



ELSEVIER

Psychology of Sport and Exercise 9 (2008) 393–411

Psychology  
OF SPORT AND EXERCISE

[www.elsevier.com/locate/psychsport](http://www.elsevier.com/locate/psychsport)

# Relationships between mindfulness, flow dispositions and mental skills adoption: A cluster analytic approach

Ying Hwa Kee<sup>1</sup>, C.K. John Wang\*

*National Institute of Education, Nanyang Technological University, 1 Nanyang Walk, Singapore 637616, Singapore*

Received 4 December 2006; received in revised form 10 July 2007; accepted 14 July 2007

Available online 20 July 2007

---

## Abstract

**Objectives:** This study examines the relationships between mindfulness, flow dispositions and mental skills adoption.

**Design:** Cluster analytic approach.

**Methods:** Participants in this study were 182 university student athletes. They were administered the Mindfulness/Mindlessness Scale [MMS; Bodner, T., & Langer, E. (2001). *Individual differences in mindfulness: The Langer Mindfulness Scale*. Poster session presented at the annual meeting of the American Psychological Society, Toronto, Ont., Canada], Dispositional Flow Scale 2 [DFS-2; Jackson, S. A., & Eklund, R. C. (2004). *The flow scale manual*. Morgantown, WV: Fitness Information Technology] and Test of Performance Strategies [TOPS; Thomas, P. R., Murphy, S. M., & Hardy, L. (1999). Test of performance strategies: Development and preliminary validation of a comprehensive measure of athletes' psychological skills. *Journal of Sports Sciences*, 17, 697–711].

**Results:** Four distinctive mindfulness clusters were found based on their response on the MMS using cluster analysis. Marked differences in flow dispositions and mental skills adoption habits were observed between the high and the low mindfulness clusters. Those in the high mindfulness cluster scored significantly higher than the low mindfulness clusters in challenge–skill balance, merging of action and awareness, clear goals, concentration and loss of self-consciousness scores of the DFS-2 [Jackson, S.A., & Eklund, R.C. (2004). *The flow scale manual*. Morgantown, WV: Fitness Information Technology]. The high

---

\*Corresponding author. Tel.: +65 67903702; fax: +65 68969260.

E-mail address: [john.wang@nie.edu.sg](mailto:john.wang@nie.edu.sg) (C.K. John Wang).

<sup>1</sup>He is now a doctoral student at the Department of Physical Education, National Taiwan Normal University, Taipei City, Taiwan.

mindfulness clusters also scored significantly higher compared to the low mindfulness cluster in terms of attentional control, emotional control, goal setting and self-talk sub-scales of the TOPS.

*Conclusions:* This study suggests that athletes' flow dispositions and mental skills adoption could be differentiated using mindfulness. The findings have implications towards the understanding of flow and mental skills adoption within sport psychology.

© 2007 Elsevier Ltd. All rights reserved.

*Keywords:* Present moment focus; Novelty seeking; Novelty producing; Flexibility; Engagement; Concentration

---

## Introduction

Instructions such as “live in the here and now” and “focus on the present moment” have been linked to the psychology of peak performance in sport (e.g., Jackson & Delehanty, 1995; Jackson & Csikszentmihalyi, 1999; Orlick, 1990; Ravizza, 2002). Present moment focus strategy seems to increase the likelihood of successful performance as such strategy ensures that unnecessary distractions linked to past events or future events are momentarily suspended. Such a strategy enhances concentration on the task at hand and would in turn leads to better athletic performance. Several authors have recommended present moment focus as an effective performance enhancement strategy for athletes as it is intricately linked with concentration (e.g., Jackson & Delehanty, 1995; Jackson & Csikszentmihalyi, 1999; Orlick, 1990; Ravizza, 2002).

Despite the potential link between present moment focus and peak performance, little is done to examine athletes' present moment focus in relation to their performance in sports. To begin with, it is difficult to directly assess psychological state of present moment focus while the athletes are in action or in competition. Asking athletes in action whether they are focusing on the present moment will inevitably disrupt their attention toward the task at hand. An alternative for studying present moment focus is to examine the issue at the dispositional level. By examining the tendency to maintain present moment focus, research questions pertaining to the use of such strategy can be undertaken. Indeed, with the advent of mindfulness research in mainstream psychology (e.g., Baer, 2003), research of present moment focus in sport is now more viable. Mindfulness, defined as the non-judgmental focus of one's attention on the experience that occurs in the present moment (Kabat-Zinn, 1994; Linehan, 1993), could help address issues related to tendencies of present moment focus in sport psychology.

To the best of the authors' knowledge, mindfulness tendencies of athletes have not been extensively examined elsewhere. It is not known how athletes involved in competitive sports might differ in terms of mindfulness tendencies. The cluster analytic approach is adopted in this study to uncover clusters of athletes with different mindfulness characteristics before examining whether the construct is related to peak performance psychology. In summary, the purpose of the study is to use a cluster analytic approach to examine whether athletes' tendencies to be mindful of the present moment, flow dispositions and their habits of mental skills adoption are linked.

In order to operationalize the concept of present moment focus for the current study, the two-component model of mindfulness proposed by Bishop et al. (2004) is presented here. The first component involves self-regulation of attention towards the immediate present moment, while the

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات