

The Association of Perceived Cancer Risk with Aerobic Physical Activity in US Adults

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INTRODUCTION

- Physical activity has been linked to risk reduction in colorectal and breast cancers.
- Actual cancer risk, which is based on established risk factors (e.g., genetic predisposition), has been extensively studied in relation to physical activity.
- However, limited research has examined the relationship between a self-reported perceived risk of cancer (i.e. breast and colorectal cancer) and meeting the aerobic physical activity guideline.

PURPOSE:

- To examine the association between perceived cancer (i.e. breast and colorectal) risk and meeting the current aerobic physical activity guideline.

METHODS

STUDY POPULATION

National Health Interview Survey (NHIS) 2015

- Analyses included 32,489 NHIS participants aged ≥ 18 years

KEY STUDY MEASURES

Perceived Cancer Risk

- Perceived breast cancer risk was measured by this question:
 - Compared to the average woman your age, would you say that you are more likely to have breast cancer, less likely, or about as likely?
- Perceived colorectal cancer risk was measured by:
 - Compared to the average (man/woman) your age, would you say that you are more likely to have colon or rectal cancer, less likely, or about as likely?

Aerobic Physical Activity

- Categories were developed based on recommendations:
 - Met recommendation (≥ 150 min of moderate-vigorous physical activity or ≥ 75 min of vigorous physical activity or 150 min of moderate physical activity/week)
 - Some activity (>0 min/week of activity but less than recommendation)
 - None (0 min/week)

STATISTICAL ANALYSES

- Multinomial logistic regression models were used to estimate likelihood of engaging in some aerobic activity and meeting the aerobic physical activity recommendation.

RESULTS

Table 1. Selected Participant Characteristics

Characteristic	Total Sample
N	32,489
Age, years	47.19
Male, %	48.13
Race/ethnicity, %	
Non-Latino White	66.30
Latino	15.73
Non-Latino Black	12.12
Non-Latino Asian	5.85
Less than high school, %	12.51
Has insurance coverage, %	89.72
Perceived Risk of Breast Cancer, % (only among women=15,778)	
Less than average risk	40.22
Average risk	48.15
Higher than average risk	11.63
Perceived Risk of Colorectal Cancer, % (N=16,711)	
Less than average risk	6.40
Average risk	48.47
Higher than average risk	45.13
Aerobic Physical Activity, %	
None	30.83
Some	19.96
Met Recommendation	49.21

Table 2. Associations of Perceived Breast Cancer Risk with Aerobic Physical Activity (N=15,778)*

Perceived Risk of Breast Cancer	Some vs. None	Met Recommendation vs. None
	OR (95% CI)	OR (95% CI)
Less than average risk	1.00	1.00
Average risk	1.02 (0.89-1.17)	0.86 (0.76-0.97)
Higher than average risk	1.05 (0.85-1.28)	0.77 (0.65-0.91)

*Adjusted for age, education, race/ethnicity, and insurance.

Table 3. Associations of Perceived Colorectal Cancer Risk with Aerobic Physical Activity (N=16,711)*

Perceived Risk of Colorectal Cancer	Some vs. None	Met Recommendation vs. None
	OR (95% CI)	OR (95% CI)
Less than average risk	1.00	1.00
Average risk	1.18 (0.98-1.42)	1.25 (1.07-1.47)
Higher than average risk	1.22 (1.01-1.48)	1.60 (1.37-1.86)

*Adjusted for age, gender, education, race/ethnicity, and insurance.

CONCLUSIONS

- Women who perceive themselves at higher than average, and average risk for breast cancer are significantly less likely to meet the aerobic activity recommendation, relative to engaging in no activity.
- Individuals who perceive themselves at higher than average risk for colorectal cancer are more likely to engage in some physical activity and to meet the aerobic activity recommendation.
- Individuals who perceive themselves at average risk for colorectal cancer are more likely to meet the aerobic activity recommendation.
- Health promotion programs should continue efforts to increase awareness about the benefits of physical activity in cancer risk reduction, especially in relation to breast cancer.

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