

Diabetes among the Asian Indian Population in the United States of America

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Abstract

Diabetes continues to be one of the leading health objectives as outlined in the Healthy People 2020. It affects an estimated 23.6 million people in the United States and is the 7th leading cause of death. It lowers life expectancy by up to 15 years, increases the risk of heart disease by 2 to 4 times. The rate of diabetes mellitus continues to increase both in the United States and throughout the world. There exist considerable disparities in diabetes risk: People from minority populations are more frequently affected by type 2 diabetes. Minority groups contribute 25% of all adult patients with diabetes in the U.S. and represent the majority of children and adolescent with type 2 diabetes. African Americans, Hispanic/ Latino Americans and some Asians Americans and native Hawaiians and other pacific islanders are at particular high risk for the development of type 2 diabetes ("Healthy People 2020," 2014, p. 1). This assignment seeks to highlight the management of diabetes among the Asian/Indian population in the United States of America.

Diabetes among the Asian Indian Population in the United States of America

The Asian Indian population living in the United States of America continues to be at high risk for the development of Type 2 diabetes. There are a number of contributory factors, some of which are modifiable and others are non-modifiable that accounts for the prevalence of diabetes among this population. Some lifestyle habits and cultural beliefs are among these factors. It is important that the prudent, culturally sensitive healthcare worker be aware of these factors and tailor their case management strategies to address some of these issues.

Contributory Factors

Most of the Asians in the United States of America are immigrants or offspring's of immigrants who have their own cultural patterns and lifestyles that lends itself to this disease.

Mohan, Jaydip and Deepa (2007) stated that India has the dubious distinction of being dubbed as the "Diabetes Capital" of the world as it has the largest number of people with diabetes in any given country, 40.9 M in 2007 and is projected to increase to a staggering 69.9 million by 2025. Other authors attributed this higher prevalence of type 2 diabetes in the Asian Indian population to genetic susceptibility, poor knowledge of diabetes, a lack of healthy lifestyle and language and cultural barriers (Khunti, Hanif, Karet, Mughal, & Patel, 2011, p. 47). Some of these cultural barriers are related to access, language barriers, financial constraints and incomplete acculturation (Potter & Perry, 2009, p. 189). Genetically and Physiologically Asians Indians are more insulin resistant and more susceptible to type 2 diabetes than whites for a number of reasons as pointed out by (Mohan et al., 2007, p. 28).

Their plasma insulin levels are higher.

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Asian Indians have a greater degree of central adiposity as measured by waist circumference and waist-to-hip ratio, presumably making them more insulin resistant.

Low birth weight, particularly coupled with catch up growth in early childhood is associated with a greater prevalence of insulin resistance in Indian children. Low birth weight and thinness are common in Indians.

Undernutrition in fetal and infant life followed by over nutrition later in life have been shown to predispose individuals to diabetes and metabolic syndrome.

The genotypic and phenotypic expressions in the Indian population are possible explanations for the increased propensity of Asian Indians to develop type 2 diabetes. Genetic studies have shown that the polymorphism that is known to be protective against diabetes in whites does not appear to offer protection to Indians. There were some genetic expressions that were strongly associated with diabetes as well as with body fat in Indians. There was also specific insulin receptor substrate that is associated with type 2 diabetes in Asian Indians particularly in the presence of obesity.

Cultural Norms: The traditional cuisine such as samosas, mithais etc. that are present during parties, weddings and social gatherings are high in sugar and fats and exacerbates the effects of diabetes. It is also a religious tradition for Asians to be engaged in prolonged periods of fasting during some religious holidays. This has an effect on the manner in which sugars are stored and release in their bodies (Lee, 2012, p. 5-6).

Therefore culturally tailored diabetes management programs that address the obstacles that prevent this Asian population from receiving optimal diabetes management needs to be adopted. It is therefore imperative that healthcare professionals understand the lifestyle habits

and cultural beliefs among this population and tailor their case management in such a way to address these issues.

Management

In order to competently manage diabetes among the Asian population, the culturally competent nurse needs to listen to the voice of the client. As the nurse is conducting the assessment, he/she will discover a web of causation for this population after which interventions can be prioritized. Some factors are non-modifiable such as genetics however other factors need to be addressed. For the plan of action to be effective this population needs to acknowledge that this issue does exist among their ethnic group and sees the need to be involved to address this issue to prevent further complications.

Lack of knowledge/Community-based diabetes awareness programs. A survey conducted in Chennai, showed that the awareness of diabetes is very low among this population, 25% of the 26001 participants had never heard about the condition, and less than 25% knew that diabetes is preventable (Mohan et al., 2007, p. 28).

Awareness among this population is therefore very important at all age and can include lectures on diabetes, display of posters and distribution of brochures with pictorial information about diabetes. It is my opinion that there needs to be more diabetic clinic and outpatient facilities that will cater to the needs of the diabetic population in communities. This can be effective in Asian communities by have Asian health care providers and diabetic educators involved. A high sense of trust will ultimately transition into improved practices among this population. For the younger population, schools, youth organizations and other recreational centers can be targeted. Usually there are specific communities that are predominantly Asian population, and community health

fairs that teaches on this disease, its management and health information booths that encourage enrollment in health insurance plans to provide access to health care.

Medical Nutrition Therapy. This is the first line choice of treatment and is aimed at promoting healthy traditional Indian diet that is high in fiber and low in fat. A high staple diet is common in this population and is sometimes attributed by a low socio-economic status.

Therefore poverty and other social concerns may need to be addressed first in order to ensure affordability among this population.

Diabetic patients within this population need to be taught about eating as a diabetic patient, the right relative proportion of carbohydrates, vegetable, protein and fats. A sample of the diabetic plate is attached. For the pregnant Asian women, they need to be made aware that WIC is available.

Physical Exercise. Exercise remains the basic principle for management of diabetes and should be started slowly and increased gradually. Habits that promote physical inactivity should be discouraged. Yoga, the ancient science of Indian culture has been shown to have beneficial effects in the management of diabetes. Re-introducing physical activity program in schools and building infrastructure with enough parks, playgrounds, gyms and other leisure time activity is vital among this younger population.

Pharmacotherapy. This should be considered when lifestyle modifications fail to achieve glycemic goals. Metformin remains the drug of choice for initiation of therapy in obese children and adolescents with type two diabetes.

Socio economics, Access and Family Support. A team effort by families, communities, schools, healthcare providers, government and media is needed. In high-risk cases, e.g. those with strong family history, obesity, acanthosis nigricans or polycystic ovarian disease, screening

must be done in the youth, early detection and treatment are the cornerstones to reduce morbidity and mortality due to youth-onset type 2 diabetes. There are a number of community resources that are available that will target the needs of this population such as American Diabetic Association (ADA) which provides extensive information on managing this disease, WIC for the pregnant women, diabetic clinics are also present in every community etc.

Culturally Competent Healthcare worker. Like any other ethnic group, healthcare workers needs to be trained to understand these Asians ethnic background and to address some of these hurdles in a culturally sensitive way.

Implementation

After the above has been implemented, it is necessary to evaluate whether the management strategies were effective. This will be reflected in compliance rates, which ultimately translate in lower HbA1C levels. Pre and Posttests can also be implemented to see whether teaching was effective. It must be noted that when working on the strategies to accomplish positive outcomes, the goals set on an individual basis must be realistic, achievable and measurable.

Conclusion

The consequences and complications of diabetes are far reaching and will pose a heavy financial burden on the healthcare systems. It is absolutely necessary that a multisectorial approach involving all healthcare provider, community leaders, schools and every other organization that contribute in a positive manner be involved in the prevention and management of the disease. In my opinion, this population also needs to be an advocate themselves in the management of this disease for those factors that are modifiable.

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