

# Characterization of Physical Activity and Association with Self-Rated Health in Homeless Individuals

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## Background

- Homelessness affects approximately 6% of the United States population.
- Individuals who are homeless are known to have multiple health disparities, potentially affected by a lack of physical activity.
- Little to no research currently exists examining the association between physical activity and self-rated health among an adult homeless population.
- Research suggests that self-rated health is a valid and reliable predictor of premature morbidity and mortality.
- This study aims to characterize physical activity and delineate its association with self-rated health among a large sample of homeless adults.

## Methodology

**Participants:** Homeless adult participants were recruited from Dallas and Oklahoma City (N=711, 66.4% men,  $M_{age} = 43.6 \pm 12$ ). Following provision of informed consent, participants completed questionnaires administered via laptop. Upon completion, participants were given a \$20 department store gift card.

### Measures:

- Sociodemographic Variables: sex, race, age, education, lifetime months homeless, weight status, serious mental illness, at-risk drinking, smoking status, and recruitment site
- Main Variables: Self-reported physical activity in minutes measured via the Behavioral Risk Factor Surveillance System (BRFSS) Physical Activity Questionnaire. Self-rated health was assessed with a single item asking participants to rate their health in general, and categorized as excellent/very good/good vs. fair/poor

**Analysis:** Associations between variables were examined using biserial correlations adjusted for sex, race, age, education, lifetime months homeless, weight status, serious mental illness, at-risk drinking, smoking status, and recruitment site.



## Participants' Characteristics (N=711)

Variables of Interest	M (SD) / % [N]
<b>Sex</b>	
Male	66.39 [472]
Female	33.61 [239]
<b>Race</b>	
White	48.52 [345]
Minority	51.48 [366]
Age	43.63 (12.03)
Educational attainment (in years)	11.96 (2.01)
Lifetime homelessness (in months)	43.75 (52.04)
<b>Weight Status</b>	
Underweight/Normal weight	38.82 [276]
Overweight	29.68 [211]
Obese	31.5 [224]
<b>Serious Mental Illness</b>	
No	33.61 [239]
Yes	66.39 [472]
<b>At-risk drinking</b>	
No	63.85 [454]
Yes	36.15 [257]
<b>Smoking status</b>	
No	19.55 [139]
Yes	80.45 [572]
<b>Recruitment site</b>	
Dallas	27.85 [198]
Oklahoma City	72.15 [513]

## Results

- On average, participants reported 812.9±1459.8 minutes (13.5±24 hours) of physical activity over a week; 34.2% reported fair/poor health (see box 4)
- Physical activity was negatively associated with fair/poor health ( $r=-0.10996$ ;  $p=0.0036$ ).
- Findings suggest that as physical activity increased, the likelihood of reporting fair/poor health decreased.
- Notable to mention, with regard to participant weight status, 61.2% were considered overweight or obese.
- See box #3 for all participant characteristics.

Main Variables	M (SD) / % [N]
<b>Self-rated health</b>	
Excellent, very good, or good	65.82 [468]
Fair or poor	34.18 [243]
Total weekly physical activity (in minutes)	812.86 (1459.79)

## Conclusions

- Given that physical activity was negatively associated with fair/poor self-rated health, results suggest that physical activity promotion may hold promise for improving self-rated health.
- Engendering a greater understanding of the association between physical activity and self-rated health within this vulnerable group has significant implications for public health.
- In addition, these findings are important to consider when targeting areas to implement intervention programs focused on the promotion of physical activity and improving overall homeless health and well-being.

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