Patient information: What happens when evidence-based facts contradict doctors' advice?

A study on the influence of evidence-based patient information on decisions concerning cancer screening

Berlin, August 2017 – Balanced and evidence-based patient information on cancer screening can protect patients from inadequate medical advice. This was shown in a representative study by the Harding Center for Risk Literacy at the Max Planck Institute for Human Development, recently published in the journal *PLoS ONE*.

When it comes to their own health or that of a loved one, many people are apprehensive and rely fully on doctors’ recommendations. Yet in the case of cancer screening, numerous studies have shown that doctors themselves often do not know or understand the medical evidence for such tests, i.e., their scientifically established benefits and harms, and inadequately counsel symptom-free patients or give them advice that goes against existing medical guidelines. Researchers at the Harding Center for Risk Literacy at the Max Plank Institute for Human Development and the German Institute for Economic Research (DIW Berlin) therefore investigated how evidence-based versus non-evidence-based patient information on cancer screening affects people’s decision for or against screening tests when this information contradicts doctors’ advice.

For the study, 897 persons in the context of the German Socio-Economic Panel (SOEP) were interviewed—a representative multi-cohort survey panel at DIW Berlin that regularly provides information about personal and political views, income, employment, education, and health. In a personal interview, those participating in the survey were given either evidence-based or non-evidence-based information on the benefits and harms of a cancer screening test. Because not all screening tests are covered by German health insurance companies, participants were also informed about whether the tests were covered or had to be paid individually. They were then asked to make a decision for or against the test. Subsequently, they were confronted with a non-evidence-based recommendation from a fictional doctor. This recommendation was based on actual recommendations by real doctors and was biased insofar as it focused solely on either the benefits or the harms of the screening test. Moreover, it provided no numerical information on the magnitude of benefits or harms. In conclusion, participants were asked to reconsider their decision in light of the doctor’s recommendation.

Approximately one third of the participants who had received non-evidence-based patient information altered their initial decision in favor of the doctor’s non-evidence-based recommendation, if these differed. Those who had received evidence-based information were not as easily influenced: Only 16 percent—around half as many as those who had not been fully informed—altered their initial decision. Whether the test was covered by health insurance or not played no role. “Our results show that understandable, evidence-based patient information can..."
facilitate informed and preference-sensitive decisions, even when a doctor provides inadequate counseling,” says lead author Odette Wegwarth from the Harding Center for Risk Literacy.

Nevertheless, she and her co-authors, Gerd Gigerenzer and Gert G. Wagner, do not want the results of their study to be interpreted as a general call to mistrust doctors’ recommendations. A doctor–patient relationship built on trust is important. At the same time, it needs to be based on transparent, evidence-based advice on benefits and harms. As the authors note, in order for doctors to meet this prerequisite, statistical risk competency needs to be integrated more fully into medical education and CME.

Background Information

Original Publication

Harding Center for Risk Literacy
The center envisions a society of informed citizens who are competent enough to deal with the risks of a modern technological world. Established through a gift from the London-based global investment manager David Harding, the Center is affiliated with the Max Planck Institute for Human Development and funds research conducted by Prof. Dr. Gerd Gigerenzer and his team. [www.harding-center.mpg.de/en](http://www.harding-center.mpg.de/en)

Max Planck Institute for Human Development
The Max Planck Institute for Human Development in Berlin was founded in 1963. It is an interdisciplinary research institution dedicated to the study of human development and education. The Institute belongs to the Max Planck Society for the Advancement of Science, one of the leading organizations for basic research in Europe.

Contact:
Max Planck Institute for Human Development
Public Relations Department
Kerstin Skork
Phone: 030-82406-211
E-Mail: skork@mpib-berlin.mpg.de

Nicole Siller
Phone: 030-82406-284
E-Mail: siller@mpib-berlin.mpg.de

Further Information:
www.mpib-berlin.mpg.de/en
www.mpg.de/en