
A Transdisciplinary Approach to Improve Health Literacy and Reduce Disparities

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A challenge to public health professionals, health care providers, and consumers is to come together to improve the quality of health care and to eliminate disparities. Improving health literacy skills along with a transdisciplinary approach to care contributes to effective patient-provider communication. This article addresses a team approach to health care, a community health center experience, self-management skills, patient education, and cultural competency training. In addition, the authors provide concepts that can be incorporated in health care settings to eliminate health disparities and improve health literacy.

Keywords: *chronic disease; cultural competency; cross-cultural; health disparities collaborative; health disparities; health literacy; quality health care; self-management; transdisciplinary model; Unity Health Care*

In order to eliminate health disparities, the nation must look toward improving the quality of health care. Quality health care means providing patients with appropriate services in a technically competent manner, with good communication, shared decision making and cultural sensitivity (Institute of Medicine [IOM], 2001).

Improving the quality of health care services includes the implementation of a variety of strategies to improve

health outcomes. The agenda for addressing this important area includes strategies for reducing medical errors, increasing the appropriate use of effective health care services, increasing consumer and patient use of health care quality information, and improving consumer and patient protections (Health Resources and Services Administration [HRSA], 2005a).

These strategies will help improve the patient's health literacy and self-management skills.

Health literacy, the degree to which individuals have the capacity to obtain, process, and understand, basic health information and services needed to make appropriate health decisions (U.S. Department of Health and Human Services, 2001) is an important component of improving health care quality and eliminating health disparities. Populations most likely to experience low-literacy levels are older adults, racial and ethnic minorities, people with low education levels, people with low-income levels, nonnative speakers of English, and people with compromised health status (IOM, 2004).

To fully address health literacy, many health care settings have begun to use a transdisciplinary model of care. A transdisciplinary model of care includes a treatment team that shares the responsibility for the continual care of patients and views their roles as overlapping as they work together to determine the appropriate treatment for the patient. It is important to form the team based on the needs of the community and to include community members as part of the team. Teams become more effective with training, institutional and systems support, and incentives and rewards for success (Ruddy & Rhee, 2005).

As the collaborative, cohesive team works together to share information and to identify those patients with limited health literacy, it is important to provide appropriate resources to improve patients' ability to prevent

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the onset of disease and to be able to manage their treatment and their disease.

Priority Areas for National Action: Transforming Health Care Quality (IOM, 2003a) identified 20 priority areas for transforming health care quality. One of these priorities is Self-Management/Health Literacy. An IOM Committee Consensus (2003a) outlined a critical need to improve care coordination, support for self-management, and health literacy for all patients and their families.

► UNITY HEALTH CARE: THE DIABETES COLLABORATIVE AND TRANSDISCIPLINARY CARE

Since 1985, and then under the name Health Care for the Homeless, Unity Health Care has served individuals and families in all eight wards of the District of Columbia through its network of medical and social services that reach the homeless and residents. The organization expanded in 1996 when it became the federal government's emergency grantee for the Community Health Center Program. In 1997, it adopted the name Unity Health Care, Inc. In June 2001, Unity Health Care joined the DC Healthcare Alliance, a collaborative of a variety of local health care providers that provide wrap-around services to those most in need in the District of Columbia.

The Health Resources and Services Administration (HRSA) Health Disparities Collaboratives (HDC) is a

national effort to achieve strategic system change in the delivery of primary health care. Starting with the chronic diseases care model, the HDC focused on the conditions of highest importance to the health centers in terms of cost, volume of patient visits, and/or complexity of care needed. Unity participates in the Diabetes Collaborative at its Upper Cardozo Clinic. The Diabetes Collaborative is part of a national effort to reduce the health disparities and improve treatment outcomes for different minority and low-income populations who suffer from chronic diseases. Since 1998, more than 450 HRSA-supported health centers have participated in Collaboratives focusing on diabetes, cardiovascular disease, asthma, cancer, and depression. Pilot HDCs have focused on prevention, diabetes prevention, cancer screening, finance and/or redesign, and perinatal and/or patient safety (HRSA, 2005b).

Participating health centers select a multidisciplinary team of three to five staff members. The Unity team has been encouraged to explore models such as a transdisciplinary approach. Elements of this approach include a team of health professionals that corresponds with the needs of the community. The Unity collaborative team includes physicians, nurse practitioners, nurses, medical assistants, administrative staff, a dentist, and an endocrinologist. The team recently invited the District of Columbia's Department of Health to send a representative who works closely with the Latino community and diabetes. The collaborative team recognizes the importance of input from consumers as well and has discussed ways in which we might integrate their suggestions and feedback. Through bimonthly meetings during the past few years, this Diabetes Collaborative has been able to set goals and work together to overcome obstacles affecting patient care and improve chronic disease management.

► UNITY HEALTH CARE: A COMMUNITY HEALTH CENTER EXPERIENCE

Mr. G shuffled into my office behind his rickety walker. I was about to count him as a "no show" after calling for him five different times over the noise in the bustling waiting room. One of his neighbors had walked in on my final call and pointed him out to me saying in Spanish, "You have to look at him directly when you speak; he doesn't like to admit that he doesn't hear very well." After I thanked her she smiled and added, "We have to help each other out in our old age." Mr. G's words of greeting were also in Spanish: "This room full of people makes me nervous." His eyes scanned me as if to assess what I may be able to offer him today and he declared, "I had to take two buses to get here today."

Even in this brief interaction Mr. G was talking about his unique needs as a consumer seeking assistance with his health care.

In my role as a diabetes nurse educator, I have about 30 min to assist patients to determine what will be most essential in managing their diabetes, equip them with the knowledge and tools to address these needs, and formulate a plan best suited to their personal abilities and resources. This is no small task. Patients often arrive with little comprehension of their disease and yet need immediate training in specific skills such as insulin injections or blood glucose monitoring. Fortunately, our health center encourages patients to return frequently at no cost for needed visits, allowing me to address their most vital needs up front and schedule follow-up visits for less pressing and maintenance issues. Not only does this keep the level of new information manageable for patients and their families, but it also promotes relationship building with their health care team.

The concept of *health literacy* augments the need to assess the unique barriers each patient may have to receiving and comprehending information. It became clear to me that Mr. G was faced with several barriers, most of them common to our general service population, not just those seeking diabetes education. As an 82-year-old man, Mr. G's age alone indicates the potential need for health literacy assistance. Patients age 60 years and older have a higher prevalence of literacy problems (Gazmararian et al., 1999). For example, Mr. G's hearing impairment had already been revealed, and his complaint about the glucometer numbers being too small to read pointed toward low visual acuity. These factors, along with the anxiety that he expressed from time spent in the waiting room, were a few of the issues that would challenge his ability to understand instructions related to his health care. Language is a common barrier for many of our patients whose first languages include Spanish, French, Amharic, Vietnamese, and Arabic.

The relief in Mr. G's face when spoken to in his language was made clear by the grin on his face. He admitted that he did not always know how to respond to someone who speaks English to him, even though he had lived in Washington, D.C., for almost 20 years. Often patients will attempt to use English in the clinic as they are comfortable with casual conversations and give the false appearance of English comprehension. It is very different to apply conversational English to navigate the health care system. Many patients are embarrassed to admit that they don't always understand everything that is communicated to them in English. It is also important to note that spoken Spanish—like

other languages—is unique to each country of origin, often causing confusion even between native Spanish speakers from different countries. Fortunately, Unity has addressed this language barrier by providing access to a Translator Phone Service whenever needed. I did not need to use the service with Mr. G that day but have successfully used it with other patients and families.

Even though Mr. G had lived with the diagnosis of diabetes for more than a decade, he did not hesitate to express that he would like to understand more about this disease that had taken the lives of a number of his family members. Because his level of understanding had not yet become evident to me, my communication with him included many pictures and diagrams designed for patients with limited health literacy. Many people are ashamed to admit they experience literacy problems; however, I have discovered that asking the question "Do you like to read?" often solicits an honest answer. He expressed that he had never learned to read well and that he would appreciate any materials in Spanish to take home and share with his son.

Mr. G made many references to his home country of El Salvador throughout our visit. It was clear that his daily actions and thoughts were guided by his culture. I am aware that his unique culture gives him a frame of reference different than the one that many who work in our clinic are using, thus creating barriers to understanding health information and services.

As we discussed his logbook of home blood glucose monitoring, I noticed that he had extremely varying numbers marked by many high readings. Something didn't seem to fit when he said that he was injecting his insulin "as scheduled" according to these readings. Through continued conversation he reluctantly admitted that he had not been injecting the insulin as his doctor had prescribed it, but rather that he was changing the dosage depending on how he felt. This information became clear to me only after I invited him to share with me the story that insulin had played in his life. He explained a commonly accepted belief among Salvadorans that insulin causes blindness. He said that people in his culture only took medicine when they began to feel bad. The concept of a chronic disease had not yet become a part of his understanding or self-assessment. As I formulated a care plan with him, my top priority was to next share this new information with his primary care provider and other team members.

The team meetings that are held in the health center have provided a forum to discuss how we can work together to help our patients. This has helped us meet the needs of Mr. G. Mr. G's provider, who is part of the team, was grateful to be informed of this new information regarding the sporadic insulin usage. He requested the

first available referral to our endocrinologist. The medical assistant working with the endocrinologist is a Latina woman and part of the collaborative team as well. She not only made space for a brief visit with the endocrinologist that day but also provided the language translation and acted as cultural broker for Mr. G's first encounter with the specialist. She interpreted the information about Mr. G's beliefs and usage of insulin in a manner that respected his culture yet clearly reflected the discrepancies. The strategies used to address Mr. G's health care improved his ability to obtain health information and better manage his disease, thus improving his literacy skills.

► HEALTH LITERACY AND DISEASE SELF-MANAGEMENT

Disease self-management is an area where health literacy plays a crucial role. As rates of chronic disease continue to rise, the health care system is increasingly recognizing the importance for patients and their families to manage their own diseases and make healthy decisions. Many self-management and self-care models view the individual patient as playing a central role in these tasks. To prevent further complications and manage their disease, individuals must be able to make informed health decisions and understand how to access care when it's needed. Health literacy is more than reading and writing skills and includes the ability to comprehend and assess health information in order to make informed decisions about health behaviors, self-care, and disease management (U.S. Department of Health and Human Services, 2004; Zarcadoolas, Pleasant, & Greer, 2003).

Limited health literacy can be identified as a key contributor to disparities in health outcomes and has shown to be associated with poor self-care in diseases such as hypertension (Williams, Baker, Parker, & Nurss, 1998), diabetes (Kim, Love, Quistberg, & Shea, 2004), HIV/AIDS (Kalichman & Rompa, 2000), and asthma (Williams, Baker, Honig, Lee, & Nowlan, 1998). Health care professionals addressing health literacy can improve the self-management skills of individuals and significantly help them face challenges of managing their diseases and navigating the health care system. In a recent study, individuals with limited health literacy were shown to have less health knowledge, poor self-management skills, lower use of preventive services, and higher hospitalization rates (Wolf, Gazmararian, & Baker, 2005) than those with adequate health literacy skills.

To address these disparate health outcomes, a variety of methods can be used to improve the patient's health literacy. Examples of strategies that have been effective for communicating with limited health literacy patients with diabetes include focusing on select critical behaviors,

reducing the complexity of information, using clear, concrete examples, concentrating on single topics at a time, avoiding medical jargon, and using teach-back methods (Rothman et al., 2004). These strategies can be used for teaching self-care skills for a variety of diseases and conditions in which individuals play a central role. In health promotion, self-care is seen as empowering. When individuals are able to acquire self-care skills, they are better able to participate in decisions affecting their own health and in influencing conditions that manage their health (Kickbush, 1989).

Health care providers need to promote informed decision making and facilitate actions designed to increase patient self-efficacy, particularly when self-management is vital to maintaining or improving health. By using the concept of *health literacy* to guide the development of self-management skills, a solution to the challenges faced by health systems in achieving good health outcomes can be found (Levin-Zamir & Peterburg, 2001). Thus, health literacy plays an optimal role for aiding the improvement of health outcomes and in addressing health disparities.

Health Disparities

Disparities are defined in *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care* as differences that remain after taking into account patient needs and preferences and the availability of health care (IOM, 2003b). This landmark IOM report suggests several approaches that the United States could take to eliminate disparities. One approach is to increase awareness of racial and ethnic disparities in health care among the general public and key stakeholders, and implement patient education programs to increase patients' knowledge of how to best access care and participate in treatment decisions. Patient education programs in this approach should be developed to include tools that make it easy for the patient to understand the information.

Two other approaches that, if implemented, would contribute to improving health literacy are the use of interpretation services where community need exists and the use of community health workers.

In addition to empowering patients, programs must include tools to improve patient-provider communication. The IOM report recommends the development and use of training programs that would increase health care professionals' awareness of disparities, enhance patient-provider communication and trust, and integrate cross-cultural education into the training of all current and future health professionals.

A recent study identified key domains of cultural competence from the perspective of ethnically and

linguistically diverse patients. Using focus group research methods, participants in 19 groups were asked the meaning of culture, and what cultural factors influenced the quality of their medical encounters. Patient-identified definitions of *culture* included value systems, customs, self-identified ethnicity, nationality, and stereotypes. Factors influencing the quality of medical encounters common to all ethnic groups included sensitivity to complementary and/or alternative medicine, health insurance-based discrimination, social class-based, discrimination, ethnic concordance of physician and patient, and age-based discrimination. Physicians' acceptance of the role of spirituality and of family, and ethnicity-based discrimination were cultural factors specific to non-Whites. Language issues and immigration status were Latino-specific factors (Napoles-Springer, Santoyo, Houston, Perez-Stable, & Stewart, 2005).

Some health plans have begun to move toward systematically examining the quality of care for important subgroups of their enrollees with chronic illnesses. Furthermore, recognizing that measurement alone will be insufficient to produce results, they are designing and testing a variety of interventions to address the disparities they have found. Although it is too soon to know how successful these efforts will be, the studied plans, which collectively cover 90 million people, are consciously changing their systems of care.

► CONCLUSION

It is important that key stakeholders are aware of racial and ethnic disparities in health care and that they recognize the role of patient-provider communication, self-management skills, and transdisciplinary care in improving health literacy and in eliminating disparities. In addition, the link between the cultural competency skills of providers and health literacy has been cited as a strategy for improving the knowledge, attitudes and skills of health professionals. Policy implications suggest the need for (a) reimbursement for time spent to improve health literacy and patient education, (b) support for training for transdisciplinary teams, and (c) funding for demonstration programs that promote self-management, development of health literacy skills, and formation of transdisciplinary models.

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