WELLNESS INTERVENTION IN AN ADULT POPULATION WITHIN A COLLEGIATE SETTING

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ABSTRACT

Purpose: Obesity is an epidemic in the United States and contributes to approximately 300,000 mortalities annually. In the US, there has been a drastic increase in obesity among college students. This dramatic weight increase can lead to obesity and associated health problems such as hypertension. Other issues affecting this population include tobacco use, binge drinking and unhealthy eating habits. In this study, we reviewed recent trends regarding health and wellness perspectives, incorporated educational lectures and attempted to educate this population health and wellness.

Methods: As part of an ongoing health and wellness program in a local college, the population studied consisted of adult collegiate participants. All subjects received a survey consisting of 11 modified Likert type questions regarding various health topics, physical status, emotional well-being and alcohol practices. The participants’ weight, blood pressure, and BMI were obtained. All subjects were tested on upper and lower body strength and flexibility. All data was recorded on the fitness pre-test and filed until the post-testing date. Participants were encouraged to exercise three or more times weekly and attend at least three educational lectures in order to remain in the study. At the end of the eight week session, participants underwent post-testing. The significance level was set at $p \leq 0.05$.

Results: The study consisted of 11.8% males and 88.2% females, 39% faculty and 61% students with a total of 144 participants. At the end of the study, 44 participants remained, 16% male and 84% female, 61% faculty and 39% students. At baseline, 3 (2%) were found to have Stage II hypertension, 11 (8%) with Stage I hypertension, 65 (49%) pre-hypertensive, and 53 (40%) were within normal range. At completion of the study, there was a significant decrease in blood pressure among all participants ($p=0.012$). The mean systolic blood pressure between the two groups decreased by 4.64 mmHg. A significant increase in upper ($p=0.042$) and lower body strength ($p=0.000$) and flexibility ($p=0.000$) was also found; however, percent body fat was not significant. The percent body fat within the participants increased from a mean body fat percentage of 28.92 during pre-testing to 29.05 for post-testing. Males had a systolic blood pressure decrease of 0.71 mmHg ($p=0.007$) and females a 5.85 mmHg systolic decrease ($p=0.000$). Body fat percentages of the males, females, and students all increased between pre and post-testing. Regarding the female population, a significant increase in upper and lower body strength ($p=0.000$, $p=0.000$) and flexibility ($p=0.000$) was also found.
Males had similar results with a significant increase in upper body strength and flexibility ($p=0.001$, $p=0.001$); however, changes in lower body strength among the males were not significant ($p=0.078$). No significant differences within the student and faculty populations were noted in respect to systolic blood pressure ($p=0.095$, $p=0.424$), body fat percentage ($p=0.452$, $p=0.108$), flexibility ($p=0.682$, $p=0.989$), lower body ($p=0.198$, $p=0.466$) and upper body strength ($p=0.901$, $p=0.557$).

**Discussion:** In this population, three months of exercise and educational materials was found to result in decreased systolic blood pressure, increased strength, both in the upper and lower body, and an increase in flexibility. The increase in body fat percent was an unexpected finding.