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## A Tale of Two Patients: Patient-Centered Approaches to Adherence as a Gateway to Reducing Disparities

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### Abstract

The disparate effects of social determinants of health (SDOH) on cardiovascular (CV) health status and health care have been extensively documented by epidemiology. Yet, very little attention has been paid to how understanding and addressing SDOH might improve the quality of clinical interactions, especially by improving patients' adherence to recommended therapies. We present a case and suggested approach to illustrate how cardiovascular clinicians can use patient-centered approaches to identify and address SDOH barriers to adherence and reduce the impact of unconscious clinician biases. We propose that CV clinicians 1) **Recognize** that patients may have different belief systems about illnesses' cause and treatment, which may influence their actions, and not to assume they share one's experiences or explanatory model; 2) Endeavor to **Understand** the individual patient before you; 3) Based on that understanding, **Tailor** your approach to that individual. We suggest a previously-developed mnemonic for an approach to **RESPECT** the patient: **F**irst, show **R**espect; then elicit patients' understandings of their illness by asking about their **E**xplanatory model. Ask about the patient's **S**ocial context, share **P**ower in the interaction, show **E**mpathy, ask about **C**oncerns or fears, and work to develop **T**rust by building the relationship over time. We provide additional clinical resources to support these efforts, including lay descriptions of cardiovascular conditions, challenges to adherence and suggested strategies to address them.

### Keywords

Adherence; Patient-centered Care; Disparities; Treatment disparities; Social determinants of health; Socioeconomic position; Race and ethnicity

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## Introduction: Social determinants of health (SDOH) drive health and health care disparities

Disparities in health status and health care processes, related to patients' social and demographic characteristics and associated life experiences (e.g., socioeconomic position (wealth, income, education, employment status), race/ethnicity, social support, access to care, residential environment, and discrimination), remain pervasive in American society, and contribute to significant disparities in disability and death from cardiovascular disease (CVD). Disparities in health *care* are those variations which are not attributable to treatment eligibility, clinical contraindications, patient preferences, or confounding by other clinical factors, which are associated with adverse consequences in health outcomes, and are of national public health concern. Racial and ethnic disparities in health *status* also have a striking and disparate impact on public health. For example, racial and ethnic disparities in hypertension are associated with 15% of black/white disparities in mortality due to income, and cardiovascular disease is the largest cause of the 14-year sociodemographic gap in life expectancy in the Eight Americas Study, which defined 8 sub-populations of the United States based on race and county-level demographic characteristics.

The 2015 American Heart Association Scientific Statement on the social determinants of risk and outcomes for cardiovascular disease (CVD) asserted: "...at present, *the most significant opportunities* for reducing death and disability from CVD in the United States lie with addressing the social determinants of cardiovascular outcomes." [italics ours; ]. Social determinants of CVD include the *direct* effects of personal characteristics, such as those listed above. In addition, there are *indirect* psychological, behavioral, and biological *mechanisms* by which social determinants lead to or exacerbate CVD, with one of the most significant being adherence to recommended lifestyle or therapeutic prevention, or to secondary prevention after a cardiovascular event.

Cardiovascular Epidemiology has incorporated a 'life-course' approach to understanding SDOH risk factors for adult CVD, recognizing that life experiences and conditions are critical, and cumulative, determinants of health. This approach "accounts for the simultaneous and cumulative consideration of social and environmental health risks that burden socially disadvantaged communities" (, page 1897). Put more concisely, deprivation and bad things that happen to people starting early in life have strong, cumulative and multiplicative effects on them physically and psychologically, leading to worse educational, occupational and health outcomes, and earlier death.

Thus, significant *descriptive* work in cardiovascular epidemiology has characterized the associations between disadvantage and the incidence of cardiovascular disease. Such disparities begin in the intra-uterine environment, negatively affecting use of pre-natal care, low birth weight, infant mortality, breastfeeding and early childhood nutrition. They continue with differential access to preschool, kindergarten readiness, and elementary school success, later affecting high school graduation rates and access to higher education, which in turn influences occupational opportunities, income and access to health insurance. Disadvantage may also include housing segregation, with associated disparities in exposure to community violence, housing quality, toxic chemicals and air pollution, and experiences

of racial or other discrimination. Such disadvantage also affects nutrition, obesity, food availability, and the odds of incident cardiovascular disease, and access to high quality health care . Figure 1 illustrates the multitude of ways in which two lives of ‘disparate’ experiences and access to resources can result in wide gaps in outcomes including mortality.

Along disparate pathways from birth to death, most individuals interact with the healthcare system (Table 1). There, already-disadvantaged patients may experience further disparities – unequal treatment, by virtue of their sociodemographic characteristics—in healthcare and resulting outcomes . . . .

Clinician bias – whether conscious or unconscious – is a potential contributor to disparities, through differential clinical decisions, its effect on clinical interactions and communication, or on patients’ anticipation of discriminatory or stereotypical treatment. Regardless of conscious intent, social psychology has amply demonstrated that we all make unconscious judgments about others, based on their social, physical and other characteristics, which may in turn drive our behaviors toward them. Thus, even well-meaning clinicians may make and act upon unconscious assumptions about patients, based on their race/ethnicity, social class, education, etc., which may lead to disparate care. We found, for example, that cardiologists anticipated significantly greater treatment adherence from white (versus black) patients. Other evidence from social psychology, however, supports the value of several strategies for reducing the effects of unconscious biases. It is important to **recognize** that such biases may exist, **accept** that they are a natural part of human cognitive functioning that helps us make sense of the world , yet be vigilant in **detecting** biases in our own thinking, and **develop tactics and systems** that foster more conscious patterns of interactions to reduce racial and other biases to help to address them . Thus, increasing clinicians’ skills in developing empathy with patients, and enhancing clinicians’ ability to take patients’ perspectives and to build partnerships with them, can mitigate bias . In turn, such activities may increase clinicians’ (and patients’) positive emotions in clinical encounters, which can simultaneously mitigate bias and enhance physicians’ satisfaction with their work .

Successful organization-level efforts to reduce healthcare disparities have recognized, identified and addressed disparities in processes of care, often through quality improvement methods . Other promising approaches include cultural and patient-centered tailoring, use of multidisciplinary clinical teams, and interventions aimed at multiple leverage points. However, despite some successes, many outcomes remain stubbornly disparate; even as CVD mortality has declined overall, disparities (especially by race/ethnicity) in such mortality have remained constant .

## How Can the Epidemiological Evidence About Social Determinants of Health Inform the Provision of Clinical Care?

A lifetime of disparities in social determinants of health leads to disparate risk for CVD, as has been extensively described by cardiovascular epidemiology. . . Yet, many cardiologists’ initial encounters with sociodemographically disadvantaged patients occur only in the acute care setting following a CV event. The **Case** suggests such an encounter and illustrates the adverse contributions of social and demographic factors in CVD care and secondary

prevention, as well as the ways in which physicians' recognition of and ability to address the social realities of their patients, and their own unconscious biases, may affect care and outcomes. It is of course not possible for clinicians to address or counteract the disparate life experiences that occurred prior to a patient's CV event. Yet, clinicians are still faced with patients whose life experiences may have led to this point and which will influence their willingness, ability, or means to utilize or adhere to recommended healthcare now. At this juncture, the goal of care is to minimize further risk through ongoing medical therapy and lifestyle change. Thus, patients' acceptance and adoption of recommended therapy pose a crucial gateway to opportunities for maximizing adherence and minimizing disparities in future outcomes. Cardiologists' ability to recognize and act upon the sociodemographic factors contributing to their patients' health and health-related behaviors is crucial to bending the curve of disparities. Recognition and understanding of the social determinants of disease can then guide patient-centered care strategies and bolster patient adherence.

Central to enhancing adherence is patient-centered care, one of the six pillars of quality care in the Institute of Medicine's report, *Crossing the Quality Chasm*. Patient-centered care is defined as "respecting and responding to patients' wants, needs and preferences, so that they can make choices in their care that best fit their individual circumstances" (p 48–50). Key to a patient-centered approach is good communication, based on an understanding of patients' life experiences, values, and identity. The evidence is clear that patient-centered communication leads to improved outcomes, including self-management of chronic conditions, adherence to recommended therapy, and patient satisfaction.

Adherence to therapy is a function of many factors, according to the World Health Organization, including patients' sociodemographic characteristics and clinician-patient relationships. Multi-level interventions are most effective at improving adherence, yet healthcare systems are not always able to implement them. Individual clinicians can address adherence in their own practices through a deepened understanding of individual patients, and by providing counseling and accountability. However, few physicians directly inquire about adherence, missing a key opportunity to identify patients in need of further support.

Clinicians may be concerned that addressing social determinants of health in the clinical setting will negatively impact efficiency, by requiring excessive time. This view may be a 'false economy', in that saving time in the short run by not addressing social determinants of health or how they might affect adherence can lead to nonadherence and worse outcomes, including hospital readmission and additional events. In fact, evidence indicates that patient centered approaches can actually help doctors obtain better information more efficiently, which can be used to enhance adherence. Systematic screening for social determinants of health, accompanied by referrals to address gaps, results in greater connections to community resources, which may in turn enhance patients' ability to adhere or otherwise care for their own health.

Further supporting the critical importance of adherence is the fact that the Centers for Medicaid and Medicare and other organizations' performance metrics are increasingly focusing on clinicians' ability to help patients adhere to recommended CVD therapies, including antihypertensive medications, and lipid-lowering agents. Thus, it is progressively

more important for clinicians to hone their skills in helping patients maximize adherence, to improve outcomes and to maximize reimbursements for such care.

### **The cases: Two different patients illustrate the varying influence of social determinants of health on adherence**

Tables 2 and 3 present additional detail on the cases, to illustrate various social determinants of health which may influence adherence to recommended therapy, and strategies clinicians (including physicians, nurses, clinical pharmacists, nurse practitioners and physicians' assistants) can use to maximize adherence. We discuss the cases from both the physicians' (Table 2) and patients' (Table 3) perspectives, with the goals of developing a deeper understanding of the dynamics of how SDOH undergird disparities in adherence. Our objective is to provide strategies that cardiologists can use to understand and reduce disparities in their own clinical practice.

#### **Some patients' value systems are congruent with the "biomedical view"**

The biomedical view holds that that illness and disease are a function of physical processes, including pathology, biochemistry or physiology, and does not take into account the role of social factors<sup>62</sup>. Patient 1 demonstrates a proactive approach to understanding the nature of his disease, predisposing factors, medication treatment and risk modification strategies. Such an orientation is congruent with the biomedical model, which asserts that patients can take control over their disease through adherence to therapy and lifestyle change. This reflects an underlying sense of personal control over his fate and a perspective oriented toward the future. This man's respect for the biomedical model is congruent with most physicians' views and in accordance with physician expectations. This patients' obvious respect for what his doctors have told him, his perception that he can be the master of his own fate, and his orientation toward having a healthy future reflect an endorsement of the biomedical view. Physicians may experience such an individual as a model patient.

#### **Other patients' value systems may differ from the biomedical view**

Patient 2 demonstrates some doubt about the information and therapeutic plan he has been given, and various aspects of his life interfere with his adherence to the plan. The advice given during the hospitalization regarding aftercare and need for medication therapy seems to have been eroded by perceived side effects and information from TV commercials, as well as his own beliefs about his conditions and what might help treat them. *This is not uncommon*; patients often hold different views about their conditions and effective treatments than the biomedical model. For example, our and others' work has revealed that many patients view hypertension as a stress-induced condition which can be remedied by lifestyle changes to reduce stress. Patients may hold beliefs about disease causality that are unrelated to biomedical explanations, and such beliefs may vary by SDOH. We found, within a primary-care based sample of white and black patients with hypertension, that African American patients were significantly more likely than white patients to believe that a germ or virus, pollution, or poor medical care caused their hypertension. A potential natural consequence of such views is the belief that antihypertensive therapies will not address the perceived cause of the condition, which in turn will likely affect adherence.

Further, terminology used for CVD conditions may also affect adherence, a notion supported by the Agency for Healthcare Research and Quality's Literacy Universal Precautions Toolkit. For example, the term 'hypertension' is interpreted by many patients to mean that the condition represents excess stress, leading to views that its treatment should involve stress reduction. We thus suggest use of the term 'high blood pressure', instead. Decreasing the use of technical terms and medical jargon is an important general communication strategy to improve patient comprehension.

Note that patient #2 does not detect any symptoms, and he says that the high measured BP is 'normal' for him. In addition, his limited health literacy and/or different culturally related world view about illness and what it means has led to a non-biomedical understanding of his condition and the means to treat it. His social context is such that taking time off from work means he will lose pay, jeopardizing his ability to pay his rent, and his sister's living situation. His poorer quality health insurance has high prescription copayments and he will incur significant out-of-pocket costs for the prescribed medications.

Yet, upon further questioning, one begins to understand the deliberate decision making that undergirds his seeming non-adherence. This patients' rationale for not quickly going to the ED was that he anticipated that the 'spell' would pass. His reasoning for not taking the BP medications is that they will interrupt his sleep due to increased need to urinate, and he has actively devised an alternative treatment strategy to decrease his stress, (and thus, he thinks, his high blood pressure) which makes sense to him given his explanatory model. Then, when high BP symptoms become detectable, he will take his antihypertensive medication. In this case, the patient is actively addressing his medical problems, albeit not in the way his doctor has prescribed. Writing this patient off as 'non-compliant' misses the underlying complexities of his situation and opportunities to address it. For example, could his clinic appointments be scheduled to better accommodate his work schedule so that he does not have to miss work? Could any of his care be managed by phone? Could a visit with a clinical pharmacist or health or peer educator help him understand the rationale for the medications, and help the care team to better understand the social situation or views of the patient? If the physician does not understand the patient's model of hypertension as a stress-induced condition, then the opportunity to share information about the biomedical view and how it might benefit the patient is lost.

Asking open-ended questions about the patient's view of the condition's causes and effective treatments, as well as his social context, might provide opportunities to address this patient's concerns, reveal barriers to adherence, and potential strategies to address those concerns. In addition, open-ended questions can convey that clinicians are truly interested in what the patient has to say, and can increase feelings of trust in the provider, which is particularly important to racial/ethnic minority patients. Asking a yes/no question as to whether he is taking his antihypertensive medications will elicit the answer "yes", which is true. However, a more open-ended question would lead to more and better information as to *how* he is taking his medications (when he gets a headache, so only infrequently), an important detail. In such an approach, the patient is appreciated as their own expert on their health care experiences and on the choices they make.

Value systems or explanatory models that are incongruent with the biomedical model might contribute to lower adherence rates . Not all patients adopt a biomedical, numbers-based, future-oriented, linear view of illness and disease. Nor do all patients embrace the notion that they have and can exert personal control over their health. Not recognizing potentially different belief systems can cause clinicians to miss important clues as to whether and how patients are adhering, and if not, why not. Clinicians can learn about patients' explanatory models by asking questions like, "What do you think caused your symptoms?", and, "Why do you think this started when it did? What do you think will solve the problem?" Answers to these questions can provide insights into unanticipated barriers to adherence that can potentially be addressed – but they must be identified first.

Depending on their value system, some patients will be motivated by numbers, such as the percentage decrease in mortality or recurrence of cardiac events with control of blood pressure (a number). Others do not relate to (or understand) such numbers but might be motivated by the quality of life and interpersonal relationship costs of non-adherence, i.e. avoiding another cardiac event so as not to disrupt family responsibilities. Some might feel individually empowered by their sense of personal control over their destiny while others might be more reliant on a higher power or an acceptance of family trends in health status (e.g. 'my father died of a heart attack at my age, so I've always expected the same will happen to me'). For some patients, the establishment of a trusting relationship must occur before they will accept medical recommendations –a caring and trusting relationship might be more motivating than data about risk reduction . Particularly for racial/ethnic minority patients, the history of unfair treatment , and ongoing perceptions and experiences of racial/ethnic discrimination in society and in the healthcare context may lead to expectations of unfair treatment by physicians, or other members of the healthcare team. Doctors can best address this by making efforts to build trust through demonstrations of empathy and concern, by listening, and through open communication.

In addition, patients' social context undergirds their ability to understand the condition (e.g., health literacy), determines how their illness affects their life, and in turn, how their life affects the illness and ability to adhere to recommended therapies. Asking directly about social context may uncover important barriers to adherence that can be addressed – by the physician or other members of the healthcare team.

How might a clinician efficiently tackle the process of recognizing, understanding and tailoring care, based on patients' social determinants of health? The remainder of this article suggests strategies and tools to do so.

## Principles and strategies for identifying and addressing how social determinants of health affect adherence

The fundamental principles, discussed below, are to 1) **Recognize** that patients may have different belief systems about illnesses' cause and treatment, which may influence their actions, and don't assume they share your experiences or explanatory model; 2) Endeavor to **Understand** the patient you are dealing with; 3) Based on that understanding, **Tailor** your approach to that individual.

With **recognition** of potential differences or biases as the starting point, one can become open to the possibility of patients having different belief systems about illness' causes and treatment, as well as the value and purpose of adherence. Also important to recognize is that while it may seem that patients are doing 'nothing' in response to recommended care, they are often actively trying to determine what is wrong with them, why it happened, and what they can do to manage it. This may or may not include prescribed medical therapy.

By developing a better **understanding** of the individual patient before you, and the social determinants that have affected their lives and their health, you will have a better understanding of who you are dealing with and how to better help them. Understanding patients' health literacy, life story/context, health beliefs and explanatory model provides vital information you can use to target your approach. Table 4 describes an approach to help clinicians or learners at all levels to 'Respect' the patient, which can enable a better understanding and mitigate potential biases . This approach is a mnemonic for a set of skills and behavioral approaches (including both non-verbal and verbal), for which Table 4 lists examples and suggested scripts. Starting by showing **R**espect for the value and autonomy of the patient, and the validity of his/her concerns, Mostow and colleagues next advocate eliciting patient's understandings of their illness, by asking about their **E**xplanatory model (the patient's understanding of what causes their illness and what will help it). They next suggest asking about the patient's **S**ocial context, including social determinants of health that impact illness and which illness will impact, including stressors, supports, strengths, and spiritual resources. Next is sharing **P**ower in the interaction, starting by recognizing that doctors have greater status, control, resources, options, and ability to produce desired outcomes, and finding ways to share such power. Then, show **E**mpathy, by validating patients' emotions. Next, ask about **C**oncerns or fears, including worries about symptoms, diagnoses, or treatments. Then, work to develop **T**rust by building the relationship over time, through understanding, power-sharing and empathy. Table 4 details definitions, behaviors, and suggested scripts to address each concept.

Using the information gathered, one can better **tailor** the approach to that individual. An understanding of the patients' health literacy level will help clarify what level of terminology to use. For patients with very low literacy levels, the National Heart Lung and Blood Institute and the American Heart Associations have developed lay definitions and explanations of common cardiovascular disease-related terms, which can be used to communicate more clearly to low-literacy patients (Table 5).

Tailoring can be done according to:

- Literacy. It is possible to informally assess or use formal tools to assess literacy (e.g., Rapid Estimate of Adult Literacy in Medicine (REALM)), and with that information, target explanations of disease, etiology, and treatment. Use easily understandable lay descriptions of CVD conditions (examples provided in Table 5).
- Life story/social context. Capitalize on an understanding of patients' prior experiences and aspects of their lives that affect their ability to adhere to therapy to inform the approach to discussing care with them.



- Health beliefs and ‘explanatory model’. Based on an understanding of the patient’s views of their illness and efficacious therapies for it, one can identify issues to address to enhance understanding.
  - a. Adherence. Inquire about willingness to take medications; discuss possible modifications, e.g. treating one condition now, wait to treat another later. If already prescribed medications, ask about adherence, saying: “Some people find it hard to take their medications. How is it for you?” (few doctors make such inquiries, so doing this alone is a significant step ). Table 6 lists potential barriers to adherence and suggested strategies for addressing them.
- Assess understanding and agreement using ‘talk-back’, or “Ask-Tell-Ask”, as suggested by the Million Hearts Initiative. First, “Ask” permission to provide information on a specific topic. Then “Tell” patients what they need to know, using simple and understandable language (examples in Table 5). Then, “Ask” patients, “Could you explain back to me what you understand about your condition and the treatment we have discussed?”. This will help you uncover misunderstandings, so they can be addressed.

## Summary

Addressing the multifactorial impact of social determinants of health on disparities in health, healthcare and outcomes remains an important national public health goal. While epidemiology has described these associations in the population, and numerous societal and community-level interventions have been suggested, clinicians need to recognize the possibility of their own unconscious biases and the social determinants of health in individual patients in order to address them. Patient-centered approaches can help clinicians to better understand the effects of social factors on their patients’ lives, health and views and behaviors related to health and healthcare and address the barriers they may pose to adherence to recommended therapies. Use of the approaches and tools provided here can help concerned clinicians target their efforts by enhancing the patient centeredness of their approaches, thereby increasing adherence and decreasing disparities.

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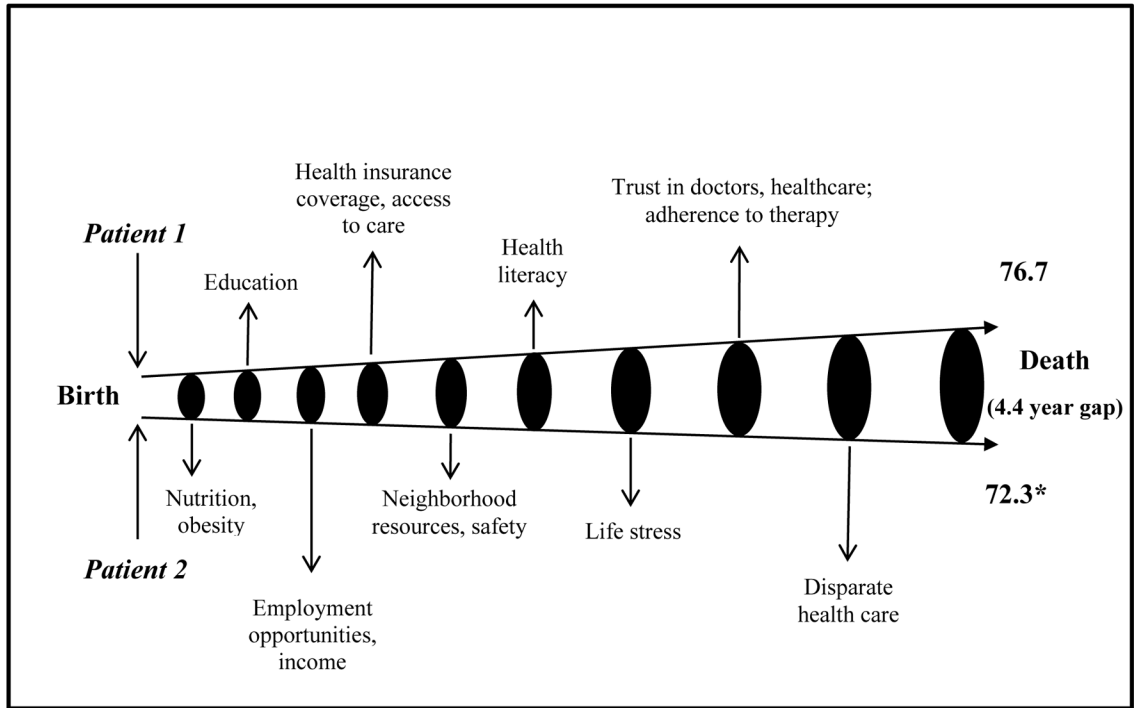
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\*Source: <http://www.cdc.gov/nchs/products/databriefs/db218.htm>

**Figure 1.**

A lifetime of disparities.

The life-course approach illustrated here demonstrates the cumulative and progressive impact of the direct and indirect social determinants of cardiovascular disease. Each dimension (e.g., nutrition, education) listed can be a positive or negative influence, depending on a person's access to resources or exposure to disadvantage. In this example, Patient 1 has had consistent advantages, while Patient 2 has had consistent disadvantage; the net result is a 4.4 year difference in life span in two hypothetical men, one black and the other, white, as per the Centers for Disease Control's 2013 mortality data.

**Table 1**

## Case Presentation

Overview	
A 55-year-old man with a history of hypertension, hyperlipidemia, tobacco dependence and obesity presented to the Emergency Department with chest pressure. NSTEMI was confirmed and the workup resulted in placement of a bare metal stent. Appropriate medications were initiated that included dual antiplatelet therapy, high-intensity statin and a beta blocker. For blood pressure control, the patient was started on a thiazide and ACE inhibitor.	
Medication therapy and lifestyle counseling were discussed during his inpatient stay. A two week follow-up visit with the cardiologist was scheduled.	
Patient 1	Patient 2
He has been adherent to his prescribed med regimen.	He misses the scheduled 2 wk cardiology appointment due to his work schedule
He is curious about his blood pressure reading which is above goal.	With outreach from the cardiologist's office he does present for an appointment 2 wk later.
He has gone on-line and has questions about an article he read about obesity and heart disease. He is interested in an exercise regimen and wonders when it will be ok to exercise again.	He expresses concern about taking so many medications. On review, he has been taking his blood pressure medication and aspirin only when he has a headache. TV commercials regarding statins' side effects dissuaded his use.
He admits he is worried that this could happen again. Of note, he hasn't smoked a cigarette since his hospitalization.	Everyone around him smokes so he has found it hard to cut down.
These two patients are clinically similar and the same therapy is appropriate for both. Yet, there are differences in their adherence. How might you approach each of them to ensure the best outcomes for both? Picture each patient in your mind; what kind of a person are they? What do they look like?	

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**Table 2**

Case presentation, continued

<b>The physician's thoughts</b>	
<b>Patient 1</b>	<b>Patient 2</b>
<p><b>Physician thoughts</b> (unvoiced to the patient)            “This patient is appropriately concerned about his recent event. He has stopped smoking, is adhering to the medications, has made an effort to learn more about his condition, and has begun to make needed lifestyle changes. I will see him back in a month and am optimistic about his recovery and future progress.”</p>	<p><b>Physician thoughts</b> (unvoiced to the patient)            “His blood pressure is uncontrolled, one month after an NSTEMI, and he has missed appointments. He’s only taking the antihypertensives intermittently and not taking the statin at all. It’s hard to see how we can help someone who doesn’t show up for his appointments and doesn’t take the medication we prescribe.”</p>

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**Table 3**

Case presentation, continued

<b>The patient's perspective*</b>	
<b>Patient 1, continued</b>	<b>Patient 2, continued</b>
<p><b>Patient thoughts</b> (unvoiced to the physician)            “That chest pain was awful, and it scared me to be in the hospital, to learn I’d had a heart attack, and to get the stent. I knew my blood pressure was a little high, but didn’t realize that 170/120 was such a big deal. This whole experience was a wake-up call and now I understand how important it is to take my blood pressure medications, as well as the statins, and other new medications they gave me, to exercise and get my weight down. The doctor said I was lucky, that the heart attack could have been much worse, and that if I take the medications he’s given me, lose some weight, and exercise more, I have a good chance of seeing my grandchildren grow up, many years from now.”</p>	<p><b>Patient thoughts</b> (unvoiced to the physician)            “That chest pain was awful, but I still wasn’t going to go to the hospital – I figured that if I waited it out, it would go away. But my sister made me go to the emergency room. I was shocked to hear I’d had a heart attack, since I didn’t think it was my time to go. I’d been told my pressure was high several years ago, but my pressure normally runs high, and since then I’ve tried to stay calm, even though there’s a lot of stress on my job and if I miss time, I don’t get paid, and if I don’t get paid, I can’t pay the rent, and my sister depends on me for the apartment. But I haven’t had any headaches recently, so I figured I was doing all right. The doctor in the hospital (who I’d never met before) gave me prescriptions for a bunch of medicines, but I don’t know what they are all for, and even though I have insurance, they will still cost me plenty. That doctor doesn’t know me and I don’t know him. I saw a commercial that said one of the pills can give me muscle pain, and a lawyer was advertising that people can go to court over the bad effects of that medicine. I don’t need that since I do a lot of lifting at work, so I’m not taking that one at all. I feel fine now. It just wasn’t my time to go.”</p>

\* Note. We have deliberately not stated the patients’ races, in this case. Did you make an assumption about each patient’s race? Did this assumption affect your thoughts about the patients’ adherence or whether/how you could address it? Perhaps Patient 1 is white and Patient 2 is black, but the reverse is also possible. Consider why race might be important (or not), as well as the other aspects of these patients and their lives which might influence their adherence.

**Table 4**

Guiding skills and principles to address disparities through RESPECT (adapted from Mostow)

Principle	Definition	Behavioral Description	Examples of what to say
R: RESPECT <i>show</i>	a demonstrable attitude communicating the value and autonomy of the patient and the validity of his/her concerns	<i>Non-verbal:</i> lean forward, maintain appropriate eye and personal contact, follow cues regarding personal space, physical contact, and appropriate greetings <i>Verbal:</i> welcome patient, introduce self and role on team, ask patient how they want to be addressed, recognize and affirm strengths and efforts	“Hi Ms./Mr. XXX, I’m Doctor X, one of the heart doctors here.” “What would you like me to call you?”
E: EXPLANATORY MODEL <i>ask</i>	The patient’s understanding of their illness, what it is called, how it works, and what will help it.	<i>Nonverbal:</i> give patient space to share their ideas. Listen without judgment. <i>Verbal:</i> ask patient about their views	“What do you think is causing your symptoms? What do you think will solve the problem?”
S: SOCIAL CONTEXT <i>ask</i>	Impact of patient’s life on illness and illness on his/her life. Includes stressors, barriers to health/adherence, supports, strengths, resources that influence health or healthcare.	<i>Nonverbal:</i> show interest and pay attention <i>Verbal:</i> ask patient how the illness affects their life and how their life affects their illness	“What should I know about you to care for you best? What is hardest for you regarding your illness? What and who helps you keep going and do what you need to do?”
P: POWER <i>share</i>	Access to status, control, resources, options; ability to produce desired outcomes. NOTE: the power gradient favors doctors.	<i>Non-verbal:</i> Reduce physical barriers; don’t dominate the interaction. Sit, limit interruptions, and make eye contact, with an open posture <i>Verbal:</i> Elicit the patient’s story with open-ended questions. Invite discussion and disagreement; share information; negotiate agenda and treatment plan and elicit preferences.	“What would make it easier to take your medications? Thanks for telling me that you don’t agree. What do you think about this?”
E: EMPATHY <i>show</i>	Verbal and nonverbal responses that validate patients’ emotions and cause them to feel understood	<i>Non-verbal:</i> Listen attentively; minimize interruptions. <i>Verbal:</i> Name and validate patients’ emotions.	“That must be hard, I can see why you would feel that way”
C: CONCERNS/FEARS <i>ask</i>	Worries about symptoms, diagnosis or treatment, often unexpressed	<i>Nonverbal:</i> head nods, indications of listening <i>Verbal:</i> ask open-ended questions about fears/concerns	“What worries you the most? What scares or concerns you about the medications? Are you worried about sex after your heart attack?”
T: TRUST <i>Develop and build together, over time</i>	Relationship built on understanding, empathy and power-sharing; patient confident that doctor acts on his behalf	<i>Non-verbal:</i> Notice/respond to signs of distrust. <i>Verbal:</i> Elicit and respond to expectations. Reassure and clarify follow-up.	“I’m here to help you”, “I care about you”

**Table 5**  
**Lay descriptions of common cardiovascular conditions**

, from the American Heart Association and the National Heart, Lung and Blood Institute

<p>1. <b>High Blood pressure</b> (this term preferred over ‘hypertension’): Blood pressure is the force of blood pushing against the walls of the arteries as the heart pumps blood. High blood pressure, sometimes called hypertension, happens when this force is too high. (Analogy: Blood pressure is like air in a tire -- blood fills arteries to a certain capacity. Just as too much air pressure can damage a tire, too much blood pressure can threaten healthy arteries. This is what we mean by ‘high blood pressure’). Over time, if the force of the blood flow is often high, the tissue that makes up the walls of arteries gets stretched beyond its healthy limit and damage occurs. This can also damage organs in your body like your heart and kidneys, and can lead to stroke, heart failure, kidney damage, or other problems. That’s why it’s important to keep your blood pressure ‘under control’.</p>
<p>2. <b>High cholesterol:</b> Cholesterol is a waxy, fat-like substance that’s found in the body. High blood cholesterol is a condition in which you have too much cholesterol in your blood. People cannot detect if they have a lot of cholesterol; a blood test is needed. Many people don’t know that their cholesterol levels are high. People who have high blood cholesterol have a greater chance of getting coronary heart disease, also called coronary artery disease.</p>
<p>3. <b>Atherosclerosis</b> is a condition that develops when a substance called plaque builds up in the walls of the arteries. This buildup narrows the arteries, making it harder for blood to flow through. If a blood clot forms, it can stop the blood flow. This can cause a heart attack or stroke.</p>
<p>4. <b>Heart Failure:</b> Heart failure is a condition in which the heart can’t pump enough blood to meet the body’s needs. In some cases, the heart can’t fill with enough blood. In other cases, the heart can’t pump blood to the rest of the body with enough force. Some people have both problems. The term “heart failure” doesn’t mean that your heart has stopped or is about to stop working. However, heart failure is a serious condition that requires medical care. Heart failure develops over time as the heart’s pumping action grows weaker.</p>
<p>5. <b>Heart Attack?</b> A heart attack occurs when the blood flow to a part of the heart is blocked by a blood clot. If this clot cuts off the blood flow completely, the part of the heart muscle supplied by that artery begins to die. If blood flow isn’t restored quickly, the section of heart muscle begins to die.</p>
<p>6. <b>Arrhythmia:</b> This is an abnormal rhythm of the heart. There are various types of arrhythmias. The heart can beat too slow (“Bradycardia”), or too fast (Tachycardia).. An arrhythmia can affect how well the heart works. The heart may not be able to pump enough blood to meet the body’s needs.</p>
<p>7. <b>Heart valve problems:</b> When heart valves don’t open enough to allow the blood to flow through as it should, it’s called stenosis. When the heart valves don’t close properly and allow blood to leak through, it’s called regurgitation. When the valve leaflets bulge or prolapse back into the upper chamber, it’s a condition called valve prolapse. When this happens, they may not close properly. This allows blood to flow backward through them.</p>
<p>(Sources: <a href="http://www.nhlbi.nih.gov/health/health-topics">http://www.nhlbi.nih.gov/health/health-topics</a>, and <a href="http://www.heart.org/HEARTORG/Caregiver/Resources/WhatisCardiovascularDisease/What-is-Cardiovascular-Disease_UCM_301852_Article.jsp#.VplbVKrUiig">http://www.heart.org/HEARTORG/Caregiver/Resources/WhatisCardiovascularDisease/What-is-Cardiovascular-Disease_UCM_301852_Article.jsp#.VplbVKrUiig</a>)</p>

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**Table 6**

Predictors of nonadherence and strategies to address them, from the Million Hearts Program

Predictors of Non-Adherence	Possible strategies to address this predictor of nonadherence
When discussing medications, be aware if your patient demonstrates limited English language proficiency or low literacy.	Use low literacy level explanations for cardiovascular conditions, their causes and treatments (see Table 5), identify and utilize an interpreter
Has a history of mental health issues like depression, anxiety, or addiction.	Screen for mental health issues and refer for treatment, if necessary
Doesn't believe in the benefits of treatment.	Invite patients to explain their belief system (explanatory model) and what is important to them. Based on this understanding, you may be able to address some of these different beliefs.
Believes medications are unnecessary or harmful.	Invite patients to explain their beliefs. By understanding them, you may be able to address their concerns.
Has a concern about medication side effects.	Invite patients to explain their concerns. By understanding them, you may be able to address their concerns.
Says he or she is tired of taking medications.	Empathize. Ask what might help.
Concerns about costs of medications	Prescribe generics or provide samples when appropriate, consider 90 day supply and/or bulk mail order.

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