

## **Harnessing Social Media to Share Science on Breast Cancer and the Environment**

**Narrator:** We are constantly inundated with information about the latest health issues and environmental concerns from multiple sources – television, radio, and social media. Such diverse issues with sometimes mixed messages can be difficult to understand. It's easy to feel confused about what you can or should do. Environmental health communication has a critical role in helping people understand the complex relationship between our environment and our health, as well as navigating the many messages shared through different communication channels. Health communication can help guide health-protective behaviors by empowering people with information about what the science really means and why it is important to them, and offering solutions to reduce their exposure to harmful chemicals. But how can researchers and health professionals make sure that environmental health information is shared in a meaningful way?

I sat down with Dr. Carla Fisher, an associate professor at the University of Florida, who created and leads a team of interdisciplinary scholars, clinicians, students, and community partners who work together to identify best practices for communicating health information to the public – a field called health communication research. She says that engaging directly with communities and stakeholders is important for improving environmental health communication.

**Fisher:** The community members are the insiders, so they can tell us how best to get the information out there and tailor it in a way that will speak to them. We've found that when you have a community engaged approach, you create a bridge between the science and the community that you're trying to reach and whose questions you are trying to answer. So it's really critical for the scientists and stakeholders within the community to work together to improve environmental health communication.

**Narrator:** One topic Fisher is particularly passionate about is communicating the environmental factors involved in breast cancer to help people find ways to reduce harmful exposures, and to better cope with the disease. Her research has focused on the relationship between mothers and daughters, especially after a mother is diagnosed, and how to promote healthy communication as they take on the disease together.

**Fisher:** Research shows that when women have daughters, breast cancer is very much a mother/daughter experience. Their relationship is unique and powerful, so they can be a primary source of support for each other and influence each other's decisions and behaviors. I've really centered on helping mothers and daughters navigate coping with the disease together, and talking about their risk with healthcare providers and with each other at home. I've tried to focus on making those conversations healthy and productive, knowing that if we have them early, we have a better opportunity of influencing the daughter's behaviors to reduce her risk of developing breast cancer later on.

**Narrator:** In 2017, Fisher and colleague Kevin Wright of George Mason University received an NIEHS grant to work with the NIEHS Breast Cancer and the Environment Research Program (BCERP).

They focused on translating and sharing information that the BCERP scientists had identified about the environmental factors involved in increasing breast cancer risk so that the complex research results could be accessible and useful to the public.

**Fisher:** That work allowed us to become a part of this incredible multidisciplinary network where the scientists have been working together and building collaborations to better understand the role of the

environment in increasing breast cancer risk, but they are also really concerned with how to best get important scientific findings to the public.

Some of the literature has told us that environmental risks can be very complicated to understand. The information is changing rapidly and so it's hard to keep up with. When information comes from different sources, there can also be confusion or conflicting messages. It can make having those conversations about environmental health especially challenging.

And so we pitched the idea of a social media intervention and teaming with mommy bloggers to make sure that we could make the messages that were already out there created by BCERP more culturally appropriate and useful.

**Narrator:** Fisher explained that mommy bloggers are part of a growing community focused on communicating with moms about topics of concern to them, such as health. Her research has shown that women are increasingly turning to mommy bloggers as trusted sources of information when making health decisions. They also have a wide online presence, meaning they can reach a large, diverse audience.

**Fisher:** We wanted to get scientifically accurate information out there in a way that would be persuasive to women to change their perceptions about how environmental factors influence their risk for breast cancer. We also wanted to increase their willingness to make changes to reduce their own risks, and to then share that information with daughters. Our goal is to open up the dialogue about making decisions together that lead to healthier habits to reduce their risk.

We chose mommy bloggers because they are very successful at tailoring their messages and using approaches, like photographs or humor, that resonate with their audience. They have a readership that identifies with them, follows them, and develops a relationship within that broader community. So for us it was a great opportunity to get insight about what these messages should look like and how to make them relatable.

**Narrator:** Fisher and her team leveraged a wealth of information and resources developed by BCERP researchers available on the BCERP website, and tailored it for a social media intervention. The intervention focused on using a simple infographic to highlight daily actionable steps for mothers and daughters to decrease their exposure to environmental factors linked to breast cancer.

They worked with 75 mommy bloggers who agreed to incorporate the tailored infographic into a blog post during breast cancer awareness month and promote it through social media. Then, Fisher and her team compared 400 mommy blog readers with 300 non-readers to see if readers remembered the information and found it useful.

**Fisher:** We found that women who were exposed to the intervention reported being more satisfied with the breast cancer risk and prevention information they saw and more likely to share it with their daughters. Now we know that with this particular approach that we can get the information out there, hit a large group of mothers, and change the way they think about environmental risks for breast cancer.

**Narrator:** Fisher explained that when they talked to bloggers and readers about tailoring messages to be more culturally appropriate, they found key themes that speak to women broadly across many

groups. The most prominent was the importance of involving the entire family, from grandparents to grandchildren, in conversations about environmental factors and breast cancer. She also noted that working closely with the bloggers helped blend scientifically accurate information with distinct messaging styles for the blogger's particular audience.

So what are the key messages they shared with mommy bloggers, and how might they be useful for you? Fisher explained the infographic they used and the four daily actionable steps. First, reduce your use of products with phthalates, found in some personal care products. Second, avoid products with BPA, a chemical found in some plastic containers and in the lining of some cans. Third, make healthier choices by using glass over plastic, selecting more natural products, and eating fresh rather than prepared foods. Lastly, live a healthy, active lifestyle, limiting high fat foods and including more whole grains and beans in your diet.

Fisher says the most important take-home is to make healthier choices together within your family and make it a part of your family practice. You can even start with one change and build from there over time.

You can find more information about the BCERP program and how scientific messages are being tailored to communicate online at our website at [niehs.nih.gov/podcasts](http://niehs.nih.gov/podcasts).

Thanks to today's guest, Dr. Carla Fisher, for joining us.

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