Active and Passive Stress Management Mechanisms in Physically Active Young Adults

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Background

• Physical activity is linked to improved cardiovascular health, sleep, and stress levels.1
• Those who engage in more physical activity respond more positively to stressful situations and may be more resistant to acute stress.2
• Millennials (ages 18-38 years) reported highest levels of stress, lowest life satisfaction.3
• Evidence suggests that various active stress coping styles (physical activity, yoga, hiking, etc.) may assist in enhancing stress resilience.4
• Graduate students report higher rates of stress compared to undergraduate students, but there is limited research on coping styles.5
• Women are more likely to use emotional or avoidant stress coping strategies compared to men, who are more likely to use rational or healthier stress coping strategies.6

Research Questions and Hypotheses

• How stressed are young adults who are overweight and obese compared to a normative sample? (Figure 1)
  o Young adults who are overweight and obese have higher stress levels compared to a normative sample.
• Do young adults ages 18-35 years who are more physically active report lower stress levels than those who are less physically active? (Figure 2)
  o Young adults who meet current physical activity guidelines report less stress than those who do not.
• Do young adults ages 18-35 who are more physically active cope with stress using more active mechanisms than those who are less physically active? (Figure 3)
  o Young adults with higher baseline physical activity levels use more active coping mechanisms to cope with stress than those with lower baseline physical activity levels.
• Do physically active undergraduate students cope with stress using more active coping mechanisms than physically active graduate students? (Figure 4)
  o Physically active graduate students cope with stress more actively than physically active undergraduate students.
• Do physically active males cope with stress using more active mechanisms than physically active females? (Figure 5)
  o Physically active males cope with stress more actively than physically active females.

Methods

• Baseline data from Healthy Body Health U Study (HBHU) conducted at the George Washington University and the University of Massachusetts-Boston.7
• Participants were part of a randomized controlled trial aimed at finding the most effective way to help students lose and maintain a healthy body weight.
• Population: Young adults ages 18-35 years with a BMI of 25-45 kg/m² (N=452)
  • 78.6% female, 66% ages 18-24
• Measures:
  • Self-report physical activity was measured using the International Physical Activity Questionnaire (IPAQ).
  • Objective physical activity was measured using ActiGraph accelerometers. Minimum wear time required for inclusion was 4 days with at least 600 minutes.
  • Perceived Stress was measured using an 10-item version of Cohen’s Perceived Stress Scale.
  • Stress coping was measured using a 9-item stress management survey scale that included both active and passive coping styles.
  • Demographic variables (age, sex, and academic year) were also measured.
• Data Analysis:
  • A 2009 normative sample8 was used to compare perceived stress levels of young adults ages 18-35.
  • Frequencies and descriptive characteristics were calculated to describe the population.
  • Independent sample T-tests were conducted to analyze the relationships between stress and BMI, and stress and physical activity.
  • Chi-square tests were conducted to analyze the the relationships between physical activity and active stress coping, academic level and active stress coping, and sex and active stress coping.

Results

Key Findings

• 18-24 year olds in the HBHU study reported lower levels of stress compared to those of the same age in the normative sample from 2009.
• 25-35 year olds in the HBHU study also reported lower levels of stress compared to those of the same age in the normative sample from 2009.
• Those who self-reported high physical activity levels reported lower perceived stress levels.
• When comparing objective physical activity and stress, those with higher physical activity levels reported lower perceived stress levels, but this was not statistically significant.
• Both young adults who self-reported high physical activity levels and those with objectively high physical activity levels cope with stress more actively than those with low physical activity levels.
• 86.9% of physically active graduate students used more active stress coping styles compared to 71.2% of physically active undergraduate students.
• 78.6% of physically active males used more active stress coping styles compared to 76.6% of physically active females, but this was not statistically significant.

References


Acknowledgements

Research was supported by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) of the National Institutes of Health under award number R01DK100956 (Napolitano-PN).

Contact Info

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