Examining the number and quality of physical activity-related if-then plans for weight loss success

Farah Islam
F Islam1, Z Xu1, A Ames-Bull1, K Carrière1, A Voloshyn1, M Sasson2, M Chamandy3, E Ivanova1, B Knäuper1
1McGill University, Montreal, Canada
2University of Toronto, Toronto, Canada
3University of Ottawa, Ottawa, Canada
Contact: farahislam@live.ca

Background
The increasing prevalence of obesity has become a global public health concern. The current study seeks to address this issue by investigating the short and long term effects of physical activity-related if-then plans on weight loss success in participants of the McGill-CHIP Healthy Weight Program (HWP).

Methods
The present analyses includes a total of 292 physical activity-related if-then plans from 70 participants (82.1% females, mean age of 48.64 years, BMI range 28-45 kg/m2) at 3 months and 51 participants who completed all 22 sessions of the McGill-CHIP HWP. This was a randomized controlled trial featuring a prospective study design that aimed to increase the effectiveness of previous lifestyle behavior change programs by implementing evidence-based habit formation techniques (namely, if-then plans) for achieving...
weight loss success. Content analysis of if-then plans formed by participants of the program were coded by two independent coders with reference to qualitative coding guidelines for either low specificity (defined as a cue/response that can be more specifically described and questions are left to be answered) or high specificity (defined as a cue/response that cannot be more specifically described and all questions are answered).

**Results**

Results of a linear regression showed that a higher quantity of physical activity-related if-then plans combined with a higher level of specificity of if-thens plans was associated with a higher percent body weight lost at 3 months ($\beta = .016, p = .038$) but not at 12 months ($\beta = .032, p = .062$).

**Conclusions**

The results suggest that using highly specific if-then plans may be a useful tool for attaining short-term weight loss goals in overweight and obese populations. Lack of statistical significance at 12 months might be due to the smaller N and thus reduced statistical power.

**Key messages:**

- Highly specific if-then plans may be a useful tool for forming physical activity habits and achieving short-term weight loss success in overweight and obese individuals.
- Costs and disability among multiple sclerosis patients: A Swedish register-based study