Education More Important Than Knowledge in Stopping Spread of HIV in Africa

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COLUMBUS, Ohio – Simply teaching people the facts about how to protect themselves from HIV may not be enough to prevent the spread of AIDS in Africa, a new study suggests.

Researchers found that villagers in Ghana who had higher levels of cognitive and decision-making abilities – not just the most knowledge — were the ones who were most likely to take steps to protect themselves from HIV infection.

These cognitive abilities are what people develop through formal education, said Ellen Peters, lead author of the study and associate professor of psychology at Ohio State University.

“Knowledge about HIV and AIDS is important, but greater knowledge is not by itself leading people to take on healthier behaviors,” Peters said.

“People really need the education that trains them how to think, to use their knowledge to plan for the future.”

This is one of the first studies to show the importance of formal education in helping to prevent the spread of HIV, outside of research done in relatively well-educated Western countries, Peters said.

The study appears online in the journal Psychological Science and will be published in a future print edition.

Rural Ghana is a good place to study the effect of education on health behaviors because citizens there have nearly equal access to health care and nearly equal levels of wealth, but there are wide differences in education levels, according to Peters and David Baker, co-investigator of the study and professor of education and sociology at Penn State University.

This study involved 181 residents of eastern Ghana who lived in four small, agrarian villages with little migration into or out of villages.

They participated in the study in exchange for a bucket, a bar of soap and a roll of toilet paper.

Participants had an average of 6.6 years of formal education.

The researchers tested villagers’ working memory, math skills and decision-making abilities – some of the cognitive skills associated with formal education. They were also given a test of their knowledge about HIV/AIDS and how to protect themselves.

Finally, the researchers scored each participant on how much he or she used behaviors that reduced the risk of getting HIV, such as using condoms.

Results showed that once participants' cognitive and decision-making abilities were taken into account, knowledge about HIV/AIDS no longer predicted whether a person adopted protective behaviors.

"We found that the value of education wasn't so much in teaching facts, but in teaching people how to think," Peters said.

Peters gives an example from the study.

One participant correctly answered a question by saying that HIV can be transmitted by blood transfusions. But when he was asked how he could minimize that risk, he responded by saying he couldn't get HIV from a transfusion if he wore a condom.

"He had some of the right facts," Peters said. "But he was using that knowledge inappropriately, in a way that could ultimately harm him. That's where cognitive and decision-making abilities could have helped him to use the facts to make the better choices."

The results have important implications for fighting AIDS in Africa and other parts of the world that have large numbers of uneducated people, Peters said.

About $8.9 billion has been spent on HIV prevention in Ghana and the surrounding region since 2000, primarily through disseminating facts about the disease. But the effectiveness of these programs has never been adequately studied.

"Our findings suggest that those efforts, however well intentioned they may be, may not be sufficient without efforts to help at-risk adults to reason correctly with the facts they have been taught," she said.

"Given that sub-Saharan Africa is home to both the largest unschooled population in the world and the largest HIV-infected population in the world, we need to better understand how to design effective HIV-prevention programs."

Peters noted that, although this study looked specifically at HIV prevention, it is likely that more education could help people in a variety of ways.

"We hope the results of our study will stimulate examination of the costs and benefits of spreading basic education worldwide," she said.

"Education helps people reason flexibly across many different areas of life and make decisions that will help them prepare for the future."

Other authors of the study included David Baker, Juan Leon and John Collins of Penn State University, and Nathan Dieckmann of Decision Research in Eugene, Oregon, and the University of Oregon.

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