Kolloquium „Berner Gespräche zur Sportwissenschaft“

Montag, 15.03.2021, von 16.15 Uhr bis 17.45 Uhr
Zoom Meeting

Precision behavioral interventions to promote physical activity

Prof. Dr. David Conroy is appointed as a Professor of Kinesiology and (by courtesy) Human Development & Family Studies at The Pennsylvania State University, and an Adjunct Professor of Preventive Medicine at Northwestern University. His recent work has focused on developing behavioral interventions to modify novel motivational targets in the natural context of daily life. The goal of this work is to make behavior change less effortful and more enjoyable so people can live healthier and happier lives. His research is supported by grants from the National Institutes of Health and the National Science Foundation. Dr. Conroy consulted for the 2018 US Department of Health & Human Services’ Physical Activity Guidelines Advisory Committee (brain health subcommittee). He is the President-Elect of the Society of Behavioral Medicine.

Physical activity in young adults can prevent or delay the emergence of risk factors in midlife and beyond. Yet many young adults do not attain recommended levels of physical activity. Framing in activity as a person-level problem may be limiting because behavior change requires attention to the dynamics of motivation and action. In this talk, I will review evidence of multi-timescale variability in physical activity, motivation-action coupling, and a daily planning intervention targeting the dynamics of motivation. That evidence points to the promise of just-in-time adaptive interventions to support health behavior. Developing a just-in-time adaptive intervention requires the specification of a decision rule that identifies the conditions under which micro-interventions are delivered or withheld. Systematic approaches for dose-finding are not common in behavioral intervention research. I will describe an engineering-inspired strategy for developing decision rules for a digital messaging intervention to promote physical activity. This approach allows for periodic adaptation (tuning) of decision rules as data accumulates, resulting in person-specific, context-sensitive decision rules, and realizing a new opportunity for precision behavioral interventions to promote physical activity.