Confronting Evidence: Individualised care and the case for Shared Decision-Making

Abstract:
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Introduction
The traditional hallmark of high quality clinical care was accurate medical diagnosis, and formulation and execution of a treatment plan based on that diagnosis. But the frequent ambiguity of medical evidence and the changing expectations of patients over the last two decades has led to a need for “more than one acceptable path, and each choice entails distinct benefits, side effects and subjective trade-offs. In these preference-sensitive contexts, which may account for a quarter of all health care spending, patients preferences and values can guide the intervention strategy. Shared decision making (SDM) is a process that allows patients and clinicians to reconcile the best available evidence with respect for patients individualized care preferences. In practice, clinicians may be poorly equipped to participate in this process. Shared decision-making is applicable to many conditions including stable coronary artery disease, chronic obstructive pulmonary disease, gastrointestinal bleeding, urinary tract symptoms in men with benign prostatic hyperplasia. In many clinical scenarios there exists more than one clinically appropriate intervention strategy. When these involve patients' preferences with evidence. Table 1 presents a selection of relevant clinical scenarios and associated treatment options.

Results
Examples of shared decision-making
SDM is relevant for numerous clinical conditions associated with preference-sensitive care, such as bothersome lower urinary tract symptoms in men with benign prostatic hyperplasia. If a patient judges the surgical risks of incontinence and sexual dysfunction to outweigh the potential gains, there may be no need for surgery, despite capacity for clinical benefit. In a Canadian orthopaedic study, expert physicians identified patients in potential need for surgery. But, the finding that 10% of patients were definitely willing to undergo the intervention when informed of its evidence base, illustrating the need to balance patients preferences with evidence. Table 1 presents a selection of relevant clinical scenarios and associated treatment options.

SDM is also applicable to many types of care not traditionally considered preference-sensitive, including end-of-life care and long-term chronic disease management. An elderly patient with Parkinson's disease may prioritise certain forms of functionality such as the ability to communicate with relatives over the internet, whereas a physician may define treatment success in narrow terms of biomedical metrics such as presence of tremor. Aggressively optimising particular clinical targets may compromise overall quality of life. In such situations it is sensible to elicit and account for the patient's specific values and goals.

Tools for shared decision-making
SDM should convey up-to-date scientific evidence to patients in a comprehensible manner. One strategy is to train clinicians in communication skills and facilitation of SDM. Systematic reviews show this may improve communication, patients understanding, and satisfaction, but there is no firm evidence of altered clinical outcomes and utilisation patterns.

What does the evidence say?
A recent Cochrane review summarises much of the evidence for decision aids addressing treatment or screening decisions. It showed improved patient-clinician communication, superior patient enthusiasm, knowledge, understanding of trade-offs, and involvement in decision-making. The effects on consultation length were inconsistent. There appeared to be no adverse effects on patient satisfaction or clinical outcomes. Adoption of decision aids was associated with increased awareness of the risks and benefits of interventions. The economic consequences are unclear. Reduced costs are offset by the costs of developing, implementing for costs and the sensitivity of cost structures to reduced demand. The generalizability of utilization reductions is unclear. Much evidence is from the predominantly market-oriented US system, and some comes from settings such as Canada and the United Kingdom. The effects may vary across settings depending on baseline provision rates. The goal is to avoid both overuse and underuse rather than to uniformly temper demand. SDM tends to increase demand for some interventions such as spinal stenosis surgery.

Caveats and limitations

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Do patients truly want the added responsibility of SDM? Some patients may prefer to delegate the burden of decision-making to a clinician, and SDM may be incongruent with patients’ psychosocial needs, especially in the face of far-reaching uncertainty, fear and distress. If patients (or their families) choose a treatment that culminates in poor outcomes, the ensuing guilt may amplify anguish and regret. Nonetheless, evidence suggests SDM has high levels of acceptability with patients and can improve the care experience. In one provider organisation, 76% of patients over 65 years would strongly recommend use of a decision aid prior to deciding on a surgical procedure. In a study of 20 women with suspected recurrent ovarian cancer, 95% would recommend the use of a decision aid, despite its association with high anxiety levels. SDM may impose a cognitive burden unsuitable for some patients. People are prone to inconsistent and irrational decision-making, and framing the same evidence in different ways can alter perceptions of effectiveness, for example patients and physicians may perceive a 10% mortality rate differently from a 90% survival rate. Studies suggest that physicians and patients frequently misinterpret statistical evidence. Mammography screening for breast cancer has a miss rate of around 10%, and its false positive rate is only slightly lower, but in a German study 46% of women (and 42% of men) reported it as absolutely certain. SDM must be carefully structured to overcome such misunderstanding.

Discussion

Implementation of SDM touches on cultural issues, and it can be difficult to alter established work practices. In a Veterans Administration hospital, a decision aid for benign prostatic hyperplasia lowered the demand for surgical procedures and maintained patient satisfaction, but its use was terminated after the volume of surgeries became insufficient for urology residents to attain board certification. In a study of SDM in end-of-life care, treatment intensity persistently exceeded patients recorded preferences. It is unclear if clinicians disregarded patients preferences, or whether unmeasured changes in patients preferences occurred as death approached. The prevailing medical culture urges clinicians to do their utmost to heal, and this may inadvertently deter tempering of treatment intensity in accordance with patient preferences. SDM may prove a key tool for Irish clinicians to reconcile evidence-based medicine with individualized care. Successful implementation could substantially influence patterns of clinical care, and this demands multi-stakeholder commitment to improvement.

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References