Confused about GMOs? Blame it on your poor math education

A person's math skills may impact how well they understand messages and information about scientific health, such as information regarding genetically modified foods, a study in the *Journal of Health Communication* found.

The researchers recruited 323 university students and had them to read a message regarding GM foods. The messages were presented in three different ways: a text with percentages, bar graph, or both text and graphs.

According to Science Daily:

> The researchers found that math anxiety led to a decrease in comprehension for people who read statistics in a message about genetically modified foods, while an increase in skills in math and a confidence in those skills led to better comprehension.
>
> Participants "reported they believed that statistics presented in messages were more important than those presented on a bar graph, according to the researchers. The perceived level of importance of the messages may make text more persuasive than graphics."

Math anxiety didn't just happen to those who lacked certain math skills. Although those with higher math skills understood the message, the method the message was introduced in could still lead to anxiety, researchers found.

The authors write:

> To advance theoretical and applied understanding regarding health message processing, the authors consider the role of math anxiety, including the effects of math self-efficacy, numeracy, and form of presenting statistics on math anxiety, and the potential effects for comprehension, yielding, and behavioral intentions. The authors also examine math anxiety in a health risk context through an evaluation of the effects of exposure to a message about genetically modified foods on levels of math anxiety.

This study could have wide-ranging implications for how health professionals and journalists rely information about GMOs.

Additional Resources:

- Evaluating competing claims about genetically modified crops, Journal of Economic Perspectives
- Biofortified forum: A review of Jonathon Foleys latest Ensia article
- From anti-GMO to pro-science: 'A Layman's Guide to GMOs', Genetic Literacy Project