e- & mHealth for Tracking and Changing Physical Activity

Biography

Dr. Andre Matthias Müller is Lecturer in the Saw Swee Hock School of Public Health at the National University of Singapore. He also currently leads various physical activity projects within the Physical Activity and Nutrition Determinants in Asia (PANDA) programme. Prior to joining NUS, he was a research fellow at the Health Psychology Group, University of Southampton, United Kingdom where he developed online lifestyle programs. Trained as a sport scientist in Germany, Dr. Andre is interested in behavioral e- & mHealth physical activity research. He has developed strong regional and international ties with experts in the field and currently co-chairs the Special Interest Group on e- & mHealth affiliated to the International Society of Behavioral Nutrition and Physical Activity (ISBNPA). He obtained his Ph.D. in Sport and Exercise Psychology from the University of Malaya, Malaysia where he designed an SMS-based exercise program that helped older adults to be more active.

Abstract

In addition to the Internet, smartphones and modern activity trackers are common companions for many people. Due to the wide availability and use of such technologies, researchers and also public health professionals invested in assessing and promoting physical activity through the increasing use of e- & mHealth approaches. In terms of physical activity measurement, I will present an overview of the research literature on fitness tracker use. Specifically, I aim to illustrate some intricacies through findings from our recent study in which we assessed the accuracy of heart-rate data from two trackers in a laboratory and free-living setting. When it comes to changing activity behaviors, modern technologies are often put forward as the 'Magic Bullet'. Despite the inherent potential of e- & mHealth for (large-scale) physical activity promotion, the literature and our own work often portray a conservative and nuanced picture. In the second part of my talk, I will examine the current evidence on physical activity promotion through consumer technologies and highlight key challenges ahead.