

## CHANGES IN INTRINSIC MOTIVATION AND PHYSICAL ACTIVITY DURING A 12-WEEK DRAGON BOAT INTERVENTION WITH OVERWEIGHT WOMEN.

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This study used Self-Determination Theory (SDT) (Deci & Ryan, 1985; 1991) to examine relationships among and changes in psychological need satisfaction, physical activity motivation, and behavior among women involved in a 12-week dragon boat intervention. Women ( $M_{age} = 42.64$ ,  $SD = 11.79$ ) who had a BMI of 26 or higher were randomly assigned to either a control group ( $n = 32$ ), or an experimental group ( $n = 33$ ) who received biweekly practices in dragon boating. Questionnaires assessing perceptions of autonomy, competence, and relatedness in physical activity, 8 types of motivation on a continuum from amotivation to intrinsic motivation (Li, 1999), and physical activity were completed at weeks 1 and 12. At both time points, the simplex structure of the motivational continuum predicted by SDT was supported. Perceptions of competence, autonomy, and relatedness tended to be correlated with self-determined forms of motivation at both time points ( $r = .11-.57$ ), and the three types of intrinsic motivation were correlated with activity at time 2 ( $r = .26-.30$ ). Repeated measures ANOVAs with perceptions of competence, autonomy, and relatedness found no significant changes in relatedness or autonomy, but that competence increased over time  $F(1,46) = 7.44$ ,  $p = .01$ , but the group by time interaction was not significant, suggesting that the dragon boat intervention did not affect change in psychological need satisfaction. Repeated measures ANOVAs with the 8 motivation variables found significant group by time interactions for intrinsic motivation to learn  $F(1,54) = 4.15$ ,  $p < .05$ , to experience sensations  $F(1,54) = 5.34$ ,  $p = .03$ , and to accomplish tasks  $F(1,54) = 5.95$ ,  $p = .02$ . Self-reported physical activity also increased more for the experimental than the control group  $F(1,57) = 12.06$ ,  $p < .01$ . These findings suggest that participation in this dragon boat program had a positive influence on exercise and intrinsic motivation for physical activity, which supports the tenets of SDT and provides evidence for the intervention.