

TACSM Abstract

Factors Associated with Diabetes Risk in South Texas College Students

JORDAN STACK, CHRISTINE BRUMLEY, MANSI PARIKH, ADLEY CANALES, SARA E. MAHONEY, and CHRISTOPHER M. HEARON

Human Performance Laboratory; Department of Health and Kinesiology; Texas A&M University – Kingsville; Kingsville, TX

Category: Masters

ABSTRACT

South Texas has a high prevalence of diabetes and college students may be particularly at risk for developing diabetes. Early detection and prevention are crucial to reducing the prevalence of this disease. While increased BMI, sedentary activity and depression have been associated with diabetes progression in the general population, it has not been established whether these factors contribute to increased risk for developing diabetes in college students. **PURPOSE:** To assess diabetes risk and to determine whether depressive symptoms or physical activity patterns are associated with increased diabetes risk in college students. **METHODS:** 69 college students were assessed for diabetes risk using the Finnish Diabetes Risk Score (FINDRISC) questionnaire. Each subject also completed the International Physical Activity Questionnaire (IPAQ) long form which includes a sitting subscale, the Zung Self-Rated Depression Scale and had anthropometric measures taken. Relationships were determined using Pearson Product Movement correlation, $\alpha=0.05$. **RESULTS:** 21.7% of students reported an elevated risk (FINDRISC score 7-11), and 4.3% of subjects had a moderate to high risk of developing diabetes (FINDRISC >12). On average, the sample of students were overweight (BMI = $26.81 \pm 0.75 \text{ kg} \cdot \text{m}^{-2}$), and BMI was associated with diabetes risk ($r = 0.626, p = 0.001$). While diabetes risk was not correlated with the IPAQ total physical activity score ($r = 0.019, p = 0.874$), it had a modest correlation with time spent sitting ($r = 0.295, p = 0.015$). There was no association between self-reported depressive symptoms and diabetes risk ($r = 0.078, p = 0.525$). **CONCLUSION:** A substantial number of college students in South Texas are at risk for developing diabetes. Although diabetes risk was not associated with total physical activity and depressive symptoms, it was associated with time spent sitting and BMI. This suggests that in this college-age population, sitting less and reducing weight may help lower the risk of developing diabetes.