

# The impact of past behavior on basic needs, motivation, and intentions towards exercise persistence

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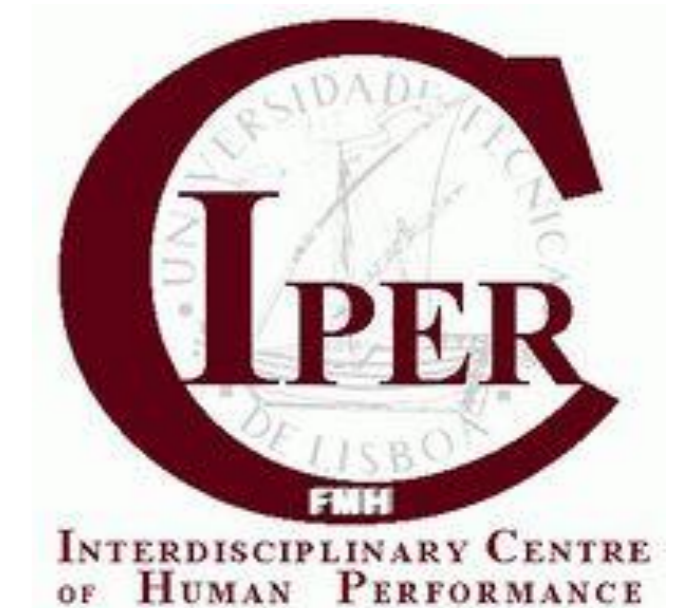
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## INTRODUCTION AND OBJECTIVE

The Self-Determination Theory and Theory of Planned Behavior have proved to be significant approaches to explain exercise persistence. While the main constructs of these frameworks are generally accepted, it has been suggested in recent studies that the integration of more constructs would benefit in terms of explanatory power [1]. Among existing measures, past behaviors seems to have an important role on the prediction of future behavior [2]. Thus, this study examined the effect of past behavior on basic psychological needs, behavioral regulations, and intentions towards exercise persistence.

## METHOD

### Participants

Data from 289 regular exercisers (189 women) aged between 21 and 50 years ( $M = 31.45$ ;  $SD = 7.76$ ) were collected. Exercise experience ranged from 6 to 12 months ( $M = 8.34$ ;  $SD = 1.98$ ).

### Instruments

Several translated into Portuguese and validates scales in the exercise context were used, namely: a) the Basic Psychological Need Satisfaction and Frustration Scale [3]; b) the Behavioral Regulation in Exercise Questionnaire [4]; and, c) Intentions towards exercise persistence [5].

To measure past behavior and exercise persistence, attendance logs were used. In this study, past behavior was considered as the time the participant registered at the health club, and persistence was defined as a person who is enrolled in exercise more than 2 sessions per week over a period of 6 months.

### Data Analysis Procedures

All analyses were performed using the MLR estimator available in Mplus 7.4 [6]. A Structural Equation Model approach was performed, considering several traditional and incremental indexes [7].

Constructs under analysis displayed normal distribution, and acceptable internal consistency ( $>0.70$ ), as proposed by Raykov [8].

## RESULTS AND DISCUSSION

The structural model provided acceptable fit as theoretically proposed:  $MLR\chi^2 = 640,987$ ;  $df = 127$ ;  $CFI = .931$ ;  $TLI = .903$ ;  $RMSEA = .067$ , and factors displayed acceptable internal consistency (coefficient range = .71 - .87).

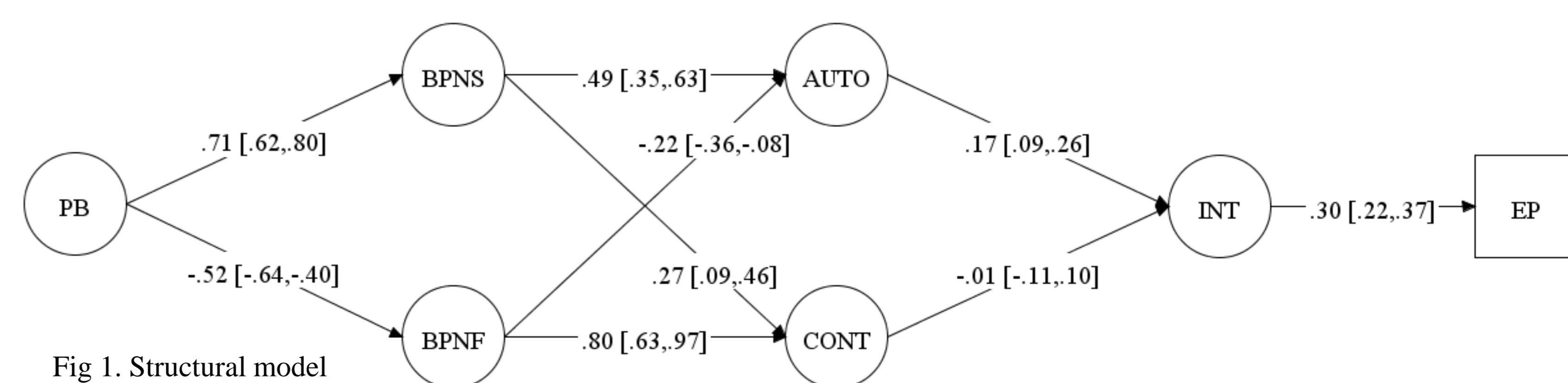


Fig 1. Structural model

Past Behavior (PB) was a positive and significant predictor of Basic Psychological Need Satisfaction (BPNS), and a negative of BPN Frustration (BPNF). Consequently, BPNS forecasted positively autonomous motivation (AUTO) and negatively controlled motivation (CONT). AUTO was the only significant direct predictor of intentions (INT), which ultimately explains nearly 10% Exercise Persistence (EP). PB displayed a significant indirect effect on EP via BPNS, AUTO, and INT ( $\beta = 0.25$ ;  $IC95\% [0.11, 0.29]$ ). BPNF and CONT did not display any significant indirect effect on EP.

## CONCLUSIONS

In overall, past behavior matters greatly for exercisers to maintain their exercise practice, since it indirectly predicts through the satisfaction of basic needs and autonomous motivation. As results, exercisers with greater experience may create higher intentions to continue exercising in the future.

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