INTRODUCTION

The American Heart Association (AHA) has developed a new metric representing ideal cardiovascular health [1]. The Life’s Simple 7 (LS7) consists of four health behavior and three health factor metrics: 1) smoking, 2) body mass index (BMI), 3) healthy diet, 4) physical activity (PA), 5) cholesterol, 6) blood pressure, and 7) diabetes mellitus. Currently, the AHA promotes meeting all seven components of the LS7 metric, considering each component equal in terms of its impact [2].

PURPOSE

The aim of this study was to examine specifically the contribution of PA to the LS7 metric and its relationship to health-related quality of life (HRQOL).

METHODS

Study design: Data for this study came from a large national cross-sectional survey conducted in 2015 [3].

Sample size and composition: A total of N=46,498 adults 50+ years of age, who answered all relevant survey questions, and resided in a rural U.S. county were included.

Variables utilized: HRQOL was the outcome variable for all analyses. Independent variables consisted of the number of LS7 metrics both including and excluding PA as a metric.

Statistical analyses: One set of analyses were performed with those meeting the PA metric excluded and one set with those meeting the PA metric included. Multiple logistic regression was used to compute odds ratios (ORs) and 95% confidence intervals (CIs) while adjusting for age, sex, race, and income [4]. All analyses were performed using SAS [5].

MEASURES

Assessment of HRQOL: HRQOL was assessed using the CDC Healthy Days Index and dichotomized to represent good or poor health [6].

RESULTS

Table 1 shows that prevalence of good HRQOL increased linearly (59.0%, 68.9%, 75.1%, 80.4%, 84.2%, 89.6%, & 90.0%, p<.001) across adult groups meeting 0 to 6 LS7 metrics, respectively. Adjusted models with those meeting PA excluded showed increased odds of reporting good HRQOL in adults meeting 1 (OR=2.16; 95% CI: 1.74-2.67), 2 (2.40; 2.01-2.88), 3 (2.61; 2.13-3.21), 4 (3.08; 2.32-4.08), and 5+ (4.56; 2.67-7.78) LS7 metrics (Table 3). Adjusted models with those meeting PA included showed mostly greater odds of reporting good HRQOL in adults meeting 1 (1.71; 1.55-1.87), 2 (3.78; 3.03-4.73), 3 (4.69; 3.72-5.93), 4 (6.66; 5.01-8.86), and 5+ (6.76; 5.22-8.74) LS7 metrics (Table 3).

CONCLUSIONS

Results from this study show that the LS7 metric is a stronger predictor of HRQOL when PA is met in older rural U.S. adults. Health promotion programs should emphasize the importance of meeting PA to the LS7 metric.

REFERENCES