Contrary to Cliché, the Elderly Will Take Medical Risks Given Large Enough Benefits

We know that the elderly are risk averse when it comes to their finances, but until now few studies have looked at how the elderly judge medical treatment risks, an increasingly vital issue.

McLean, VA—We tend to think that older people are likely to avoid taking risks, especially compared with younger people. But a new study comparing decisions among different age groups about risky medical treatments, such as vaccines and chemotherapy, finds that older people are even more willing than younger adults to take medical risks if they perceive the benefits to be high enough.

“Given the high financial and personal costs associated with medical-related risk behavior, gaining better insights into adult lifespan changes in medical risk-taking tendencies and perceptions is paramount,” the study authors note. In the United States, the average 85-year-old spends about $17,000 per year on his or her health, while adults in their 20s spend less than one tenth of that sum, or $1,448.

Despite the growing importance of medical decision-making by the elderly, surprisingly little data exists on how age affects risk attitudes and perceptions in the medical domain, according to the study, “Does Medical Risk-Perception and Risk-Taking Change with Age?” by Yaniv Hanoch of University of Plymouth, Jonathan J. Rolison of the University of Essex, and Alexandra M. Freund of the University of Zurich. Their study, involving 317 adults, ages 20 to 77, was published in the online version of Risk Analysis, a publication of the Society for Risk Analysis.

Beliefs about the elderly taking fewer risks are based mainly on financial risk-taking studies that do confirm elderly people’s financial risk aversion. However, “Older adults do not seem to be as generally averse to taking risks as that literature on financial risk-taking suggests,” says Dr. Hanoch. “Instead, when it comes to the essential domain of health or medical decision making, older adults also focus strongly on the benefits of a given procedure.” The findings have important implications for medical decisions by the elderly, Hanoch adds. When giving such patients medical and health information, “then, of course the potential risks need to be communicated to older patients, but also the potential benefits.”
In their study of age-related differences in risk-taking behavior, the authors gave the participants four different scenarios to read. In the first two scenarios, the authors explain, participants were asked to imagine that their local area had been sealed off due to a highly contagious and deadly flu. They were then told that either they (Scenario 1) or their child (Scenario 2) had a 10% chance (10 of 100 people) of dying from the flu. Next, they were informed that a vaccine had been developed and tested that would prevent them (Scenario 1) or their child (Scenario 2) from contracting the flu with absolute certainty. However, there was a 5% (5 of 100 people/children) risk of dying from the vaccine. After reading the scenarios, participants indicated whether they would accept the vaccine for themselves (Scenario 1) or have the vaccine administered to their child (Scenario 2). A similar design was followed for Scenarios 3 and 4, but the participants were asked to imagine that either they (Scenario 3) or their child (Scenario 4) had been diagnosed with a deadly, slow-growing cancer.

The study also used a psychological measurement instrument, the Domain-Specific Risk-Taking Scale—Medical (DOSPERT-M) to gauge whether a participant would “Immediately go to the doctor’s when something in my body is aching or bothering me.” The DOSPERT-M recorded responses on a 7-point scale ranging from 1 (very unlikely) to 7 (very likely). Results showed that if a participant expected greater benefits they would be more willing to take a risk. Conversely, if they perceived higher risks, they would be less likely to take the risk. “Our data revealed no age-related differences in medical risk-taking tendencies,” the authors conclude. “This result stands in contrast to the prevailing notion that older adults are more risk averse than younger ones.”

Among other findings, overall, participants were more likely to accept medication (vaccine or chemotherapy) for their child than for themselves. Also, increasing age was associated with a higher likelihood of passive risk taking, whereby older adults avoided options, such as accepting a treatment or vaccine that could lower their chance of dying. “Taken together, our study provides important insights about changes in medical risk taking across adulthood when people face an increasing number of complex and risky medical decisions,” according to the authors.

Risk Analysis: An International Journal is published by the nonprofit Society for Risk Analysis (SRA), an interdisciplinary, scholarly, international society that provides an open forum for all who are interested in risk analysis, a critical function in complex modern societies. Risk analysis includes risk assessment, risk characterization, risk communication, risk management, and risk policy affecting individuals, public- and private-sector organizations, and societies at a local, regional, national, or global level. www.sra.org

The complete study is available at: http://onlinelibrary.wiley.com/doi/10.1111/risa.12692/full