

The Role of Psychological Need Satisfaction and Self-Determined Motivation for Physical Activity and Self-Esteem

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Background

Self-determination Theory (SDT; Deci & Ryan, 1985, 2000; Ryan & Deci, 2002) is a multidimensional theory based on the significance of people being self-determined in order to be motivated and engaged in certain behaviours.

Self-determined motivation has been hypothesized to mediate the link between psychological need fulfillment and behavioral outcomes in exercise behavior. Also, it is proposed that self-determined motivation will lead to important behavioural, affective and cognitive outcomes.

Purpose

This study aimed to examine a) the factor validity of Swedish translations of two SDT (Self-Determination Theory) -based instruments; b) theoretically derived hypotheses about the relations between the latent constructs of psychological needs, self-determined motivation, physical activity behaviour and self-esteem, c) the mediational role of self-determined motivation in association with psychological needs with physical activity behaviour and self-esteem; (d) gender and age differences in the aforementioned associations.



Method

Adult active members of an internet-based physical activity program (N=1091) between 18 and 78 years of age completed a test battery consisting of Swedish translations of The Basic Psychological Needs in Exercise Scale (BPNES; Vlachopoulos & Michailidou, 2006), The Behavioral Regulation in Exercise Questionnaire-2 (BREQ-2; Markland & Tobin, 2004), Leisure-Time Exercise Questionnaire (LTEQ; Godin & Shephard, 1985) and five positively worded items from Rosenberg Self-Esteem Inventory (Rosenberg, 1989).

Mplus version 5.21 (Muthen & Muthen, 1998–2009) was used to analyze the data with the maximum likelihood (ML) and robust maximum likelihood (MLM) estimators.

Results

Both the Swedish version of BREQ-2 and BPNES displayed satisfactory factorial validity. Need satisfaction predicted self-determined motivation which in turn predicted physical activity and self-esteem as outcomes, especially for women and older adults.

Self-determined motivation mediated the association between need satisfaction and outcomes, and this mediation effect was stronger for women and older adults.

Conclusions

The results confirm the SDT hypotheses regarding mediation and contribute to the on-going discussion of the complexity of exercise motivation and physical activity behaviour.

Making the best use of SDT as a kind of compass with regard to mediating and moderating effects and mechanisms in constructing exercise interventions could assist practitioners and researchers making the transition from inactivity to regular physical activity smoother for inactive individuals and could also promote adherence.

Hence, our results highlight the importance for researchers in the future to examine the effect of potentially relevant moderating factors that may influence the different paths in the SDT based models, rather than controlling these variables (e.g., age and gender) as typically tends to be done.

Take home message

- Higher need satisfaction predicted more self-determined motivation.
- More self-determined motivation predicted higher physical activity and higher self-esteem.
- Self-determined motivation mediated the relationship of need satisfaction and outcomes.
- The mediating relations were stronger for women and older adults.

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