

LAY ABSTRACT

TITLE: Scientific Message Translation and the Heuristic Systematic Model: Insights for Designing Educational Messages About Progesterone and Breast Cancer Risks

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SCIENTIFIC ABSTRACT

Results of ongoing scientific research on environmental determinants of breast cancer are not typically presented to the public in ways they can easily understand and use to take preventive actions. In this study, results of scientific studies on progesterone exposure as a risk factor for breast cancer were translated into high and low literacy level messages. Using the heuristic systematic model, this study examined how ability, motivation, and message processing (heuristic and systematic) influenced perceptions of risk beliefs and negative attitudes about progesterone exposure among women who read the translated scientific messages. Among the 1254 participants, those given the higher literacy level message had greater perceptions of risk about progesterone. Heuristic message cues of source credibility and perceived message quality, as well as motivation, also predicted risk beliefs. Finally, risk beliefs were a strong predictor of negative attitudes about exposure to progesterone. The results can help improve health education message design in terms of practitioners having better knowledge of message features that are the most persuasive to the target audiences on this topic.

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Background

Research is being done to learn about causes of breast cancer. Some of this research looks at how items in the environment can lead to breast cancer. The public often does not get much information about these studies. One goal of this project was to learn how to create messages to get this information to the public so it can be helpful to women. This study gave women messages about research showing how a hormone called progesterone can lead to breast cancer. This study looked at how women think about risks from progesterone. It also looked at their attitudes about progesterone.

Method

There were 1,254 women in this study. They were from the Dr. Susan Love Research Foundation's Army of Women. The women read messages about how progesterone can lead to breast cancer. One message was at an 8th grade level and the other was at an 11th grade level. The 11th grade message was written by scientists who did the research. Half of the women read the 8th grade message and half read the 11th grade message.

Findings

Women who read the 11th grade message tended to have stronger beliefs about risk for breast cancer from progesterone. The women who were more involved with how the environment can impact breast cancer risk also had stronger beliefs about the risks. The women also rated the quality of the message and the credibility of the message source. Women who gave higher ratings tended to think there is more risk for breast cancer from progesterone. Last, women who thought there was higher risk from progesterone had more negative attitudes about progesterone.

Importance for Health

It is helpful for women know about new breast cancer research. This will give them the chance to prevent it. This study shows an example of a project where a team from different areas and the community worked together. Scientists gave information to communication experts to create messages to let women know about the findings. This study also shows that the way messages are designed can be important for how women think about breast cancer risks and form attitudes.