

## Fatalism About Cancer Prevention May Prove Fatal

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### MedPage Today Action Points

Explain to patients who ask that three strategies shown to be effective at reducing cancer risk are regular exercise, not smoking, and consumption of at least five servings of fruits and vegetables daily.

Explain to interested patients that this study found an association between fatalistic beliefs and decreased use of known strategies to reduce risk.

Point out however that as a cross-sectional survey, the results cannot speak to the causal direction of the associations found.

### Review

MADISON, Wis., May 18 -- Americans who consider cancer to be just one of those things, a disease that is essentially random and capricious, are significantly more likely to become a statistic, found researchers here.

People who believe there's not much they can do to prevent cancer may raise their risk of a malignancy by not even trying, reported Jeff Niederdeppe, Ph.D., of the University of Wisconsin and Andrea Gurmankin Levy, Ph.D., of the Dana-Farber Cancer Institute and Harvard School of Public Health, in the May issue of *Cancer Epidemiology, Biomarkers & Prevention*.

Among a random sample of more than 6,300 adult Americans, those who said that they thought cancer was inevitable were significantly less likely to eat a healthy diet, exercise, or shun cigarettes.

"Many Americans seem to feel afraid and helpless in regards to cancer, which may be exacerbated by conflicting news reports and a general lack of education on the causes and prevention of cancer," said Dr. Niederdeppe. "They say 'well, there is nothing much you can do about it,' and, as our survey shows, they indeed do nothing about it."

The investigators looked at the relationship between cancer risk-avoiding behaviors and attitudes regarding cancer. They culled their data from the first wave of the Health Information National Trends

Survey (HINTS 2003).

In the HINTS study, adults throughout the United States reached by random-digit dialing were interviewed about their knowledge, attitudes, and behaviors about cancer. The investigators interviewed 6,369 men and women age 18 years and older. African Americans and Hispanic American communities were intentionally oversampled to provide more minority representation.

**The respondents were asked to report their level of agreement with three statements:**

"It seems like almost everything causes cancer."

"There's not much people can do to lower their chances of getting cancer."

"There are so many recommendations about preventing cancer, it's hard to know which ones to follow."

"These beliefs address components of fatalism, including pessimism ("everything causes cancer. . ."), helplessness ("there's not much. . ."), and confusion ("hard to know. . .").", the authors wrote.

The response to each statement was accorded a score on a five-point Likert scale, ranging from strongly disagree to strongly agree. The authors compared responses with three reported prevention behaviors: physical activity, not smoking, and fruit and vegetable consumption.

The investigators assessed physical activity by asking whether respondents engaged in regular sweat-producing exercise at least once a week. Respondents were also asked whether they currently smoked cigarettes, and how often they ate fruit, drank 100% fruit juice, and ate vegetables.

They authors found that 47.1% of respondents agreed or strongly agreed that "everything causes cancer," and 27% agreed or strongly agreed that "there's not much a person can do."

In addition, 71.5% of respondents agreed, strongly or otherwise, with the statement "it's hard to know which [recommendations] to follow."

When it came to the prevention behaviors, a little more than half (54.4%) said they exercised enough to work up a sweat at least once a week. Respondents did better at avoid smoking, with 77.8% non-smokers, but much worse at fruit and vegetable consumptions, with just 13.5% reporting that they ate five servings of fruits and vegetables daily.

Cancer fatalism in the study was strongly and negatively associated with education. Respondents who had not earned a high school degree, those who completed high school but did not go on to college, and those who had some college or trade school education short of a degree were more likely to agree with each of the three statements than college graduates.

But while other studies suggested that minority populations may be more fatalistic about cancer, the survey showed that English-speaking Hispanic and African American respondents were less likely than non-Hispanic whites to believe that "everything causes cancer," and English-speaking Hispanic respondents were also less likely than non-Hispanic to report a believe that "it's hard to know..."

In a multivariate analysis controlling for sociodemographic characteristics (race/ethnicity, education, income, and employment) the authors found that fatalistic beliefs about cancer prevention were negatively associated with exercising weekly, not smoking, and eating five or more fruits and vegetables daily.

"In light of these associations, the sheer prevalence of fatalistic beliefs about cancer prevention among US adults is a cause for concern," Dr. Niederdeppe and Dr. Gurmankin Levy wrote. "Despite tremendous improvements in the availability of cancer information in the past two decades (e.g., via the Internet), there seems to have been little progress in changing the belief that "everything causes cancer."

" The fact that only slightly more than a quarter of respondents believed that "there's not much people can do. . ." might be viewed as evidence of successful cancer communication and education over the past 20 years," they continued. "However, the fact that almost three out of four respondents indicated that "there are so many recommendations. . . it's hard to know which ones to follow" suggests a sizeable disconnect between the knowledge that one can reduce cancer risk and clarity about how that should be done."

The authors acknowledged that the study was limited by its cross-sectional design, which does not allow for an examination of the possible causes for associations observed.

Thus, they wrote, "It is possible that the reverse pathway—that those who do not engage in health behaviors rationalize this by endorsing fatalistic beliefs about cancer—explains the associations found."

The also pointed out that the study was limited by the relatively low (34.%%) response rate, which could mean that the sample is not truly representative of a national population.

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Niederdeppe A and Gurmankin Levy A. "[Fatalistic Beliefs about Cancer Prevention and Three Prevention Behaviors.](#)" *Cancer Epidemiol Biomarkers Prev* 2007;16(5):998-1003.

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