Cardiometabolic Risk Factors in Hispanic College Aged Women

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Cardiovascular disease is the number two cause of death for Hispanics in the United States. Cardiovascular disease is closely rated to high blood pressure, diabetes, hyperlipidemia, and obesity. The Center for Disease Control reported that in 2017-2018, 44.8% of Hispanics met the criteria for obesity. Current literature is unclear regarding the prevalence and severity of cardiometabolic risk factors in Hispanic women between the ages of 18-24. **PURPOSE:** The purpose of this study was to evaluate cardiometabolic risk factors in Hispanic women between the ages of 18-24. **METHODS:** Participants completed an informed consent, IPAQ, Par-Q and medical family history. Participants came to the lab on two different days. During one session, participants arrived 7:00-9:00am following a 12 hour fast; first, participants rested for 5 minutes, and resting heart rate and blood pressure was measured. We then assessed height (free-standing stadiometer), weight (digital scale), hip and waist circumference (Gullick tape), and body composition (bioelectrical impedance). We used a finger stick to assess fasted blood glucose (OneTouch glucometer) and blood lipids (Cardiochek). The second session took place between 10am-2pm as participants needed to be 2-3 hours post-fed. Participants completed two different exercise tests. Participants completed a Bruce protocol on the treadmill; heart rate and rate perceived exertion were recorded. VO₂max was calculated from ACSM metabolic equations. After, they completed a pushup test per ACSM Guidelines. Data are presented as means±SD. **RESULTS:** We evaluated 12 females (21.00±0.95 years old) in this study. Our participants had a BMI of 31.5±8.65 kg/m², a body fat of 35.10±8.69 %, and waist circumference of 38.07±5.74 in. Resting blood pressure was 130.67±13.30 mmHg (systolic) and 58.00±4.67 mmHg (diastolic). Fasted blood lipids were 150.09±24.47 mg/dl (TC), 54.18±10.15 mg/dl (HDL), 94.00±30.74 mg/dl (TG), and 77.09±22.31 mg/dl (LDL). Fasted blood glucose was 93.00±8.83 mg/dl. Calculated VO₂max was 30.88±7.09 ml/kg/min. Participants completed 18.00±7.93 push-ups. **CONCLUSION:** In conclusion we can see an increase in glucose counts as well as an increase in body mass index, waist circumference, and waist to hip ratio and a low VO₂max. **SIGNIFICANCE/NOVELTY:** Our results shows that Hispanic women between the ages of 18-24 have higher than recommended fasted glucose, systolic blood pressure, and body composition along with a low VO₂max. This is something that has not been researched and is going to help bring awareness to Hispanic women between the ages of 18-24 and help them to understand the risk factors that are very common in the Hispanic population and these risk factors began early and in order to decrease the risks and understand the importance of keeping track of your health.