Good blood pressure (BP) control is a central outcome of high-quality diabetes care. In the landmark UK Prospective Diabetes Study (UKPDS), intensive BP control led to an absolute risk reduction of 11.2% in diabetes end points over 10 years, an effect 3.5 times greater than intensive blood glucose control. Moreover, although intensive glycemic or cholesterol control has an incremental cost-effectiveness of $40,000 to $50,000 per quality-adjusted life-year, intensive BP control actually saves almost $2000 per quality-adjusted life-year. For these reasons, the American Diabetes Association and the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High BP (JNC 7) recommend a BP goal of <130/80 mm Hg in persons with diabetes mellitus. Yet, from 47% to 70% of patients with diabetes do not achieve that goal.

Physicians face a significant challenge in helping patients take the necessary steps to improve BP control. Physicians are responsible for prescribing the best medications, completing necessary tests and procedures, and providing guidance in relevant treatment areas. But patients are responsible for implementing the often complicated treatment recommendations over a sustained period of time (“self-management”). In the words of Glasgow and Anderson, 2 leading chronic disease experts, “Patients are in control. No matter what we as health professionals do or say, patients are in control of these important self-management decisions. When patients leave the clinic or office, they can and do veto recommendations their doctor makes.” Patients frequently disagree with physicians’ diagnoses and treatment plans, leading to unfilled prescriptions, partially used medications, lack of follow-up with referrals and return visits, and poor clinical outcomes. As a 2003 World Health Organization report concluded, “Improving patient self-management of chronic diseases would have a far greater impact on the health of the population than any improvement in specific medical treatments.”

Successful clinical management of hypertension thus requires an effective partnership between providers who initiate and increase doses of effective medications and patients who adhere to the medication regimen. Yet, a large body of evidence suggests that this partnership is not as effective as it could be: High rates can be pointed to both of poor medication adherence on the part of patients and of failure to intensify medications on the part of providers. Approximately 50% of patients are nonadherent with their diabetes medications, and from 30% to 90% of adults with hypertension do not take their BP medications as prescribed. Poor medication adherence leads to disease progression, hospitalizations that could have been avoided, premature disability, and death. As many as half of treatment failures to control BP are due to poor patient medication adherence that the physician does not recognize. Even when patients are taking medications as prescribed, clinicians often do not intensify medication regimens in the face of patients’ poor BP control. This “clinical inertia” also contributes to poor BP outcomes. A recent study in 30 US academic medical centers, for example, found that only 14% of diabetic patients with an untreated BP >150/100 mm Hg were initiated on therapy.

Factors within 5 main domains influence how well patients successfully execute the tasks necessary to manage hypertension, diabetes mellitus, and other cardiovascular diseases well. These are (1) patient-related factors (beliefs, expectations, knowledge, skills), (2) social/economic factors (family, community, and other social supports and resources; access to care and medications), (3) condition-related factors (duration, severity, symptom burden, number and types of illnesses, complicating factors), (4) treatment-related factors (complexity, duration, side effects), and (5) factors related to the healthcare team (patient–physician and patient–staff interactions) or health system organization (quality of care, ancillary supports). Although most research has focused on identifying patient characteristics that might predict poor adherence or self-management, studies have found no readily observable patient characteristics that reliably predict how well they will manage their conditions. Sociodemographic factors such as lower income and education, being non–English speaking in an English-speaking setting, and lack of insurance all put people at risk for worse self-management but are not always associated with poor disease self-management. Low health literacy, depression, impaired cognitive function, and social isolation have more reliably been associated with poor self-management. In practice, physicians are not able to predict better than by chance alone which patients will actually follow clinical recommendations.
Good consensus, however, exists in the literature on the key preconditions for effective patient chronic disease self-management. These include (1) sufficient knowledge of the condition and its treatment, (2) skills to manage the condition and to maintain functioning (ability to identify problems, barriers, and supports and to generate solutions), (3) internal, or autonomous, motivation (belief in treatment effectiveness and its relevance to one’s goals, values, and priorities), (4) confidence in one’s ability to successfully execute specific tasks (self-efficacy), and (5) adequate environmental support to initiate and sustain behavioral changes (assistance to overcome obstacles, reminders, encouragement, and support from valued persons at appropriate times and places).

So, what can individual physicians do to foster a strong working partnership with patients and help foster those preconditions for patient self-management? A growing body of research suggests that the quality of interactions between the patient and his or her healthcare provider is critically important for how well the patient manages chronic conditions like hypertension. Good physician communication improves patient adherence to treatment recommendations, self-care, satisfaction, and health outcomes in multiple chronic conditions.15 The physician can play key roles both as provider of necessary information and education and as coach or facilitator who encourages and supports patients with chronic illness. Information giving varies from simply telling someone what he or she should do to explaining the rationale for the advice to exploring patient goals and preferences before providing treatment recommendations. Unfortunately, physicians typically spend <1 minute of a 20-minute visit discussing treatment and planning with patients, and in more than half of outpatient visits, they do not ask patients if they have questions. Up to 50% of patients leave office visits without understanding what their physician told them to do. Yet, when patients are more knowledgeable about their prescribed treatment regimens, they implement treatment recommendations more successfully.15

In addition to the importance of clear physician provision of information, collaborative physician styles have been found to result in higher patient satisfaction and adherence to treatment plans,16 and patient–provider agreement on treatment goals and strategies has been associated with higher levels of chronic disease self-efficacy and self-management.17 In such collaborative interactions, both patient and physician share responsibility for identifying and solving problems, for setting and achieving realistic goals, for monitoring progress, and for developing and adapting treatment strategies as necessary. As Robert M. Anderson, EdD, an internationally recognized self-management expert, has noted, “Noncompliance is when patients and physicians are pursuing different goals.”18 Patients interpret, evaluate, and accept or reject doctors’ recommendations on the basis of their personal experience of their illness in the context of their lives; patients often cooperate only with recommendations that coincide with their own goals and ideas about their illness. By actively participating, patients can communicate their concerns, lifestyle, and priorities to the provider, enabling their treatment regimen to be tailored to their individual needs, values, and goals, thus maximizing the likelihood of adherence. Moreover, involving patients in the decision-making process may increase their motivation and confidence to carry out their regimens. Patients who are actively involved in setting treatment goals and strategies have a greater sense of personal control—an important prerequisite for successful self-management—and are more likely to make choices based on realistic expectations and their own values.

In this issue of Circulation, Naik et al18 make an important contribution to the empirical evidence on specific components of patient–physician communication associated with improved BP outcomes. In particular, they document the association of 2 specific patient attitudes and behaviors (endorsement of shared BP treatment decision making with physicians and proactive communication of abnormal home BP monitoring results) with good BP control among older male hypertensive patients with diabetes mellitus. Patients who preferred sharing responsibility for deciding treatment had better BP control than those who preferred physician- or patient-directed decision making. In addition, patients who proactively contacted their healthcare providers about abnormal home BP readings were more likely to have good BP control than those who did not monitor their BP or monitored their BP but did not take the initiative to communicate abnormal readings. These 2 patient factors had direct independent effects on BP control, as did poor adherence, in multivariable analyses that also adjusted for key clinical and sociodemographic patient characteristics.

These findings are particularly striking in 2 respects. First, these variables did not just affect BP control through their influence on medication adherence. Patient adherence is necessary but not sufficient; providers also must appropriately intensify medications to achieve BP goals. The findings of Naik et al reinforce the importance of patients actively self-monitoring and then communicating these results to their physicians, who can then act on them in adjusting medications to reach goals. Second, the Naik et al results help us understand better mechanisms by which home BP monitoring can improve patient outcomes. JNC 7 recommends home BP monitoring, arguing that it may benefit patients by providing information on response to BP medication, improving adherence with treatment, and evaluating “white-coat hypertension.”14 A recent meta-analysis of 18 randomized controlled trials found that systolic BP was lower in people with hypertension who had home BP monitoring than in those who had standard BP monitoring by the healthcare system (standardized mean difference, 4.2 mm Hg; 95% confidence interval, 1.5 to 6.9), diastolic BP was lower by 2.3 mm Hg (95% confidence interval, 1.2 to 3.5), and mean BP was lower by 4.4 mm Hg (2.0 to 6.8).19 The findings of Naik et al suggest that home BP monitoring is most effective when patients act on the results of their findings to alert their physicians to the need for medication adjustment. Such proactive communication encourages more active treatment adjustment in the face of high BPs and offers physicians more clinical certainty than a single office reading on which to act. In this study, the use of BP self-monitoring alone was not associated with BP control unless it contributed to proactive communication with clinicians about abnormal results.
Through their use of structural equation modeling, Naik et al elucidate that more collaborative physician styles are associated with better BP control through their effects on patients’ endorsement of shared decision-making styles—even among patients who do not endorse shared decision making—and more proactive patient communication of home BP monitoring results. The authors’ operationalization of whether clinicians were collaborative was a summary of how often patients reported that their clinicians did each of the following: “asked me for my ideas when we made a treatment plan”; “gave me choices about treatment to think about”; “asked me to talk about my goals in caring for my high blood pressure”; and encouraged me to “help set specific goals to help improve control of my high BP.” Although likely more than many busy physicians are currently doing, these 4 activities do not involve elaborate, time-consuming behavioral counseling and could feasibly be incorporated into brief clinic visits. The Naik et al findings suggest that the additional time required to explicitly set collaborative BP goals with patients and encourage them to discuss abnormal BP levels may yield significant payoffs in improved patient clinical outcomes.

Future prospective studies with more diverse patient populations—and higher response rates—are necessary to confirm the validity and generalizability of the findings of this innovative, cross-sectional study. In light of the strength of the associations found in this study, however, it is worth reflecting on ways that physicians can best incorporate heightened collaboration with patients into visits. On an individual level, clinicians should actively seek to experiment with brief strategies to actively engage patients in assessing their treatment options and collaboratively agreeing on treatment goals and strategies to assess progress toward treatment goals. To facilitate such efforts, practices need to be structured both to maximize the exchange of information and to encourage patients’ involvement in decision making. Such care necessitates adequate time for office visits to allow effective discussion and treatment goal setting, creative use of group visits, and other forms of team-based care to provide for information exchange and discussion beyond the limitations of brief visits with physicians, as well as mechanisms to ensure adequate patient follow-up. Ideally, healthcare team members besides physicians would be trained and available to provide patients with more intensive disease education and self-management support as necessary. The Naik et al study adds to the increasingly large evidence base suggesting that such investments may yield significant improvements in older patients’ BP and potentially other cardiovascular clinical outcomes.

Disclosures

None.

References


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