Review: Public Health

REVIEW: INCREASING AWARENESS AND EDUCATION ON HEALTH DISPARITIES FOR HEALTH CARE PROVIDERS

Shawna Nesbitt, MD, MS¹; Rigo Estevan Palomarez, MS¹

The focus of this review is to highlight health care disparities and trends in several common diseases in selected populations while offering evidence-based approaches to mitigating health care disparities. Health care disparities cross many barriers and affect multiple populations and diseases. Ethnic minorities, the elderly, and those of lower socioeconomic status (SES) are more at-risk than others. However, many low SES Whites and higher SES racial minorities have poorer health than their racial or SES peers. Also, recent immigrant groups and Hispanics, in particular, maintain high health ratings. The so-called Hispanic Paradox provides an example of how culture and social background can be used to improve health outcomes. These groups have unique determinants of disparity that are based on a wide range of cultural and societal factors. Providing improved access to care and reducing the social determinants of disparity is crucial to improving public health. At the same time, for providers, increasing an understanding of the social determinants promotes better models of individualized care to encourage more equitable care. These approaches include increasing provider education on disparities encountered by different populations, practicing active listening skills, and utilizing a patient's cultural background to promote healthy behaviors. Ethn Dis. 2016;26(2):181-190; doi:10.18865/ed.26.2.181

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¹University of Texas Southwestern Medical Center

Address correspondence to Shawna D. Nesbitt, MD, MS; University of Texas Southwestern Medical Center; 5323 Harry Hines Blvd., S1-108; Dallas, TX; 75390; Shawna.nesbitt@utsouthwestern.edu

INTRODUCTION

Health care disparities are differences in treatment, morbidity, mortality, and health care outcomes that exist between one group and others. These groups can be defined by a variety of descriptors that include, but are not limited to: race, sex, socioeconomic status (SES), sexual orientation, and immigration status.1 Groups are not mutually exclusive; individuals can be part of multiple categories, and even move in and out of them, depending on their behaviors and selfidentification (eg, smoking cessation, health insurance loss, or relocation to a different area). Although discussions of disparity commonly focus on race and disadvantaged groups, health care disparity can exist in any group of people. Determinants of disparity are the mechanisms through which health disparities occur and can include a person's type of work, income level, education, ethnicity, access to health care, and geographic location.² Simply put, they determine into which at-risk group a patient belongs to and to what extent they are affected by disparities. The focus of this review is to highlight health care disparities and trends in several common diseases in selected populations.

While it is not an exhaustive review of all populations, it will provide clinicians and educators with a new lens to view diverse patient populations.

DISPARITIES IN SELECTED DISEASES

Many diseases disproportionately affect racial minorities and the socioeconomically disadvantaged. Diseases such as diabetes, cardiovascular disease, stroke, hypertension, HIV/ AIDS, cancer, asthma, and mental illnesses affect every ethnic and socioeconomic group, but the burden of these conditions among African American, Hispanic, and Native American communities, as well as those citizens of lower SES especially the elderly, is well-documented.³⁻⁷

Hypertension

Hypertension affects the health and wellness of more 67 million people in America, and contributes to the deaths of 348,000 every year. The prevalence of hypertension in US Whites is 32% and among Hispanics it is 27%.⁸ While the risks faced by Hispanics and Whites should not be ignored, African Americans have an overall hypertension prevalence of 44%, with African American women having the highest prevalence, at 45.7%.⁸ It is not surprising that African Americans also have higher mortality rates from hypertension-related health conditions such as myocardial infarction, congestive heart failure (CHF), and stroke, than any other ethnic group.^{9,10} Hypertension is the strongest risk factor for strokes, and African Americans are twice as likely as White counterparts to die of a stroke.¹¹ The so-called "Stroke Belt" of the United States covers the south-

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eastern states from Maryland to Texas, where the population of African Americans is highest in the country. The diagnosis of hypertension in this population is hampered by the lack of symptoms in many, compounded by the lack of primary care access for this population and leads to later diagnosis and a greater burden of hypertensive consequences. Lifestyle factors such as increased stress, smoking, and being overweight are important modifying factors in both hypertension and strokes.^{8, 11-14} Interestingly enough, education does not appear to necessarily reduce the risk of hypertension.¹⁵ Black men with a college degree are more likely to have poorly controlled

hypertension than their peers without a college degree.^{15,16} "John Henryism" is a term coined to describe the belief, held by African American men of high SES, that workplace barriers can be overcome with hard work and determination. This increased work and stress level may explain the increased health risk in this group. This effect has also been noted among women and shift workers, who may face many similar challenges with upward mobility in professional life.^{12, 13}

A major contributor to poor hypertension control rates is nonadherence to therapy. Among African American hypertensive patients, culture and psychosocial factors play a role in adherence behavior.¹⁷ In a study of 1063 hypertensive African Americans, participants were surveyed for perceived racism, stress and depression along with medication adherence behavior. Perceived discrimination was significantly associated with poor medication adherence; however, it appeared that stress and depression may actually account for this relationship.¹⁸ Although both systemic racism and perceived provider bias have an effect on patient adherence to hypertensive therapy, even in the setting of low systemic racism, provider racial bias has a strong effect on medication adherence in African Americans.¹⁹ Furthermore, 'racism related vigilance' or rather the fear of encountering racism or microaggressions, and the modification in daily activities to avoid these encounters increases the stress level of both Blacks and Hispanics. This is directly related to the increased prevalence of hypertension in Blacks and to some extent in Hispanics; but, it is not related to hypertension in Whites.²⁰

Thus, addressing poor control of hypertension in Blacks requires changing systemic racism as well as coping with individual provider racial bias.

Diabetes

Diabetes mellitus is a condition that affects approximately 11.5% of the U.S. population, 3.4% of whom are undiagnosed; diabetes mellitus is the 7th leading cause of death.²¹ The incidence rate of diabetes in US adults has tripled since 1980.22, 23 Cardiovascular disease, renal failure, neuropathy, loss of mobility, and blindness are major consequences leading to high morbidity and mortality related to diabetes. Education level plays a key role in the likelihood of achieving diabetic control.³ In highly impoverished areas such as counties in Appalachia and the Gulf Coast, the prevalence of diabetes is high and control rates are low, which results in higher morbidity and mortality.24, 25 An interesting paradox is that, in underdeveloped areas such as Bangladesh, the incidence of diabetes is associated with higher SES while in the United States, the incidence is highest in people with low SES. Overweight may explain some of this paradox as lower SES in the United States is associated with high BMI in women particular while in Bangladesh high SES is associated with being overweight.²⁶ In the United States, the leading risk factor for diabetes is overweight. However, the tide may shift in the future because the incidence of obesity has slowed over the past decade, even though prevalence in unchanged. Nevertheless, diabetes incidence still continues to soar as an overweight population ages.^{23, 27} Factors other than body

mass index (BMI) also contribute to diabetes, including genetic predisposition, eating habits, and exercise practices.²⁸ In individuals aged <20 years, the prevalence of diabetes overall is 0.78%, with type 1 diabetes being more common.²⁸ However, among diabetic Hispanics aged between 10-19 years, nearly half have type 2 diabetes. ²⁸ In Blacks, Asian/Pacific Islanders, and American Indian/Alaska Natives of the same age group, a majority of diabetes diagnoses are type 2.²⁸

For ethnic minority populations, the early onset of diabetes is particularly problematic as it leads to other chronic health conditions later in life. Ethnic minority populations are more likely to reside in less healthy neighborhoods, many of which are designated as a "food desert" and with fewer facilities for exercise. An important fact to note is that when Whites are exposed to the same local environment as ethnic minority populations, the prevalence of diabetes is the same.^{4, 29} This suggests that much of the excess risk of diabetes could be averted through environment and societal changes and is less related to ethnicity than some research suggests.³⁰

CANCER

Higher SES and White ethnicity tend to be positively related to better health care outcomes. However, this association is not always true in cancer disease states. It is true that African American men have the highest incidence and mortality rates overall for cancer from any site.³¹ In fact, in the National Cancer Institute's study from 2007-2011, African American men had a cancer of all types incidence of 600.9 per 100,000 individuals with a mortality rate of 269.3, approximately 27% higher than the average US male mortality rate.³¹ In particular the disparity was greatest in cancers of the lung, bronchus, colon and prostate among Black men compared with all other men. Paradoxically, Hispanic groups, who face the same economic and access to care issues as African Americans, had an incidence rate of 353.2 among men and women, 30% lower than the national average, and even lower than Whites.31, 32 White males, while not usually considered an at-risk group for disparities, had the second highest cancer incidence rate of any ethnic group, and White females had the highest cancer incidence rate of any female group.³¹ While the average mortality rate of Whites with cancer is lower than African Americans, those of low SES and poor access to care have similar mortality.

Health care disparity does not uniquely affect ethnic minorities. Studies done in rural areas of Appalachia showed some of the highest cervical cancer rates in America where a vast majority of study participants were non-Hispanic Whites³³ In the Appalachian region, poverty rates remain high, tobacco smoking and obesity are prevalent, and many jobs in the area, like coal mining, put individuals at higher cancer risk due to carcinogens in the environment.^{34, 35}

Heath insurance is also a factor affecting health outcomes of cancer patients. In 2008, approximately 40% of Hispanics, 26% of Blacks, and 16% of White adults did not have health insurance.³⁶ Although the Affordable Care Act has helped millions more get access to care, a large number of uninsured patients still exist in the United States.

It is well-established that early screening improves survival of many cancers such as breast, prostate and cervical cancer; however, screening of these common cancers differs significantly by race and ethnicity. For example, African American men have a 1 in 5 chance of developing prostate cancer and are twice as likely to die from it compared with non-Hispanic White males; yet, the screening rate is 35% in African American men compared with 44% in non-Hispanic White men.³⁷ While race is one determinant of screening behavior in African American men, other factors like level of education, and social group associations affect the likelihood of these men to be screened.³⁷ Breast cancer incidence is higher in non-Hispanic White women compared with African American women (13.3% vs 11.1% respectively); yet, mortality in African American women is 3.3% compared with 2.7% among White women. Recent screening rates are now equivalent, but at diagnosis only 52% of breast cancers are curable in African American women compared with 63% in White women.³⁸ In Hispanic, Asian/Pacific Islanders and American Indian/Alaska native women, breast cancer incidence and screening rates are similar to non-Hispanic Whites; however, breast cancer mortality in these populations is actually lower than that of African Americans and non-Hispanic Whites.39 In cervical cancer, the incidence rate is higher in Hispanics, African Americans and American Indians/Alaska Natives (10, 10, and 9.4, respectively) compared with non-Hispanic Whites and

Asians/Pacific Islanders (7.1 and 6.3, respectively). Yet the mortality from cervical cancer rate is nearly double in African Americans and American Indian/Alaska Natives (4.0 and 3.5, respectively) compared with the mortality rate for non- Hispanic Whites, Hispanics and Asian and Pacific Islanders (2.7, 2.0 and 1.8, respectively). While screening rates for cervical cancer are similar for African American and non-Hispanic White women, the mortality difference may be explained by differences in the stage at diagnosis, lower rates of preventive measures such as human papilloma virus vaccination, increased comorbidity and where minority patients seek care.38

Behavioral patterns, such as level of leisure time activity, smoking, and alcohol intake, play a role in health care disparities in cancer rates as well as other diseases.^{37, 38, 40} Thus, reducing disparities requires large-scale, as well as individual, approaches to changes in behavior.

Mental Health

Mental health disparities occur across racial lines, mainly due to lack of access.32, 41 Traditionally, this at-risk patient group has suffered increased rates of criminal incarceration largely due to poor availability and implementation of mental health care; more than half of prison inmates suffer from some form of mental illness in the United States.⁴² Hispanics and especially Black men are disproportionately incarcerated. Youth in these communities also suffer from undertreatment and disorders often go undiagnosed before individuals are arrested for crimes, charged, and tried as mentally fit adults.^{41, 42} Under this process,

young men with mental health issues are being managed by law enforcement and corrections facilities rather than by mental health providers who would address the mental health issues.

Long-term depression can affect a person's mental and physical health in many ways. Importantly, the risk of suicide and self-harm has increased in the United States in recent years⁴³ where men are at an average four times greater risk of suicide than women, even though they have a lower depression incidence than women.44-46 Approximately 8% of the population in the United States currently suffers from depression; however, only 35% of individuals who report severe depressive symptoms have seen a mental health care provider in the past year.⁴⁵ It is important to note that individuals who live below the poverty line have 2.5 times greater risk of being depressed.⁴⁵ The links between depression and suicide are well-established, but have paradoxical relationships in many communities. For example, non-Hispanic Blacks have one of the highest rates of depression, but a relatively low rate of suicide. However, among Whites the opposite is true.43-45 These counterintuitive relationships between suicide and depression highlight the importance of further research to delineate the risk factors for suicide in different groups.

The diversity of beliefs and behaviors among different communities may make interventions to prevent suicide difficult. Techniques successful in one age group or ethnicity may be ineffective in another. The availability of firearms has a definitive effect on the risk of suicide among males. Among suicide attempts, men have a higher fatality rate due to the more irreversible and immediate methods chosen.46 Native Americans and Alaska Natives have a suicide rate nearly 50% higher than Whites, at 21.2 and 14.2 per 100,000 respectively, with the highest rate occurring in Alaska.47 However, certain cultural factors (eg, loss of identity) and socioeconomic factors (eg, unemployment) are associated with increased rates of suicide and suicidal ideation.47,48 Among US males aged 10-35 years, non-Hispanic White males have suicide as the second leading cause of death, ranking higher than homicide, while among Black and Hispanic males in this age group, homicide leads suicide consistently.49, 50 Thus, data indicate that the expression of violence differs according to race.

Health-seeking behavior for mental health differs by race. In a study of major depressive disorders, only 30% of African American men sought mental health care, while 39% of African American women and 51% of non-African American men sought care. This behavior may be related to the perception that seeking mental health is a sign of weakness and loss of cultural pride rather than negative attitudes about mental health providers.⁵¹

Sexual and Reproductive Health

The infant mortality rate is a commonly utilized metric to gauge the success of a nation's health care system. Infant mortality rate (IMR) is a measure of all infants that die in early life, not including stillbirths and miscarriages. The United States lags behind many other developed countries, and currently sits in 55th place with 6.17 deaths per 1,000 births.⁵² Within the United States, there is a vast discrepancy in IMRs based on socioeconomic backgrounds. In Michigan, the IMR in poorer cities commonly exceeds 10/1000 live births and the rate among Black infants exceeds 15/1000.^{53,54} Despite the fact that socioeconomically disadvantaged groups have high IMRs on average, Hispanics have a paradoxically low rate. Adding to the paradox is the fact that Hispanics have a teen pregnancy rate higher than any other racial community in the United States, and although total

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teen pregnancy rates have been dropping since 1991, Blacks and Hispanics still have significantly higher rates than other groups. Teen pregnancy increases the risk of complications for both the child and mother, including low birth weight, preterm birth, and death in infancy.⁵⁵ These risks put young mothers and their children who are already challenged at greater disadvantage.

Among Hispanic teen girls who drop out of high school, 36% drop out due to a pregnancy.⁵⁶ Hispanics drop out at a higher rate (11.7% in 2013) than any other group, more than Blacks (7.9%), and significantly more than White high school students (5.1%).⁵⁷ Although this rate is dropping quickly, as recently as 2007, Hispanic students had a dropout rate >20%.⁵⁷ Contrary to all expectations, IMR is lowest among Hispanic teenage mothers (6.4%) compared with Black (12.6%) and White teen mothers (8.9%). Overall, the IMR in all women aged < 35 years is highest among teenage mothers.⁵⁸

Increased prevalence of sexually transmitted infections (STI) is closely correlated with high teen pregnancy rates and high IMR.56 Sexually active young adults aged 15-24 years, especially men who have sex with men (MSM), have higher rates of sexually transmitted infections than other age groups, and have the highest rates of new HIV infection.^{59, 60} Ethnic minorities have disproportionately high HIV rates, especially Black and Hispanic MSM, and Black heterosexual women.⁶⁰ Although rates of all-type STIs and HIV are decreasing in most populations, HIV infection is on the rise in young Black MSM, and sexually transmitted disease infection rates remain high in young Hispanics, both straight and gay.^{56, 59, 60} In particular, within the MSM population, the highest risk group is young Black MSM. African Americans, in total, represent 45% of new HIV infections nationwide, while accounting for only 12.6% of the population.^{59, 60}

DETERMINANTS OF DISPARITY

Determinants of health disparities or rather, factors that set the stage for health disparities to occur, are the best targets for improving outcomes. There is a growing focus on shrinking health care differences in the field of public health, and one of the *Healthy People 2010* goals was to eliminate health disparities.⁶¹

The Double Jeopardy Hypothesis

Double Jeopardy refers to the fact that health disparities risk factors are not mutually exclusive events, and that individuals in more than one atrisk category face a higher chance of morbidity and mortality than others -doubly jeopardized.⁶¹ The concept of double jeopardy in the medical sense is a relevant topic to public health professionals, as it is largely agreed upon that SES of an individual and the SES of a geographical area can be predictors of poor health.⁶² Often, Double Jeopardy communities occur in localized areas, or hotspots, that can be targeted by public health professionals to make the most effective use of limited manpower and resources.63 Areas with low average SES, high-income inequality, low average educational attainment, and poor air quality have all been correlated with health disparities prevalence.63,64 For example, racial minority and low SES individuals who have mental health disorders are less likely to be treated.⁴¹ Poor adherence to treatment is a major barrier to adequate mental health care. However, these individuals have reduced mental health because of a double jeopardy scenario.

Obesity, Food Deserts and Access to Healthy Food

African Americans are the group most affected by health disparities. Although a large body of research reports that health disparities exist in African Americans, less is known about the etiology. A common denominator for many diseases seems to be a preponderance of obesity in the Black community. Americans, in general, struggle with maintaining their weight, as 34.9% of US adults are obese. However, 56% of Black women and 37% of Black men are obese. In comparison, the obesity rate in White men and women is 32.4% and 32.8%, respectively.²³

Obesity is highly related to cardiac disease, type 2 diabetes, and hypertension, and while genetic predisposition and low SES play a large role in the morbidity of these diseases in the Black community, obesity rates far above the national average are important points for the health community to address. One contributing factor to the obesity in low SES populations is the existence of food deserts in those neighborhoods.64-66 However, this may not be specifically related to Blacks alone. Food deserts are defined in different terms in different studies, but are generally considered to be low SES areas where residents live more than a mile from an affordable grocery store in urban areas, and 10 miles in rural areas.⁶⁵⁻⁶⁷ Walking a mile or more on foot means at least a 30-minute time expenditure for individuals wanting to purchase healthy foods, and in neighborhoods with high crime rates, is unreasonable after dark. These areas are considered bereft of affordable grocery stores with fresh food options; yet, they also tend to contain an abundance of fast food restaurants that offer inexpensive food options with excess salt, fat, cholesterol and calories. The term food security is used to describe consistent access to affordable and healthy foods. Food insecurity is when an individual does not have the same type

of access. Obesity is paradoxically high in these areas, and in a study in New York City, students found that the areas that consumed the lowest amount of fruits and vegetables, also had higher than average rates of obesity, and tended to be populated by minorities.⁶⁷ Physicians serving these food insecure areas should consider their patients' ability to access healthy food when developing treatment plans.

The Hispanic Paradox

Although Hispanics are the least likely group to be insured in the United States and are among the groups with the lowest average household income, they appear to have protective factors that may reduce both the morbidity and mortality of many diseases, compared to that found among similarly disadvantaged groups (eg, African Americans).^{9,68-70} The first example was previously described in the low IMR rates for young Hispanic women. Another example is the cancer survival rates for small-cell lung cancer, in which survival rates were highest among foreign-born Hispanics, even though they tended to be diagnosed at more advanced stages than their USborn peers and non-Hispanic Whites included in the study.⁷⁰ Other conditions like diabetes, cancer, and HIV, disproportionately affect Hispanics, yet the mortality rate of these are much lower than in other underserved communities.^{32, 71,72} While mortality is important, morbidity from these diseases remains a major determinant of further disparity, as it limits the ability to maintain productive lives of these individuals. This paradox remains unexplained but it may relate to lifestyles common to Hispanic culture. More

research is needed to fully explain the health paradox in this community.

Provider-to-Patient Communication

Communication is an essential component in excellent patient care. Cultural background and language have significant effects on communication skills and patterns. In a recent study of patient-provider communication quality in 8,458 patients of diverse backgrounds across the United States, disparities in patient-provider communication quality were attributed to age, race/ethnicity, educational attainment, employment status, income, health care access and general health.73 It is important to understand the role of culture and history in understanding the best approaches to African Americans, who may mistrust health care providers based on historical events of mistreatment and abuse (eg, the Tuskegee syphilis experiment). In addition, the role of family and religion is prominent among African Americans. A provider's communication style may easily be perceived as condescending if complex medical terminology is used without clarification and if open-ended questions are asked about the patient's beliefs and experiences.74 In US Latino patients, the diversity of countries of origin has significant bearing on the challenges in the approach to cultural effects on health care. Some unifying cultural values among Hispanic patients include: personalized interaction; reciprocal respect; paternalism; fatalism; and machismo. These values color the perception of provider communication styles. A common challenge for many Hispanic patients and other immigrant patients is that of language since many are non-English speaking. The use of translating services is recommended.⁷⁵ In a patient survey on their perception of physicians, both Latinos and African Americans placed higher value on provider respect, concern, courtesy, and education on prevention than on the amount of time spent by the physician.^{76,77} Reducing disparities in care requires greater focus in medical training and continuing education to improve health care provider communication with patients of all ethnic and cultural backgrounds.

Prescriptions for an Ailing Health Care System

Even as medical advances improve our capability to prevent and treat disease, a fundamental lack of access continues to plague America's poor and minorities. Health disparities present a serious threat to the health and wellness of millions of Americans. With the advent of the Affordable Care Act, uninsured rates declined from 22.3% in 2010 to 12.9% in 2015.78 Yet, millions more, especially in states that refused federal money to expand Medicaid coverage, still do not have insurance.⁷³ In addition, many areas designated as medically underserved areas (MUA) by the Health Resources and Services Administration (HRSA) are also areas with high populations of ethnic minorities and the nation's poor, many of whom are located in states not expanding Medicaid.^{21, 79-82}

Steps forward are being made in the fight to equalize the health care of all Americans, but on the individual level, combating health disparities may seem frustratingly difficult to health care providers. However, research has shown that simple changes to clinical practices and increased knowledge of disparities can improve outcomes for at-risk patients. For example, in communities suffering from high rates of chronic disease, using community health workers, who are more fluent in the local culture and are familiar faces in the community, has proven to be an effective strategy in coping with hypertension and diabetes.83 Furthermore, in a study of rural low-income women with diabetes, high cholesterol, or hypertension, community health workers improved healthy behaviors through setting small incremental individual goals with patients.84 An important factor in that success may be that the community health workers focused the approaches to fit the appropriate goals for the local community given the available resources.

Understanding culture is another way in which providers can augment their clinical toolbox. Familiarity and understanding of culture can increase patient compliance, decrease implicit bias by providers, and improve patient trust in health care professionals.85 It may also allow health workers to understand some of the protective factors of culture that lead to phenomena such as the Hispanic Paradox.⁸⁵ In doing so, the narrative may change from "what is wrong with minority communities?" to "what is right with these communities and how can we do more of it?" In our nation's changing racial and cultural demographics, the meaning of cultural sensitivity is changing. Implicit bias affects far more than ethnic minorities in health care. A recent

study at the University of Colorado's medical center found that: 1) 43% of physician assistant, physical therapy, and medical students admitted that they witnessed insensitive comments by health care professionals in reference to religiously devout patients of any faith; 2) 35% witnessed discriminatory language about the poor; 3) 30% witnessed disparaging comments about female patients; and 4) 28% had witnessed disparaging comments about racial and ethnic minorities; and 5) 25% heard similar comments about LGBT patients.⁸⁶ These biases affect the delivery of health care and have been illustrated in several studies including a study where patients, presenting to the emergency room with similar cardiac symptoms, received different recommendations for their care,⁸⁷ ie, women and Blacks were less likely to be sent for cardiac catheterization.87 Therefore, cultural sensitivity, a greater awareness of implicit bias, and explicit bias among health care providers may improve the overall status of health in the United States. The failure to recognize that providers may have low explicit bias, but high implicit bias leads to unintended racist actions and policies in health care delivery.88

The charge of improving health care disparity in the United States will need to be a multi-faceted approach. This must include unique approaches to health education and screening, improved access to care, cultural sensitivity training for professionals, community engagement, and utilizing the positive attributes of patient cultures to improve health outcomes. The changing demographics of the United States requires that we prevent health inequity in any

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group by approaching this with broad spectrum methods that customize care to utilize patient differences positively rather than abrogate them.

TIPS AND TOOLS FOR TREATING A DIVERSE PATIENT POPULATION

Learning Points:

1) Patient education and comprehension levels affect the engagement with health care providers. Utilizing translator services is one step in assuring success;

2) Taking steps to understand the culture and some medical terminology in the language of your patients is an important method of improving your delivery of care. Culture may be an asset;

3) One of the key features of the paradoxical relationship between health and Hispanic ethnicity (and other immigrant groups) is the involvement of family members in health care. Improving care and outcomes can be achieved through engaging other family members;

4) Health care is affected by living and other social circumstances; therefore, recommendations to patients should reflect the expectations;

5) Patient care is diminished through provider bias. Minimizing provider bias improves patient adherence. Simple attributes such as respect, concern, active listening and clear communication improves perceived disparities in care.

Conflict of Interest

No conflicts of interest to report.

Author Contributions

Research concept and design: Nesbitt, Palomarez; Acquisition of data: Nesbitt, Palomarez; Data analysis and interpretation: Nesbitt, Palomarez; Manuscript draft: Nesbitt, Palomarez; Statistical expertise: Nesbitt, Palomarez; Acquisition of funding: Nesbitt, Palomarez; Administrative: Nesbitt, Palomarez; Supervision: Nesbitt, Palomarez.

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