

monitoring of weight. They also discussed the importance of ‘personalization’. Participants highlighted the importance of gamification and an element of competition for engagement. They also felt rewards for progress were important. Strategies identified for engaging helpers included: feedback/rewards; options for quick interaction e.g. thumbs-up; and an SOS button to request input from helpers in moments of potential relapse. Conclusions: This detailed user-centered development process and feasibility testing has led to an intervention, designed and tested by users, which will have the potential to change weight related behaviors.

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IMPROVED CONFIDENCE IN PERFORMING NUTRITION AND PHYSICAL ACTIVITY BEHAVIOURS MEDIATES CHANGE IN YOUNG ADULTS: BEHAVIOURAL OUTCOMES AND MEDIATION RESULTS OF A RANDOMISED CONTROLLED MHEALTH INTERVENTION

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Introduction: There is an increasing recognition that researching the mechanisms underlying successful dietary and physical activity behavior change is important for designing and enhancing effective interventions. The aim of this study was to investigate improvements in knowledge, self-efficacy and readiness to change for nutrition and physical activity behaviors and secondly their role in mediating the behavioral changes observed in a mHealth randomized controlled trial for prevention of weight gain.

Methods: Two-hundred fifty young adults were randomly assigned to a 3-month intensive phase and 6-month maintenance phase of a multicomponent mHealth program including coaching calls, text messages and other resources. Self-reported online surveys at baseline, 3- and 9-months assessed nutrition and physical activity behaviors, knowledge, self-efficacy and readiness for change. Self-efficacy was assessed in multiple mediation models for 3- and 9-month nutrition and physical activity behavior change.

Results: Intervention participants increased and maintained knowledge of fruit requirements ($P=0.029$). Fruit, sugar-sweetened beverage and take-out food behaviors improved to meet recommendations at 9-months ($P<0.001$, $P=0.051$ and $P=0.012$ respectively). Indirect effects of improved nutrition and physical activity behaviors at 3- and 9-months in intervention group were in part explained by changes in self-efficacy, accounting for 16 to 40% of the total effect.

Conclusions: This provides insight into how the intervention achieved part of its effects. This mediation analysis demonstrates the importance of self-efficacy in improving eating and physical activity behaviors in a young adult population.

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THE INTERRELATIONSHIP BETWEEN ORTHOREXIA NERVOSA, PERFECTIONISM, BODY IMAGE AND ATTACHMENT STYLE

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Introduction: The aim of the study was to investigate whether perfectionism, body image, attachment style, and self-esteem are predictors of orthorexia nervosa.

Methods: A cohort of 220 participants completed a self-administered, online questionnaire consisting of five measures: ORTO-15, the Multidimensional Perfectionism Scale (MPS), the Multidimensional Body-Self Relations Questionnaire- Appearance Scale (MBSRQ-AS), the Relationship Scales Questionnaire (RSQ), and Rosenberg's Self-Esteem Scale (RSES).

Results: Correlation analysis revealed that higher orthorexic tendencies significantly correlated with higher scores for perfectionism [self-oriented, others-oriented and socially prescribed], appearance orientation, overweight preoccupation, self-classified weight, and fearful and dismissing attachment styles. Higher orthorexic tendencies also correlated with lower scores for body areas satisfaction and a secure attachment style. There was no significant correlation between orthorexia nervosa and self-esteem. Multiple linear regression analysis revealed that overweight preoccupation, appearance orientation and the presence of an eating disorder history were significant predictors of orthorexia nervosa with a history of an eating disorder being the strongest predictor.

Conclusions: Orthorexia nervosa shares similarities with anorexia nervosa and bulimia nervosa with regards to perfectionism, body image attitudes, and attachment style. In addition, a history of an eating disorder strongly predicts orthorexia nervosa. These findings suggest that these disorders might be on the same spectrum of disordered eating.

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EATING DISORDER PATHOLOGY IN ELITE ADOLESCENT ATHLETES

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Introduction: We aimed to investigate eating disorder pathology in German elite adolescent athletes. Evidence suggests that eating disorder pathology is more common in adult elite sports, especially in female athletes and in sports emphasizing leanness. There is a scarcity of studies in elite adolescent athletes who are in a vulnerable developmental stage and are affected by general as well as sport-specific risk factors.

Methods: Our data was derived from the German Young Olympic Athletes' Lifestyle and Health Management Study (GOAL) which conducted a survey in 1138 elite adolescent athletes. In this sample, we assessed body weight, weight control behavior, body acceptance and screened overall for core symptoms of eating disorders, depression and anxiety. We performed a tree analysis to identify high risk groups for eating disorder pathology

Results: High risk groups comprised (a) athletes competing in weight dependent sports, and among athletes competing in disciplines other than weight dependent sports (b) athletes who are high on negative affectivity, (c) female athletes and (d) male athletes competing in endurance, technical or power sports. Athletes competing in weight dependent disciplines reported wide spread use of compensatory behaviors to influence body weight. Athletes reporting eating disorder pathology showed higher levels of depression and anxiety than athletes without eating disorder pathology.

Conclusions: Increased psychosocial burden in athletes with eating disorder pathology suggests that eating disorder symptoms should not be accepted as an unproblematic and functional part of elite sports. The prevention and management of eating disorder pathology is especially important in weight dependent sports.