Medical Noncompliance: The Most Ignored National Epidemic

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"Drugs don't work in patients who don't take them."—*Attributed to C. Everett Koop, MD, former US surgeon general*

A clogged artery can open up with a cardiac stent. A cancerous growth can shrink in response to chemotherapy or radiation therapy. A person with alcoholism can return to a constructive life after completing a 12-step recovery program.

No matter the technology, the treatment, or the will of the person, complete and appropriate health care will be hindered if patients understate or omit information about their condition. Of course, no health care professional would purposely ignore presented symptoms, but if patients don't realize they're leaving out vital information for treatment, remedies can remain untapped and illness can propagate right under the physicians' noses. In his book *The Lost Art of Healing*,[1] the Nobel Peace Prize–winning cardiologist, Bernard Lown, MD, referred to a British study that…

> showed that 75 percent of the information that leads to a correct diagnosis comes from taking a detailed history. After that, ten percent comes from a physical exam, five percent from routine tests and five percent more from further invasive, sophisticated and costly tests. In five percent you never find the answers.

Likewise, medical noncompliance creates a powerful obstacle for the physician that may be even more of an impediment to the patient's well-being if the patient fails to apply treatment, purchase medication, or follow up for necessary testing.

Medical noncompliance is occurring at epidemic proportions for countless reasons. Patients may need to purchase food instead of hypertensive medication, or they may disregard a follow-up test because they are unable to take the time off from work or cannot find transportation to and from the hospital.

Furthermore, if health care professionals don't understand the person beneath the diagnosis, they may not effectively explain to each patient the importance or rationale for a particular treatment. No matter the age, culture, or education of a patient, confusion over medication causes serious concern. The physician writes a prescription for the patient to fill and take according to the instructions. Questions as to when or how long the patient should take medication are often not addressed in the physician's office. If the physician does take adequate time to explain specifics of the medication, it is often soon forgotten by the patient.

But can medication noncompliance be concerning enough to consider the consequences a catastrophic issue? Does it affect enough of our population to be considered an epidemic?

As we all learned in our epidemiology class in medical school, an epidemic is defined as affecting or tending to affect a disproportionately large number of individuals within a population, community, or region at the same time.

Is missing a pill because you didn't realize you should take it in the morning *and* evening or choosing to pay a food bill rather than a co-pay something that affects a large number of individuals?

According to the World Health Organization (WHO), approximately 125,000 people with treatable ailments die each year in the United States because they do not take their medication properly.[2] Comparably, the WHO reported that the 2014 West African Ebola epidemic of 2014-2015 resulted in 11,312 deaths.[3]

In effect, patient compliance is a huge problem. The WHO also reports that 10% to 25% of hospital and nursing home admissions result from patient noncompliance.[4] Furthermore, about 50% of prescriptions filled for chronic diseases in developed countries are not taken correctly, and as many as 40% of patients do not adhere to their treatment regimens.[2] In the United States, which saw more than 4 billion prescriptions filled in 2015,[5] this non-

adherence represents a void physicians must be willing to help patients fill.

Medicare may hold physicians and hospitals responsible for medication noncompliance. Hospitalizations and emergency department visits that are deemed to result from patient care not being optimized may result in nonreimbursement for their medical treatment. So how do we get patients to be compliant with treatment?

Changing behaviors and enhancing comprehension is a complex issue, but unraveling the intricacies begins with a strong patient-physician relationship. The patient and physician make treatment decisions together. This relationship requires more than a medical dissertation wherein the patient nods in agreement without knowing what the physician's information means. Physicians need to first understand how best to empathetically communicate with patients so they clearly understand the treatment plan and what can happen if they do not participate in their own care. To iterate this to patients, physicians and their staff need to be well versed in the treatment plan to best explain those benefits, as well as alternative treatment options (*Figure*).

Including empathy in our interactions with patients reflects our osteopathic training to treat the patient as an integrated unit. Mind, body, and spirit must be addressed to achieve the best results. Patients also need to be invested in their own care and need to clearly understand treatment options as well as the complications and detrimental effects of noncompliance. It is our responsibility as prescribing physicians to make sure patients recognize that once they leave the physician's office, their health outcomes are in their own hands.

Surveys have confirmed that despite our best efforts, patients leave our offices understanding less than 50% of what we told them.[6] This lack of understanding leads to nonadherence that is estimated to cost between $100 and $300 billion every year.[7]

As a medical community, if we choose to continue accepting noncompliance as an unavoidable consequence of the public's misunderstanding or a lack of investment in their own care, we are not only allowing an ever-expanding epidemic to continue, but moving forward we will be held financially responsible. (doi:10.7556/jaoa.2016.111)

Acknowledge that there is often a lack of patient understanding in regard to follow-up and medication treatment. Have your ancillary staff call your patient to see if he or she has questions that need to be answered.
Understand that social issues may be preventing the patient from following your directions. Follow up with a phone call or e-mail to make sure the study was scheduled or that the prescription was filled and is being taken correctly.
Realize that change is difficult, even if one's health is at stake. Recruit the patient's family to help them adhere to your recommendations, whether it concerns diet, exercise, smoking cessation, or follow-up.
Be very clear as to outcomes. The patient needs to understand, unambiguously, the ramifications of not taking the medication as prescribed or making the lifestyle changes that you are recommending. Most importantly, patients must recognize that they are responsible for their own health.

Figure.
Action plan for better medical compliance among patients.

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