



Diabetes Disparities in African Americans: A Cry for Help to Primary Care Providers

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## Diabetes Disparities in African Americans: A Cry for Help to Primary Care Providers

### Abstract

Diabetes is a national public health problem. Low socioeconomic status influence access to quality care for African Americans with Diabetes who must rely on government assisted insurance or are uninsured. Inadequate access and poor quality care for African Americans contributes to increased morbidity and negative health outcomes. This manuscript will examine the existence of diabetes disparities in African Americans pertaining to the role of low socioeconomic status, access, and poor quality care, and suggest some practical strategies for reducing diabetes disparities in this population.

### Keywords

access; African Americans; diabetes self-management



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## **Diabetes Disparities in African Americans: A Cry for Help to Primary Care Providers**

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### **ABSTRACT**

Diabetes is a national public health problem. Low socioeconomic status influence access to quality care for African Americans with Diabetes who must rely on government assisted insurance or are uninsured. Inadequate access and poor quality care for African Americans contributes to increased morbidity and negative health outcomes. This manuscript will examine the existence of diabetes disparities in African Americans pertaining to the role of low socioeconomic status, access, and poor quality care, and suggest some practical strategies for reducing diabetes disparities in this population.

**Keywords:** access, African Americans, diabetes self-management, disparity, outcomes

### **INTRODUCTION**

Diabetes disease is a growing public health problem that has become recognized globally as an important cause of morbidity and mortality. Diabetes disparities in African Americans may be related to many factors such as low socioeconomic status (SES), gender, and race/ethnicity (Center for Disease Control and Prevention [CDC], 2014). African Americans face increased barriers to accessing care, receive poorer quality care, and experience worse health outcomes than any other race (Agency for Healthcare Research and Quality [AHRQ] 2012). In the United States, 21 million Americans have been diagnosed with diabetes and an estimated 8.1 million remain undiagnosed (CDC, 2014). The CDC noted that African Americans account for 13.2% of those affected by this chronic illness, making diabetes a serious concern in the African American community (CDC, 2014). Obesity, hypertension, and poor dietary habits in addition to environment, education, and cultural factors are reasons why African Americans are more at risk for developing diabetes (Healthy People 2020, 2011). The prevalence of diabetes in African Americans is nearly double that of whites at 13.2% and 7.6%, respectively (CDC, 2014). African Americans with diabetes have a five times higher rate of leg amputations compared to whites (Peek et al., 2012). African Americans with diabetes have a greater risk of stroke, end stage renal disease (ESRD), and a greater mortality rate from heart disease (CDC, 2014). This manuscript will examine the existence of diabetes disparities in African Americans

pertaining to the role of low socioeconomic status, access, and poor quality care, and suggest some practical strategies for reducing diabetes disparities in this population.

#### Access

Primary care clinics are where most patients are diagnosed and treated for diabetes. Activities that occur in primary care settings are critical because this starts the course of treatment for the patient's disease and has implications for the eventual outcome. Diabetes is different from many other diseases, where medication alone may be all that is required to manage the illness. Type 2 Diabetes (T2D) may be controlled through lifestyle modifications such as weight loss, diet, and exercise, but eventually, most individuals will need oral hypoglycemic agents and/or insulin to manage their disease. Preventive health care measures and adequate diabetes outcome measures can delay or prevent diabetes complications (American Diabetes Association [ADA], 2011). However, effective preventive care measures and diabetes outcome measures depend primarily on health care access and quality healthcare.

Reasons for the disparity in diabetes for African Americans includes that African Americans seldom have a consistent primary care provider and they are less likely to be offered preventive services (Agency for Healthcare Research and Quality [AHRQ] 2012). African Americans are less likely to seek preventive care or screening tests and are more likely to rely on the emergency department for routine health care. Thus, African Americans use the emergency department more frequently than any other race. African Americans are more likely to suffer from diabetes related complications than their white counterparts. They have fewer visits with physicians and go longer periods in between visits (Pinkhasov et al., 2010). Historically, various studies have indicated that African Americans with diabetes have poor outcomes. They were also less likely to receive preventive care measures such as foot and eye examinations than their white peers (Bulger, Shubrook, & Snow, 2012).

#### Cost

The cost for diabetes care in the U.S. is largely supported by government insurance (Medicare and Medicaid). Persons with diabetes with no health insurance have 55% more emergency department visits than persons who have insurance (ADA, 2013). Another way that diabetes is a public health and financial burden is that it is the primary reason many African Americans experience End Stage Renal Disease (CDC, 2014). Also, African Americans are more often diagnosed with this chronic and potentially fatal condition than other races (CDC, 2014).

The health care disparities that affect African Americans are due to many factors, including cultural differences in lifestyle behaviors, genetic risk factors, and social inequalities. Other factors include access to health care, variations in health care providers' behaviors, differences in socioeconomic levels and residential segregation (Healthy People 2020, 2011). Many African Americans nutritional practices were inherited from their cultural influences and they still exist today. These influences contribute to higher rates of obesity (49%) and being overweight (27%) among African Americans, which increases the risk of developing type 2 diabetes (T2D) (Flegal, Carroll, Kit, & Odgen, 2012).

Per ADA treatment of diabetes and diabetes related complications is costly, and since diabetes affects people over the age of 65 more than any other age group, this places a heavy burden on Medicare and Medicaid dollars. The ADA has noted that direct and indirect expenditures due to diabetes are estimated at 245 billion dollars, including 176 billion in direct medical cost and 69 billion in reduced productivity (ADA, 2013). Diabetes is thus expensive in

terms of disability, mortality, and health care costs. A disproportionately high proportion of Medicaid and Medicare funds is used to pay for African Americans because of diabetes. African Americans also are more likely to delay care due to cost. Zhang et al. (2012) compared performance measures in adults with diabetes who were insured and uninsured. The participants who were uninsured were more likely to have glycosylated hemoglobin > than 9%, LDL cholesterol levels greater than 130 and blood pressure measurements >140/90 mmHg (Zhang et al., 2012).

#### Use

Many health care facilities in rural areas that once provided services to the indigent have closed their doors due to financial strain. Also, a growing number of healthcare providers are no longer accepting patients on public assistance insurance or who are uninsured because of reimbursement issues, making it more challenging for patients to pay for healthcare services. Even after acquiring access to health care services, many African Americans continue to experience poor quality care; and those who do receive care are less likely to get adequate treatment (AHRQ] 2012).

#### Quality of Healthcare

African Americans with diabetes are poorer, more often unemployed, and uninsured, and less likely to attend formal diabetes self-management classes (Gaskin et al., 2014). African Americans of low socioeconomic status may experience additional stressors such as financial burdens, limited healthcare access, less education, and the absence of culturally relevant diabetes education. These stressors limit African Americans understanding of the disease and inhibit the ability to make healthy lifestyle choices to manage the disease (Steinhardt et al., 2015).

In a study by Chan, Gaskin, Dinwiddie, and McCleary (2012), the researchers found that the quality of care for African Americans living in predominantly black communities was poorer than for whites living in predominantly white communities. The rates of low density level cholesterol (LDL-C) checks, eye, and foot examination among blacks were 11% and 17% lower than for whites, and a lower proportion of blacks had flu shots and they received fewer recommended services than whites (Chan et al., 2012). Based on ADA recommendations, glycosylated hemoglobin greater than 7% is defined as poor glycemic control. Blood pressure  $\geq$  140/90 mHg is defined as hypertension and low density level cholesterol (LDL- C) level  $\geq$  130 is classified as high cholesterol (ADA, 2011). Across these studies, diabetes has been shown to be less adequately controlled in blacks then in their white counterparts. African Americans suffer from blindness, kidney failure, and amputation because of poorly controlled diabetes and poor quality care more than their white counterparts (National Diabetes Fact Sheet, [CDC], 2011).

#### Practical Strategies to Deliver Diabetes Self-Management Education

To improve outcome measurements in African Americans with diabetes in primary care settings, multiple factors should be considered: cultural beliefs, religious practices, food preferences, and socioeconomic status. For health care providers in primary care settings, teaching diabetes self-management education in many cases is a challenging task, because providers have a short time to spend with each patient. Abdulhadi, Al-Shafee, Wahlstrom, and Hjelm (2013) explored the experiences of primary health care providers and their encounters with patients with type 2 diabetes. They found three main barriers to effective diabetes management: the organization of the diabetes clinic, patients' dissatisfaction with providers, and the providers' workload and time constraints (Abdulhadi, Al-Shafee, Wahlstrom, & Hjelm, 2013). However, primary care clinics are becoming more innovative in administering diabetes

self-management education to their patients. To address poor outcome measures, some health care providers are implementing a diabetes self-management program. Trained office staff (certified medical technologists and nursing assistants) deliver culturally tailored diabetes self-management education to African Americans with diabetes. The office staff attend ten two-hour classes and workshops on diabetes and training sessions about health literacy, culture competence, and clear communication techniques provided by the health care providers as training to deliver the classes.

Another practical strategy to improve outcome measurements in patients with diabetes is to use nurse certified diabetes educators (CDE) to educate, and manage the care of diabetic patients. The CDE provides culturally tailored diabetes self-management education for African Americans and can improve outcomes with frequent and consistent face-to-face encounters. The diabetes self-management education includes monitoring side effects of diabetic medications, teaching symptom management, teaching participants about healthy cooking and healthy cooking techniques for ethnic foods, and teaching physical activity strategies for improving blood sugar control. Culturally tailored diabetes education can lead to improvements in diabetes self-management for African Americans with T2D. This is essential because many patients do not have self-management knowledge.

At present a patient-centered multidisciplinary team approach is an effective means for diabetes self-management education. A registered dietician may be used to implement diabetes self-management education in primary care clinics. The dietician and the provider initially meet to discuss roles and responsibilities of diabetes education. The collaborative team decides how frequently the dietician will attend, which patients should be seen, how patients would be scheduled, and where the education will take place. Patients are notified about the program through communication channels in the office.

Some primary care clinics are adding a pharmacist to their health care team to administer diabetes self-management education. Ip et al. (2013) conducted a study to examine the impact of pharmacist teaching on diabetes self-management on short-term clinical outcome measures and long-term cardiovascular risk factors in patients with T2DM. There was a total of 147 adult participants with T2D managed by a pharmacist and a matched total of 147 adult participants with T2D managed by a primary care physician only (Ip et al., 2013).

An initial 45-minute face-to-face assessment was conducted by the pharmacist to evaluate the patient's diabetes status. The pharmacist self-management teaching included pharmacotherapy modifications, laboratory monitoring, dietary and physical activity recommendations, and diabetes education. Baseline and end-point measures were glycosylated hemoglobin values, LDL-C, and blood pressure values. The findings indicated that the pharmacist group, after a 12-month study period, showed a reduction in glycosylated hemoglobin from 9.5% to 6.9% compared to a reduction from 9.3% to 8.4% in the physician group. The results also indicated that the estimated 10-year risk of coronary heart disease (CHD) decreased from 16.4% to 9.3% in the pharmacist group, compared to 17.4% to 14.8% in the physician group (Ip et al., 2013).

The goals of diabetes self-management for African Americans are to 1) teach self-management, 2) prevent acute complications of diabetes, and 3) minimize health care costs through education, information and referral screening/testing, training and collaboration. Adding dieticians and pharmacists to the primary care team to deliver diabetes self-management

education can contribute to the reduction of racial disparities in African Americans suffering with diabetes, which is a *Healthy People 2020* objective.

## CONCLUSION

Quality care and access to health care is a right for all people regardless of gender, religion, and or color of skin. Health care professionals must deliver safe and effective treatment to all people to ensure optimal health outcomes. Primary care providers should become innovative in providing care to diabetics to deliver the most adequate health services to all people to reduce the diabetes disparities that currently exist.

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