

A motivation and ability intervention to increase teens' fruit and vegetable intake

Introduction. Teens eat too little fruit and vegetables (F&V), therefore the current research aimed to increase F&V intake through a motivation and ability intervention. Both motivation and ability have been indicated as healthy eating predictors, moreover they are thought to increase intrinsic motivation and self-efficacy respectively. Direct effects of the intervention on F&V intake were examined as well as mediating effects of intrinsic motivation and self-efficacy. Moreover, the effectiveness of a combined motivation/ability intervention compared to single motivation or ability interventions was examined.

Method. Participants ($N = 356$, $M_{age} = 12.35$, $SD_{age} = 0.60$, 40% boys) were divided across 4 conditions and received a smartphone-based intervention with self-persuasion (motivation condition), implementation intentions (ability condition), both (combined motivation/ability condition, counterbalanced) or none (control group). The self-persuasion intervention required teens to think about reasons to eat healthy. The implementation intention intervention provided teens with a personalized if-then-plan (e.g., *if I come home from school, then I will eat an apple*). F&V intake pre- and post-intervention was measured.

Results. Results showed no post-intervention differences between conditions in F&V intake. Hence the combined motivation/ability intervention was not more effective than single ability or motivation interventions. There was no mediation effect of intrinsic motivation or self-efficacy, though both concepts were significantly related to F&V intake.

Conclusion. The current intervention did not work, but targeting teens' F&V intake via intrinsic motivation and self-efficacy can be effective. In the future teens' developmental stage as well as the delivery method of the intervention should be examined.

Keywords: self-persuasion, implementation intentions, fruit and vegetable intake, teens, smartphone-based research