



Departmental Seminar

The Hidden Magic in Psychological Survey: Consistency Tendency and Factor Correlation

2:30 pm – 3:30 p.m. | June 20, 2017 (Tuesday)

Rm 813, 8/F, The Jockey Club Tower | Centennial Campus | The University of Hong Kong



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Abstract

Background and Objectives: Psychological heavily uses on questionnaires for psychological or behavioural assessments. However, the factor correlations might be inflated when participants tend to give similar responses to closely located items. This tendency leads to a method effect known as the consistency tendency. The present study preliminarily examined the effects of consistency tendency on the factor correlations within a well-evidenced motivational model (autonomous motivation → intention → behaviour) of a health behaviour (i.e., sport injury prevention).

Design and setting: Randomised controlled trial with cross-over design. Measurement by self-reported questionnaire survey.

Methods: Participants were elite or sub-elite athletes (N = 313) recruited from local sport clubs in Sweden. They were randomly divided into 2 groups, and were asked to complete items for measuring autonomous motivation (Treatment Self-Regulation Questionnaire), intention (Theory of Planned Behaviour Questionnaire), and behaviour (Self-Reported Treatment Adherence Scale) in two time-points (Time1-Week1, Time2-Week2). Group 1 (N = 201) completed the items of the questionnaire in sequential order (i.e., consistency tendency suppressed) and alternate order (i.e., consistency tendency promoted) respectively in Time1 and Time2. Group 2 (N = 112) completed the questionnaire in random order and sequential order respectively in the two time-points. Bayesian multi-group structural equation modeling was employed to examine the within-group and between-group invariance of the measurement and structural model.

Results: Within-group and between-group differences were observed regarding the moderating effects of consistency tendency on the factor-correlations. It was showed that alternate order condition had stronger parameter estimates than sequential order condition, but the differences were not statistically significant.

Conclusions: Consistency tendency might inflate the factor correlation of cross-sectional survey to some extents, but the effect size of this method variance was small and non-significant. Indeed, research of behavioural medicine using questionnaire as the primary method of assessment should be aware of method variances caused by consistency tendency.

About the Speaker

Dr Derwin Chan is a researcher of sport psychology, health psychology and behavioural medicine. He was an elite triathlete in Hong Kong before having his education and training from the UK. Following the completion of his PhD from the University of Nottingham in 2012, Derwin worked as a psychology researcher in the School of Psychology and Speech Pathology at Curtin University (Australia). In 2015, he joined the University of Hong Kong as an assistant professor of sport psychology at the School of Public Health. Derwin's research looks at the psychological processes underpinning a broad range of human behaviours, such as sport, anti-doping, treatment compliance, and preventive actions. Derwin is a chartered psychologist and an associate fellow with the British Psychological Society and a Chartered Scientist with British Science Council. He has over 40 publications of peer-review articles or book chapters related to the psychology of sport, health, and medical treatment. He has attracted competitive research funding, as principle investigators, from governments (e.g., General Research Fund, Health and Medical Research Fund), local funding bodies (e.g., Hong Kong Jockey Club), and international organisations (e.g., World Anti-Doping Agency).

Derwin's research primarily focuses on psychosocial, motivational, and social cognitive processes underpinning individuals' health behaviours, including (but not exclusive to) sport and exercise, treatment adherence, and the prevention of work-related injury (e.g., sport/ occupational injury), deficiency (e.g., myopia), diseases (e.g., influenza), and illegal substance-use (e.g., doping in sport). In addition, Derwin is keen to examine the relative influence of significant others (e.g., coach, parents, physicians, and physiotherapists) in the area of sport and other healthcare contexts.

~All are Welcome~

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