Fatalism May Fuel Cancer-Causing Behaviors

By Charlie Schmidt

One of the most important concepts in public health today is that many cancers are avoidable through exercise, eating right, and not smoking. What’s more, death rates for the 10 most common cancers have declined steadily, reflecting treatment advances. But even so, millions of people hold fatalistic views on cancer.

Fatalism has been shown repeatedly to thwart screening and treatment; those who believe cancer is a guaranteed death sentence typically don’t pursue early detection, says Barbara Powe, Ph.D., who directs underserved population research at the American Cancer Society. Now, a new study has found that fatalism also deters people from taking basic steps to prevent cancer. Lead author Jeff Niederdeppe, Ph.D., an associate professor of population health at the University of Wisconsin–Madison, says the study reveals widespread confusion among Americans about the causes of cancer and pessimism about their chances of preventing it. “We were surprised at how pervasive these views are,” he says of the study, published in May in Cancer Epidemiology, Biomarkers, and Prevention. “There’s been an explosion of information about cancer, and solid recommendations about prevention, but many people still feel like there’s nothing they can do to avoid it.”

Niederdeppe and his colleague Andrea Gurmankin Levy, Ph.D., an assistant professor at the Harvard School of Public Health in Boston, analyzed phone interview data from NCI’s Health Information National Trends Survey, gathered in 2003. Their findings show that 47% of the more than 6,000 Americans queried felt that “everything causes cancer,” while 27% agreed there is “not much people can do to lower their chances of getting cancer.” Another 71.5% said that “there are so many recommendations about preventing cancer, it’s hard to know which ones to follow.”

Those who held fatalistic beliefs, the researchers found, were also less likely to get regular exercise, less likely to eat fruits and vegetables, and more likely to smoke. Smoking is of particular concern because 30% of U.S. cancer deaths can be attributed to smoking. In Niederdeppe’s view, the combined evidence suggests that those who hold fatalistic beliefs about cancer are less likely to lead healthy lifestyles, which in turn increases their risk.

Niederdeppe found that fatalistic beliefs about cancer prevention tend to be strongest among those without a high school or college degree, even after controlling for socioeconomic status (SES). At first, that conclusion contrasts with earlier findings, which show more evidence of fatalism among those with lower SES and with low income in particular. However, most prior investigations have evaluated fatalism in regard to cancer screening and survival—not prevention behavior—so their findings may not be comparable to Niederdeppe’s results. “This is an area that needs further study,” Powe says. “But I’d suggest you can’t separate these things: Education and SES tend to be intertwined.”

Communication Breakdown
Kasisomayajula Viswanath, Ph.D., an associate professor at the Dana-Farber Cancer Institute and the Harvard School of Public Health, attributes fatalism in part to the evolving nature of cancer research, which he says is difficult to communicate. In this dynamic environment, findings reported one month can be reversed the next. High-fiber diets, for instance, were once thought to have cancer-preventing properties that were later shown to be negligible. But too often, Viswanath says, journalists report new findings without reference to the findings’ underlying uncertainty. Faced with a litany of conflicting results, some in the public may become cynical about cancer prevention, he says.

What’s more, government agencies and private institutions rarely collaborate on published recommendations about cancer prevention, Viswanath adds. “All these organizations have their own Web sites on disease topics,” he says. “People are confused because there are so many recommendations; they don’t know which ones to trust.”

In Niederdeppe’s view, ongoing debates over more speculative prevention measures—such as the benefits of high-fiber diets—obscure basic recommendations with a proven history.

But efforts to deliver messages backed up by consistent, high-quality evidence to those without a high school or college education face some unique challenges, Viswanath says. For instance, people that are less educated are likely to have lower literacy rates and may therefore get more health information from television. “And most TV new stories run from just 20 seconds to a maximum of 2.5 minutes,” Viswanath says. “They don’t offer sufficient depth and are often not very helpful to the viewer.” Moreover, cancer issues tend to be more complicated than even the scientists convey, which makes them hard to explain to people. People who are more educated, on the other hand, are more likely to possess the skills needed to make sense of scientific information. “They learn about probability and that scientific conclusions are based on evidence that accumulates over time,” Niederdeppe explains.

What Niederdeppe’s results don’t explain is how fatalism plays into some people’s ambivalence about prevention. Do people become ambivalent about prevention because they hold fatalistic views about cancer, or do they use fatalism to justify unhealthy lifestyles that they might be leading anyway? “We’re hoping to tease that out,” he says. “We can’t say for sure on the basis of this study. What we need to do is follow people over time to see if fatalistic beliefs precede changes in prevention behavior.”

An Effect From Poverty
While education is one factor, poverty may play a key role in fatalism because poor
people often cannot act on prevention recommendations. For instance, people who live in dangerous neighborhoods may be reluctant to exercise outdoors or cannot afford fresh fruits and vegetables. And that sense of powerlessness, Powe suggests, might also play into a preponderance of fatalism among poorer, less educated people.

Ultimately, fatalism tends to be fueled by experience, Powe says. Lacking access to health insurance and information, people experience higher cancer mortality rates. Community members thus begin to associate cancer with inevitable death, leading to a spiraling, self-fulfilling prophecy that cancer is always fatal. But Powe says that fatalism isn’t necessarily an all-or-nothing affair; someone might be convinced that if diagnosed with cancer he will die, but that doesn’t mean he won’t take steps to prevent it, she says. The question is how fatalistic perceptions in general about cancer can be shifted in a more favorable direction. “We need to figure out where to intervene,” Powe explains. “And the interventions need to be robust, so that they cross communities and generations.”

Viswanath concedes that the media have yet to convey prevention information effectively. To be useful, he says, the information must be packaged in ways that can be easily understood and adopted. Viswanath is currently developing a media project at Harvard that will train journalists and scientists on how to improve health coverage. “We have to reinforce basic messages,” he explains. “New findings come out all the time, but the fundamentals don’t change—there’s only a few things that people have to do to cut down on risk: mainly don’t smoke, eat a good diet, exercise, and get regular screening. We have to get that message across despite the confusion over other recommendations.”

Toward that end, Niederdeppe suggests that researchers should strive to identify and target sources of fatalism. For instance, if fatalistic beliefs can be attributed to information overload—particularly among populations that are less educated—then health communicators should focus on messages that can be easily disseminated and understood by those with less education.

But fatalism is a systemic problem with systemic consequences—studies repeatedly show that blacks, Hispanics, and those from a lower SES suffer a disproportionate share of the cancer burden. Fatalism perpetuates that discrepancy and therefore suggests a public-health opportunity, experts say. Indeed, past efforts to intervene in fatalism have sometimes proven successful. For instance, Powe showed that reducing fatalistic beliefs about cancer among senior citizens living in the rural South was possible. Because of those efforts, seniors were more willing to participate in fecal-occult blood testing, a screen for colorectal cancer. More intervention opportunities will emerge as researchers untangle the complementary effects of SES, race, ethnicity, on knowledge about cancer, she says.

“We’re facing some big unknowns,” she concedes. “We still don’t know how to reverse these perceptions about prevention, and we don’t know when they become strong enough to have a negative effect on behavior. This is a very complicated question and it’s much bigger than cancer.”