

# Motivation in Sport Education and Traditional University Weight Training Classes

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## Background

### The Problem

- Over 33% of college students are overweight or obese, and less than 49% of college students meet ACSM/AHA guidelines for moderate and/or vigorous physical activity (American College Health Association, 2013).
- Physical activity patterns established in college can remain constant for up to six years post graduation (Sparling & Snow, 2002).
- A university physical activity instruction course is likely the last chance for an individual to receive education on, and have the opportunity to establish, a healthy pattern of physical activity.

### Self Determination Theory

- Motivation is driven by three basic psychological needs: competence, autonomy, and relatedness. The extent to which these three needs are satisfied will determine how people are motivated in a given setting.
- Motivation can be intrinsic, extrinsic, or non-existent. It has been consistently found that intrinsic motivation and more-internalized forms of extrinsic motivation will lead to more well-adapted exercise behaviors.

### Sport Education Model

- The Sport Education curricular model (Siedentop, 1998) aims to develop competent, literate, and enthusiastic sportspersons.
- Several key features of sport are infused into PE.
  - seasons
  - culminating events
  - affiliation
  - record keeping
  - formal competition
  - festivity
- Curricular, instructional, and organizational modifications are required to achieve a learning-teaching environment where the goals of sport education can be realized.

### Purpose

- The purpose of this research was to examine relationships between basic psychological need satisfaction, self determined motivations, and student attitudes and exercise intentions in university weight training classes, and to examine differences in these constructs between classes that use a traditional teaching model and the sport education model.

## Participants

- A total of 285 students were recruited from traditional (n=211) and sport education (SE; n=74) university weight training classes.
- The traditional weight training condition classes were taught by university instructors and primarily emphasized skill teaching and daily adherence to a prescribed workout program.
- The SE condition classes were taught by PETE undergraduate students as a part of a major practicum experience.

## Model and Results

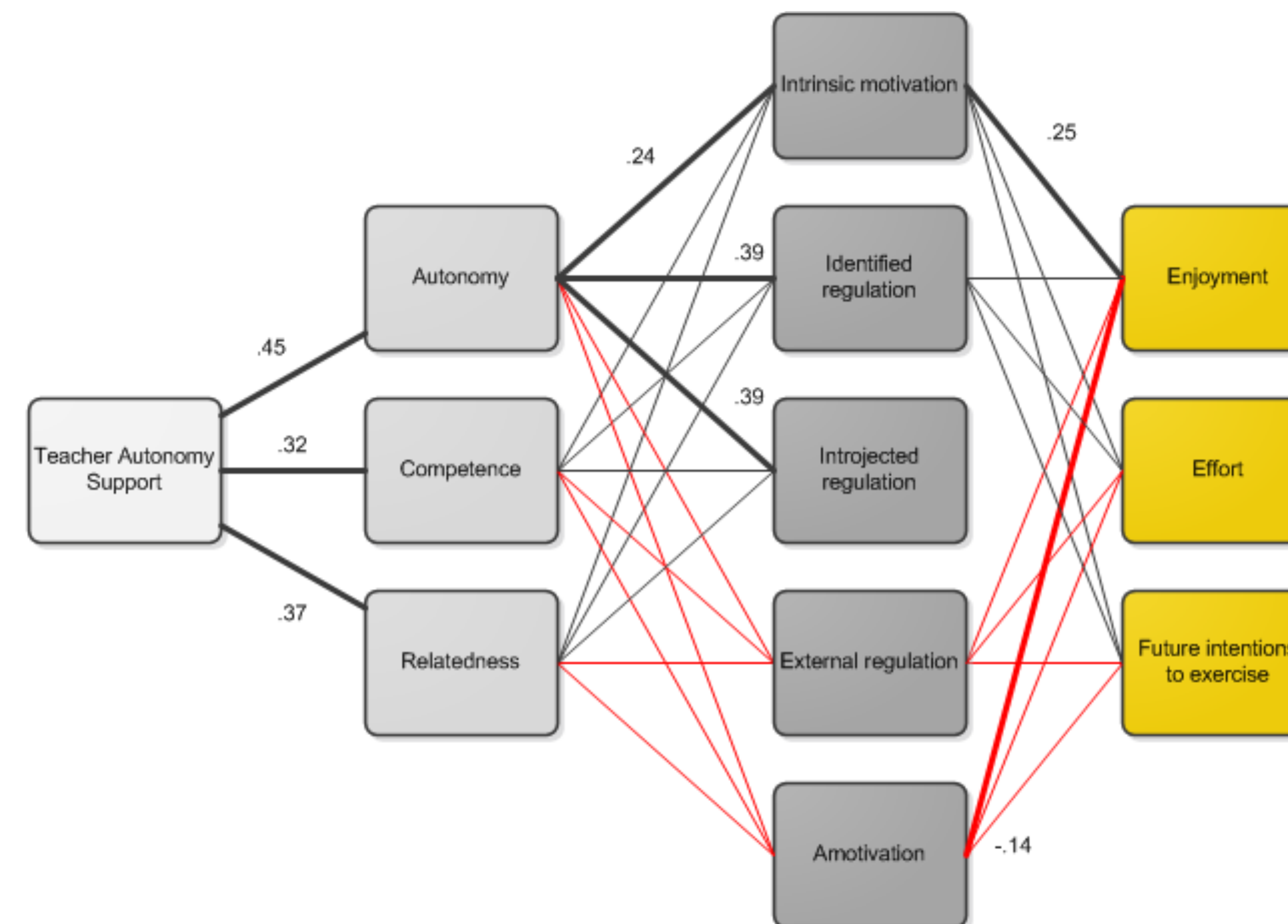


Figure 1. Hypothesized model. Positive relationships are black, and negative relationships are red. Significant paths are bold with standardized path weights shown.

## Measures

- **Self-Regulation Questionnaire-Physical Education (SRQ-PE).** The SRQ-PE includes 5 subscales, with 4 items each, designed to measure amotivation, external regulation, introjected regulation, identified regulation, and intrinsic motivation.
- **Basic Psychological Needs in Physical Education Scale (BPN-PE).** The BPN-PE is a 12 item scale that assesses participant's satisfaction of the basic needs of autonomy, competence, and relatedness in physical education.
- **Learning Climate Questionnaire (LCQ).** The short form of the LCQ (6 items; Williams & Deci, 1996) was used to measure student perceptions of the autonomy support provided PE teachers.
- **Effort and Enjoyment.** The four items from the effort subscale and six items from the interest/enjoyment subscale of the intrinsic motivation inventory (McAuley et al. 1989) were used to measure students' effort and enjoyment in PE.
- **Future Intentions to Exercise Outside of PE.** Students responded to three items that measured their future intentions to exercise.

## Method

- Participants randomly self-selected into one of the two experimental groups.
- Participants completed the SRQ-PE as well as a demographic survey on the first day of class.
- On the last day of class, participants again completed the SRQ-PE, as well as the LCQ, BPN-PE, and the surveys assessing their attitudes toward PE and their intentions to further participate in physical activity.

### Sport Education vs. Traditional

- Students in SE classes reported significantly higher teacher autonomy support than students in traditional classes,  $F(1,257)=8.97, p=.003, d=.41$ .
- Students in SE classes reported significantly greater relatedness need satisfaction than students in traditional classes,  $F(1,259)=3.98, p=.047, d=.27$ .
- Students in SE classes reported greater autonomy need satisfaction than students in traditional classes,  $F(1,260)=3.64, p=.057, d=.25$ , but this result just failed to reach statistical significance.

### Model

- After freeing paths from autonomy need satisfaction to the 3 outcome variables, the model showed acceptable fit,  $\chi^2(14) = 35.98, p = .001$ ; RMSEA = .07; CFI = .98, SRMR = .03.
- Teacher autonomy support was found to be a significant predictor of autonomy, competence, and relatedness need satisfaction.
- Autonomy need satisfaction was found to be a significant predictor of intrinsic regulation, identified regulation, and introjected regulation.
- Autonomy need satisfaction was also found to be a significant predictor of enjoyment ( $\beta=.53$ ), effort ( $\beta=.15$ ), and future intentions to exercise ( $\beta=.46$ ).
- Intrinsic motivation was found to be a significant predictor of enjoyment, and amotivation was found to be a significant negative predictor.

## Discussion and Implications

- The structure provided through the sport education model allowed teachers to provide a greater degree of autonomy support, which in turn led to higher levels of student relatedness and autonomy need satisfaction in those classes.
  - Long-term grouping, festivity, and culminating events in SE can contribute to relatedness.
  - Formal competition, team decision making, and participating in diverse roles can contribute to autonomy.
- Teacher autonomy support was very important in predicting students' basic psychological need satisfaction.
- Students' autonomy need satisfaction had significant effects on both motivation and the outcomes of enjoyment, effort and future intentions to exercise.
- These results confirm the importance of student autonomy in university physical education classes, and suggest that utilizing the sport education curricular model may facilitate the provision of teacher autonomy support.