

Title: It's now or never – The intertemporal cost-benefit of going to the gym
Primary field: Behavioral Health Economics

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Abstract

Background

More than one in seven Danes is a member of a fitness center. This makes working out in a fitness center one of the most popular ways to exercise in Denmark. Anecdotal evidence suggests that it can be difficult to reach one's goals regarding the amount of exercise performed.

The decision to go to the gym involves tradeoffs between the benefits and costs of working out.

A highly important aspect of the decision is that it is an intertemporal choice - the costs are immediate, whereas most benefits arise in the near or distant future.

In this paper we analyze whether present biasedness (impulsivity) and discounting (long term impatience) as captured by quasi-hyperbolic discounting can explain exercise behavior and in particular goal achievement, or whether other factors are the main driver of the decision.

Sample:

The sample consists of 992 members of the Danish chain of fitness centers *fitness dk*. Survey data on time preferences was collected in February and March 2016, while individual registry data on actual visits was provided by fitness dk, through their swiping system. Respondents were recruited using the fitness dk newsletter.

Measures:

The survey consisted of a series of stated preference matching questions regarding tradeoffs between benefits now or later. Actual exercise behavior was monitored in the gym for at least six months to enable analysis on the outcome measures total number of visits to the gym and percentage of planned visits fulfilled – the latter obtained by combining survey and registry data. Finally, benefits and barriers influencing the choice of going to the gym was measured through the index developed by Huppertz et al. (2013). We included ten questions relating to potential benefits and ten questions related to barriers.

Results:

The results show a significant correlation between time preferences and number of visits – individuals discounting future benefits more tend to visit the gym less frequently.

To capture other motivational factors in terms of costs and benefits relevant for the decision we extend the model to also include measures of barriers as well as benefits of going to the gym. We apply a model with interaction terms to capture the specifics of the theoretical model. These models show significant correlation between present biasedness and number of visits only for individuals with low utility cost of going to the gym.

Conclusion:

Time preferences can explain some of the variation in exercise behavior. Especially when including barriers and benefits of working out it seems as only individuals that actually want to go to the gym is affected by present biasedness.