

Vulnerable Populations: Considerations for Wound Care

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Abstract

Race/ethnicity, immigration, health insurance, and literacy — along with patient-provider communication and understanding of and adherence to treatment protocols — are societal factors that affect the provision of optimal healthcare. Wound care practitioners should be aware of the need to address these factors in vulnerable groups, including the effects of racial/ethnic care disparities, immigration, low income, uninsured or underinsured status, and literacy/health literacy on health and wound care. The literature shows that care is not always perceived to be or equitably provided across different ethnic and economically diverse populations. Hence, clinicians must strive to listen to and interact non-judgmentally with vulnerable patients. Each patient's physical and psychosocial concerns must be assessed without malice and clinicians must work with community, state, and federal agencies to enhance access to necessary services. Wound care patient teaching materials need to be developed that consider the literacy and language skills of the community served. Once the type of wound and its appropriate treatment are determined, wound care practitioners must consider patient teaching, vulnerability, cultural, and economic constraints of care, along with strategies for prevention of complications and hospitalizations.

Key Words: wound care, immigrants, low income, uninsured, health literacy

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In the United States, approximately 5 million chronically ill patients have wounds; the aggregate cost of their care has been documented at more than \$20 billion annually.¹ Because individuals with wounds represent varied racial/ethnic and socioeconomic groups, this high number of persons with wounds must be examined in terms of racial/ethnic diversity, poverty, immigration status, and health insurance limitations. In 2000, approximately 33% of the US population identified *self* as a member of racial or ethnic minority group; by 2050, these groups are projected to account for half of the US population.² The 2007 National Healthcare Disparities Report (NHDR) used the US Bureau of the Census statistic to define poor people; in 2005, the Federal poverty threshold for a family of two adults and two children was \$19,806; the number of poor Americans increased from 11.3% to 12.6% or to 37 million persons between 2000 to 2005. Racial and ethnic minorities are more likely than non-Hispanic Caucasians to be poor or near poor. Poverty by race/ethnicity group included Black/African-American (25%), Hispanic (22%), Asian (11%), and Caucasian (8%).²

The NHDR noted overall care disparities in quality and access to healthcare for minority groups and poor populations did not decline from 2000 to 2001 although progress has been made in some areas.² The purpose of this paper is to explore US societal factors — ie, racial/ethnic disparities, immigration, low income, the uninsured and underinsured, and literacy/health literacy — that have an impact on health and wound care.

Strategies to reduce costs of wound care have included correct diagnosis, treatment appropriate to the cause and conditions of the wound, and prevention of complications and hospitalizations.³ As a way to coordinate care, the number of wound care centers has increased throughout the country. Attinger et al⁴ noted the success of wound care centers is based on a multidisciplinary team approach, use of evidence-based treatment protocols, efficient clinical structure, and a supportive hospital system. Wound care clinicians must be astutely aware of how factors such as the lack of health insurance, low income, language skills, culture, and literacy affect access, protocol adherence, and wound care reimbursement.

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Race/Ethnicity and Culture

For 2005, the US Census Bureau estimated the three largest minority groups were Hispanics or Latinos (14%), Blacks/African Americans (12.8%), and Asians (4.3%).² In addition, racial and ethnic minorities are diverse groups — for example, Asian and Pacific Islanders represented individuals from more than 100 different countries and territories; 4% of Blacks were foreign-born; and Hispanics represented 20 Spanish-speaking countries at the time of the survey.² According to the NHDR data, for many aspects measured both quality and access to healthcare is worse for African American and Hispanic individuals than for Caucasians.² For example, the proportion of Hispanic adults age 40 and older who had hemoglobin A1c measurement, retinal examination, and foot examination for their diabetes mellitus within the past year varied by insurance status — ie, 48.9% of persons with private insurance, 28.2% with public insurance, and 23.2% for the uninsured received the three medical services.²

Culture refers to unique language, thought, communications, actions, customs, beliefs, values, and institutions of race, ethnic, religious, and social groups.⁵ Culture may influence the symptoms patients select to report to clinicians, when they report symptoms, and how they interpret them. Wolff et al⁶ noted cultural barriers to cancer care for underserved African Americans included competing priorities, lack of knowledge, culturally inappropriate or insensitive educational materials, mistrust of the healthcare system, and fear and fatalism; these same factors may affect wound care. Using survey data, Stepanikova and Cook⁷ reported poor Caucasians, uninsured African Americans, and some uninsured Hispanics were more likely to perceive racial and ethnic bias in the healthcare they received. Realizing that African American women are less likely than other groups of women to use healthcare services despite an equal or greater need, Copeland et al⁸ analyzed transcripts of focus groups conducted with African American women about their attitudes toward healthcare. The authors reported African American women preferred physicians who did not rush them through their appointment, who explained what was happening during the examination, who respected their need for self-determination, and who had a holistic focus on the patient.

Racial bias. Wound care clinicians should continually explore ways to reduce racial bias. Burgess et al⁹ suggest reducing racial bias by understanding the psychological basis of the bias and the historical context of racism; enhancing provider confidence in giving care to socially dissimilar patients; enhancing provider empathy; and building partnerships with patients, to name a few. Although individuals may not be consciously aware they are stereotyping, studies have shown it may occur at a personal and institutional level.

Communication. Race and ethnicity have important implications for the patient-provider communication that is critical to quality of care. Johnson et al¹⁰ analyzed audiotapes and questionnaires from 458 patients who were seen

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Key Points

- Access to quality healthcare is affected by a wide variety of personal, societal, and institutional factors.
- This article provides a cogent overview of known variables that may affect wound care and outcomes in vulnerable and minority populations.

by 61 physicians from 1998 to 2002. The authors reported differences in patient-physician communication during medical visits with African American patients; providers were less likely to engage in conversation and the tone of the visit was less friendly than with Caucasian patients. The authors noted more active participation of patients in conversations with their providers was linked to better treatment compliance and health outcomes.¹⁰ Good physician/clinician communication lessened perceived racial and ethnic bias.⁷

Even changing one word in how patients are questioned can impact responses. Heritage et al¹¹ used a cross-sectional comparison of two experimental questions to test an intervention. Twenty (20) family physicians and 224 patients were videotaped during an office visit and questioned using pre- and post-visit surveys. The authors found that asking, “Is there *something* else you want to address in the visit today?” versus “Is there *anything* else you want to address in the visit today?” significantly ($P = 0.003$) reduced patients’ unmet concerns. The word *some* is considered to have a more positive connotation. Neither question affected the visit length. Clinicians should encourage patients to bring questions to appointments; listen, remain non-judgmental, and engage the patient; and together determine aspects of the care plan. Engaging patients in standards/guidelines of wound care may enhance the patient’s health and participation in care and possibly the chance of wound healing.

Pain management. Race/ethnicity historically has affected pain management. Heins et al¹² performed a descriptive study of 868 patient records; all patients presented with musculoskeletal pain and were treated by core emergency department staff. The authors found that African American patients with musculoskeletal pain discharged from an emergency department were given fewer opioid and other discharge analgesics than Caucasian patients. Other studies¹³⁻¹⁵ found that African American patients with chronic pain have reported higher levels of pain, emotional response to pain (especially depression and disability), interference with daily living, and lower perceived control over pain than Caucasian patients. Green et al’s¹⁶ secondary analysis of a database of 2,040 persons with chronic pain found that older African Americans with chronic pain reported more pain, psychological morbidity, and physical disability than their Caucasian American counterparts with

Table 1. Summary of concepts and implications for wound care

Concept	Implications for Wound Care
Race/ethnicity	<ul style="list-style-type: none"> • Reflect on one’s own as well as one’s institutional culture • Examine the clinic environment for racial/ethnic bias • Provide seminars about cultures and race/ethnicity • Examine the literature about race/ethnicity and provide articles for others to read • Work with a linguist to enhance practitioners’ communication skills with patients • Listen non-judgmentally (ie, home remedies, home care wound practices), engage the patient, plan wound care together • Examine pain management practices especially for difficult patients, persons with a history of substance abuse, and racial/ethnic groups; work cooperatively with pain clinicians/clinics
Immigration/ undocumented immigrants	<ul style="list-style-type: none"> • Decide with the patient/family the need for a translator • Use professional translators; try to avoid family and friends • Ask/listen to the patient’s questions/comments about the use of non-Western medical practices • Provide educational programs about wound prevention/care for lay persons in languages other than English • Examine communication skills and what patients do not understand • Provide culturally focused nutritional assessment; develop list of food services in the community • Provide oral assessment; develop list of free/low cost dental services • Assess living arrangements; develop list of housing arrangements in the community • Know community resources for low-/no-cost primary care clinics, dressing supplies, immunizations, and the like
Low income	<ul style="list-style-type: none"> • Provide community information about transportation services • Assess living arrangements; develop list of housing arrangements in the community • Know community resources for low-/no-cost primary care clinics, dressing supplies, laboratory tests, immunizations, and the like • Provide resources for food services • Provide early and/or late clinic hours for persons employed or with other time challenges • Enroll the patient in pharmaceutical/wound product patient assistant programs • Be aware of existing social services in one’s own facility and the obligation of not-for-profit hospitals to provide some charitable care
Uninsured/underinsured	<ul style="list-style-type: none"> • Encourage patients to go to social services to apply for insurance • Know community resources for low-/no- cost primary care clinics, dressing supplies, immunizations, and the like • Have clinic educational programs for the staff to better understand the most common insurance types in the clinic • Work with local, state, and federal officials for a greater understanding of healthcare needs and reimbursement issues of persons with wounds
Literacy/health literacy	<ul style="list-style-type: none"> • Evaluate a patient’s ability to read and understand informed consent • Evaluate all patient teaching materials in the clinic for appropriate literacy level, writing style, cognitive level, visual clarity, company advertisements • Develop/purchase teaching aids that are non-reading — ie, DVD, pictures, teach-back, games • Develop teaching literature in the languages most commonly spoken by patients in the clinic • Encourage patients/family to ask questions • Appoint someone in the clinic to be the “leader” in evaluating and maintaining patient teaching materials

chronic pain, adversely affecting their quality of life and health status to a greater extent as well. In a cross-sectional study (telephone survey) by Nguyen et al¹⁷ regarding access to care for chronic pain comprising 454 Caucasian, 447 African American, and 434 Hispanic persons with pain for

≥3months, low access to pain care was associated with Hispanic ethnicity and financial concerns prevented pain treatment; only 70% of Hispanics consulted a practitioner for pain as compared to 84% of Caucasian and 85% of African American patients.

Wound care providers need to examine how they address patient pain and what can be done to reduce racial/ethnic disparities in pain management. Wound pain initially is acute in nature, but may become chronic. Wound pain often is treated with a combination of nonsteroidal anti-inflammatory drugs and an opioid.¹⁸ Although opioid medications are a mainstay in chronic pain management, their use is controversial. In a secondary analysis of a randomized, controlled trial, Kalauokalani et al¹⁹ noted a reduction in racial/ethnic disparities in cancer pain control when patients receive education and coaching sessions to increase their knowledge of pain self-management, explore personal misconceptions about pain treatment, and rehearse a scripted patient-physician dialogue about pain control; these strategies have potential for use in wound care. Patients with chronic wound pain need focused monitoring of analgesia, activities of daily living, adverse events, aberrant drug-related behaviors, and case management.²⁰ Pain management cannot be ignored in patients who have a history of substance abuse. The same detailed assessment is needed; the complexity of symptoms may be indicative of addiction or may be a reaction to under-medication of the pain.²¹ Thorough documentation of pain management is crucial.

Immigration and Undocumented Immigrants

Approximately 33.3 million persons living in the US in 2003 were born outside the US and in 2000, 52 million Americans (19.4% of the population) spoke a language other than English at home.² Recent immigrants often were found to lack health insurance and were unable to express their health needs to the clinician, leading to lower adherence to medications and participation in healthcare decisions.² For example, the number of patients with diabetes mellitus with low/no English proficiency who received hemoglobin A1c measurement, retinal examination, and foot examination was significantly lower than native English speakers receiving this care (27.1% versus 49.3%, respectively).² For persons with limited English proficiency, 47% did not have a reliable source of healthcare.² Lack of health insurance and mastery of the English language potentially exacerbated the cultural differences that impaired delivery of quality healthcare. The overall proportion of adults who saw a clinician and reported poor communication with the provider was significantly higher for those who did not speak English at home.² Thus, immigration and language influence communication between the patient and provider and the quality of healthcare.

Approximately 300,000 to 500,000 undocumented immigrants arrive yearly in the US, have a disproportionate burden of undiagnosed illness, and frequently lack basic preventive care and immunizations.²² Their poor health often is worsened by substandard living conditions, language barriers, lack of knowledge about the healthcare system, lack of health insurance, insufficient financial resources to pay for care, and fear of detection by immi-

gration authorities.^{22,23} Federal passage of the Personal Responsibility and Work Opportunity Reconciliation Act (1996) greatly restricted federal, state, and local public services to undocumented immigrants. The exceptions to this act involved treatment of an emergency medical condition, immunizations for diseases for which vaccinations are available and testing and treatment of symptoms of communicable diseases. Restricting management of chronic illness and preventive care often increases the cost of care because the condition progresses to emergency status.²² Illegal immigrants' use of the emergency department adds to the cost of uncompensated care.^{22,24} Because of language, lack of health insurance, and financial constraints, to name a few, illegal immigrants may not seek wound care unless it is an emergency and consistent follow-up care may be lacking.

Nutrition, an important part of wound care, is affected by culture and immigration. Chang and Roberts²⁵ examined feeding difficulties in the interaction between nursing assistants and Taiwanese elderly with dementia. The most frequent feeding difficulty was refusal to eat; nursing assistants used few strategies that were effective. Residents usually had limited food selection and personal tastes were not considered. Culturally, food was considered a gift from God and wasting it resulted in punishment. Although the above study focused on Taiwanese setting/culture, all clinical agencies need to consider a patient's nutritional assessment and develop culturally appropriate interventions. Serving foods a person is accustomed to preparing and eating may enhance nutrition. Having the patient/family work with a dietitian may improve understanding of dietary goals, recipes, and meal planning. Oral health also is a critical part of nutrition assessment. Persons with low income may lack dental care and have oral problems that have an impact on eating. Providing patients with information about free/low-cost dental programs is helpful.

Nontraditional approaches. Owing to global travel, immigration, and the Internet, patients may opt to use nontraditional products for wound care. People bring cultural aspects of wound care from their country of origin. This is especially true in countries with high poverty rates; patients often do not have access to "modern" dressings due to costs and economic constraints. In these countries, health often is a low priority in a country's budget and health services may be underfunded and not well distributed. For example, in Brazil, families frequently used products like sugar and papaya for wound care.²⁶ These products were plentiful, easy for families to use, and economical; their use did not interfere with critical needs such as food, shelter, and transportation. In the US, immigrants may continue to use nontraditional wound care products. Because recent immigrants are confronted with major changes in lifestyle and environment, losses, and disruption of life, language, and careers, they may want to use therapeutic methods they know and can afford.

Nontraditional wound care can be a challenge for the wound care specialist because of the lack of randomized controlled trials, concern about contaminants in the products, impact on healing and the health of the person, and potential for serious adverse events such as allergic reaction. Consumers, in general, have an increased interest in complementary/alternative healthcare.²⁷ Thus, not only recent immigrants, but also other persons seeking alternatives may try varied wound care methods found on the Internet, in health food stores, and shared by neighbors/friends.

Language. Wound care practitioners need to be astutely aware of recent immigration issues when providing care. Communication with the patient and family when English is not the language spoken in the home needs to be addressed. Interpreters may need to be engaged. Use of interpreters was found to reduce disparities for Hispanic and Asian Pacific Islanders.² In addition, Karliner et al²⁸ performed a systemic literature search of peer-reviewed articles that compared at least two language groups and contained data about professional medical interpreters. Twenty-eight (28) papers met the inclusion criteria and 21 assessed professional interpreters separately from ad hoc interpreters. This endeavor demonstrated that use of professional interpreters improves utilization, clinical outcomes, and satisfaction with care. Interpreters need to be educated in how to communicate healthcare information. The clinician must carefully consider if a family member or friend can do this because of the confidential nature of many healthcare questions. A qualitative study by Ngo-Metzger et al²⁹ involving 122 Chinese, Vietnamese, and American patients that used focus groups and content analysis showed that patients preferred professional interpreters to family members. Telephone translators have been used in clinical settings, especially for languages spoken by a high percentage of patients seeking care in that agency.³⁰ Bilingual clinicians, trained medical interpreters, bilingual receptionists, and other informal interpreters are important for access to care.²

Paying for care. If health insurance is lacking or the person is an undocumented immigrant, wound care procedures need to be as cost effective as possible. Knowing community organizations or religious groups that may provide free or low-cost dressings or have healthcare staff that can assist with wound care is helpful. These community organizations also may provide basic healthcare and medications and some may have food programs to enhance nutrition.

Low-income Groups

Mauksch et al³¹ surveyed 500 patients in a primary care clinic serving only uninsured, low-income patients. Compared to patients without current mental illness, patients with mental illness had significantly ($P < 0.001$) more concerns, chronic illnesses, stressors, forms of maltreatment, and physical symptoms. For this group, the authors concluded that illness is dominated by emotional distress and physical pain; indigent patients tend to have more medical

and mental health problems; decreased psychological, social and physical functioning; and reduced access to high quality care.³¹ Twenty percent of Americans live in rural areas; rural residents are more likely to be elderly, poor, and have chronic conditions.² In addition, rural residents face pronounced transportation needs, often with long distances between home and healthcare sites.² Onega et al³² estimated travel time to specialized cancer care settings for the continental US and calculated per capita oncologist supply. The authors noted Native Americans, non-urban dwellers, and persons residing in southern states had the longest travel time to the nearest National Cancer Institute center, which can affect cancer diagnosis and treatment. Transportation issues also have been found to affect wound care.³³

Homelessness. Homelessness is an increasing social and public health problem in the US.³⁴ Three million Americans experience homelessness yearly.³⁵ In one survey, 8% of homeless persons reported having acute noninfectious conditions such as those affecting the skin. Generally, these individuals are dependent on donated food services, which affect nutrition — eg, for persons residing in shelters, the food served had fat calories exceeding nutritional recommended standards and consumption of fiber and fruits/vegetables fell below recommendations.³⁵

Depending on the living conditions (ie, outdoors, shelters, single-room hotels), homelessness can affect the transmission of disease.³⁴ Cleanliness and sanitation of the living environment may be substandard.³⁶ Indoor plumbing may not be present. Shared community bathrooms may make it difficult to do wound care. Wound odor may impact finding and maintaining housing arrangements. Refrigeration may not be available for dressings with temperature restrictions. If homeless, the person may not be able to carry all required dressing supplies. Wound care clinicians need to consider living arrangements/housing when screening the patient for health conditions and determining the wound care plan.

Making/keeping medical appointments. A patient's ability to keep a wound care appointment can be affected by income. Missed appointments greatly impact wound care services — ie, increased waiting time to obtain an appointment, decreased clinic efficiency, increased costs, and interference with staffing.³³ Pieper and DiNardo³³ interviewed 151 patients attending an urban, managed care clinic for indigent adults regarding their history of missing clinic appointments. Key reasons indigent patients missed clinic appointments were no ride, forgot, and no money. The authors also found these patients had additional constraints on keeping appointments, such as not being able to leave work, other family issues, court requirements, or being in jail. Patients need to understand their role in helping a clinic function smoothly, the importance of their appointment, and notification of the clinic if unable to keep the appointment. Clinicians need to explore ways to help these patients keep appointments and know the availability of community transportation services. As much

as possible, clinic services should be scheduled with consideration to patients' concerns within a community; this may include having early or late hours. Clinics need to have telephone systems that are easy for patients to use. For some patients with limited mobility and resources, wound care in the home may be the best provision although resources are extremely limited.

Uninsured and Underinsured

According to the NHDR,² uninsured persons report more problems getting care, avoid non-urgent care such as preventive screening, are diagnosed at later stages of disease, have poorer health status, are sicker when hospitalized, and are more likely to die during their hospitalization. For 2003 to 2004, the uninsured accounted for 14.5% of emergency department visits.³⁷ Hadley³⁸ compared medical care use and short-term health changes among US uninsured individuals and insured non-elderly individuals following an unintentional injury or onset of a chronic condition. The uninsured were less likely to obtain any medical care and more likely not to have received any recommended follow-up care.³⁸ Purchasing prescriptions was a challenge for the uninsured — because of costs, 37% did not fill a prescription, which has an impact on the treatment regimen.³⁹

Low-paying jobs are less likely to offer health insurance as a benefit. An estimated 11.4 million working-age Americans with chronic conditions are uninsured, including 16.1% of persons with cardiovascular disease and 16.6% with diabetes mellitus.⁴⁰ These chronic conditions are associated with wounds (eg, diabetic neuropathic ulcers). Persons in low-paying jobs are more likely to use the emergency department for care, lack a standard site for care, and to not visit a health professional.⁴⁰ Having health insurance also was associated with difficulties. DeVoe et al⁴¹ analyzed 722 responses to open-ended questions on a healthcare access survey instrument provided to low-income Oregon families. The families reported three major barriers: lack of insurance, poor access to care, and unaffordable costs.

Because wound care is a healthcare business, it is affected by poverty and payment issues. Wound care services need to explore ways to offer care to the uninsured/under-insured. Wound clinic staff members need to be aware of existing social services at their own facility and the obligation of not-for-profit hospitals to provide some charitable care. This may include working collaboratively with community programs that care for the poor/underserved to educate clinicians in community programs about wound care, donating excess supplies and medications, and/or providing consultation. Having a printed list of resources for low-income patients to find dressings or medications, as well as clinic sites to treat other health conditions, is helpful. Wound practitioners should explore strategies that decrease bias in providing care to these patients. Wound care clinicians need to work with policy makers at local, state, and federal levels regarding reimbursement issues.

Literacy and Health Literacy

Low literacy is the inability to read or write well enough to perform necessary tasks in society or at a job.⁴² Health literacy is the ability to obtain, process, and understand the basic health information and services needed to make appropriate health decisions.^{43,44} After synthesizing the findings of a systematic review of US studies (n = 85 studies with data on 31,129 subjects) examining the prevalence of limited literacy, Paasche-Orlow et al⁴⁵ reported that one in four persons presented with low health literacy and another 20% had marginal health literacy. Because as many as 34% to 55% of adults in the US have limited literacy skills, providing healthcare information is a challenge.⁴⁶ Paasche-Orlow et al⁴⁵ reported the prevalence of low literacy was associated with education ($P = 0.02$ — high school graduation had the lowest prevalence of low literacy), ethnicity ($P = 0.0003$ — black subjects had the highest prevalence of low literacy), and age ($P = 0.004$ — studies with persons with an average age >50 years had a higher prevalence of low literacy). Hispanic, Black/African-American, and American Indian/Alaska Native adults were 4.6, three, and three times, respectively, more likely to have below basic health literacy skills.² Important additional literacy issues are the increased numbers of recent immigrants to the US and issues of cognition and vision in the elderly.⁴⁵

How does literacy impact healthcare? Only 12% of US adults have the skills to manage their own healthcare proficiently — that is, they have the ability to obtain and use health information to make appropriate healthcare decisions.² Dewalt et al⁴⁷ performed a systematic review of the literature to examine the relationship between literacy and healthcare outcomes; 44 papers were used. Patients with low literacy were found to have poorer health outcomes, including less knowledge and lower measures of morbidity, general health status, and use of health resources; they were also 1.5 to 3 times more likely to experience a given poor outcome. Cho et al⁴⁸ interviewed 489 elderly Medicare patients; most were female (78.7%) and Black (59.1%) with a high school education. Results showed that literacy was directly and positively linked to self-related health status and directly and negatively linked to hospitalization and emergency room use for elderly Medicare patients. Persell et al⁴⁹ administered a literacy test to 119 adults with hypertension from three community health centers that asked the medication taken for high blood pressure. After adjusting for age and income, persons with lower literacy were nearly three times less able to name any of their hypertensive medications; they had difficulty understanding the names, indications for use, and dosing instructions for prescription medications. This impairment was critical when patients interacted with providers other than their usual source of outpatient care such as clinicians at a specialty clinic or hospital or emergency department. Health literacy is also an important ethical and legal concern. For example, if a patient cannot read the informed consent papers, how informed was the patient's consent?

Wound care providers must consider healthcare literacy. Patient teaching should include several modes such as print, video, games, Internet materials, and various other media. Teaching materials should be available in languages appropriate to the given community. Written teaching materials need to be evaluated for their education level and presentations should include materials formatted for a lower literacy level. Cho et al⁴⁸ recommended that healthcare information be more accessible to adults with low literacy in reader-friendly formats with simple illustrations, culturally sensitive examples, and simpler language. Pictures can have a positive impact on health communications by showing spatial relationships. Houts et al⁵⁰ examined peer-reviewed published studies to assess the effects of pictures on health communication. The authors identified the need for educators to examine the use of pictures in teaching: 1) explore how pictures can support key points, 2) minimize distractions in pictures, 3) use simple language with pictures, 4) include people from the intended audience in designing pictures, 5) involve health professionals in planning pictures, and 6) evaluate teaching materials' effectiveness with and without pictures. Kools et al⁵¹ performed two randomized controlled trials (N = 99 persons from the general public) of text only and text-picture versions of asthma devices. They examined participants' recall of the instructions and quality of their performance with the instruction observed from video recordings. The study found that pictures contributed to better comprehension and use of asthma devices. Patient teaching should be tailored to match the patient's/family's ability to learn by time and method — ie, teaching time should match the time patients and families needed to learn and methods involve various formats (eg, booklets, DVDs/videos, pictures, listening to a provider). People learn at different rates; instruction may need to be reinforced at each visit.

All patient educational materials should focus on key behaviors, simplify complex information, use concrete examples, limit content covered per session, avoid jargon, and use “teach back” (having the patient/family demonstrate what the clinician just taught) to ensure comprehension.

What Can Be Done in Wound Care?

All health team members need to examine ways to work with diverse groups. Table 1 lists some strategies to consider for the topics presented in this paper as they were found in the literature. *Strategies for Improving Minority Healthcare Quality*,⁵² published by the Agency for Healthcare Research and Quality, identified the following evidence-based factors: 1) Quality improvement strategies aimed at the healthcare providers of racial/ethnic minority patients are effective in improving the quality of providers. 2) Tracking/reminder systems aimed at providers of racial/ethnic minority patients are effective in improving quality. 3) Cultural competency training can increase the

knowledge of healthcare providers; evidence supports the fact that it raises patient satisfaction, although evidence that cultural competency affects patient adherence to care protocols is lacking. Because most research targets African American patients, more research is needed about the effects of these efforts on Asian/Pacific Islanders, American Indian/Alaska Native, and Hispanic populations.⁵²

Accept diversity. Clinician background may affect provision of healthcare to culturally diverse groups. Vanderbilt et al⁵³ conducted indepth interviews with 14 physicians from an earlier study. The interview addressed how the physicians became interested in alleviating healthcare disparities and the strategies used to improve care for their minority patients. The authors noted many physicians engaged in reducing healthcare disparities were minorities themselves, had childhood experiences with minority neighbors, or experienced early discrimination or vulnerability. Because clinicians represent varied backgrounds, the authors suggested strategies such as practitioners showing interest in the patient, speaking to the patient as an equal, and understanding the patient's social and environmental circumstances. Practitioners must be grounded in knowledge related to the delivery of culturally appropriate intervention strategies.⁵⁴

Become familiar with payment issues/options. Wound care providers need to be aware of the various health insurance plans within their locale. These plans often dictate where the person can seek care and how to obtain dressing supplies and medications. Providers need to look at cost-efficient approaches for patients who cannot afford more expensive treatments. For some patients, this may include patient-assistance programs.³⁹ It is also important to consider any additional costs that may be generated by the therapy, such as laboratory tests and follow-up clinic visits. There is a delicate balance between quality care and cost-efficient care. Clinicians need to interact with state, local, and federal officials about wound care, its implications for health of the individual and community, and reimbursement. Although ever-changing, lists of low-cost/free healthcare clinics, food programs, and housing/shelters need to be developed and made available to patients.

Offer thorough patient assessment. The physical assessment of the patient is crucial. As previously stated, low-income and patients in minority groups often have multiple healthcare problems that may be untreated. These illnesses may impact the wound treatment plan. At times, it is necessary to refer the patient back to the primary care provider for the work-up of these healthcare problems as well as for diagnostic studies. The patient's assessment needs to include mental health, home environment, transportation, nutrition, oral health, and substance use such as cigarettes, alcohol, and illicit substances. The assessment highlights consistent themes across culturally diverse groups that cannot be ignored.

Overcome language/literacy barriers and educate the patient. Health literacy needs to be viewed as a healthcare system issue as well as a patient issue. Encouraging patients toward healthier behaviors involves complex considerations.^{55,56} Attention to communication barriers may help patients, irrespective of educational level.⁵⁷ Villaire and Mayer⁴⁴ recommend: 1) keep the key message to a minimum, 2) use teach-back methods to ensure patients understand care, 3) ask patients to explain processes versus asking if they understand, and 4) have written patient education materials reviewed by literacy experts for grade level and cultural appropriateness. Training materials are available from the National Center for the Study of Adult Learning and Literacy⁵⁸ to help educators increase their expertise in health literacy. Some of the skills teachers learn are how to help students fill out forms, how to read and interpret complex documents that affect healthcare decisions, and how to increase one's ability to discuss symptoms with a healthcare professional. Designating a key person in the wound care service or corporate structure to focus on patient education may facilitate educational goals.

Conclusion

Providing health and wound care to culturally diverse groups is a critical concern. The need for it to be addressed is growing exponentially. The numbers of persons living in poverty and lacking health insurance, along with recent immigrants and low health literacy, are increasing. These issues collide with healthcare economics and provision of care. Wound care is more than providing a dressing — it encompasses the entire physical and psychosocial aspect of the patient, family, and community. Clinicians and communities must work together to explore and develop solutions to these difficult issues. ■

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