

Effect of Walking Trail on Rural Communities in Southeast Missouri

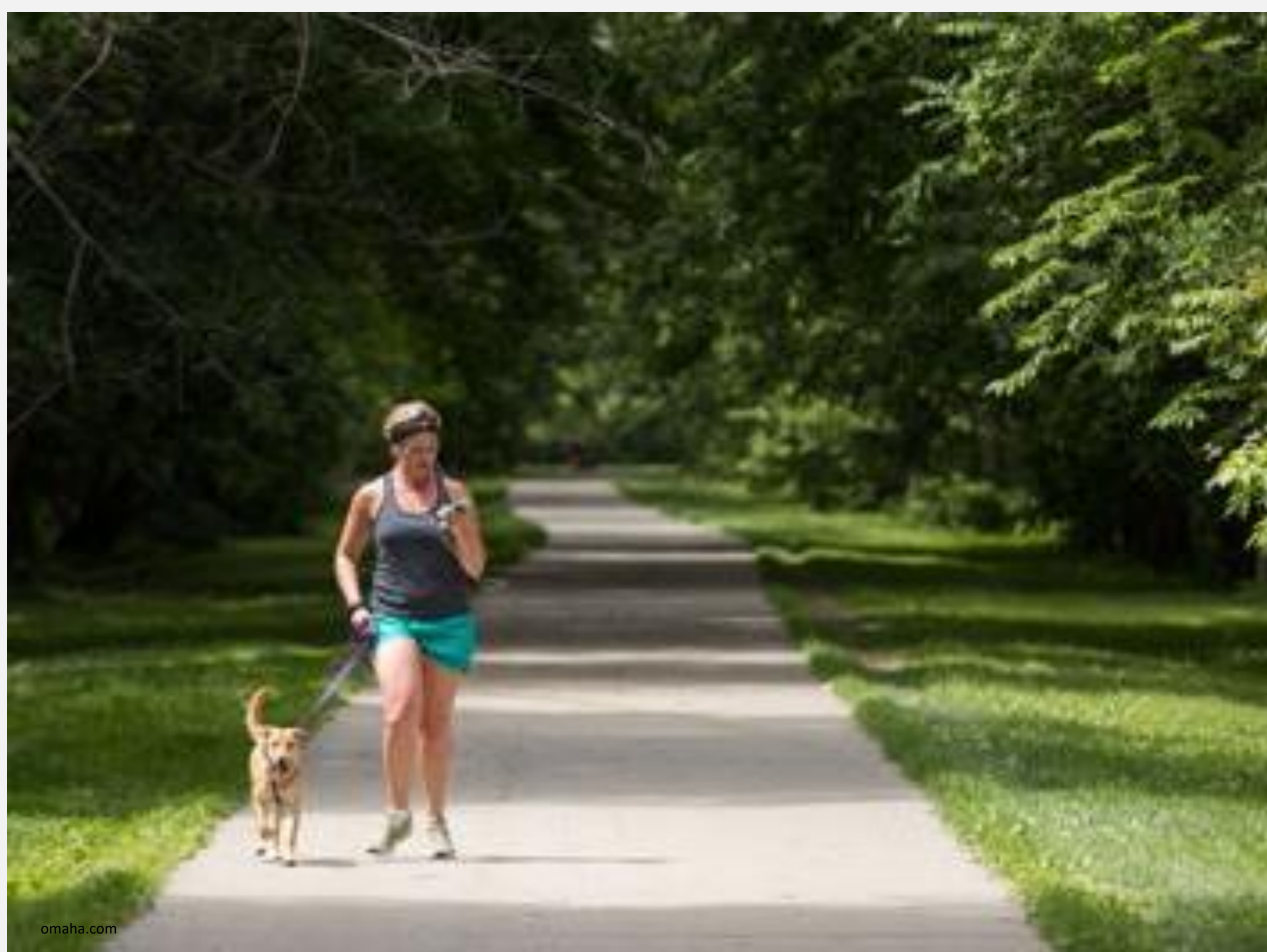
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Background

- Scientific evidences show physical activity (PA) is associated with decreased risk of several chronic diseases such as obesity, diabetes, heart disease, cancer.
- About 80% of the adult population across the US don't meet the recommended PA per week; and this is disproportionately higher in rural areas.
- Environmental interventions, such as walking trails, have been promoted in rural communities to increase PA, but less evidence exists on their effectiveness.
- This study attempts to address this gap through understating how trail use is associated with PA, weight status, and self rated health.

Method

- A cross-sectional telephone survey was used in 12 rural communities to collect data form population based sample of residence aged > 18 years (n=817).
- Data were coded and entered to SPSS for analysis. Descriptive analysis conducted to describe characteristics of the sample.
- Logistic regression was used to examine the association between trail use and PA (meeting recommended PA guidelines vs. not), Weigh status (overweight/ obese vs. normal/underweight), and self rated health (high vs. low).



Funding Source:

National Institutes of Health/National Cancer Institute
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Result

Effect of walking trail on rural communities, Missouri, 2019-2020

Predictors	Physical Activity		Weight Status		Self-rated Health	
	OR	95% CI	OR	95% CI	OR	95% CI
Frequency of trail use						
At least once a week	2.07*	1.38, 3.11	0.64	0.41, 1.00	2.01*	1.34, 3.02
At least once a month	1.43	0.89, 2.29	0.86	0.50, 1.49	1.15	0.71, 1.87
Rarely/ never	1		1		1	
Gender						
Men	2.08*	1.44, 2.99	1.27	0.84, 1.92	1.70	0.81, 1.69
women	1		1		1	
Age						
18-29	4.06*	2.05, 8.06	1.57	0.75, 3.28	0.63	0.32, 1.23
30-44	2.94*	1.83, 4.73	1.37	0.82, 2.31	0.42*	0.26, 0.68
45-64	1.86*	1.26, 2.73	1.69	1.09, 2.61	0.44*	0.30, 0.66
+60	1		1		1	
Household Income						
< \$10,000	0.64	0.35, 1.20	0.72	0.37, 1.41	0.32*	0.16, 0.65
\$10,000 to < \$20,000	0.47*	0.29, 0.78	1.39	0.79, 2.45	0.26*	0.15, 0.45
\$20,000 to < \$35,000	0.74	0.48, 1.15	1.30	0.77, 2.19	0.54*	0.34, 0.84
> \$35,000	1		1		1	
Education						
< High school graduate	1.56	0.78, 3.13	0.54	0.26, 1.10	0.35	0.15, 0.83
High school graduate	1.26	0.82, 1.94	0.85	0.52, 1.38	0.87	0.56, 1.32
Some college	1.40	0.90, 2.20	1.12	0.67, 1.88	0.68	0.43, 1.06
College degree	1		1		1	
Race						
Black	1.24	0.76, 2.03	1.70	0.93, 3.10	0.66	0.38, 1.13
Other	2.08	0.77, 5.61	0.55	0.20, 1.50	0.45	0.14, 1.44
White	1		1		1	

* P< 0.05

Result

- Among respondents majority were female (71%), white (83%); and 38% were aged above 65 years, 41% had college degree, and 43% of them had income > 35, 000.
- Approximately 60% of participants don't use trail. Half of the sample meet recommended PA guidelines, 71% are overweight or obese, and 61% reported low self-rated health.
- Controlling for gender, age, income, education, and race, those who use trail at least once a week are significantly more likely to meet recommended PA guidelines compared to those who never or rarely use trails (odds ratio [OR] = 2.07; 95% confidence interval [CI], 1.38–3.11).
- Controlling for gender, age, income, education, and race, those who use trail at least one a week are significantly more likely to report higher self-rated health compared to those who never or rarely use trails (odds ratio [OR] = 2.01; 95% confidence interval [CI], 1.34–3.02).

This study finds a significant association between trail use and meeting PA guidelines and self-rated health in rural southeastern communities; which provides evidence on effectiveness of trails as free community resources in promoting health in rural communities.