VOLUME-6 | ISSUE-2 | FEBRUARY-2017 • ISSN No 2277 - 8179 | IF : 3.508 | IC Value : 78.46

Perception of adult males and females about complications and prevention of diabetes mellitus

Medicine

KEYWORDS: Diabetes; Complications; Saudi Arabia

Abdulla Alkhalifa	Medical Student at College of Medicine, King Faisal University – Saudi Arabia
Abdulelah AlOjayan	Medical Student at College of Medicine, King Faisal University – Saudi Arabia
Anas AlMulhim	Medical Student at College of Medicine, King Faisal University – Saudi Arabia
Hassan AlSaad	Medical Student at College of Medicine, King Faisal University – Saudi Arabia
Abdul Sattar Khan	College of Medicine, King Faisal University – Saudi Arabia
Abdulrahman Ahmad Al Naim	College of Medicine, King Faisal University – Saudi Arabia
Adel Nasser Al Bargi	College of Medicine, King Faisal University – Saudi Arabia
Sayed Ibrahim Ali	College of Medicine, King Faisal University – Saudi Arabia
Abdullah khalid Al Maqhawi	College of Medicine, King Faisal University – Saudi Arabia
Suha Jafar Al Bahrani	College of Medicine, King Faisal University – Saudi Arabia
Saud Abdulaziz Al Naaim	College of Medicine, King Faisal University – Saudi Arabia
Khalid Nabeel Almulhim	College of Medicine, King Faisal University – Saudi Arabia
Abdulrhman Khaled AL Abdulqader	College of Medicine, King Faisal University – Saudi Arabia
Danya mohammmed khalid gari	College of Medicine, Imam Abdulrahman Alfaisal University – Saudi Arabia

ABSTRACT It's important to treat diabetes by awareness of complication, because if left without awareness of its complications diabetes can become severe and lead to serious complications requiring emergency care, such as diabetic coma. Therefore we designed a cross-sectional survey in order to assess the awareness of diabetic population about the complications and its prevention. The study included all adult population who are registered at one primary health care center in AL-Hasa. The total 72 patients were interviewed based on a structured questionnaire. The overall awareness is very poor. Furthermore the results showed no significant ($P>0.05$) difference among different age groups and education status, while socio-economic groups and gender have differences ($P<0.05$). Thus it is concluded that population requires a large-scale health education program in order to prevent complications in diabetic patients.

Introduction

Diabetes mellitus is chronic diseases in which the person has high blood glucose, either because insulin production is inadequate, or because the body's cells do not respond properly to insulin, or both. Patients with high blood sugar will typically experience polyuria (frequent urination), they will become increasingly thirsty (polydipsia) and hungry (polyphagia).1 Statistics shows that 347 million people worldwide have diabetes.2 In 2004, an estimated 3.4 million people died from consequences of fasting high blood sugar.3 More than 80% of diabetes deaths occur in low- and middle-income countries.4 Some values such as Fasting hyperglycemia is defined as a blood sugar greater than 130 mg/dL (milligrams per deciliter) after fasting for at least 8 hours. Postprandial or after-meal hyperglycemia is defined as a blood sugar usually greater than 180 mg/dL. In people without diabetes postprandial or post-meal sugars rarely go over 140 mg/dL. However, occasionally after a large meal, a 1-2-hour post-meal sugar level can reach 180 mg/dl. Consistently elevated high post-meal blood sugar levels can be an indicator that a person is at high risk for developing type 2 diabetes.5,6 It's important to treat diabetes, because if left untreated, diabetes can become severe and lead to serious complications requiring emergency care, such as diabetic coma. In the long term, persistent diabetes (hyperglycemia), even if not severe can lead to complications affecting patient vision, kidneys, nerves and heart. The importance of our research is acknowledge our community about the risk of this disease and how to avoid it and its complications as much as possible by following a special diet habit, exercising, taking medications on time, follow up in hospital at specific age and other factors that contribute for our community safety. At the end of this research we will prove why hyperglycemia complications are developed in Alhasa? Also, we will prove if Alhasa is developing hyperglycemia complications more than other cities in Saudi Arabia?

Methodology

Alhassa population in 2010 was 1,063,112 and population in Hufof is nearly 248,000 so we estimated that our sample size should be around 500. Difficult to have access this sample size therefore, we decided to collect as much as we can to reach a good number. It was a cross sectional study. We have chosen non-probability random sampling (convenient sampling).

We have taken an approval letter from the ethical and research committee at university and then went to the PHC to get the agreement. We did a pilot testing on 10 - patients, in order to identify any problem in questionnaire if any.

In questionnaire, we have variables of Sex, Age, Occupation, Marital status, ask the patient about his condition, and medical history of the patient. Also included some questions about prevention of the disease, how much does the patient know about the severity of his disease, how did he know about the severity of the disease, and some questions about his community, life style, and so on. The SPSS 17 version has been used for analysis.

Results

The mean age is 54.291 ± 13.435, While the mean duration of diabetes is 12.95 ± 9.92, the mean visits for PHC per year is 10.97 ± 7.54, and the mean Exercise duration daily per minute is 16.70 ± 20.95.

The significant difference P (< 0.05) among different age groups as regard to the type of exercise. Our result also showed that most of the people between 35 -70 old year they do walking exercise. The Non significant difference P (> 0.05) among different age groups as regard to the Complication awareness. Our result show that most of the people who are aware about the Complication of hyperglycemia between age 35 -70-year-old.

The significant difference P (< 0.05) among different age groups as regard to the prevention type from diabetes . Our result show that all the people from 0-17 do exercise for prevention of hyperglycemia complications, while the people from age 17 -34 and 53-70 do exercise and make regulation of the diet, while the people from age 35-52 and 71-88 make regulation of the diet.

The Non significant difference P (> 0.05) among different in Gender as regard to exercise type. Our result show that half the males do walking exercise and the other half not doing any exercise, while more than half of the females do walking exercise and less than half little not doing any exercise.

The Non significant difference P (> 0.05) among different Gender as regard to complication awareness .Our result show that the females more awareness about the hyperglycemia complications than males little bit (there are same to be no differences between awareness between female or male)

The Non significant difference P (> 0.05) among different Gender as regard to prevention type from diabetes .Our result show that most of the males do exercise for prevention of hyperglycemia complications, while most of the females regulate them diet for prevention of hyperglycemia complications .

The significant difference P (< 0.05) among different in occupation as regard to prevention type as well. Our result show that most of the retired people, house wife and labor regulate them diet for prevention of hyperglycemia complications, while most of the office workers and students do exercise and regulate them diet for prevention of hyperglycemia complications, while the other people do exercise for prevention of hyperglycemia complications.

The Non significant difference P (> 0.05) among different in occupation as regard to complication awareness . Our result show that all the office workers, students and labors aware of the complications of hyperglycemia, while the house wife's less awareness of the complications of hyperglycemia, while the lesser awareness of the complications of hyperglycemia the retired and the rest of the people.

Discussion

Our study showed that majority of participants knew about Diabetes Mellitus complications. However, majority are not following preventive measures. Furthermore, education doesn't have any impact on their awareness (P>0.05). That is really surprising results because previous literature showed that higher education increase the chance of more awareness.7,8 The main risk factor pointed out by participants is hypertension, while main preventive measure stated by participant are diet + compliance.

High socioeconomic peoples showed more awareness about the complications that is quite obvious as they have more access to television and print media and also access to health services easily even in private sector. Whereas exercise habits are even poor in high salaried peoples, which showed a sedentary life style of Saudi peoples. If the patients are motivated for doing exercises on regular then it would be very helpful for reducing complications.8 The study depicted that people are not much convinced to follow preventive measures and the example is don't do exercise regularly.

Though it is a small scale study but act as an eye opener for policy makers that we need to work hard in health sector for health education programs.

Our population is 73 patients. The time is very limit, because we have lots of tasks and things to do it like exams and assignments. We don't have enough time to cover all cases that we had. For that, we just choose one PHC, which is (alsalhyah primary health care center). We face that some doctors are not cooperative with us, so they are little bit disrupted us to complete our work.

Our study showed that most of our patients have a complication of hypertension and less of knowledge. Also we found that our patients are not exercising on regular bases.

References

1. Diabetes: Symptoms, Causes and Treatments [Internet]. Medicalnewstoday.com. [cited 15 March 2013]. Available from: http://www.medicalnewstoday.com/info/diabetes
2. Danaei G, Finucane MM, Lu Y, Singh GM, Cowan MJ, Paciorek CJ et al. National, regional, and global trends in fasting plasma glucose and diabetes prevalence since 1980: systematic analysis of health examination surveys and epidemiological studies with 370 country-years and 2.7 million participants. Lancet, 2011, 378(9785):31–40.
3. Stevens G, Mascarenhas M, Mathers C. Global health risks: progress and challenges. Bulletin of the World Health Organization. 2009;87(9):646-646.
4. Mathers CLoncar D. Projections of Global Mortality and Burden of Disease from 2002 to 2030. PLoS Med. 2006;3(11):e442.
5. Aljoudi ATaha A. Knowledge of diabetes risk factors and preventive measures among attendees of a primary care center in eastern Saudi Arabia. Annals of Saudi Medicine. 2009;29(1):15.
6. Damla G, Zehra A, Samim Ö, Semra Ç, Cengiz K, Saygın A et al. Diabetes Care, Glycemic Control, Complications, and Concomitant Autoimmune Diseases inChildren with Type 1 Diabetes in Turkey: A Multicenter Study. Journal of Clinical Research in Pediatric Endocrinology. 2013;5(1):20-26.
7. Speight J. Managing diabetes and preventing complications: what makes the difference?. The Medical Journal of Australia. 2013;198(1):16-17.
8. Fain J. Diabetes Prevention Program: Education is Vital. The Diabetes Educator. 2002;28(4):474-474.
9. Venkataraman K, Wee H, Leow M, Tai E, Lee J, Lim S et al. Associations between complications and health-related quality of life in individuals with diabetes. Clinical Endocrinology. 2013;78(6):865-873. Epub 2012/07/11.