Effective doctor-patient communication is key to addressing the significant issue of nonadherence to hypertension treatment in Nepal. Common clinical messages about hypertension are evaluated utilizing the framework of the Common-Sense Model of Self-Regulation for their role in shaping the patient models that underlie nonadherent behavior. Clinical communications and practices are recommended: to respectfully elicit and address patient reliance on self-identified symptoms; to accompany warnings of hypertension’s serious consequences with specific individual action-plans for durable effects; to emphasize the necessity of long-term continuous treatment without creating fears of dependence and withdrawal effects or burdensome monitoring and counseling; to inform of side-effects while presenting medication as nontoxic and necessary for the body’s maintenance of a healthy balance. By acknowledging the patient as an active agent engaged in self-regulation and by employing culturally consonant concepts (often Ayurvedic), we can encourage accurate patient illness and treatment representations that guide medication adherence.

Correspondence:
Dr. Richard R. Love
2708 Columbia Road, Madison, WI 53705, USA.
ORCID ID: 0000-0002-0775-2753
Email: richardibcrf@gmail.com

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“Doctors are men who prescribe medicines of which they know little, to cure diseases of which they know less, in human beings of whom they know nothing.” François Voltaire.

Worldwide, a major impediment to treatment acceptance and adherence in hypertension is the incongruity between the clinical characteristics of hypertension and patients’ symptom-based representations of illness. More medical visits, counseling, and patient education are repeatedly offered as the interventions needed to increase treatment adherence, yet a Cochrane review of this issue suggests that these broad strategies have resulted in little progress over the last 30 years. While Voltaire’s judgment of physician knowledge about hypertension and its treatment may be overly harsh, his judgment about our knowledge of our patients may be closer to the truth. Herein may lie the source and the solution for the continuing problem of medication nonadherence. Common patient misrepresentations of this disease and its treatment encourage high rates of treatment nonadherence and these patient misrepresentations are reinforced by incomplete and ill-suited physician communications.
In Nepal, hypertension associated messages about salt restriction, exercise, cessation of tobacco abuse, weight loss, and signs of serious illness related to hypertension are all appropriate; however, where people are able to access patient services to provide individual patient treatment, the greatest population impact can come from long-term adherence to effective medication treatment.

**COMMON MESSAGES ABOUT TREATMENT WITH MEDICATION**

- Hypertension causes no symptoms
- Hypertension is a silent disease.
- The consequences of not treating hypertension are severe.
- Hypertension medications have side effects.
- Repeated hospital/provider visits are necessary to manage hypertension.
- Patient counseling is a necessary part of hypertensive patient care.
- Patient awareness about hypertension is important.

**How do these messages fit with common patient representations of hypertension and its treatment?**

The first and second messages are perhaps the most discordant with patient symptom-oriented representations and therefore critical in impeding medication adherence. Published data say that patients usually believe that they have bodily signs that let them know when their blood pressure is high even when they report that in general the disease has no symptoms.2-4 They have most commonly been diagnosed in the context of evaluation for some symptom, and over time they have symptoms which they attribute to hypertension, because hypertension is found present when they have these symptoms, and these lead to this unshakable belief. Patients recall what their physicians have told them: hypertension is a symptomless disease, but they then go on to say that they can tell when their blood pressure is high. For these patients, the obvious and critical corollary is that medication treatment is needed only when symptoms are present. For other patients, the absence of symptoms can signal an absence of disease. The all-too-common reaction to these patient ideas is for physicians to double down on the basic teaching that the disease has no symptoms, with consequent loss of their credibility, and renewed patient action, or rather medication inaction, based on their “knowledge” of themselves.

The third message is a fear message that, while an accurate statement of fact, does not as such work well to motivate regular treatment. Only when fear messages are presented with specific action plans will durable behavior change be achieved. This said, World Hypertension Day alerting adults to the complications of hypertension: heart attack, stroke, kidney disease, and death has been adjudged successful, although the issue of long-term non-adherence was not addressed.

The fourth message about side effects is given with obvious good intentions to provide complete patient education but has the adverse consequence of reinforcing patient concerns with long-term effects of drugs, seen as foreign chemicals. An additional side-effect-related message, which is often given is “don’t stop your hypertension medication.” Again, this is offered with good intention but may have counter-productive effects in that patients worry about dependence and withdrawal effects from these medications, and these concerns lead them to avoid starting to take the medications at all.

The fifth and sixth messages advocating medical visits and counseling suggest actions that are inconvenient for patients and unrealistic given the limited clinical resources. Usual recommendations are vague about what the counseling should be about and is expected to achieve. The behavioral objectives of these activities need to be more clearly conceptualized and their content more clearly specified.

The final message promoting awareness is often frustratingly vague in its purpose and content. Education about lifestyle changes to prevent hypertension may be effective when patients have actionable options, which circumstance is widely unavailable in Nepal.

**Suggested alternative messages for Nepal**

The Common-Sense Model of Self-Regulation (CSM) is a widely used theoretical framework describing the dynamic process by which patients become aware of an illness, formulate an image of the threat and potential treatment, adopt action plans for addressing the threat, and integrate feedback on treatment efficacy and illness progression.8 Effective messages should, therefore, be consonant with the common patient beliefs and models of health in Nepal. These are often grounded in Ayurveda: Yoga, meditation, music treatment, and exercise, which should all be encouraged as complementary and supplementary treatments.4 The wellness orientation of the Ayurveda healing system and its focus on diet, exercise, and other daily activities support activities beneficial to hypertensives. Specific antihypertensive drug treatment can be presented as another approach to balancing the energies in life. Indeed, Sargandha (Rauvolfia serpentina), a front-line ayurvedic treatment for hypertension, is the source for reserpine, which has been a long-standing anti-hypertensive treatment in allopathic medicine. Ayurvedic medicine also views the patient as an active agent involved in a dynamic process of health maintenance. This model should also more frequently characterize our interactions in allopathic medicine. Concern about side-effects and dependency issues specific to long-term medication are also part of Nepali culture, however, and these concerns do not support adherence.

The CSM model’s dimensions offer a framework for possible alternative messages for adults:

**Identity:** We should not simply state that hypertension is asymptomatic; instead, we should say, “Having hypertension is like having diabetes, or elevated cholesterol levels in the blood, or abnormal thyroid function,” as well as, “When possible, have your blood pressure measured.”

**Timeline:** When multiple blood pressure measurements over several days show hypertension, we should say: “This situation will not change without treatment, as you have hypertension, a chronic condition that will always be there.”

**Consequences:** The severe consequences of uncontrolled hypertension should be linked tightly with the behaviors instrumental in preventing them. We should say, “Untreated hypertension can lead to heart attacks, strokes, kidney failure,
vision loss, dementia, and death, but taking medication every day can prevent these consequences. In the same way that serious infectious diseases can be avoided by vaccination. By continuing to take your medication each day you maintain your health.”

Patient communication should then move immediately to the behavioral requirements of treatment/control.

**Control:** Patients should be asked to verbalize when and where they will be taking their medicine, especially the trigger or reminder for that behavior, which may be as simple as having breakfast. Having patients state their plans validates and reinforces them. “When is a good time for you to take medication every day?” “…and you have breakfast every day?”

In discussing medication treatment, we should say, “Hypertension is a manageable condition, for which every-day treatment can be very successful in preventing any bad consequences. Treatment for hypertension can help you maintain balance so you can be healthy and deal with all the demands and stresses of your life.”

We should inform the patient: “Medical treatment for hypertension is safe. Drugs are often purer forms of long-used natural remedies,” before discussing side effects. Again, discussing the side effects of long-term medication of specific concern to a patient allows the practitioner to address and dispel misunderstanding as well as emphasize the need for ongoing treatment.

**CONCLUSIONS**

Increasing effective doctor-patient communication is key to addressing the significant issue of nonadherence to hypertension treatment in Nepal. By acknowledging the patient as an active agent engaged in self-regulation and by employing culturally consonant concepts (often Ayurvedic), we can encourage accurate patient illness and treatment representations that guide medication adherence. In hypertension medical treatment, patient beliefs determine patient behavior.

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