

Capability and Clinical Success

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ABSTRACT

Better outcomes for chronic diseases remain elusive because success depends on events outside the control of the health care system: patients' ability to manage their health behaviors and chronic diseases. Among the most powerful influences on self-management are the social and environmental constraints on healthy living, yet the clinical response to these environmental determinants is poorly developed. A potential approach for addressing social determinants in practice, as well as planning and evaluating community responses, is the capability framework. Defined as the real opportunity to achieve a desired lifestyle, capability focuses attention on the material conditions that constrain real opportunity and how opportunity emerges from the interaction between personal resources and the social environment. Using examples relevant to chronic disease and behavior change, we discuss the clinical application of the capability framework.

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CASE HISTORY

Mrs R. is a 48-year-old Latina who suffers from type 2 diabetes mellitus, hypertension, dyslipidemia, and obesity. She has been regularly attending appointments at the practice for 3 years. Despite ongoing adjustment of her medications, her glycosylated hemoglobin level has never been less than 8.5%. Her history and refill intervals suggest that she takes her medications regularly. She has attended nutrition and diabetes education programs. Her physician, Dr M., initially believed that she was motivated to manage her illnesses but is growing increasingly frustrated by the lack of clinical progress.

THE EPIDEMIOLOGICAL CONTEXT

Unhealthy behaviors and the chronic diseases associated with them account for much of the morbidity and mortality in modern societies. Developing effective solutions is complicated by the burden of morbidity falling most heavily on those with the fewest resources.¹⁻³ Reducing these health disparities has proved especially difficult, with little progress during the past 20 years.^{4,5}

DISCONNECT BETWEEN PROCESS AND OUTCOME IMPROVEMENTS

In the struggle to manage chronic diseases, a growing number of clinical studies point to a disconnect between process-of-care improvements and clinical outcomes.⁶⁻⁹ One reason for this disconnect is that success depends on events outside the control of the health care system: patients' ability to alter unhealthy behaviors and manage their diseases.⁶ The chronic care model therefore emphasizes the importance of patients as active partners. To promote patient participation, clinical strategies have broadened to include more holistic concerns, such as health literacy,¹⁰⁻¹³ self-efficacy,¹⁴ and the interventions deriving from them, including patient empowerment,¹⁵ patient self-management,¹² and motivational interview-

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ing.¹⁶ These approaches represent important advances, and they have improved outcomes.^{12,17} Yet they are themselves limited in scope. They aim to enhance patients' confidence, motivation, and problem-solving skills, but place less emphasis on evaluating whether the external environment offers real opportunities for change.¹⁸ For example a review of the current national standards for diabetes self-management education¹⁹ shows limited guidance beyond a general recommendation for "developing personal strategies to promote health and behavior change." This failure to sufficiently account for social determinants of health may be one reason that the interventions remain only modestly effective.²⁰⁻²⁶ In communities with few resources to support healthy behaviors, even knowledgeable and motivated patients can be defeated.^{27,28}

A CONSTRAINT: ENVIRONMENTAL BARRIERS TO HEALTHY BEHAVIORS

The social and physical environment is a key determinant of health behaviors. Population-level studies find significant variation in local opportunities and supports for health behavior change.^{18,29-37} For example, the retail landscape of low-income neighborhoods is likely to include few large supermarkets but many liquor stores, fast-food outlets, and convenience stores.³⁸⁻⁴⁰ Where supermarkets are scarce, healthy food is less available and more expensive.⁴¹ Even when present, supermarkets in low-income neighborhoods stock fewer healthy alternatives and lower-quality produce. And restaurants in low-income areas tend to offer fewer healthy options and more heavily promote their unhealthy menu items.⁴²⁻⁴⁵

Residents of less-affluent neighborhoods also face obstacles to physical activity. Unsafe neighborhoods limit options for outdoor activity, and there may be few affordable options for joining fitness or recreation centers. The time necessary to participate in physical activity is another barrier.⁴⁶⁻⁴⁹

The net effect of these environmental barriers is that residents of disadvantaged neighborhoods eat less-healthy diets, engage in less physical activity, and have a higher prevalence of obesity.^{44,48,50-52} Although these associations may be partially due to selection effects from people who value healthier behaviors choosing to live in more enabling neighborhoods,⁴⁷ the realities of economic segregation mean that disadvantaged populations are often concentrated in neighborhoods with fewer resources for healthy living.⁵³⁻⁵⁵

In summary, one of the limitations of current approaches for promoting self-management is that they often fail to account for common situational and environmental barriers that are among the structural

causes of health disparities. Although public health interventions⁵⁶⁻⁶⁰ to address these barriers will continue to be necessary to prevent avoidable morbidity, developing effective clinic-based methods is also important, given that primary care maintains a high population contact rate.⁶¹

PATIENT CAPABILITY AS A DETERMINANT OF CLINICAL SUCCESS

The capability framework was created to evaluate individual well-being and its social context.⁶² In this framework, capability is defined as the extent to which people have the opportunity to live the kind of life they value.⁶³ Value can derive from activities, such as eating well, or achievements, such as being well-nourished, and it also encompasses higher-level goals, such as being independent enough to make one's own decisions. What distinguishes the capability framework from other approaches to evaluation is its emphasis on opportunity as well as achievement. Turning raw capacity (eg, the ability to walk) into action (walking for 60 minutes a day) to achieve a goal (being physically fit) requires that there be real opportunities to do so.^{63,64} Examining the set of potential opportunities that are viable for a given person (a capability set) helps to define what goals are attainable.⁶⁵ For instance, a capability set for physical activity would encompass the various modes and durations of physical activity that are realistically achievable given a person's constraints of time, money, support from others, physical abilities, and what is locally available.

Including opportunity as a measure of well-being helps avoid problems that arise when achievements are the sole yardstick.⁶⁶ A difficulty with measuring individual well-being by achievements is that not everyone values the same achievements. Instead, the capability approach presupposes that what all people do value is the opportunity to pursue the goals that are important to them. This expanded focus recognizes the importance of individual agency.⁶⁷ It is also sensitive to how agency can be diminished by entrenched deprivations, as people with few opportunities adjust their expectations downward.^{68,69} In those situations, taking low expectations at face value may help perpetuate standing inequalities.⁷⁰

At the community level, the capability approach seeks to shift the view on behavior change away from framing in terms of noninterference—"no one is stopping you from eating healthy food"—and toward considering positive such supports as the availability of fruit and vegetables in neighborhood markets.⁶³ From this perspective, without support for healthy lifestyles, the freedom to pursue health is illusory for those with the will but not the means to do so.

As we consider various kinds of community support, the capability approach reminds us that providing resources is not enough without also considering how they will serve people with an array of nuanced needs. Does the list of community resources meet the needs of working families? Is the new park accessible to those without cars? Recognizing that people differ in their ability to turn primary resources into desired outcomes discourages formulaic solutions; the key question is not whether the community offers everyone the same resources but whether it offers everyone the conditions to thrive.⁶⁴

A capability perspective implies that poverty should not be defined primarily by income but by scarce opportunity to pursue valued activities and goals. Strong external supports create opportunities that enable people with limited income to pursue their goals for healthy living.⁷¹ Capability is thus a key mediator of the relationship between socioeconomic position and outcomes.

As the preceding discussion indicates, capability cannot be understood as a disconnected individual attribute. Instead, capability emerges from the interaction of person and environment. A neighborhood without grocery stores is an inconvenience for someone who owns a car but a major obstacle for someone who does not—unless there is good public transportation. So it would make no sense, for example, to consider what a disabled person might realistically achieve without also exploring what resources are available in the community.

Thinking systematically about capability calls for attention to 3 sets of factors (Table 1). Considering them together will help illuminate the interdependence of choices, resources, and contexts. First, what are the patient's choices—values and goals—for this health issue? The capability framework recognizes that individual choice and motivation are important determinants of behavior—in the absence of motivation, opportunity is irrelevant. Yet the observation that people will nar-

row their aspirations in impoverished environments calls for careful exploration without being paternalistic. If new opportunities could be identified, would the person value the goals differently? Second, what material resources does the person have available? The answer will help define the boundaries of what is achievable. Considerations include the goods and services locally available at a given cost and whether the person has adequate financial resources to access them. Third, what is the person's ability to turn those resources into real opportunities? A wide range of factors influences the ability to exploit available resources. Among these factors are literacy, physical or mental disability, social and cultural norms, discrimination, and status within the home, workplace, and society. For example, within a single household, be it affluent or poor, there may be crucial differences in the real opportunities for healthy behaviors because of power imbalances in gender roles.⁷² Other nonmaterial factors that would be important to assess include decision-making strategies, interpersonal skills, social networks, and group memberships, such as churches or community organizations.⁶⁷

CLINICAL APPLICATION

The capability framework is in its early stages of development for health and health care applications.^{67,73,74} The intent here is to discuss its potential use in the clinical and community contexts of primary care and to provoke further discussion, development, and evaluation.

Perhaps most importantly, capability can be used as an organizing framework for addressing lifestyle change and chronic disease self-management. In this role, it has several benefits. Understanding the interaction among environment, opportunity, and choice assembles a fuller context for understanding patients' progress in lifestyle change.¹⁸ The questions in Table 2 illustrate areas of inquiry when assessing capability for changes in diet or physical activity. Identifying patients with few real opportunities for change may prevent the delay inherent in repeated cycles of advice followed by failure and frustration.^{31,75} Instead, energy can be redirected to problem solving. Conversely, recognizing and building on existing assets can help reduce resignation and dependence.⁷⁶ Communities often include people who thrive despite adverse environments. Their wisdom and strategies for leveraging local resources can sometimes be turned into larger programs.⁷⁷

When capability is limited, two interventions may be appropriate. If community resources to enhance opportunity are available, the next step is to connect patients with resources that support healthy behaviors.⁷⁸ Preliminary evidence suggests that practices with strategies in place to identify patients with low physical activity

Table 1. Evaluating Real Opportunities and Potential Interventions

Assessment	<ol style="list-style-type: none"> 1. What are person's values and goals with respect to this health issue? 2. What resources are locally available? Is there opportunity to access them? How convenient are they? What is the price? 3. What personal, family, or community factors help or hinder using those resources?
Intervention	<ol style="list-style-type: none"> 1. What is the functional goal? Is there an opportunity to achieve the function in another way? 2. What personal, family, or community assets can be leveraged to increase opportunity? 3. Can the social context be addressed through community action or advocacy?

Table 2. Assessing Patients' Capability in Diet and Physical Activity

How easy is it to get to a grocery store for food shopping?
Are fresh fruits and vegetables for sale where you usually shop for food?
Can you afford to buy fresh fruits and vegetables?
Is there a place where you can grow food in your yard or your neighborhood?
Do you have time to fix your own meals?
Do you have family who can help you fix meals?
At home, are you free to eat the foods that doctors or dietitians have said you should eat?
Do you have the chance to be physically active?
It is convenient for you to be physically active several days a week?
Is being physically active a daily part of your job?
Do you have time each day to be physically active?
Do you have convenient places to be physically active outside [indoors]?
Do you have safe places to be physically active outside [indoors]?
Can you afford to join a health or fitness club where you can exercise?
Do other people help free your time to be physically active?
Does your spouse/partner make it easier for you to be physically active?
Are there people to help watch your kids while you exercise?
Do you have other duties [such as caring for a parent] that make it hard to be physically active?

and link them with practice or community resources for change are more likely to achieve high rates of physical activity.⁷⁹ Most practices' current capacity to make these connections is limited and will need development,⁸⁰ but experience with bridging practice and community resources is growing, providing useful guidance.⁸¹ To cope with the varied needs presented by patients with different levels of affluence, literacy, and mobility, as well as varying cultural backgrounds, it is helpful to be able to offer a menu of different community resources. Because the type of community resources available will vary, clinicians and practice staff need to be knowledgeable about what is available locally. Creating a local referral guide for clinicians' use can help. Flocke and others^{82,83} have created a useful method to assemble a guide, but a more promising emerging model is a local connector available to help patients select the appropriate resource for their situation. The connector function has been carried out by trained staff, such as medical assistants,⁸⁴ or community liaisons shared across practices,⁸⁵ or by Web portals,⁸⁶ all of which have been shown to increase connections with community referrals. A potential advantage of the connector model is that the connector can help manage the referral after the initial contact, checking patients' progress, providing reminders, or even delivering more sophisticated behavioral change counseling.⁸⁵ North Carolina's recent experience has shown the feasibility and effectiveness of a collaborative arrangement in which practices share community resources that enable patients to better manage their chronic diseases.⁸⁷

To be successful, community resources must be available, accessible, affordable, and effective.⁸¹ Several types of community connections can increase patients' opportunities for successful change, including community health workers, partnerships with local public health authorities, and collaboration with community groups. One model is for community health workers to assist patients with instrumental or relationship support, such as providing companionship for walks, motivational messages, or mobilizing the assistance of family.⁸⁸⁻⁹¹ Arrangements where community health workers are closely integrated with the practice allow for continuous cycles of assistance, feedback, and tracking progress with the clinical team.⁹² By bridging the perspectives and worldviews of practice and community, community health workers may also help clinical teams better understand the local barriers to healthy living.⁹³ Beyond aiding individual patients, community health workers often enhance capability through local activism to promote healthier physical and

retail environments.^{18,94} Evidence that these community health worker interventions improve outcomes is now available from a number of studies.^{89,92,95,96}

Partnerships with local public health agencies remain an underused opportunity. Primary care practices and local health departments embrace many of the same prevention goals and provide overlapping care for disadvantaged populations, but they often poorly coordinate their services. Front-line clinicians are in an excellent position to provide community intelligence on needed resources, whereas health departments' outreach and education programs can directly enhance patients' capability in disease prevention and health promotion.⁹⁷

Grassroots community groups can be helpful partners as well, providing direct aid for patients and mobilizing the community to create new opportunities for healthy living.⁹⁸ An example of the latter is the creation of minimarkets to sell produce in communities that lack traditional grocery stores.⁹⁹ Practitioners seeking to forge linkages with community groups will find guidance in the principles of community-oriented primary care.^{100,101}

When communities lack the resources necessary to support capability, practices should advocate for what is needed.¹⁰² The capability framework can be used to help guide the development of solutions, keeping the focus on expanding opportunities for people across the spectrum of assets and needs. Practices can choose their level of involvement, but it helps to remain sufficiently engaged to shape a result that is well-integrated with the practice.¹⁰³

CASE OUTCOME

With a short series of capability questions to Mrs R. about her situation, Dr M. learned the following facts: Mrs R.'s neighborhood lacks a full-service grocery store. She does not own a car and depends on her adult son to drive her to a distant grocery to buy her food. His availability does not always coincide with her needs, so she must do quite a bit of fill-in shopping at local convenience stores that do not stock fresh produce or other healthy alternatives. Although she tries to plan her shopping around the menus her nutritionist provided, her husband, who is also a diabetic, dislikes the recommended meals and refuses to eat them more than once or twice a week. Also, she sometimes struggles to find the time to prepare meals at home because she cares for 2 young grandchildren at her daughter's residence. On the evenings when her daughter returns home late, she and her husband eat at one of the nearby fast-food outlets.

Dr M. connected Mrs R. with a community-based group that trains *promotores* to assist patients with managing their diabetes. Mrs R. attended several culturally relevant cooking classes at the group's center, learning how to make meals that would be more palatable to her husband while still meeting their dietary needs. The instructor recommended preparing meals in larger quantities once or twice a week so the extra portions could be stored and quickly reheated on the nights when time is short. A *promotora* was also able to introduce Mrs R. to a nearby neighbor for shared shopping trips.

FRAMEWORK FOR SUCCESS

Patients with good health literacy and self-management skills can nonetheless be defeated when they lack the resources to put those skills into action. Although policy approaches are ultimately necessary to address the underlying social determinants of health, the failure to develop a systematic clinical response to the pervasive environmental barriers to healthy living continues to slow progress in managing chronic disease.

The significance of the capability approach is that it expands the informational basis for making clinical assessments, illuminating areas where patients' knowledge and motivation may be hobbled by difficult circumstances. By focusing on external as well as internal supports, the capability framework can potentially augment the effectiveness of self-management and empowerment strategies. It may also help to more efficiently manage health behaviors and chronic diseases by prospectively identifying patients who are at high risk of failing to change key behaviors. Attention and additional resources can then be focused on this at-risk patient subset without having to rely on broad indicators, such as

race or educational level, that risk misclassifying patients with adequate capability to achieve change.

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