



Temporomandibular Disorders in the Context of Value-Based Medicine and Patient-Centered Care

As Associate Editor, I came across a manuscript to be shortly published in this journal that compared the costs of two different treatment modalities for managing arthrogenous temporomandibular disorders (TMD).¹ As expected, the two modalities did not differ for pain improvement, but did for cost and rate of improvement.

It is a fact that several modalities are used for the management of TMD that vary greatly in the degree of invasiveness, treatment time, treatment-related pain, costs, benefits, and risks, but—and most importantly—not in the degree of effectiveness. Indeed, randomized or quasirandomized clinical trials have reported that all treatment modalities are generally equally effective in alleviating pain, and when a treatment has proven to be statistically more effective, the difference in effect size was moderate.^{2–6} Given this evidence and the worldwide increase in medical expenditure, it is plausible to include costs in the treatment decision-making process. Nevertheless, financial considerations should not happen at the price of jeopardizing patients' autonomy, preferences, and values.

In the context of value-based medicine (VBM), “value” does not refer only to the costs of a treatment, but also to the appraisal of the improvement in the patient's well-being (eg, utility) and satisfaction, as well as in the functional, emotional, and psychosocial dimensions.⁷ VBM is the practice of medicine based on the patient's values and their financial considerations associated with health care interventions⁸ or on the integration of the best evidence-based data with the patient-perceived quality of life improvement conferred by a health care intervention.⁹

Offering the intervention that provides the best value to the patient requires a patient-centered approach and/or a shared decision-making process. Patients need an exhaustive explanation of all treatment options with all possible outcomes, including side effects and uncertainties for the short and long term. This information must be provided in an objective manner by refraining from toning down risks and difficulties to influence the patient to agree to a proposed treatment. Moreover, it must be based on scientific evidence. Thus, each treatment decision-making process relies on integrating research evidence of the patient's condition and their preferences to help them arrive at an optimal decision. Evidence-based data are collected for “highly” selected samples, while decision-making is at the level of a single patient who

may differ considerably from the subjects included in the experimental sample in comorbidities, psychosocial and emotional features, quality of life, and treatment-related values. Each patient has their own perspective of their condition and what they consider good or bad care, as well as of treatment outcome, risks, benefits, treatment modalities, and amount of information.

In shared decision-making, patients are encouraged to think about the available options and the likely benefits and harms of each one so that they can participate and help select the best course of action. As this process is difficult, there is the need to develop decision aids. These inform patients about treatment options from an evidence-based perspective, encourage the patient to actively participate in the decision-making process, and help patients think of what is important to them and choose the procedures that best reflect their values and preferences.

Shared decision-making respects patient autonomy and promotes patient engagement.¹⁰ Patients involved in shared decision-making have a more accurate risk perception, make more decisions that are consistent with their values, have lower decisional conflict related to feeling uninformed and unclear, and are generally more satisfied with the treatment outcome than patients involved in usual care.^{11–13} In addition, patient-centered practice increases the efficiency of care by reducing diagnostic tests and referrals.¹⁴ To that end, the best treatment option is one that not only maximizes the probability of success by minimizing the risks and costs, but—and perhaps most importantly—one that leads to a result the patient finds favorable.¹⁵

Unfortunately, clinical experience and the literature show that shared decision-making is rarely used in the orofacial pain field. In general, patients desire to participate in deciding their treatment; in reality, this occurs far less than they would wish.^{13,16,17} It must be underlined that care providers and patients often place a different value on treatment outcome: what the clinician considers to be a good outcome may not be the same as what the patient considers a good outcome. Therefore, the value that a patient gives to the treatment outcome should always be considered in the decision-making process. In other words, no treatment decision should be taken without knowing the patient's preferences, because it is the patient who decides whether a treatment option is good or

bad. Thus, where more than one reasonable choice exists, the preferences of the patient, and not of the health care provider, become the determining factors in choosing the treatment. Clinicians have an ethical responsibility to assess the values and preferences of their patients.¹⁸ As Rickert¹⁹ wrote, there is a need to move from “what’s the matter” with our patients to “what matters” to our patients.



Sandro Palla
Associate Editor

References

1. Vos L, Stegenga B, Stant D, Quik E, Slater JH. Cost effectiveness of arthrocentesis compared to conservative therapy in arthralgia of the temporomandibular joint: A randomized controlled trial. *J Oral Facial Pain Headache* [in press].
2. de Freitas RF, Ferreira MA, Barbosa GA, Calderon PS. Counselling and self-management therapies for temporomandibular disorders: A systematic review. *J Oral Rehabil* 2013;40:864–874.
3. Friction J. Current evidence providing clarity in management of temporomandibular disorders: Summary of a systematic review of randomized clinical trials for intra-oral appliances and occlusal therapies. *J Evid Based Dent Pract* 2006;6:48–52.
4. Friction J, Look JO, Wright E, et al. Systematic review and meta-analysis of randomized controlled trials evaluating intra-oral orthopedic appliances for temporomandibular disorders. *J Orofac Pain* 2010;24:237–254.
5. List T, Axelsson S. Management of TMD: Evidence from systematic reviews and meta-analyses. *J Oral Rehabil* 2010;37:430–451.
6. Roldán-Barraza C, Janko S, Villanueva J, Araya I, Lauer HC. A systematic review and meta-analysis of usual treatment versus psychosocial interventions in the treatment of myofascial temporomandibular disorder pain. *J Oral Facial Pain Headache* 2014;28:205–222.
7. Riva S, Pravettoni G. Value-based model: A new perspective in medical decision-making. *Front Public Health* 2016;4:118.
8. Brown MM, Brown GC. Update on value-based medicine. *Curr Opin Ophthalmol* 2013;24:183–189.
9. Quek SY. Value-based dentistry: Will it provide the best care for our patients’ needs? *Quintessence Int* 2011;42:363.
10. Elwyn G, Laitner S, Coulter A, Walker E, Watson P, Thomson R. Implementing shared decision making in the NHS. *BMJ* 2010;341:c5146.
11. Sondell K, Söderfeldt B, Palmqvist S. Dentist-patient communication and patient satisfaction in prosthetic dentistry. *Int J Prosthodont* 2002;15:28–37.
12. Stacey D, Légaré F, Lewis K, et al. Decision aids for people facing health treatment or screening decisions. *Cochrane Database Syst Rev* 2014;CD001431.
13. Shay LA, Lafata JE. Where is the evidence? A systematic review of shared decision making and patient outcomes. *Med Decis Making* 2015;35:114–131.
14. Stewart M, Brown JB, Donner A, et al. The impact of patient-centered care on outcomes. *J Fam Pract* 2000;49:796–804.
15. Kay E, Nuttall N. Clinical decision making—An art or a science? Part V: Patient preferences and their influence on decision making. *Br Dent J* 1995;178:229–233.
16. Chewning B, Bylund CL, Shah B, Arora NK, Gueguen JA, Makoul G. Patient preferences for shared decisions: A systematic review. *Patient Educ Couns* 2012;86:9–18.
17. Fotaki M, Roland M, Boyd A, McDonald R, Scheaff R, Smith L. What benefits will choice bring to patients? Literature review and assessment of implications. *J Health Serv Res Policy* 2008;13:178–184.
18. Selby K, Auer R, Cornuz J. Shared decision making in preventive care in Switzerland: From theory to action. *Z Evid Fortbild Qual Gesundheitswes* 2017;123–124:91–94.
19. Rickert J. Patient-centered care: What it means and how to get there. *Health Affairs Blog*: 2012. <http://healthaffairs.org/blog/2012/01/24/patient-centered-care-what-it-means-and-how-to-get-there/>. Accessed 13 September, 2017.