

should be noted that a dose of only 50 mg losartan was used in this study, which is not likely high enough to completely antagonize angiotensin. Third, the effect of treating sleep apnea with CPAP continues to have a relatively small effect on BP when all patients are considered, as has been reported previously (3, 6). The difference in BP between the CPAP-treated patients and those receiving no additional therapy was 4.4, 1.9, and 2.5 mm Hg for 24-hour systolic, diastolic, and mean arterial pressure. However, these effects were somewhat larger for the group of patients who used CPAP for more than 4 hours per night (6.5, 3.8, and 4.6 mm Hg for systolic, diastolic, and mean arterial BP). These later values represent a more substantial and clinically important reduction in BP.

Thus, the question arises as to whether treating obstructive sleep apnea is an effective method of reducing BP in a hypertensive patient with OSA who is otherwise asymptomatic. I believe this study would suggest that the answer to this question remains “maybe.” Only 13% of the patients with OSA achieved optimal BP control on losartan alone, recognizing, however, that only a starting dose of the medication was used. This optimal BP control went up to 25% of patients when CPAP was added, and 38.5% when CPAP was used “adequately” (more than 4 h per night). Thus, most of the patients with OSA in this study would require a higher dose of losartan or the addition of a second antihypertensive drug, even while using CPAP. As we all know, getting patients to use CPAP is a difficult task (7), particularly if we are talking about regular CPAP use for the rest of the patient’s life, which would be the case if the treatment of hypertension is the goal. However, adherence with long-term pharmacologic management of hypertension is not easy as well. A recent study reported that 12.7% of hypertensive patients were taking none of their antihypertensive medication, and 34.9% were not complying with the entire regimen (8). That is not greatly worse than CPAP adherence. One needs to consider also that in most patients with OSA, hypertension is not the only consequence of the sleep-disordered breathing. Thus, CPAP could contribute to BP control while also improving quality of life and possibly reducing the risk for cardiovascular disease. That combination of outcomes would seem to make CPAP use a worthy goal in the treatment of high BP. ■

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“We Understand the Prognosis, but We Live with Our Heads in the Clouds”: Understanding Patient and Family Outcome Expectations and Their Influence on Shared Decision Making

Shared decision making (SDM) is a fundamental component of patient-centered care (1). Ideally, SDM involves the interaction of an informed, engaged patient and his or her family collaborating with their clinicians to decide which of the possible treatment

options, if any, should be pursued when faced with a healthcare decision. This decision is guided by potential therapeutic risks and benefits viewed in the context of the patient’s values and preferences (1). The importance of this model of healthcare decision making has been increasingly recognized during the last 2 decades (1), and there are emerging efforts to implement SDM into clinical practice (2, 3). Although educational interventions to promote patient-centered care and SDM appear to be effective at improving clinician communication skills (such as the ability to elucidate patients’ concerns and beliefs, explain treatment options, and demonstrate empathy and attentiveness), these improvements

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have not necessarily translated into consistent improvements in endpoints such as patient satisfaction, health behaviors, or overall health status (4).

In this issue of the *Journal*, Hart and colleagues (pp. 321–329) identify a possible contributing factor to the apparent limitations of the SDM model to lead to reliable improvements in patient-centered outcomes (5). Among a group of 44 patients with smoking-related lung disease (chronic obstructive pulmonary disease or at risk for lung nodules) and possible surrogate decision-makers (family of patients with advanced non-small-cell lung cancer), the authors use scenario-based semistructured interviews to understand how patients and their surrogates think about expected future outcomes resulting from “preference-sensitive” therapeutic options. The authors found that some patients and surrogates find it challenging to formulate realistic expectations of outcomes, leading them to make treatment choices that have the potential to be erroneous and contradict the patient’s “true preferences,” were they to have realistic expectations. Challenges identified by the authors to generating realistic expectations include difficulty visualizing and articulating the future (either because of limited ability or avoidance), dependence on past experiences (even if irrelevant or only peripherally related), and perceived (but perhaps misguided) familiarity with treatment. In addition, patients and their potential surrogates found it challenging to try to balance optimism with realistic prognosis. This last factor is a recurring theme among studies of patients with advanced cancer, in whom an “optimistic perception of prognosis” has been associated with an increased likelihood of choosing aggressive therapies (6), such as resuscitation or life-sustaining treatments, even in the absence of proven benefit (7, 8). Patients with advanced cancer or advanced chronic obstructive pulmonary disease also describe differing perspectives of the interaction between their hopes for the future and their desire for truthful prognostic information; each of these different perspectives suggests alternative approaches to communication about prognosis (9). Understanding these complexities is an important step to designing successful interventions to improve SDM.

An important implication of the study by Hart and colleagues is that identifying and realigning expectations of possible future outcomes may play a significant role in improving SDM for patients and their surrogates. Validating patients’ hopes while still discussing negative aspects of prognosis may help them form more realistic expectations regarding the future. For instance, in at least one study of oncologist–patient dyads, relaying at least one “pessimistic statement” regarding prognosis resulted in higher concordance between clinicians and patients about likelihood of cancer cure than if clinicians relayed “optimistic” information alone (6). However, it is also important to acknowledge that relaying realistic information about prognosis, when prognosis is poor, is associated with lower patient ratings of physician communication (10). In this era of using patient and family satisfaction to evaluate physician performance, this is an important reality with which our healthcare system has not yet grappled.

The results of the study by Hart and colleagues need to be interpreted in the context of several limitations. First, decisions in scenario-based vignettes may not correlate to real-life decisions, and patient and surrogate views on their process of decision making may not reflect how they actually make decisions. Second, it is difficult for patients and surrogates to anticipate how patients’

attitudes regarding treatments or specific outcomes may shift over time (11). Third, the influence of emotions on decision making may be very different in considering hypothetical scenarios (a “cool state”) compared with actual clinical decision making in real time (a “hot state”) (12). These limitations are offset by several strengths, including the engagement of a diverse group of patients and surrogates; the use of clinically relevant scenarios that patients and their families are likely to soon encounter, but had not faced previously; and the use of rigorous qualitative methods that provide novel insights into the SDM process.

Importantly, this article serves as an example of the value of qualitative research to advancing healthcare. The goal of qualitative research is often to provide a more comprehensive understanding of individuals’ experiences to answer any number of research questions pertaining to patient health behaviors or experiences with the healthcare system, as well as to better understand the complex social and environmental milieu that affect healthcare delivery, care quality, and outcomes (13). Although qualitative work is typically viewed as being important for the design of interventions (such as determining which outcomes of SDM matter most to patients, as well as exploring potential sociobehavioral mechanisms to change those outcomes), its potential reach far exceeds this important, yet relatively narrow, niche. For example, Hart and colleagues explore concepts that fall squarely in the realm of cognitive science: understanding the basis for and thought processes involved in developing expectations necessary for clinical decision making. Future work focusing on SDM might include a mixed-methods study that pairs a quantitative assessment of an intervention to improve patient understanding of prognosis with a qualitative study to explore the acceptability of such an intervention to clinicians and patients, determine fidelity of the intervention as delivered, and understand the logistics of implementation in a real-world setting (14). Future qualitative work is also needed to better understand the influence of emotions on patient and family decision making and the best ways to address these emotions to provide support for patients and family members and to improve SDM. Additional qualitative studies could assist in interpreting the results of an intervention study, explain potential differing outcomes among groups of participants, and identify opportunities to improve the intervention (14). Such insights will be invaluable in circumstances, such as that of SDM, where interventions shown to be effective in changing clinician behavior have often not corresponded to changes in patient-centered outcomes.

In summary, the article by Hart and colleagues emphasizes an important discordance that exists between patients’ perceptions of likely future outcomes and the realistic expectations necessary to allow for fully informed decision making. Helping patients and their surrogates develop practical expectations about prognosis and treatment options has the potential to lead to improvements in patient-centered outcomes, such as increased patient satisfaction and higher concordance between delivered care and patient wishes. Findings from this study can be used to guide the design of interventions to improve SDM and may also provide insight for clinicians working with patients or family members in situations where unrealistic expectations are driving decision making that seems to be in conflict with patients’ or family members’ values. Qualitative research plays an essential role not only in

understanding patient and family experiences and designing interventions, but also in understanding the implementation, acceptability, and findings that result from intervention trials. We applaud the *Journal's* inclusion of important qualitative work such as this and look forward to other rigorous qualitative research published here in the future. ■

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