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Title

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Permalink

<https://escholarship.org/uc/item/8w29k8k0>

Journal

The Journal of the American Dental Association, 150(6)

ISSN

0002-8177

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Publication Date

2019-06-01

DOI

10.1016/j.adaj.2019.04.004

Peer reviewed



Commentary

How should we communicate implant treatment risk to a patient?

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How do you communicate treatment risk to a patient? When treatment planning with dental implants, we know there is always some biological uncertainty and the potential for implant failure. What is the best way to communicate this risk?

Most of us were trained to identify and disclose treatment risk during the patient history or clinical examination. When we identify a patient who smokes cigarettes, we explain that smoking increases the risk of experiencing implant failure and suggest that the patient stop smoking. When we clinically assess a patient who has active periodontal disease, we recommend treatment to achieve periodontal stability before considering implants. The evidence for some risk factors is substantial, and we feel grounded in highlighting caution; yet for other risks, the evidence is inconclusive, and we waver on whether to even mention them. Equally challenging is how to evaluate and manage comprehensively the care of patients who have multiple apparent risks or patients who are unaware of their underlying medical risks such as diabetes. The process of risk disclosure defaults to a clinician's intuition and reasoning rather than a formal or systematic process. In this commentary, we ask if there is a better way.

We ask 2 questions related to risk disclosure in implant dentistry. First, why are discussions about treatment risk and long-term prognosis minimized by both the patient and clinician? Second, how have other health care disciplines approached the issue of risk disclosure?

Patients tend to overestimate the benefits of medical interventions.^{1,2} They also tend to underestimate risks,¹ which is especially true with elective procedures such as dental implants.³ A systematic review of medical studies in which researchers evaluated patient expectations of benefits and harms found that in 88% of the studies, patients overestimated the actual benefits, whereas in 67% of the studies, patients underestimated treatment risks.¹ The authors concluded that patients have unrealistic positive expectations of treatment outcomes owing to "optimism bias," an underlying human characteristic that is also reinforced by media messages.^{4,5} It is not surprising that patients tend to overestimate the functional value of implants,⁵ underestimate the expertise required for the clinical procedure,⁵ and then come to clinicians uninformed about implant complications.⁶⁻⁸ More than 70% of patients anticipate that implants might last for a lifetime,⁷ yet more than 30% of patients with implants self-report complications.⁹

When patients complete the standard consent form used in most offices, the risks and benefits of an intervention are not personalized and remain abstract.¹⁰ Consent forms have become longer, more complicated, and more of a legal formality than a means to inform and educate patients.¹¹ Rather than carefully reading and understanding the disclosure information, patients often defer to authority^{12,13} and are unwilling to admit they do not understand what they have been told.

Clinicians also tend to believe that their suggested intervention will be of more benefit than is actually supported by evidence,¹⁴⁻¹⁶ which may be a result of the literature emphasizing positive

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outcomes and benefits over harms.¹⁷ In addition, the clinician has a vested interest in patient acceptance of treatment as well as clinical expediency.¹⁸ These biases help explain why there is less engagement by health care providers than patients would like.^{1,19}

If both patients and clinicians are inaccurate in their estimation of risks and benefits—albeit for different reasons—and if the existing standard consent forms used are incomplete in educating or disclosing risk to patients, how can the process of risk assessment and disclosure in implant dentistry be improved?

Decision aids are 1 possible solution, providing a framework to engage the patient and for the clinician to be more systematic in considering factors influencing treatment outcomes.¹ Decision aids can take various forms, including questionnaires, pamphlets, videos, or Web-based tools.²⁰ In a 2017 review of decision aids used in surgery, screening, use of medications, and diabetes management, the authors evaluated 105 studies involving 31,043 patients and concluded that decision aids improved patients' knowledge of options, resulted in a more accurate expectation of benefits and harms, and left fewer patients feeling uninformed.²⁰ Surprisingly, the authors concluded that decision aids add, on average, only 2.6 minutes to the average consultation visit.²⁰

A decision aid in the form of a risk assessment questionnaire has been proposed as a clinician checklist^{21,22} and as an important way to provide feedback to correct patients' inaccurate perceptions of their own risks for a health outcome.²³ A risk assessment questionnaire allows risk to be stratified within a population so that the unique risk profile of a patient can be identified and managed. In medicine, many different risk assessment questionnaires have been developed to estimate health outcomes. For example, just in the specific area of predicting prediabetes, 18 different risk assessment algorithms have been identified and compared.²⁴

Disclosing risk associated with the use of dental implants includes legal standards of evaluating the patient to be competent, adequately informed, and not coerced. Beyond legal requirements, it is important for the clinician to educate the patient in a systematic way. Unfortunately, our current practices often fall short. In response to this, a Delphi consensus group developed a risk assessment questionnaire intended to guide the clinician and patient to an improved dialogue and understanding of risks associated with dental implants.²⁵ In private practice settings in which this risk assessment algorithm has been used, patient acceptance and clinician feedback have been positive. Validation studies of the risk assessment algorithm are ongoing.

The use of comprehensive risk analysis before initiating implant treatment has benefits for both the patient and clinician. The patient will be better informed about treatment options and more knowledgeable of aftercare needs and the consequences of noncompliance. The clinician will benefit from a realistic assessment of an adequately screened patient and have an informed patient to work with should future complications occur. Finally, the trust that develops from such a concerted effort to inform and educate enhances the dentist-patient relationship, which improves treatment outcomes.^{26,27} ■

<https://doi.org/10.1016/j.adaj.2019.04.004>

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Disclosure. Drs. Curtis and Sadowsky did not report any disclosures.

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