these non-pharmacological therapies have the advantage of low cost and minimal side effects. In order to consolidate their effectiveness and tailor their clinical application, it is important to understand the neurobiological mechanisms of the effects of these non-pharmacological treatments.

Given the growing body of literature on the effectiveness and the neurobiological pathways underlying physical activity and body work for psychological distress and neurological conditions, it is time to synthesize and review the available evidence. Hence, the current thematic issue aims to summarize systematic and narrative reviews and report meta-analytical studies on the neuroscience and clinical effectiveness of physical activity and body work for mental health in comparison to pharmacological interventions. Clinical implications of how non-pharmacological interventions can be used or integrated with pharmacological interventions can be informed.

Keywords: mental health, physical exercise, mind-body exercise, acupuncture, acupressure, yoga, qigong

Sub-topics to be covered within the issue:

- Physical exercise or activity
- Yoga
- Qigong
- Tai Chi
- Acupuncture
- Acupressure
- Therapeutic massage or tui na

Tentative titles of the articles and list of contributors:

Tentative titles of the articles and list of contributors with their names, designations, addresses and email addresses:

Subtopic	Author (h-index)	Affiliation and Email	Tentative article title
Physical activity	Peter Falkai ¹ (91), Martin Halle ² (51), &	¹ Ludwig-Maximilians-University Munich, Germany Peter.Falkai@med.uni-muenchen.de	Aerobic exercise in severe mental illness: Requirements from sports medicine

	Andrea Schmitt ¹ (50)	² Technical University of Munich, Munich, Germany halle@tum.de andrea.schmitt@med.uni-muenchen.de	
Physical activity	Henriette van Praag ¹ (29) & Sonata Yau ² (18)	¹ Florida Atlantic University, United States hvanpraag@health.fau.edu ² The Hong Kong Polytechnic University, HKSAR sonata.yau@polyu.edu.hk	Peripheral mediators for physical exercise-induced pro-cognitive effects
Acupuncture	Cun-Zhi Liu (25)	Acupuncture and Moxibustion Department, Beijing Hospital of Traditional Chinese Medicine affiliated to Capital Medical University, China lcz623780@126.com	Effect of acupuncture on psychological state in chronic pain: A literature review and future perspective
Acupressure	Gerhard Litscher (30)	University of Graz, Austria gerhard.litscher@medunigraz.at	Effectiveness of acupressure on mental health: A narrative mini review
Qigong	Hector Tsang (44)	The Hong Kong Polytechnic University, HKSAR hector.tsang@polyu.edu.hk	The benefits of qigong on mental health: Clinical effectiveness and neurobiological mechanisms
Tai Chi	Chenchen Wang (27)	Tufts University, United States cwang2@tuftsmedicalcenter.org	Neurobiological mechanisms of Tai Chi mind-body therapy: a descriptive review Or Tai Chi mind-body therapy and neurobiological mechanisms: a narrative review
Yoga	Crystal L Park (54)	University of Connecticut, United States crystal.park@uconn.edu	Efficacy of Yoga for Mental Illness and Mental Health
Therapeutic massage	Hector Tsang (44)	The Hong Kong Polytechnic University, HKSAR	A review on the psychobiological evidence of therapeutic massage in reducing pain of musculoskeletal disorders

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Guest Editor Name:

Prof. Hector Tsang (Corresponding Editor)

Affiliation: Department of Rehabilitation Sciences, The Hong Kong Polytechnic University,

Hong Kong SAR, China

Email: hector.tsang@polyu.edu.hk

Dr. Georg S Kranz

Affiliation: Department of Rehabilitation Sciences, The Hong Kong Polytechnic University, Hong Kong SAR, China & Medical University of Vienna, Austria

Email: georg.kranz@polyu.edu.hk