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STUDY TO IDENTIFY BARRIERS FOR DELAY IN SEEKING SPECIALITY CARE FOR DIABETES.

Medicine

Neema M L — Resident, Department of Medicine; Father Muller Medical College, Mangaluru, S India - 575004. - Corresponding Author

Peter George — Professor, Department of Medicine; Father Muller Medical College, Mangaluru, S India - 575004.

Sudeep K — Associate Professor, Department of Endocrinology & Metabolic disorders, Father Muller Medical College, Mangaluru, S India - 575004.

ABSTRACT

Introduction: There are many barriers for the access of speciality care in diabetes. We intend to study the barriers for delay in seeking speciality care for diabetes at a tertiary care centre in Southern India.

Aim: To study the barriers for delay in seeking specialty care for diabetes.

Materials and methods: this was a questionnaire based descriptive cross-sectional study done over two months at a tertiary hospital in Southern India. Data was obtained from 100 randomly selected patients who fulfilled the selection criteria. A validated structured questionnaire with 56 structured queries was administered by the investigators and the responses were marked on a blinded data sheet. Relationship between demographic variables and barriers under each section were compared.

Results: We included 100 patients and 45% were in 41-50 years. Speciality care was taken by 64 subjects. Oral tablets alone were used by 55, insulin by 11 and both by 44. About 70% of patients with HbA1c >8.5 had diabetes for over 10 years. About 70% patients on insulin plus oral anti-diabetic medications had uncontrolled diabetes. Symptoms of uncontrolled diabetes was known to 74%. The awareness on complications was 80 % for eyes, 73% for cardiac and 70 % for renal; and 45% for stroke. On monitoring of diabetes 71% was not aware of HbA1c test. Need for eye check-up was known to 87% and foot care to 55%. Hypertension screening and urine protein check was known to 71% and 44% respectively. On treatment related barriers, 70% believed diet control alone was sufficient, 74% feared lifelong drugs, 75% feared insulin, 76% felt medicines to be expensive, 76% had poor control with drugs, 74% had no insurance or medical care. Barriers for treatment failure were; alternate treatment (68%), lack of time (68%) and poor sugar control (77%). Employment related barriers were the working pattern (60%), lack of medical leave (45%) and busy schedule (44%). The specialty related barriers were long waiting periods (80%), high cost of investigations (76%), frequent follow ups (45%) and complicated treatment schemes (40%).

Conclusion: There are various barriers for delay in seeking specialty care for diabetes. Understanding the patient perception on diabetes and ability of health care delivery system to fulfil patient needs can ensure better care for diabetics.

KEYWORDS

barriers, delay, speciality care, diabetes, knowledge, awareness, treatment.

Introduction:

Diabetes is a complex metabolic disorder known for its multiple systemic vascular complications. India is projected to have the largest number of diabetes patients by 2030. The awareness of diabetes and its complications are low in India; resulting in delay in diagnosis and efficient diabetes care.

Early detection, adequate continuous treatment, life style modifications, regular screening for complications and patient education can significantly reduce the diabetes related morbidity. This is possible only by increasing the awareness of the disease and by practicing the best standards of care to all diabetes patients. In the past decade, improved health education and awareness programs initiated by the governmental and non-governmental agencies have improved the awareness of diabetes as a disease.

There are many barriers for the access of speciality care for diabetes; which might be at the individual, infrastructural, organisational or health-care level. Studies in past have identified multiple reasons for delay in diabetic care; but individual barriers in seeking speciality care is poorly recognised. We intend to study the barriers for delay in seeking speciality care for diabetes at a tertiary care centre in Southern India.

Aim:

To study the barriers for delay in seeking specialty care for diabetes.

Materials and methods:

Study design: Questionnaire based descriptive cross-sectional study.

Source of Data: Patients with diabetes attending to the out-patient services of Department of Endocrinology at a tertiary care hospital in Southern India will be the source.

Materials and methods: The collection of data began after obtaining approval from Institutional Ethical Committee. The study was conducted over a period of two months. Data was obtained from 100 patients who fulfilled the selection criteria. Patients with diabetes attending the out-patient services of Department of Endocrinology were randomly selected. Those patients who fulfilled the selection criteria were included in the study after obtaining a written informed consent. The validated structured questionnaire divided in 'four sections' had 56 structured queries. The questionnaire was divided in four sections; namely 1) demographic data, 2) knowledge of disease awareness and monitoring, 3) treatment related issues and 4) employment and speciality related issues. The questionnaire was administered by the investigator with required explanations and the 'yes'/'no'/'don't know' response were marked on a blinded data sheet.

Questionnaire structure: First section on demographic profile consisting 12 queries. The second section will include 15 questions on knowledge of disease awareness and monitoring; the third section will have 19 questions treatment related issues and forth section with 10 questions on employment and speciality related issues. Except in demographic data all other questions were structured to have 'yes' or 'no' response.

Selection criteria: Inclusion criteria: Patients, aged between 20 and 70 years, diagnosed as Type 2 diabetes for at least 6 months. Exclusion criteria: (i) Patients aged less than 20 and more than 70 years. (ii) Diabetes of less than 6 months' duration. (iii) Patients with established vascular complications of diabetes. (iv) Persons with motor disability. (v) Type 1 diabetes and Gestational diabetes.

Statistical Analysis: Relationship between demographic variables and barriers under each section were compared using Chi-square test. Data is reported as the mean ± SD with 95% confidence interval and 5% degree of freedom.

Results:

In this study 100 patients (66 males and 34 females) were included, with 45 % of them in the 41-50 years of age. All had good acceptance of having diabetes and believed that they require treatment. Among the subjects 48 had family history of diabetes and 78 were living urban areas. In this study group 35 of them were self-employed and 65 were salaried. Those with regular working hours were 77 and having odd working hours were 23. Monthly income (in Indian rupee; 1 USD = 64 rupees approximately) was between 10,000 to 20,000 in 52 and above 20,001 to 40,000 in 27 subjects.

Those who had diabetes for > 5 years were 57, 1 - 5 years were 13 and 6 months to 1 year were 30. Speciality care for diabetes was taken by 64 and remaining 36 were consulting general practitioners. Oral tablets alone were used by 55, insulin alone by 11 and both by 44 subjects. The HbA_1c was <6.5 in 11, between 6.5 -8.5 in 51 and >8.5 in 38 patients. About 70% of patients with HbA1c >8.5 had diabetes for over 10 years. About 70% patients on insulin plus oral anti-diabetic medications had uncontrolled diabetes.

On the knowledge of diabetes as a disease, all knew diabetes is due to high sugar levels and 50 knew obesity could predispose to diabetes. Symptoms of uncontrolled diabetes was known to 74%. The awareness on diabetes complications were 80 % for eyes, 73% for cardiac and 70 % for renal; and 45% for stroke. Well controlled sugars could prevent complications was known to 55% and 58% felt lack of symptoms as a feature of well controlled diabetes.

On their knowledge on monitoring of diabetes 45 % did not know normal sugar values and 71% was not aware of HbA1c test. Need for eye check-up was known to 87% and foot care to 55% of subjects. Hypertension screening and urine protein check was known to 71% and 44% respectively.

On treatment related barriers, 70% believed diet control to be sufficient and 90% felt exercise alone was insufficient to treat diabetes. Among them 75% feared insulin, 74% with lifelong drugs, 40% were worried about complex drug schedule and 34% feared side effects. Also, 76% felt medicines to be expensive, 76% had poor control with drugs, 74% had no insurance or medical care and 28% had no employer support system.

Barriers for treatment failure were; poor sugar control (77%), alternate treatment (68%), lack of time (68%), lack of knowledge on specialty care (25%), remote location (22%) and laziness (12%). Employment related barriers were; lack of employer medical schemes (75%), working pattern (60%), lack of medical leave (45%) and busy schedule (44%). The specialty related barriers were long waiting periods (80%), high cost of investigations (76%), frequent follow ups (45%), complicated treatment schemes (40%), non-availability of medications (17%) and non-availability of care (10%).

Discussion:

Most patients in this study did not receive the standard recommended care; for which the reasons could be multiple. Awareness about diabetes was good in 60% of the study population. Only 29% had knowledge about monitoring of HbA1c, a similar study had awareness at 25%[1].

Awareness on monitoring for complications was good in this study. According to the Chennai urban rural epidemiology study, only 19.0% of the total population and 40.6% (621/1529) of diabetics were aware that DM can cause complications. [2] Only 9.6% had undergone eye check for diabetic retinopathy and 77% of the people preferred an eye check-up in case of an eye problem. In developing countries such as India, most of the healthcare costs are borne by the people. [3] KAP study by Rani et al. showed 50% individuals had knowledge about DM and 37% about diabetic retinopathy.[4] In this study need for eye check-up in diabetes was known to 80% of subjects. The awareness on other diabetic complications were 73% for cardiac, 70 % for renal; and 45% for stroke. Reason for the high awareness was probably due to the increased public awareness on diabetes complications.

In a study done at Kolkalta, the frequent reasons for non-compliance of treatment were forgetfulness (44.7%) and financial constraints (32.7%). [5] In this study, it was found that 2/3rd expressed procuring medication as a reason for non-compliance. Simmons et al observed that high cost of sugar monitoring at home made 49% of subjects not to monitor sugar.[6]

In this study 40% felt they had complex drug schedule as a barrier; which made them to discontinue or take inadequate medications. Patients did not seek care as 70% felt diabetic diet alone is adequate and 10% felt exercise alone will suffice treatment.

Nearly 2/3rd of the were worried about taking life- long medications. The fear of insulin was 75% in the study as compared to 15% in Diab care India 2011 study. [7] In studies by Nakar S. et al. and Ratanawongsa N. et al. done among primary care providers, 64% and 92% felt that their patients failed to adhere to insulin therapy. Also, 28% and 47% believed that their patients were unable to accept the discomfort of injections respectively. [8, 9] About 32% subjects were worried about the side effects of medications in the present study.

Affordability was another barrier noted in this study. About 75% felt medications to be expensive, 75% had no medical scheme or insurance cover and 65% had no employer support for the treatment. This was much higher than in the study by Zgibor JC and Thomas JS. They found approximately 12% had problems in obtaining medical care either; to cost (33.3%), physician availability (18%) and lack of health insurance (15%).[10] Poor access to drugs, the high costs of drugs, cultural barriers and an unequal urban/ rural distribution of the health providers are definite barriers to specialty care in developing countries.[11,12,13] In this study 78% of the patients were urban settlers and accessibility of specialty care was not a barrier.

Non-governmental and governmental health schemes have increasingly focused on these issues in improvising the health care delivery system. Karter et al concluded that addressing the barriers, including increasing awareness of diabetes education and covering financial barriers may improve compliance to treatment and its complication.[14]

In the present study 60% belonged to upper middle class. A major reason for delay in seeking specialty care, in developed as well as developing countries was the high costs of care. Reboon DK et al. observed that individuals in lower socioeconomic strata are least likely to receive specialist care. [16] In a study at Delhi among mid-high-income diabetics only 13% had done their HbA1c. This reflect on the insufficient diabetes health education happening at the primary and secondary health care.[15]

Long waiting time at specialty care clinics, was a barrier in seeking care. Hasan et al opined that the poor referrals to specialists impede the efficacy of diabetic care in India.[17]

The sampling from a hospital based population might have given better results in this study. A larger study in the general population would yield more information on the barriers in seeking specialty diabetes care.

Conclusion:

There are various barriers for delay in seeking specialty care for diabetes. Understanding the patient perception on diabetes and ability of health care delivery system to fulfil patient needs can ensure better care for diabetics. Specialised training programs to general practitioners on standards of diabetes care might improve the overall quality of care and help in easing few of these barriers.

Conflicts Of Interest:

No conflicts of interest to disclose. We have not received any grants from any funding agencies.

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