THE UNIVERSITY OF ARIZONA
COLLEGE OF AGRICULTURE & LIFE SCIENCES
Nutritional Sciences & Wellness

SEMINAR ANNOUNCEMENT

The School of Nutritional Sciences and Wellness presents:

"Using Biological Feedback to Promote Health Behavior Change in Adults: Preliminary Results from a Scoping Review"

By

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Moderated by: London McDougal

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12pm
Shantz Building, Room 247
https://arizona.zoom.us/j/82678706371

Using Biological Feedback to Promote Health Behavior Change in Adults: Preliminary Results from a Scoping Review

Background: Biological feedback, which involves providing individuals with their biological data to motivate behavior change, is of particular interest as a component of behavior change interventions given recent advances in wearable biosensing technology and personalized health and wellness. Nevertheless, there is a paucity of literature to guide the design and implementation of interventions that incorporate biological feedback to promote behavior change.
Objective: The goal of this on-going scoping review is to explore the use of biological feedback as a component of health behavior change interventions that target adults. The objectives include (1) mapping the domains of intervention research that incorporate biological feedback and (2) describing the operational characteristics of using biological feedback in the context of health behavior change.
Methods: A comprehensive list of search terms was developed to capture studies from a wide range of domains. Studies meeting inclusion criteria are RCTs published as primary research articles targeting adults 18 years and older, which use biological feedback to motivate health behavior change. A total of 50,783 unique records were screened, resulting in the inclusion of 1248 articles.
Results: Preliminary findings from 261 records show that biological feedback is most utilized in diabetes (32.2%, n=84) and cardiovascular disease (20.7%, n=54) research, and most often targets glycemic control (28.0%, n=73) and weight management (20.7%, n=54). Most studies used weight (33.7%, n=88), glucose (31.8%, n=83), or blood pressure (28.7%, n=75) to motivate changes in diet (59.0%, n=154), physical activity (55.2%, n=144), or smoking cessation (19.2%, n=50). Feedback on biological measures was frequently provided more than once (76.6%, n=200), and through real-time discussion (26.1%, n=68) or from a device and real-time discussion (23.4%, n=61). The scoping review is planned for completion in late 2022.
Conclusions: To our knowledge, this will be the first scoping review to map the use of biological feedback as a component of health behavior change interventions. Findings will be used to guide the design and implementation of future behavior change interventions that incorporate biological feedback.