

Examining the Role of Ethnicity and Acculturation in Physical Activity and Resistance Training among Asian Americans

Anthony J. Villanueva & Kathleen S. Wilson

Introduction

- Asian Americans may be less active than other ethnicities (Kao et al., 2016)
 - Asian Americans are the fastest growing population in the United States (U.S. Census, 2010)
- Values that are associated with the Asian American cultures include collectivism, emotional self-control, family recognition through achievement, filial piety and humility (Kim et al., 2001)
 - The endorsement of these values may decrease the longer an Asian person is in America (Kim et al., 2001)
- Acculturation is the phenomena in which groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original cultural patterns of either or both groups (Redfield et al., 1936)
 - As individuals become more acculturated and adopt westernized values, they are at increased health risks such as diabetes (Fujimoto et al., 2000) and obesity (Popkin & Udry, 1998)
- The Theory of Planned Behavior (TPB) has been used to predict physical activity (PA; Hagger, Chatzisarantis & Biddle, 2002)
 - Less research has examined its usefulness to predict resistance training (RT) behavior (Bryan and Rocheleau, 2002)
 - Ethnicity and culture have received little attention as background factors that influence the TPB components (Ajzen, 1991)
 - Differences in TPB have been observed with different ethnicities (Nigg et al., 2009; Hagger et al., 2007)

Methods

Participants

- Asian American adults ($N=185$; $M_{\text{age}}=24.3$ years, $SD=6.8$ years)
 - Gender: 95 Males (52%), 89 Females (8%), and 1 Non-binary
 - Ethnicity: Filipino/a ($n=63$; 34%), Vietnamese ($n=33$; 17%), Chinese ($n=25$; 14%), Japanese ($n=14$; 8%), Korean ($n=7$; 4%) & Mixed ($n=30$; 7%)

Procedure

- Participants completed an online survey
- Two weeks later, a second online survey assessed RT and PA levels

Measures

- Acculturation** – Suinn-Lew Asian Self-Identity Acculturation Scale (SL-21; Suinn, Ahuna, & Khoo, 1992)
 - e.g., What language can you speak?
- Physical Activity (PA)** – Godin's leisure time exercise questionnaire (Godin & Shephard, 1985)
- Resistance Training (RT)** (3 items; Bryan and Rocheleau, 2002)
 - "In the past 3 months only, what is the average number of days per week that you engaged in weight training?"
- Theory of Planned Behavior** (Ajzen, 1991)
 - Separate for leisure time PA for 150 minutes per week and RT at least 2 times per week
 - Attitude (7 items): ... is *not important* to *very important*
 - Subjective Norms (11 items): The majority of people important to me think I should ...
 - Perceived Behavioral Control (PBC; 5 items): I believe I am capable of...
 - Intention (5 items): I plan to...

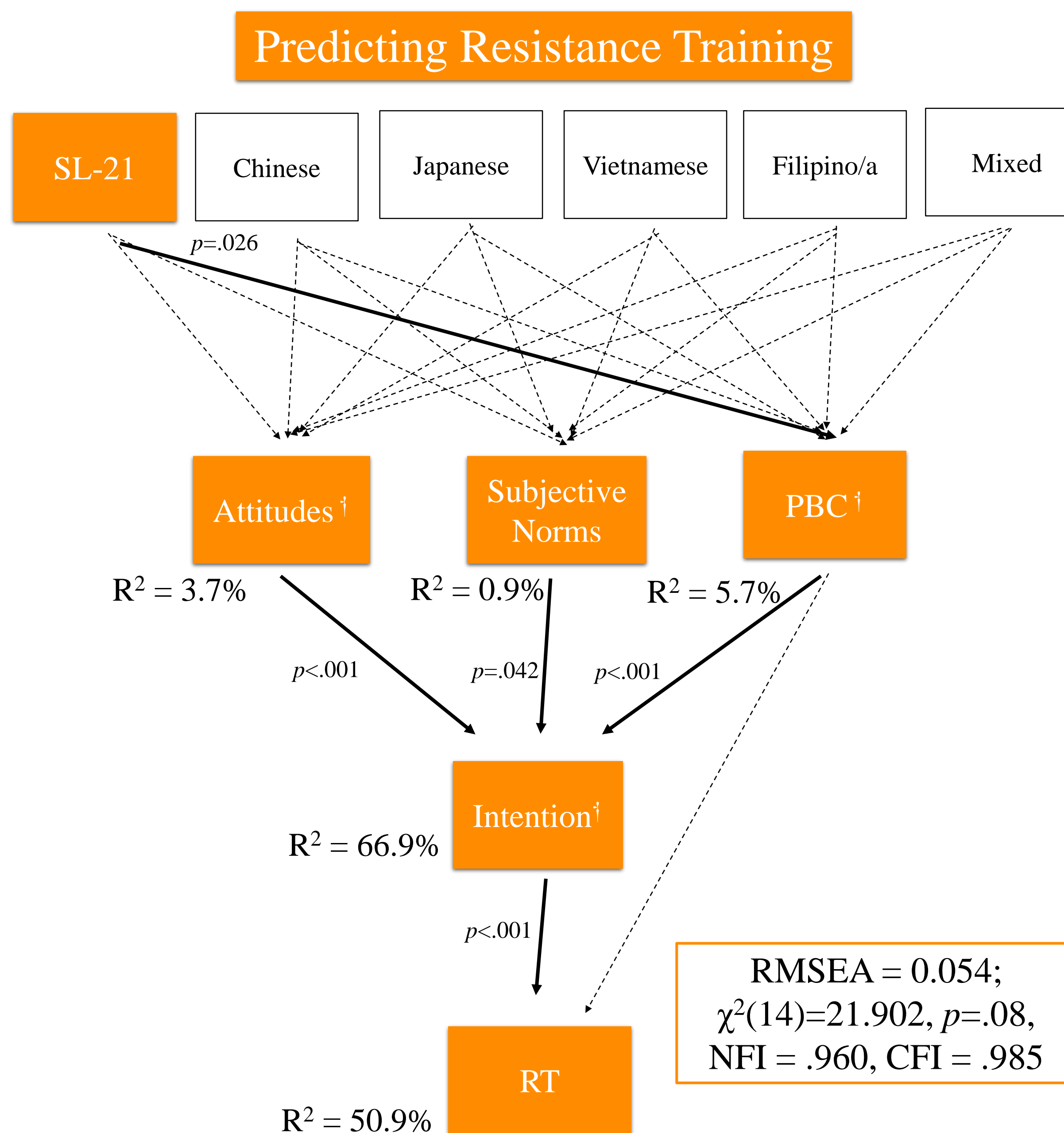
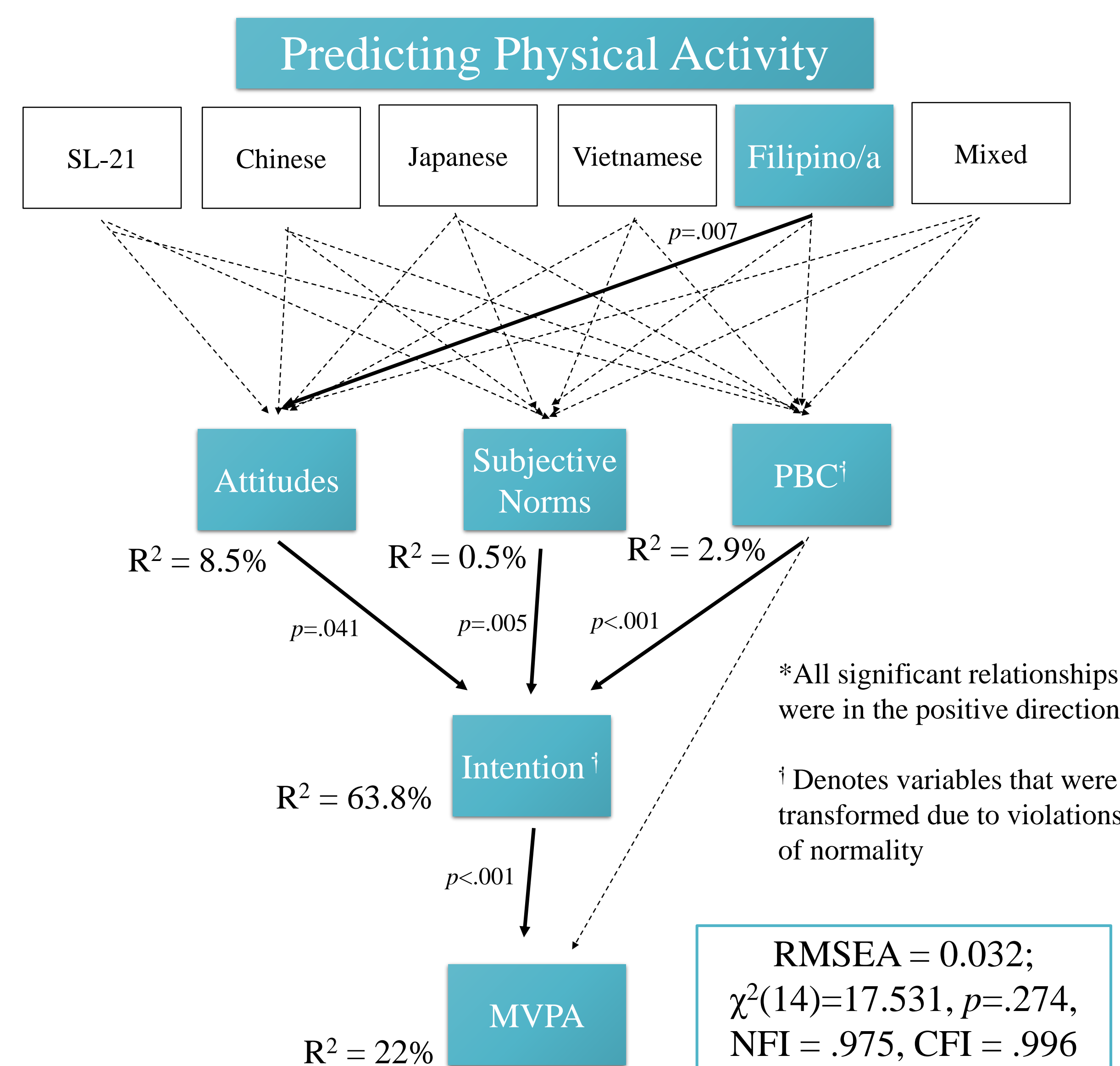
Purpose

To explore the role of ethnicity and acculturation in Asian Americans' RT and PA using the TPB framework.

Results

Analysis

- Variables screened for normality and outliers
- Ethnicity dummy coded with other as the reference group
- Path analysis performed in AMOS version 25



Discussion

- Attitudes, subjective norms, and perceived behavioral control (PBC) predicted intention for both PA and RT
 - Replicates other studies using TPB (Hagger, Chatzisarantis & Biddle, 2002)
 - Bryan and Rocheleau (2002) reported TPB predicted both aerobic PA and RT in a sample of college students
- Intention was the sole predictor of behavior with PBC predicting intention
 - The two week time frame may have been too short to capture the influence of PBC given that students have a relatively consistent schedule
 - Hagger et al., (2007) suggested that a more collectivistic society (Hungary compared with other European groups) may factor into a weaker relationship between PBC and behavior that was observed
- Subjective norms was a significant predictor of intention in this study, which is not always the case (e.g., Blanchard et al., 2008; Plotnikoff et al., 2008; Beville et al., 2014)
 - This could be due to Asian American value "collectivism" (Triandis, 1993)
 - Stronger relationship between subjective norms and intentions seen in Japanese versus White samples (Nigg et al., 2009)
- Background variables of acculturation and ethnicity played a small but significant role in TPB models
 - For RT, there was a significant relationship between acculturation and PBC such that those who were more acculturated showed higher PBC
 - Acculturation has related to physical activity participation (Allen et al., 2007)
 - For PA, Filipino participants reported more positive attitudes than the reference group of 'Other' Asian Americans

Strengths:

- First study of its kind looking at the relationship between acculturation and TPB predictors
- A diverse sample of Asian Americans participated
- Resistance training is a behavior not commonly examined as a distinct from physical activity
- Prospective design allowed for the prediction of future PA and RT

Limitations:

- Selection bias limits generalization
 - Large proportion of students ($n=103$; 55.6%) and health-related majors (21.6% were Kinesiology & Health Science majors)
- Acculturated sample may have limited potential of acculturation to predict variables
 - 69% 2nd Generation = "I was born in U.S., either parent was born in Asia or country other than U.S."
 - Primary language spoken at home was English (evidence of high acculturation)
- Self-reported physical activity and RT were assessed and may have been over-reported
- Not all participants completed the post survey ($n=54$, 29%)
 - Completers and non-completers were similar except, non-completers were less acculturated and reported lower PA norms