

Eliminating the Health Disparity of the Diabetic Foot: A Continuing Public Health Crisis for African Americans and Latinos - Jacqueline E Sharpe - Hampton University, Hampton, Virginia, United States of America

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Abstract

According to the International Diabetes Federation 2020, it has been estimated that 463 million people have diabetes and that the total number of people with diabetes is predicted to rise to 578 million by 2030 and to 700 million by 2045 [1]. "Diabetes mellitus is a chronic disorder of glucose metabolism with serious clinical consequences. The multi-system complications of diabetes include microvascular (retinopathy, nephropathy, neuropathy) and macrovascular (ischemic heart disease, stroke, peripheral vascular disease) endpoints" [2]. One of the most important complications of diabetes is the diabetic foot ulcer which if not treated leads to infection, deep tissue necrosis, and limb amputation [3]. Approximately, 80% of diabetes-related lower extremity amputations are preceded by a foot ulcer [4,5]. Every 30 seconds, a foot amputation happens because of diabetes in the world, and more than one million patients lose their diabetic foot annually due to the disease [6]. Recent research conducted on the diabetic ulcer conclude that 75% of foot ulcers are preventable, but prevention receives little attention [7-9]. The existence of racial and ethnic disparities in leg amputations is well documented [5]. It is without doubt that diabetic foot care is a public health problem [10]. The aim of this paper is to maintain attention to

the plight of prevention of the diabetic foot ulcer, particularly for those racial/ethnic minority persons who must not be overlooked for healthcare measures that can save their lives, and for healthcare providers to not allow ones inability to pay be a rejection for not preserving that life and quality of life. The release of the 2020 National Diabetes Statistics Report for the United States continues to show that the ethnic minority groups, age 18 or older, continues to have the highest prevalence of diagnosed diabetes. Healthcare professionals do harm when nothing is done, being an advocate for preserving life does not cost, it creates value.

A health disparity is defined as a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive; sensory or physical disability; sexual orientation or gender identity; geographical location, or other characteristics historically linked to discrimination or exclusion" [17]. The existence of racial and ethnic disparities in leg amputations rates is well documented [13]. In patients with diabetes, foot amputations among Black people have been historically higher compared with White people [18].

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African Americans (Black people) are at higher risk for two diseases -diabetes and peripheral arterial disease (PAD)-that together threaten to cause them more preventable amputations than other populations [19].

There is a dramatic rise in the prevalence of Type 2 diabetes Mellitus and its associated complications across the globe [20]. In the United States, according to the Center for Disease Control (CDC) 2020 National Diabetes Statistics Report, the percentage of age-adjusted incidence of diagnosed diabetes among adults aged 18 years or older in the United States during 2017-2018, is 5.2 for White, 8.2 for non-Hispanic Black, and 9.7 for Hispanic [20]. "US Hispanics/Latinos are disproportionately affected by diabetes compared with non-Latino Whites and previous work has shown that the prevalence of diabetes related cognitive deterioration is higher in Hispanic/Latinos than in non-Latino Whites" [21]. In the US mainland, another study showed that Latinos have a high rate of type 2 diabetes mellitus and exhibit poor glycemic control, high rates of complications, poor outcomes, and diminished quality of life [22]. Medicare Advantage enrollees in the territory of Puerto Rico receive substantially lower quality of care than white or Hispanic enrollees residing in the United States [23]. Rates of diabetes are generally higher among African Americans and Hispanics than among non-Hispanic Whites, and rates have been reported to be 25% higher among Hispanics than among African Americans [24]. New diabetes cases were higher among non-Hispanic blacks and people of Hispanic origin than non-Hispanic Asians and non-Hispanic whites [20]. As the prevalence of diabetes increases, so does the opportunity for complications of diabetes to exist. The role of healthcare access and socioeconomic status also plays a very important role in healthcare. It is well known by all persons that the quality of care received depends on cost and available resources. A study conducted at

Meharry Medical College in 2018 used a sample size of 2,172 participants from the 2013 Medical Expenditure Panel Survey that included data of adults diagnosed with Type 2 diabetes [33]. This study concluded that lack of insurance coverage and education explained some of the racial/ethnic disparities observed in diabetes quality of care and improving quality of diabetes care could help to reduce rates of diabetes complications, healthcare costs and mortality. The international community has also been very actively engaged in researching and writing about the diabetic foot and conclusions are similar and consistent with other countries for the past decade. Diabetic foot care in other countries has also been concluded as a public health problem with devastating human, social and economic consequences [10]. Such as in Pakistan, where the authors write that "foot disease is considered to be one of the most common complications of diabetes mellitus and the diabetic foot refers to a spectrum of disease. Foot complications from diabetes are one of the main causes of amputation and its subsequent physical and emotional problems"

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