

# Use the right metaphor to get patients to enroll in clinical trials

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(PhysOrg.com) -- The language that doctors use with low-income, rural patients can help determine whether these patients agree to participate in clinical trials testing new cancer treatments, a new study found.

Researchers found that the metaphors [doctors](#) used to help explain what happens in such trials played a big role in whether patients would agree to participate.

“Physicians have to communicate about medicine and science to people who often don’t have the education and experience to easily understand what they’re being told,” said Janice Krieger, lead author of the study and assistant professor of communication at Ohio State University.

“Talking to people about experimental designs is difficult, but the way we have been doing it has not been effective and we need to think more carefully about how to do it well.”

The stakes are high, Krieger said. Low-income, rural people, like those who participated in the study, are disproportionately affected by cancer. But these groups have been especially difficult to recruit for trials testing new medication or therapies.

“We need to recruit more people from medically underserved populations for cancer trials, and it will help if we can find better ways to explain these trials to patients,” she said.

Krieger conducted the study with Roxanne Parrott and Jon Nussbaum of Pennsylvania State University. The results appear online in the *Journal of Health Communication* and will be published in a future print edition.

The research was designed to help determine the best way to explain Phase III [clinical trials](#) to this low-income population. In Phase III trials, patients are randomly assigned to treatment groups for the purpose of testing whether a new medication or therapy outperforms the current standard of care.

In order to participate in such trials, patients must understand and agree to be randomized to their treatment. Randomization means that some patients will receive the new therapy or treatment, while others will receive the current standard of care.

The study involved 64 low-income, rural women over age 50 living in Appalachia. All of them watched a short video produced by the National Cancer Institute describing clinical trials.

They then watched an additional video further explaining randomization, featuring a local doctor. A third of the participants saw a video which explained randomization using the low-literacy definition recommended by the NCI: “Randomization is a method used to ensure the research study is fair. It means that patients are assigned by chance to different treatment groups.”

A second group watched the NCI video, and then saw a video featuring a local doctor explaining randomization with a metaphor. The doctor explained that randomization was like “a flip of the coin” determining whether they would be in the treatment or standard-care group. “The chance of getting heads is the same as getting tails,” the doctor said.

The third group saw a different video with a local doctor who explained

randomization with a metaphor that it was “like determining the sex of a baby. The possibility of a boy is the same as the possibility of a girl.”

After viewing the videos, all participants were asked to rate how carefully they listened to the doctors in the video, and were tested on their comprehension of randomization.

They were also asked, if they were diagnosed with cancer, if they would agree to participate in a clinical trial.

Overall, the study found that most participants did not understand randomization very well.

“We focus a lot of attention on helping people comprehend health information, but we found that this intervention didn’t change comprehension levels much at all,” Krieger said.

“We have to come up with better ways to explain clinical trials and randomization to people.”

However, the language used to describe randomization did influence whether participants would agree to take part in a clinical trial, at least under some conditions.

For those people who said they paid close attention to what the doctor said, it didn’t matter which video they watched – they were all about equally likely to agree to take part in a clinical trial.

“When people had trouble paying attention, that’s when the role of language played a key role in whether they would agree to participate,” Krieger said.

For participants who weren’t paying close attention, they were more

likely to say they would participate in a clinical trial if they heard the metaphor of how randomization is like determining the sex of a baby. They were less likely if randomization was described as like the flip of a coin, or if they just heard the standard definition.

“We believe that when people hear randomization described as a flip of a coin, they think of there being a winner and a loser,” Krieger said.

“They don’t want to take part in a clinical trial if they think they may be risking something.”

That’s unfortunate, because participating in clinical trials is not a win or lose situation, she said.

“You don’t know if one treatment is better than the other. That’s why you’re doing the study. In any event, even if you’re not in the treatment group, you will get the accepted standard of care, which is the best that is currently available,” she said.

On the other hand, the “sex of the baby” metaphor might be especially helpful for low-income, rural women like those in this study.

“For women with a cultural background that values family and childbearing, neither outcome – a boy or a girl – would be considered negative,” Krieger said.

Overall, the results suggest that physicians need to provide messages that are realistically positive about what it is like to participate in a clinical trial, Krieger said.

“Patients shouldn’t be overly optimistic about how they might be helped by participating, but they should feel good about the contribution they are making and know that they will get the accepted standard of care in any circumstance.”

**More information:** [www.tandf.co.uk/journals/titles/10810730.html](http://www.tandf.co.uk/journals/titles/10810730.html)

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