

## Predicting attitudes and physical activity in an “at-risk” minority youth sample: A test of self-determination theory

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### Abstract

**Objectives:** The present work sought to extend past research by (i) testing a model of motivational processes based on the tenets of self-determination theory (SDT; Deci & Ryan [1991. A motivational approach to self: Integration in personality. In R. Dienstbier (Ed.), *Nebraska symposium on motivation*. Vol. 38. *Perceptives on motivation* (pp. 237–288). Lincoln, NE: University of Nebraska Press]) in an “at-risk” minority youth sample, (ii) exploring the relationship between motivation and physical activity behavior and attitudes, and (iii) assessing autonomy-support for physical activity from two social agents.

**Design:** A field cross-sectional design, including an assessment of physical activity over 4 days using pedometers.

**Methods:** Complete data were obtained from 237 predominantly low socioeconomic Hispanic 5th–8th grade students ( $M$  age = 12.11 years;  $SD$  = 1.21) from an elementary school located in the southwestern region of the United States of America. Four days of physical activity data, height and weight measurements, and responses to a multi-section inventory were collected. A model of hypothesized relationships among the study variables was examined using structural equation modeling.

**Results:** The proposed model demonstrated a very good fit to the data [Satorra-Bentler  $\chi^2$  (24) = 46.88,  $p$  < .01; CFI = .94; IFI = .95; SRMR = .052]. Supporting the study hypotheses, the model showed that students who perceived autonomy-support toward physical activity to be promoted by their teachers and their parents experienced greater levels of need satisfaction variables (viz., autonomy, competence, and relatedness). In turn, the satisfaction of these psychological needs positively predicted autonomous

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motivation towards physical activity. Autonomous motivation positively predicted greater levels of (i) physical activity and (ii) positive attitudes towards physical activity. Body Mass Index (BMI) was found to be a negative predictor of physical activity.

*Conclusions:* Collectively, the results of the present work provide support for SDT and the application of the framework to enhance our understanding of motivational processes as they relate to physical activity within “at-risk” minority youth.

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*Keywords:* Motivation; Self-determination theory; Physical activity; At-risk youth; Minority adolescents; Attitudes; Autonomy-support; BMI

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## Introduction

Coronary heart disease is the leading cause of death in the United States of America (Anderson & Smith, 2005) with physical inactivity and poor nutrition two of the leading risk factors for the disease. Significant variations exist in physical activity rates, obesity levels, and nutrition awareness among different populations. Specifically, research has shown that differences in obesity and physical activity appear as a function of race, socioeconomic status, and gender (US Department of Health and Human Services (USDHHS), 2000). These differences place children and adolescents from minority and low socioeconomic groups to be “at-risk” for disparities that will impact their health and well-being. Although research has shown that children tend to be more active than adults, many children and adolescents do not attain the recommended minimum levels of physical activity (US Department of Health and Human Services (USDHHS), 1997). Since physical activity patterns established during early childhood tend to track into adulthood, less physically active children tend to remain less active compared to their more active peers (Pate, Baranowski, Dowde, & Trost, 1996).

While physical inactivity is a major health concern across all segments of society, the problem is more noticeable in minority and low socioeconomic youth populations. Between 1986 and 1998, the prevalence of children who were overweight increased by approximately 120% among Hispanic children, compared to an increase of approximately 50% among non-Hispanic White children (Strauss & Pollack, 2001). Approximately 21.8% of Hispanic children and 21.5% of African American children were overweight, compared to 12.3% of White children (Strauss & Pollack, 2001). From a public health perspective, the level of physical inactivity amongst American youth, particularly those of minority and low socioeconomic populations, is a significant source of concern and requires considerable research attention. Accordingly, the present work is designed to further our understanding of the motivational processes underpinning levels of physical activity behavior and attitudes towards physical activity in a “at-risk” primarily Hispanic youth population.

Although it has been recommended that studies are needed to investigate how social factors can better promote physical activity among Hispanic, African American, and low income youth (e.g., Frenn et al., 2005), a paucity of work examining the motivational and psychosocial variables that underpin physical activity behavior and associated attitudes in ethnically diverse youth populations exists. Clearly, an understanding of the motivational processes that affect physical

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