Do Mothers React to More Info about Chemical Risks? The Answer May Surprise You

Mothers who are pregnant or have young children would be expected to be more concerned about protecting their offspring from environmental risks that are reported most in the news, but a new study raises doubts about that conventional wisdom.

Washington, D.C.—New and expectant mothers surprisingly were not motivated to adopt greater protective actions against the chemicals most often covered in the news, according to a new study whose results fly in the face of research and common sense that suggest greater media coverage of environmental risks will lead to a more robust precautionary response by mothers.

Based on the study results, “it does not seem like more information is necessarily more persuasive or effective,” according to health communication experts Susan Mello of Northeastern University’s Department of Communication Studies and Robert Hornik of the University of Pennsylvania’s Annenberg School of Communication. Such a conclusion has implications for risk communicators, including those seeking to disseminate messages about imperceptible environmental risks to human health through earned media—such as scientists, health professionals, government regulators, and others—the authors added.

“In an earlier study, we found that pesticides garner a lot of media attention when compared to other chemical risks to children, including bisphenol A (BPA) and arsenic,” all of which the U.S. Environmental Protection Agency deems to be significant risks, said Mello. That result would lead one to expect that pesticide news should prompt mothers to most vigilantly guard against pesticide exposures. But in their follow-up study, the researchers found that while media exposure was significantly linked to more protective behaviors for all three chemicals, mothers responded most protectively to media information in the context of BPA. The new study, “Media coverage of pediatric environmental health risks and its effects on mothers’ protective behaviors,” appeared in the online version of Risk Analysis, a publication of the Society for Risk Analysis.

Scientific studies suggest that media coverage may directly or indirectly “prime” certain risk perceptions among audiences and thereby influence their individual behavior in response to the risks. News media have the potential to be especially influential since, according to a recent survey, doctors struggle to find time to discuss these environmental issues with their patients. Studies on how media prime risk perceptions also suggest that individuals will readily remember
environmental risk issues that have been reported more recently and frequently, thus making such news more salient and influential in decision making.

But that conclusion was not entirely supported by this latest research. For their study, Mello and Hornik first examined 2,543 news items about pediatric environmental health risks reported through parenting magazines, websites, and other news sources from September 2012 to February 2013. The levels of media coverage for pesticides, BPA, and arsenic differed significantly. Stories about pesticides were most prevalent (264), followed by BPA (168) and arsenic (42). After analyzing news coverage levels, the researchers administered a survey in March 2013 to 822 new and expectant mothers to determine if they incidentally encountered, or “scanned,” news about chemicals in the prior 6 months and how such scanning was related to their behavior to reduce chemical exposures that might affect their offspring. Unexpectedly, the association between scanning and protective actions was strongest for BPA-related behaviors, such as buying BPA-free products.

“But why?” Mello asked. “We speculate that the relative novelty of BPA as an environmental health threat could give media an edge in increasing recognition rates and, subsequently, behavior. It’s also possible that BPA-free labeling makes it easier for moms to apply this information when making purchasing decisions,” Mello said. Moreover, “Mass media has a tendency to cover new, unfamiliar risks, which in this context could have negative consequences. If certain chemicals receive coverage that are not yet well understood by scientists or not easily managed by individuals, even smaller amounts of media attention could impact mothers’ psychological or behavioral responses,” Mello added.

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