Cardiovascular Perspective

What Is in a Name?
How Biomedical Language May Derail Patient Understanding of Hypertension

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Abstract—Despite major advances in treating hypertension, >50% of all individuals diagnosed with the condition remain in poor control. A fundamental issue may be that patients may not fully understand the meaning of the term hypertension or its cause, leading to poor adherence to medications and limiting other effective self-management behaviors. We posit that the word hypertension itself may contribute to these misunderstandings, particularly in regards to the role of stress in causing hypertension, which thus suggests stress management as a primary strategy for control. The word hypertension is often interpreted by patients to mean too much tension. In conjunction with cultural framings of stress causing high blood pressure, many patients turn to stress management to control their hypertension. The word hypertension can thus cause patients to think of it as more of a psychological than physiological condition, thus discounting the value of antihypertensive medications and interfering with medication adherence. We therefore suggest that clinicians reconsider the use of the term hypertension and the ways in which they explain the condition to patients. Reorienting the language to the more patient-centered term of high blood pressure may help patients better understand the condition and to more readily embrace the available efficacious therapies.

Ask a patient what s/he thinks hypertension is and you may hear something like these words from actual patients:

Hypertension would be from...Somebody making you upset and getting overexcited and then it tightens up.

I keep saying if I move upstate I won’t have hypertension. I probably will not need medication, the lifestyle’s going to be different, it’ll be more relaxed.

I’m pretty sure [my hypertension is] back under control now...Because I don’t feel the pressure in my neck. And I usually check when I get pressure in the back. I’ll check it and it will be high.

The word hypertension is common, even in lay parlance, and the medical establishment often assumes that patients understand what hypertension is and how it affects them. But language is easily interpreted in ways unintended by the speaker. The term hypertension is a prime example of the problem of medical language or jargon being misinterpreted by the lay person. Although the term is used alternately with the term high blood pressure, studies from around the world indicate that patients may not understand the words in the same way as clinicians, and this may have significant implications for medication adherence and ultimately, outcomes.1–3

Despite major advances in pharmaceutical treatment and more intensive therapy being prescribed, as many as 53% of those diagnosed with hypertension remain poorly controlled, resulting in high rates of target organ damage and stroke.4 A recent Cochrane review of interventions to improve hypertension control notes that such interventions to issues of medication adherence and lifestyle factors have had limited success,5 whether focused at the provider or clinic level or at educational programs for patients. This may be in part because patients such as those quoted above have misconceptions about the cause and meaning of the condition. We posit that a fundamental problem with the language used by providers and the healthcare system impedes patients’ understanding of the problem, their self-management of the condition or its risk factors, and their openness and adherence to prescribed therapies.

The term hypertension came into broad use in medicine in the 1950s, but dating back to around 1895, has referred to the overstretching, hence tension, of the arteries and related increased arterial pressure.6 Based on the Latin root tensio, the state of tenseness that accompanies stretching or extension, the word tension has a vastly different meaning in the context of everyday language, in which it is largely associated with emotional distress. The word stress, originating in 1303, is derived from the French word, distresse, meaning hardship, adversity, force, or pressure. It was not until 1942 that the modern meaning of the word stress emerged as the nonspecific result of any demand on the body, whether mental or somatic.7 Since then the discussion of stress leading...
to illnesses, particularly cardiovascular disease, has become rampant in the Western cultural milieu.

Individuals seek information about their conditions from many sources other than their healthcare providers, including friends, families, and commonly used websites. Despite medical and technical definitions that clarify that hypertension is about arterial pressure, standard dictionary definitions, which may occasionally be accessed on the internet by patients, differ. A search for the term on dictionary.com reveals the following 2 definitions: the first a biomedical definition, but the second reinforcing the idea of hypertension as stress: “excessive or extreme emotional tenseness.” Hypertension is thus frequently viewed as a disorder of mental stress, evidenced by lay comments such as stress making my blood boil. A frequently visited medical advice website even cites stress management as a treatment for hypertension and provides advice on stress management.

As individuals are diagnosed with hypertension, therefore, it is not surprising that they would associate the term, and condition, with stress. A recent systematic review of 53 adherence studies from around the world notes that nonadherence to hypertension treatment often resulted from patients’ relying on the presence of stress or symptoms to determine whether blood pressure was raised. Patients often associate particular symptoms with hypertension, including headaches, neck aches, and feeling anxious. These are symptoms of stress itself and although patients may experience symptoms from high blood pressure, most often such symptoms have little relationship with variations in blood pressure. By focusing on symptoms, these patients only treat their hypertension at times when they experience such symptoms and think their blood pressure is high. Patients in most of the studies also described varying their adherence to medications depending on the presence or absence of symptoms. Thus, nonadherence to medications often ultimately led to poorly controlled blood pressure. Remarkably, these beliefs were similar across ethnic and geographical groups. Several studies included in the review provide further evidence that the word hypertension itself may contribute to this focus on stress as a primary cause of hypertension.

Other studies also support the premise that the word hypertension may contribute to this conceptualization of hypertension. One study of black women found that the word hypertension had morphed into the term, high-pertension, that itself may contribute to this focus on stress as a primary cause of hypertension. Providers should also be explicit with patients about the biomedical/technical meaning of the terms and concurrently address the lay meaning. They should discuss the biomedical meaning of hypertension as force of blood in the arteries; yet, concurrently they must address the lay conceptualizations on stress, detectable through symptoms which are often associated with stress.

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patient education may also wish to reconsider the use of the term or explicitly address misconceptualizations that the term elicits. A gradual change in terminology may help patients understand the condition in a manner more congruent with the biomedical understanding. Reorienting our language to the more patient-centered term of high blood pressure may help patients better understand the condition and to more readily embrace the available efficacious therapies.

The word hypertension is one of many in the clinical, biomedical world that are interpreted differently by people in the lay world. As we move toward a more patient-centered medical care system, paying attention to patients’ understandings of biomedical language is critical to insure that providers have the greatest possible impact on the health of their patients.

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References

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