

Gender differences in health related fitness outcomes among college age kinesiology students

BRYAN GARCIA, B.S., JAKE HARP, B.S., JAMIE CVIKEL, B.S.

Clinical Exercise Research Facility; Kinesiology; Tarleton State University; Stephenville, TX

Category: Masters

Advisor / Mentor: Blevins-McNaughton, PhD., Jennifer (jblevins@tarleton.edu)

ABSTRACT

BACKGROUND AND PURPOSE: Many Americans do not meet the minimum standards of physical activity required to maintain a healthy lifestyle. The purpose of this study was to determine the prevalence of poor health related fitness outcomes among college age kinesiology majors.

METHODS: Health related fitness (HRF) measurements were taken on 211 undergraduate Tarleton kinesiology majors. These measures included body composition, blood pressure, cardiorespiratory endurance (1.5 mile time), flexibility (sit-n-reach), and muscular strength and endurance. One and half mile run, sit ups, bench press, leg press, and the sit and reach were administered and ranked according to ACSM Guidelines (8/9th ed). Body composition was measured with a three-site skinfold measurement (females: tricep, suprailiac, thigh; males: chest, abdomen, thigh) using a Lange caliper. Height and weight were measured using a medical grade Detecto® scale (Webb City, MO). Blood Pressure was measured using a standard sphygmomanometer and stethoscope. Differences in HRF outcomes were analyzed using independent t-tests with significance set at $p < 0.05$.

RESULTS: Resulting HRF raw scores separated by gender are displayed in the attached table. When comparisons were made based on percentile rankings according to gender and age, males ranked significantly higher than females for percent body fat, 1.5 mile run, flexibility, and bench press.

Health Related Fitness Scores Among Undergraduate Kinesiology Majors

Student Characteristics	Males	Females
Gender (N)	107	104
Age (years)	21.2 ± 3.4	20.2 ± 1.8
BMI (kg/m ²)	27.1 ± 6.8	24.2 ± 4.6
% Body Fat	14.1 ± 6.6	25.7 ± 7.7
1.5 Mile Run (min:sec)	11:42 ± 2:00	13:44 ± 2:11
Sit & Reach (in)	19.1 ± 2.3	20.8 ± 2.1
Bench Press Ratio (lift/wt)	1.1 ± 0.2	0.6 ± 0.2
Leg Press Ratio (lift/wt)	2.0 ± 0.7	1.6 ± 0.4
Sit ups (1 min)	47.1 ± 9.8	42.3 ± 11.5

DISCUSSION: Overall, males ranked higher on the health related fitness outcomes than females when adjusted for percentile rank. The extent to which these results were based on gender differences in exercise training, internal motivation, or attitude towards fitness is unknown. Future investigations will focus on health and physical activity habits between genders, as well as differences in internal motivation.

