

Knowledge, Attitudes and Practices of General Practitioners Towards Diabetes Mellitus in Hyderabad, Sindh

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ABSTRACT

OBJECTIVES: To ascertain the knowledge, attitude and practice of general practitioners towards diabetes mellitus.

STUDY DESIGN: Cross sectional study.

DURATION OF STUDY: From July 2009 to October 2009.

PLACE OF THE STUDY: The cases were collected from various areas of Hyderabad like Latifabad, Qasimabad, Hussainabad, Pretabad and Tando Jam, Hosri.

MATERIAL & METHODS: One hundred general practitioners were selected from all major Tehsils of Hyderabad. Those who were not willing or refused to participate in this study were excluded. A written questionnaire was filled by each doctor that included the 4 questions of each domain of knowledge, practice and attitudes. The knowledge was assessed by levels of blood glucose, random and fasting, practices assessed by treatment options and attitudes by advising to their patients for obesity, diet and pregnancy. The frequencies were taken of known or unknown.

RESULTS: Out of 100 participants 35 belonged to periphery and 65 to major areas of Hyderabad. The mean \pm SD age was 41 \pm 3.5 years and mean \pm SD duration of practice was 10.4 \pm 5.7 years. Each doctor had seen 10 diabetic patients per day. Out of 100 doctors, 55 answered correctly and 45 were poor to all domain.

CONCLUSION: This study explored the knowledge, attitudes and practices regarding diabetes in Hyderabad among general practitioners and identified the need for improvement in managing diabetes. Awareness and education regarding diabetes is recommended to improve the health-care services provided by general practitioners.

KEY WORDS: Knowledge, Attitude, Practice, General Practitioners, Hyderabad.

INTRODUCTION

Almost 10% of the adult population of Pakistan suffers from diabetes mellitus and even greater number of glucose intolerance.^{1,2} Diabetes mellitus plays an instrumental role in causing diseases like hypertension, cardiovascular diseases, diseases of skin appendages and gangrene. Other serious complications include retinopathy, neuropathy, nephropathy, and lower-extremity amputations.³

National diabetes survey conducted in Pakistan also showed an overall burden of disease to be around 22-25%.⁴ Such an alarming situation of this debilitating disease in the developing country like Pakistan demands understanding of the natural history of disease to ensure all possible measures for its prevention at an early stage. Health care professionals and medical students have a very important role in increasing awareness of the disease, its prevention and health promotion. Various studies conducted among medical students unfortunately showed an inadequate knowledge about diabetes.⁵

Local studies among physicians and nurses also revealed inadequate knowledge and skills for education

and treatment of diabetic patients.⁶

Another study highlighted the fact that a proper education and awareness program can change the attitude of the public regarding diabetes.⁷ Another survey on 104 physicians, conducted in Karachi revealed inadequacies of current physician's knowledge and practice of optimal and acceptable diabetes care.⁸

The aim of this study to identify the weak domains of general practitioners regarding diagnosis, treatment and proper care of the patients with diabetes mellitus.

MATERIAL AND METHODS

This study was carried out in Hyderabad and its periphery from July 2009 to October 2009 with aim to assess knowledge, practices and attitudes of general practitioners towards diabetes mellitus.

Total 100 doctors were enrolled after consent. All three domains were assessed on a well defined questionnaire contain 4 questions of each. Subjects were selected by stratification of different Tehsils of Hyderabad District.

The scoring was given by the authors, 1 was poor, and 4 was excellent in each knowledge, attitudes and

practice. The questions include basis of diagnosis, fasting blood sugar, random blood sugar levels, blood pressure level, signs and symptoms, types of diabetes, treatment of diabetes type 1 and type 2, role of insulin in type 2 diabetes, combinations of oral hypoglycemic agents, indications of referral to specialist, and management of complications. The data were analyzed on SPSS-16 to calculate frequencies and means with SD.

RESULTS

Out of 100 general practitioners 35 (35%) were belonging to periphery and 65 (65%) were to Hyderabad city. The mean duration of practice was 10.4±5.7 years. The mean age was 41±3.5 years. The diabetic patients seen by each GP per day were 10 in number. (Table I)

Appropriate knowledge for Fasting and random blood sugars by only 50% of GPs.(Table II) The site for insulin administration was properly replied by 35, referral criteria to specialist by 30%, proper anti hypertensive prescribed by 75% (Table III). The pregnancy and obesity with diabetes replied by 45% and 40% respectively. But need of education in diabetic patients was mentioned by 90%. (Table IV).

Overall 45% GPs scored mean±SD 4.5±1. The practices of recent graduates were not better than those of older graduates (60% vs 40%).

TABLE I: DEMOGRAPHIC CHARACTERISTICS OF 100 GPs OF HYDERABAD

Age in years	50-60 (n=25)	40-49 (n=35)	30-39 (n=40)
Duration of practice	12.4±6.7	10±2.4	7.1±2.3
Diabetic patients /day	15±5	10±3	12±4

TABLE II: QUESTIONS REGARDING KNOWLEDGE

Questions	Good/ excellent	Poor
What is the fasting blood glucose for diabetes	40%	60%
What is the random blood glucose for diabetes	55%	45%
How will you diagnose? on signs/symptoms or Glucose levels	65%	35%
What are the complications of diabetes?	40%	60%

TABLE III: QUESTIONS REGARDING PRACTICES

Questions	Good/ excellent	Poor
Site for insulin administration	35%	65%
Referral criteria	30%	70%
Management of Ischemic heart diseases in Diabetes	25%	75%
Choice of anti Hypertensive in diabetes	75%	25%

TABLE IV: QUESTIONS REGARDING ATTITUDES

Questions	Good/ excellent	Poor
Obese, young patient with diabetes	45%	55%
Pregnant with diabetes	40%	60%
Diet for diabetes	35%	65%
Education for diabetes, is it important?	90%	10%

DISCUSSION

Diabetes mellitus is one of the most common endocrine disorders. At present, Pakistan ranks 6th among the countries with the highest burden of diabetes mellitus⁹ Compliance and adherence of not only patients, but also physicians to quality diabetes care is lacking in Pakistan¹⁰

In this study we seen the GPs were poor to screen the disease by Fasting blood glucose (60%) and random blood glucose (45%). In one study of Ireland 75% of GPs thought that training was the principal opportunity for improving diabetes care¹¹. Another local study by Shera and Basit showed that only 29% of physicians were able to provide number of screened people at risk. Another study showed that 40% of health care professionals lack confidence to diagnose diabetes.¹²

Regarding the practices, the poor response rates were very high. The response of 60% GPs was poor about site of insulin injection, 70% had very little idea for referral of patient and 75% had no idea for management of ischemic heart diseases in diabetes; but 75% were found to have proper practice to start anti-hypertensive in diabetic patient. This is matched with study of Shera in a KAP survey only 40% had idea for proper angle of insulin.⁴ The use of anti hypertensive is matched with Israeli study of family physician that uses ACE inhibitor for hypertension in diabetes¹³.

In our study attitudes of 90% GPs were the agreement for education of the diabetic patients, resembling with

study of Shera and Fatima Jawad.⁴ Other than this, all other responses regarding attitude were poor, 45%, 40% and 35% regarding pregnancy, obesity and diet for diabetic. This is comparable with a study showing frequency of identifying different complications of diabetes among health care professionals.¹⁴ It was noted that only one-third of them including house officers, were able to identify different complications, suggesting that there is lack of understanding of the disease among the young graduates that require continuity of education and training¹⁴.

CONCLUSION

Diabetes is a life long disorder which leads to multiple disabilities. Early detection and treatment of diabetes and its complications is based on knowledge of health provider. Unfortunately our doctors are too busy and they have very little time to educate, counsel and acquire latest information.

This study concluded the need of continuous medical education and training of General practitioners of Hyderabad regarding diabetes. This study identified the current practices of general practitioners which have to improve by Health authorities.

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