VIEWPOINT

Improving Physician Communication About Treatment Decisions

Reconsideration of "Risks vs Benefits"

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Patient-physician conversations around prevention and treatment decisions are fundamental to good medical care. Optimal communication is needed for shared decision-making that enables patients to make evidence-informed choices.[1] Clearly, the words physicians use have a critical function in this communication. However, many physicians may use language that could mislead patients and alter their decisions, specifically involving the phrase "risks vs benefits." Among the most commonly used medical phrases, "risks vs benefits" is usually an inaccurate comparison and may have potential implications for patient-physician decision-making.

Referring to harms as "risks" emphasizes that the unfavorable outcome may or may not happen, whereas there is no parallel language that highlights the equally probabilistic nature of "benefits." Presenting treatment decisions as a comparison of risks vs benefits creates an inherent imbalance in which benefits simply exist, whereas harms are uncertain. This imbalance is widespread and is present in how physicians have discussions with patients, how physicians likely approach decisions, and even how studies are reported in the medical literature. Recent guidelines for research reporting, such as Grading of Recommendations Assessment, Development and Evaluation, have used the phrase "harms vs benefits," but the term has likely had little effect in discussions between clinicians and patients. Comparing "risks vs benefits" instead of "harms vs benefits" could also potentially contribute to unnecessary and, sometimes, harmful medical care because everyday language highlights the uncertainty of harms but not benefits.[2]

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How Language Biases Decisions

Behavioral science has shown that minor changes in language or framing can significantly alter judgments and decisions, including in health care settings. In a study on perceptions of ductal carcinoma in situ (DCIS) that included 394 women, 69% indicated that they preferred watchful waiting when DCIS was framed as "abnormal cells," but 53% preferred treatment when DCIS was framed as "non-invasive cancer."[3] Such framing effects are thought to be driven by emotional or cognitive associations and expectations triggered by specific words and phrases.

Framing trade-offs in terms of risks and benefits may have similar effects. Not only is "risk-benefit" framing less clear than "harm-benefit," it also may bias decisions by emphasizing the uncertainty related to harms while implying certainty around benefits. This may contribute to a tendency among both physicians and patients to perceive medical therapy predominantly in terms of gains, with less awareness of potential harms.[2] A change in words may prompt reflection on the part of physicians to give equal weight to harms and benefits of treatments.

Evolution of Risk Terminology

The formal incorporation of probability and risk into medical decisions began with the development of informed consent and US Food and Drug Administration (FDA) oversight in the 1960s. The legal requirement for informed consent for medical treatment grew out of the need to give patients autonomy over their medical decisions. In *Canterbury v Spence* "true consent" was defined as "the informed exercise of a choice, and that entails an opportunity to evaluate knowledgeably the options available." This included the "degree of the harm threatened" and "potential benefit of the therapy."[4]

The concept of "risk" in place of "harm" seems to have emerged in 1962, when the US Congress passed the Kefauver-Harris amendment for the FDA, which affirmed the need for drug-makers to demonstrate the efficacy of their products for human consumption by stating, "For a drug to be approved for marketing, FDA must determine that the drug is effective and that its expected benefits outweigh its potential risks to patients."[5] Since then, the use of the term "risk" in this context has proliferated.

What Is Better Than "Risks vs Benefits"?

Language regarding medical therapy must be accurate and easy to understand for medical professionals, the lay public, and patients, and should facilitate, rather than impede, patient-physician communication. Avoiding the term "risks" and replacing it with "harms" is a good first step. Discussions about tests and treatment options should incorporate a description of potential harms and benefits as well as the likelihood of both. Language that emphasizes the uncertainty of both desirable and undesirable outcomes includes "chance," "probability," and "likelihood." Language for treatment decisions should focus on the understandable "chance" of harms and benefits, using absolute and not relative numbers to compare the chance of each outcome with and without treatment. The persistent use of relative differences in medical journals and news reports of scientific findings adds to the confusion of true risk.

For example, a clinician might explain to a patient: "You have atrial fibrillation, and 4 of 100 people like you with atrial fibrillation will have a stroke every year. Let's talk about the chance of benefits and harms of treatment with anticoagulation, which involves taking medication to decrease the ability of your blood to form clots. Studies have shown that treatment with these drugs reduces the chance of stroke occurring from 4 of 100 people with atrial fibrillation per year to 2 of 100 people per year. However, 1 to 3 people of 100 who are treated with these anticoagulation drugs will experience significant bleeding that could involve bleeding into the brain or intestinal tract. In other words, most patients like you do not benefit from or experience harms from this treatment."

Challenges and Nuances to Communication of Harms and Benefits

The process of shared decision-making is difficult for many reasons, including limitations in the evidence, challenges in comparing diverse outcomes, and the time needed to have these discussions. The imbalance of "risks vs benefits" language adds to this difficulty. The wide spectrum of harms and benefits of importance to a patient should be discussed, including treatment burden, such as taking medications and attending appointments, and possible psychological effects, such as depression and anxiety. However, in many cases these nonphysical harms are poorly described and quantified. Accurately balancing pros and cons of treatment has been recognized in the shared decision-making literature, but the centrality of replacing "risks" with "harms" has not been emphasized.[1]

Furthermore, trade-offs may be difficult to conceptualize when outcomes vary widely in frequency and severity. A patient could face a comparison of rare significant benefits with common mild harms. For example, framing breast cancer screening with mammography as having "risks and benefits" makes benefits seem more certain than harms, whereas the actual likelihood of benefit, less than 1 in 1000 chance of avoiding death from breast cancer, should be balanced against much more certain harms, including a 3 in 1000 chance of experiencing breast cancer overdiagnosis and a 60% chance of a false-positive mammography screening result with subsequent anxiety and consequences related to follow-up testing.[6] In this example, the use of balanced language of benefits and harms can at least help to facilitate understanding of this complex trade-off with a description of possible harms and benefits and the probabilities of each.

For an older woman considering breast cancer screening, framing the discussion around harms vs benefits rather than the more nebulous "risks" might facilitate the decision to discontinue nonrecommended screening. The fact that screening is more likely to be harmful than beneficial to an individual patient may be a more compelling reason to discontinue screening than the vague notion of limited life expectancy, which, in the context of an assumed net benefit from screening, can be interpreted as abandonment.[7]

Conclusions

Language guides decisions. It is incumbent upon physicians to use the most accurate and simple language possible when communicating with patients about medical science. The phrase "chance of harms and benefits" should be considered as the standard language for physicians, scientific journals, and policy makers to convey a scientifically accurate understanding of medical choices. Adopting this phrase and concept for communication can enable decisions that are more appropriate, potentially more understandable, and better aligned with patients.

ARTICLE INFORMATION

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