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OP-ED

Motivating Prevention: from Carrots and Sticks to “Carrots” and “Sticks”

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When patients do not follow sound medical advice that would help prevent and treat disease, is it ethical to deny them benefits that more adherent patients enjoy? Some argue that making benefits contingent on adherence increases adherence without any unfairness: non-recipients have only themselves to blame.

Recent years have seen growing support for the idea of patient responsibility. Some writers argue that patients with alcohol-related end-stage liver disease should receive lower priority on waiting lists for livers than other end-stage liver disease patients [1]. Corporate wellness programs are sweeping the country, offering employees DVDs, iPods, plane tickets, and \$150 to participate in on-site exercise programs and health screenings or to sign up their children for anti-obesity programs [2]. A reduction in the rate of increase in national health expense was partly credited to programs such as these [3].

West Virginia currently operates a pilot program in three counties that gives enhanced benefits to adherent Medicaid patients who keep medical appointments, take their medications, and follow health-improvement plans. The enhanced-benefits package includes weight-loss programs, cardiac rehabilitation, chemical-dependency treatment, mental-health services, diabetes-management classes, and waiver of the general cap on reimbursed prescription drugs at \$4 per month [4]. Other states are eyeing developments in West Virginia closely. Redesigned Medicaid programs that incorporate patient responsibility are being introduced in Florida, Idaho, and Kentucky. Also of interest are patient-responsibility reforms in Germany and Scotland [5].

Offering carrots and sticks to encourage adherence to medical advice makes sense in some ways. Epidemiologists recognize the dramatic contribution of personal and lifestyle choices to health, particularly in relation to chronic conditions like diabetes, hypertension, and cardiovascular disease and also in preventing and treating HIV/AIDS and other infectious diseases. Many ethicists and political philosophers, including some egalitarians, see no injustice in holding people responsible for their voluntary choices [6-9].

Traditionally, physicians and ethicists opposed holding patients responsible for unhealthy choices, often pointing to factors within and external to the patient that limited his or her capacity for compliance and healthy behaviors. Is it really just, they asked, to treat the unhealthy choice of an addict as voluntary and to hold her

fully responsible for it? If not, is it just to treat the failure of an impoverished patient to maintain a healthy diet or keep appointments as voluntary when she has two jobs, a family, and little access to healthful food, childcare, and adequate transportation to the clinic? Given the well-established correlation across cultures between poverty and unhealthy lifestyles, can it be just to hold individuals responsible for choices typical of their socioeconomic sector [10]?

And even if risky choices of certain kinds—climbing mountains, driving recklessly, becoming pregnant—are typically voluntary, can an insurer tell in a specific case whether the choice was fully voluntary? If it were truly voluntary, would it not still be cruel to deny treatment to those who, owing to their own choices, need it [11]? Aren't patient-responsibility programs simply conspiracies to cut back Medicaid or shrink benefits to the poor [12, 13]?

There are problems from the care-provider perspective as well. Would it really boost health outcomes or cut costs if physicians monitored and reported their own patients' adherence, or would it only build distrust, stigma, and humiliation [10, 14]? If health is affected by personal choice, isn't it best to institute policies "upstream" that encourage healthy choices through increasing access to education, sufficient income, and attractive, user-friendly health services [15]? In short, where some see promise of significant financial and health gains in holding patients responsible for (non)adherence, others see injustice, cruelty, and little if any gain [16].

Which Incentives?

Assessments of patient-responsibility programs seldom focus on the kinds of incentives used to motivate adherence, when, in fact, the choice of incentive can be wise or harmful. Consider one incentive in West Virginia's Medicaid reform program: funding for chemical-dependency services—presumably for smoking cessation and substance-abuse rehabilitation programs. Prior to the reform, all West Virginian Medicaid patients in need were entitled to such services [17]. Now, access to chemical-dependency services, both inpatient and outpatient, is among the "prizes" for adherent patients [4]. Those who are addicted to drugs need detoxification to restore themselves physically, emotionally, and socially. Blocking their access to chemical-dependency services is cruel and may contravene their rights to urgent care.

By definition, those addicted to chemical substances enjoy only partial control over certain unhealthy choices, so denial of chemical-dependency services typically remains unjust even if we accept that fully voluntary, unhealthy choices could have justified sanctions. (West Virginia makes no formal exceptions for patients who develop addiction before the age of maturity or by using prescription medications for medical conditions.) Continued addiction produces negative consequences for others, ranging from secondhand smoke to domestic violence. Affected family, friends, and coworkers clearly made no choices that might have justified holding them responsible.

From Carrots and Sticks to “Carrots” and “Sticks”

West Virginia’s use of chemical-dependency programs as an incentive for adherence is inopportune. If Medicaid and other public programs wish to offer incentives to encourage adherence, what kinds of incentives might they use instead? I propose that incentives for adherence should be products or services that patients desire strongly but that have little or no intrinsic value and small impact on their health and well-being. Such incentives are desired but not truly desirable. Rather than real carrots and sticks, they constitute stimulating, yet illusory, “carrots” and “sticks.”

Consider a health practitioner’s deliberate use of patients’ embarrassment as a “stick” that motivates healthy choice. Last year, a new dentist got me finally to start flossing regularly by looking convincingly perturbed at my poor adherence and inviting me to frequent follow-ups until I become adherent. I am still under “probation,” but I flossed regularly this past year and feel good about my chances to stick to the new patterns, because after a couple of meetings it became too embarrassing to return without results.

Health-system design can also use our superficial but often overwhelming sense of embarrassment to promote healthy behavior. In directly observed therapy (DOT), patients are watched when they take medication or receive treatment. A form of this method is central to the World Health Organization’s Stop TB Strategy [18]. DOT is now used in the treatment of many additional infectious and chronic diseases. Consider how this method works. Admittedly, the visit from a health worker reminds patients to take their medication, but it seems to ensure they take it mainly by creating a situation in which it would be too embarrassing not to take it.

Patients with obstructive sleep apnea provide another example. These patients benefit from connecting to oxygenation machines during sleep hours, but adherence is often poor. Here, direct observation of patient compliance would have been too intrusive. Nevertheless, many new oxygenation machines are equipped with an embedded card that registers both sleep patterns and the patient’s use of the machine. If physicians regularly read the card in front of patients it might increase adherence.

Automatic registration of apnea patients’ behavior might also improve adherence through a very different route: by allowing insurers to deny coverage or increase premiums for nonadherent patients. I propose that the first kind of disincentive—embarrassment from one’s physician—is preferable to the latter, which can result in real harms to patients. Hence, instead of using real carrots and sticks, it is usually better to use “carrots” and “sticks”—outcomes that patients strongly desire or dread, but that do not benefit or harm them dramatically. Unlike steep fines (or profound stigma and humiliation), embarrassment is usually benign.

Medicaid and other public programs could also use these “carrots” and “sticks.” Their standard packages could dramatically improve for all patients, so long as adherent patients alone receive something that most target patients strongly desired. Suppose that in West Virginia the prize for adherence was exclusive funding, not for

chemical-dependency services, but for using a “dream” private hospital. Suppose also that public facilities for Medicaid patients greatly improved. While the products and services offered at the private hospital could not be far superior to those at highly improved public facilities, the private hospital’s advertising could make them appear far more attractive. Advertisements could feature the private hospital’s newer, shinier equipment (which achieves the same results as the equipment in the public hospital); the even shorter wait periods (for non-emergent conditions); alternative treatments that it alone performs (to little medical effect); and plush lobbies, greater food choice, and fancier cutlery. Advertisements would neglect to mention that public institutions reach similar or better clinical outcomes, handle patients’ records more efficiently, and never offer unnecessary procedures.

Many Medicaid patients might take better care of themselves to win prizes they desire strongly, and at the same time justice and compassion would be respected so long as the highly desired prizes are not highly desirable: there is little inequity or cruelty in denying nonadherent patients a benign “prize,” or even in visiting a benign “burden” on them. Justice and compassion matter only in the distribution of real benefits—genuinely desirable goods and privileges; “misdistribution” of things with little or no real value is neither iniquitous nor harsh. Thus, tying distribution of desired but nondesirable products and services to patients’ adherence may suffice to motivate patients, while avoiding gross injustice and cruelty.

The Possibility of “Carrots” and “Sticks” in Health Care

One reason why products and services can be desired but not desirable is our “bounded rationality.” For example, experiments in behavioral economics show that we put more weight on losing benefits that are already ours and that how available options are framed affects our decisions dramatically [19].

Physicians are aware of their own bounded rationality, as well as that of their patients and research participants—for example, their difficulties and systematic biases in calculating and grasping probabilities. Bounded rationality often leads us to desire treatments more or less than they are desirable given their risks and benefits. Judging from the dearth of kidneys for transplantation, it seems fair to conclude that few people fully realize that the 1-in-3,000 risk of death due to kidney extraction is lower than other risks they regularly confront. It is surprisingly rare to find a research participant who fully grasps that, if 50 percent of participants in a trial are in the placebo arm, she stands a 50 percent chance of not receiving the trial treatment [20]. Patients’ desire to avoid health problems and unpleasant procedures is notoriously “adaptive,” weakening as they grow accustomed to them [21]. Either before or after adaptation, there was mismatch between the respective levels of desire and desirability.

The potential in using patients’ systematic biases to promote health is also increasingly recognized. Cafeteria design that tends to manipulate diners into making healthier food choices (salad bars are located at the entrance to the cafeteria, complete with big salad containers) exploits our bounded rationality. So do opt-out

programs for kidney donation already in place in several European countries. By requiring a positive action to opt out of donating, these programs use our biases to boost the pool of organs available for transplantation [22].

Conclusion

One important desideratum in incentives for healthy choice is that many members of the target group desire them although the incentives are not truly desirable. Using incentives that patients strongly crave increases health outcomes and cost-efficiency by motivating adherence—but it involves little injustice or cruelty when these incentives lack real value.

There are two caveats. My examples of such incentives are merely illustrative. To establish that these particular incentives are strongly desired but nondesirable lies beyond the scope of the present hypothesis-generating article. If the particular incentives I mentioned do not answer that description, then the proposed principle still stands: desired but nondesirable is usually an important desideratum in incentives for healthy choice.

A second caveat is that this is only one desideratum in incentives for adherent choice. An incentive that satisfies this desideratum may remain problematic in other respects. For example, many cosmetic treatments are strongly desired and arguably not truly desirable, but some are so objectively undesirable as to be dangerous; Medicaid clearly should not use dangerous treatments as incentives. Nor should Medicaid use other desired and nondesirable incentives if using them would foil initiatives to educate the public against desiring them. It is for that reason that benign but wholly unnecessary cosmetic treatments may also disqualify as incentives. Finally, use of many—but not all—benign “carrots” and “sticks” as incentives would involve regular reliance on manipulation, which would count somewhat against their use [23].

Having said that, “desired-but-nondesirable” remains a valuable attribute, other things being equal, of incentives to prevent disease. Certainly we should not prevent disease by threatening to deny the nonadherent access to products and services that are lifelines to a dignified, minimally autonomous existence. Chemical-dependency treatments often fall under that category.

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