Introduction

Review of Literature

Undergraduate University Student Obesity
- Excess caloric intake and sedentary lifestyles predispose young adults to less physical activity and an increased incidence of obesity (Caspersen, Pereira, & Curran, 2000)
- Undergraduate students gain on average between 1.5 and 6.8 pounds in the first three to four months of enrollment (Nelson, Story, Larson Neumark-Sztainer, & Lytle, 2008)

Proximity and Physical Activity
- Physical activity predominantly occurs in specific types of places or physical activity environments (Sallis, 2009)
- Previous research has determined that intensity and duration of physical activity increases as the proximity of exercise facilities increases (Reed & Phillips, 2005)
- Collegiate campuses that encourage physical activity by providing opportunities to participate in physical activity on frequently traveled paths have seen an increase in fitness levels by students (Babey, Hastert, Yu, & Brown, 2008)

Convenient access to fitness facilities not only encourages physical activity, but promotes a healthy lifestyle. Little research has been done on a proximity in relation to undergraduate students.

Methodology

Data collection was modeled after a survey diagnostic previously utilized by Reed & Phillips (2005) in a study which combined the Godin Leisure-Time Exercise Questionnaire and the Perceived Environments Related to Physical Activity Questionnaire (Godin & Shephard, 1985). The research methodology used in this study consisted of:

- Comprehensive Literature Review
  - 50 Publications published between 1985-2012

Data Analyzed
- Godin Leisure-Time Exercise Questionnaire
- Perceived Environments Related to Physical Activity
- Mapquest analysis of distance between residence and preferred location for physical activity
- Variables also included:
  - 14 commonly available types of home physical activity equipment
  - 18 common facilities available to undergraduate students

Participants
- 40 undergraduate students enrolled in a Midwestern Division I university’s Wellness Course
  - 22 Male
  - 18 Female
  - 4 Varsity Collegiate Athletes

Key Definitions
- Proximity of an exercise facility — the distance the facilities the students used from residence
- Frequency of physical activity — the number of occurrences of an exercise bout over a 7 day period
- Quantity of Home exercise Equipment — the different types of home exercise equipment the survey participants had in their residence (Reed & Phillips, 2005)

Results

Factors including Age, Proximity and Frequency of Physical Activity, Frequency of Participation in Strenuous, Moderate and Mild Exercise, Environmental Factors were analyzed using frequency charts and analysis of variance tests

**Age:**
- as an individual ages, their physical activity levels decrease (Wallace et al, 2000)
- Ages, Frequencies and Percentages of Survey Participants
  - Age Frequency Percent
  - 18 3 7.5%
  - 19 21 52.5%
  - 20 6 15.0%
  - 21 2 5.0%
  - 22 4 10.0%
  - 23 0 0.0%
  - 24 2 5.0%
  - 25 1 2.5%

**Proximity and Frequency of PA:**
- Year in School Total Physical Activity Proximity
  - Freshman 3-4 Times a Week .90
  - Sophomore 1-2 Times a Week .44
  - Junior 1-2 Times a Week 1.13
  - Senior 3-4 Times a Week .57

**At Home Equipment and Usage:**
- Analysis of Variance Test (ANOVA) was conducted
- Strongest Significance (x² = 55.9, df = 5, p<.005)

Implications

1. Equipment
   - Availability of bicycles, swimming pools, aerobic equipment, and step-aerobic equipment in an individuals home had significant impact on the frequency of physical activity

2. Environment
   - Supportive environmental factors including low crime rates, lack of unattended dogs, and lighting are important in regard to participation in outdoor physical activity

Future Research

Universities are looking to collaborate internally between student health centers and campus wellness, recreation and fitness programs. Further research, with larger sample sizes, has the ability of educating universities on ways that can provide quality health and fitness experiences to students. Future research should focus on:
- Self-Efficacy
- Outcome Expectations
- Self-Evaluated Satisfaction or Dissatisfaction

Key References