Appropriateness of The Godin Leisure-Time Exercise Questionnaire to Identify Physically Active College Individuals

Mark A. Sutherlin, Kevin D. Dames, Kate Polasek. State University of New York College at Cortland, Cortland, NY

Sports medicine researchers often generalize findings to athletes, but access to athletes may be limited, forcing researchers to recruit cohorts who are not athletes but share similar characteristics. One potential cohort may consist of physically active individuals that meet the American College of Sports Medicine (ACSM) fitness guidelines. Even still, this may not include quantification of fitness levels. The Godin Leisure-Time Exercise Questionnaire (GODIN) has been used within sports medicine research, and can be used to match the ACSM cardiorespiratory fitness guidelines and quantify fitness levels. PURPOSE: To determine the ability of the GODIN questionnaire to identify physically active individuals compared to the ACSM cardiorespiratory fitness guidelines. METHODS: An online survey consisting of ACSM guidelines, specific exercises, and the GODIN questionnaire both with and without specific examples for physical activity participation was provided to a college campus. Duration of physical activity reported from the strenuous and moderate sections of the GODIN questionnaire were used to calculate the accuracy, sensitivity, and specificity of the GODIN questionnaire compared to the ACSM cardiorespiratory fitness guidelines. Receiver operating characteristic curves were also conducted to determine the area under the curve. RESULTS: A total of 169 college age individuals (21±4 years) completed the entire survey. The accuracy of the GODIN questionnaire ranged between 30-66% across all conditions. Area under the curve estimates ranged between 0.591 and 0.686, with sensitivity values between 0.02 and 0.62, and specificity scores between 0.68 and 0.97. CONCLUSIONS: The GODIN questionnaire has limited accuracy of correctly detecting both those that meet and do not meet the ACSM cardiorespiratory guidelines. However, specificity of the GODIN questionnaire is acceptable given rates of false positive and false negative outcomes. Thus, it could potentially be used to identify those who meet the ACSM cardiorespiratory guidelines.