Doctor-shopping behavior among diabetic patients in urban Puducherry

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ABSTRACT

Background: Seeking assistance from multiple physicians for an illness is a major obstacle in providing efficient care by the health care systems. It not only alters the disease condition but also adds to excess health care costs. This study aimed at exploring healthcare-seeking behavior in adult patients with diabetes and also to identify the factors associated with doctor-shopping behavior. Methods: This questionnaire-based cross-sectional study was conducted in an urban ward of Puducherry. A total of 100 patients aged more than 18 years with diabetes were included in the study. Results: Around 80% of the study subjects were availing treatment from government facilities. Prevalence of doctor-shopping behavior was found to be 14%. Reasons for change in their treatment facility were mainly due to patient-related factors like unaffordability of medicines and consultant fees, or illness-related factors like no improvement in symptoms. Physician/facility-related factors were due to prolonged waiting hours and poor interpersonal communication by the doctor. Various factors associated with doctor-shopping behavior in diabetics such as chronicity of illness ($P < 0.005$), past treatment facility being private ($P < 0.001$), and upper socioeconomic status ($P = 0.045$) were statistically found to be significant. Conclusion: The present study shows the prevalence of doctor shopping among diabetic patients to be 14% in urban Puducherry and this change in consultation was mainly due to the patient, illness, physician, or facility-related factors. Patient education, good interpersonal communication skills, and health system strengthening measures can increase responsiveness of the community toward the health systems and thereby reduce doctor shopping behavior among diabetic patients.

Key words: Diabetes, doctor-shopping, health care seeking behavior

INTRODUCTION

Doctor-shopping and nonattendance are problems frequently encountered in outpatient clinics and are obstacles in providing an effective and efficient health care. Doctor-shopping or the changing of doctors without professional referral for the same illness episode has the potential to increase iatrogenic illnesses whereas nonattendance causes a delay in diagnosis and management of clinical conditions. Although doctor-shoppers have a right to seek a second opinion and to shop for best quality health care that fulfill their needs, yet from the managerial point of

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Website: www.ijamhrjournal.org

DOI: 10.4103/2350-0298.184676

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How to cite this article: Agrawal S, Lakshminarayanan S, Kar SS. Doctor-shopping behavior among diabetic patients in urban Puducherry. Int J Adv Med Health Res 2016;3:20-4.
view such behavior is not so desirable since it impairs the continuity and increases health-care utilization. The use of multiple care providers is associated with poor continuity of care and may add excess costs to the health care system.\cite{1}

According to the existing literature, there are a number of reasons why patients may consult other doctors: physician-related factors (extended waiting times, physician attitude, inconvenient office hours or locations, undesirable personal qualities of the physician, and insufficient time for communication between the clinician and patient) and patient/illness-related factors (symptom persistence,\cite{2} a lack of understanding of either the proffered diagnosis or the treatment,\cite{3} and/or no improvement in the illness). Depending partially on the study methodology, particularly the definition of doctor shopping used by investigators and the sample type, rates for doctor shopping vary from 6.3% to 56%.\cite{4} It has been observed that doctor shopping is strongly associated with doctor-patient relationship and chronic conditions.\cite{5}

Developing countries like India are undergoing an epidemiological transition from communicable to noncommunicable diseases (NCD).\cite{6} NCD account for 53% of all deaths in India and are estimated to increase up to 67% in 2030.\cite{7} Hypertension and diabetes are the common chronic morbidities which can lead to life-threatening complications like cardiovascular diseases.\cite{8} With 66.8 million affected by diabetes, India ranks second globally.\cite{9} In India, urban and rural divide in NCD prevalence is reducing and is expected to diminish very soon.\cite{10}

Diabetes mellitus (DM) is a chronic condition that requires regular professional attention. In regular out-patient clinics, it has been observed that diabetic patients exhibit a wide range of health-care seeking behavior – irregular follow-up, seeking multiple physicians for treatment, availing treatment from government and private sources, alternating with indigenous medicines and traditional systems, etc. A study conducted at a tertiary care hospital in South India among diabetic in-patients showed that only 49.3% were adherent to prescribed medications.\cite{11} Diabetic patients who do not attend have significantly more risk factors and complications than those who keep their appointments.\cite{12} Yet nonattendance is a common occurrence and has been reported to be as high as 39% in a retrospective review of 259 patients in a diabetic clinic.\cite{13} Endemic cultural practices and attitudes that hamper appropriate health-related behavior make diabetes management in India challenging. India has a wide range of alternative healthcare systems, which are patronized by the general population for reasons such as safety, cost-effectiveness, and availability.

Healthcare-seeking behavior in patients with DM has been investigated to a limited extent in developing countries. Information on patterns of doctor-shopping behavior in nonattenders of specialist out-patient clinics can guide the hospital authority in the pursuit of a more efficient health care. This study was done to explore doctor shopping behavior in adult patients with diabetes and to identify the factors associated with doctor-shopping behavior.

**METHODS**

This was a cross-sectional study conducted in an urban ward of Urban Health Training Centre of a tertiary hospital in South India. Data collection period was between June and July 2014. All diabetic patients >18 years belonging to service area were included in the study. Adults who could not be contacted for more than two visits were excluded from the study. The sample size was fixed as 100 based on feasibility and logistics.

Approval from the Institute Research Council and the Institute Ethics Committee was obtained before the commencement of the study. The subjects were chosen by simple random sampling from the enumeration data of the health center, which has details of diabetics currently on treatment. In cases where the selected subject could not be contacted for more than three occasions, the next subject in the list was included in the study. Informed consent was obtained from the participant before the interview. All the participants were explained about the purpose of the study, and strict confidentiality of data collected was ensured.

A semi-structured questionnaire was prepared to collect sociodemographic details (age, gender, income, occupation, socioeconomic status), medical details (duration of disease, comorbidities, treatment history), and health seeking behavior (current treatment facility, change in physicians since time of diagnosis with reasons). Other details collected included satisfaction with waiting time and opening hours, use of over the counter drugs, complementary alternative medicine and traditional healers, availability of medical insurance.

For purposes of this study, diabetic patients who have consulted three or more physicians during same illness period, on their own accord without any physician referral, were considered as “Doctor Shoppers.”

**Statistical analysis**

Variables such as sociodemographic factors, medical history, and treatment seeking behavior are expressed in proportions. Chi-square test was used to test the association between health care seeking behavior and sociodemographic characters. $P < 0.05$ was set as
RESULTS

A total of 100 patients aged more than 18 years with diabetes were contacted in the study. Response rate in this study was 100%. Among the study subjects, one-third was aged between 60 and 69 and one-third belonged to 50–59 years of age. One-third of the participants were males. Around two-thirds had diabetes for <5 years duration and half had hypertension as comorbidity. Other comorbid conditions included bronchial asthma, coronary artery disease, hypothyroidism, etc. [Table 1].

Four-fifths of the subjects (82%) were seeking treatment from government hospitals like the general hospital and the Urban Health Centre clinic run by the teaching hospital. Majority of patients (71%) have their follow-up visits once in a month [Table 2]. One-fifth of the subjects reported use of over the counter refills for their diabetic medications. Use of complementary alternative medicines like (Ayurveda, Siddha, and herbals) was observed in 8% patients. Some form of medical insurance was available only for 3% subjects.

Regarding the reasons for preference of the current facility, 63% were patient related (affordability, distance of the health care facility from home, appointment timings, availability of medicines, improvement in symptoms) and 37% were related to the physician/health facility (better health-care facility, availability of doctors, doctor spends more time with patients, less waiting time) [Figure 1].

Prevalence of doctor shopping behavior was around 14% in this study. In this study, it was found that patients who availed private facility in the past (31%, \( P < 0.001 \)), longer duration of disease (24%, \( P < 0.005 \)), and upper socioeconomic status (36%, \( P = 0.045 \)) had higher occurrence of doctor-shopping behavior and this was statistically significant. Doctor shopping was more in adults <50 years (17.4%), males (20%), and individuals with longer intervals between follow-up (31%); however, not statistically significant.

Almost half the subjects (53%) have changed their physician and treatment facility since the time of diagnosis. The most common reasons for the change in consultants were patient/illness related factors such as “no improvement in symptoms,” unaffordable, inconvenient hospital timings. Physician-related factors for change in consultants were increased waiting time, unavailability of doctors; doctor does not spend time and clear doubts. In 7% patients, the reason for the change in consultants was health-care facility related.

| Characteristics                                   | n   |
|---------------------------------------------------|-----|
| Age                                               |     |
| <50                                               | 23  |
| 50–59                                             | 25  |
| 60–69                                             | 30  |
| ≥70                                               | 22  |
| Gender                                            |     |
| Female                                            | 70  |
| Male                                              | 30  |
| Marital status                                    |     |
| Married                                           | 92  |
| Single                                            | 2   |
| Widow/divorced                                    | 6   |
| Education status                                  |     |
| Illiterate                                        | 46  |
| Up to primary                                     | 23  |
| Up to higher secondary                            | 24  |
| Graduation                                        | 7   |
| Occupation                                        |     |
| Unemployed                                        | 72  |
| Unskilled worker                                  | 14  |
| Skilled and semi-skilled worker                   | 5   |
| Clerical, shop owner, farmer                      | 3   |
| Professionals and semi-professionals              | 6   |
| Socioeconomic status                              |     |
| Class 5 (lower)                                   | 23  |
| Class 4 (upper lower)                             | 66  |
| Class 3 (lower middle)                            | 6   |
| Class 2 (upper middle)                            | 4   |
| Class 1 (upper)                                   | 1   |
| Duration of diabetes (years)                      |     |
| <2                                                | 16  |
| 2–5                                               | 46  |
| 6–10                                              | 28  |
| >10                                               | 10  |
| Comorbidity                                       |     |
| Diabetes alone                                    | 44  |
| Diabetes with hypertension                        | 53  |
| Diabetes and others                               | 3   |

Table 1: Sociodemographic and disease characteristics of the study participants \( n = 100 \)
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(availability of medicines in the hospital). Around 21% of the patients changed the physicians on their own accord; 28% and 36% patients changed physicians on the advice of family members or friends and neighbors, respectively.

DISCUSSION

In this study, the prevalence of doctor shopping behavior was 14% - consulting three or more physicians during the same illness period, on their own accord without any physician referral. This is one of the few studies which assessed doctor shopping as a behavior in the Indian context, especially in terms of chronic disease like diabetes. This was in concordance to a review which states that the rate of doctor – shopping for general conditions in other countries varies from 6.3 % to 56%.[4]

As DM is a chronic condition, it requires regular care. Because of no improvement in symptoms, the doctor-shoppers either tend to seek the advice of their family members, friends, and relatives or on their own accord look for alternative physicians.

Of these 14 patients, 8 patients (58%) are consulting the government physicians while the rest are availing private facilities at present. Change in their treatment facility was mainly due to patient-related factors like unaffordability of medicines and consultant fees, or illness-related factors like no improvement in symptoms. Physician/facility-related factors were due to prolonged waiting hours and poor interpersonal communication by the doctor.

According to the available literature, there is a change in treatment seeking behavior for a number of reasons like persistence of symptoms, lack of understanding of the diagnosis or the treatment, and/or no improvement in the illness. Physician-related factors include extended waiting times, inconvenient office hours or locations, undesirable attitude of the physician and insufficient time for communication between the doctor and the patient.[4] In this regard, Yeung et al.[14] determined that extended waiting times contributed to doctor shopping among patients in a Hong Kong community medicine clinic. Feroni et al.[15] reported that physician attitude, particularly being stringent, stern, or strict, was a factor in doctor shopping among French patients in buprenorphine maintenance programs.

Significant factors associated with doctor-shopping behavior in diabetics in our study were chronicity of illness, past treatment facility (being private) and upper socioeconomic status [Table 3]. Almost 40% of patients had duration of disease more than 5 years which is an important reason for doctor shopping. The most common reasons for change in treatment from private to government facility was unaffordability and inconvenient distance of the private hospitals from the patient’s home. Existing literature states doctor-shopping behavior may be seen in conditions with symptoms that may take a long time to resolve and cannot be “fixed”

### Table 2: Treatment seeking behavior among the study subjects (n = 100)

| Treatment seeking behavior | n |
|-----------------------------|---|
| Current health facility     |   |
| Government hospitals        | 82 |
| Private clinics             | 18 |
| Frequency of health check up|   |
| Once a fortnight            | 16 |
| Monthly                     | 71 |
| Once in 3-6 months          | 13 |
| Number of doctors consulted since the time of diagnosis | |
| 1                           | 48 |
| 2                           | 38 |
| 3                           | 10 |
| >3                          | 4  |
| Number of doctors consulted in the past year | |
| 1                           | 79 |
| 2                           | 19 |
| 3                           | 2  |

### Table 3: Factors associated with doctor shopping behavior (n = 14)

| Characteristics                          | (n = 14) (%) | P |
|------------------------------------------|--------------|---|
| Age (years)                              |              |   |
| <5                                       | 4 (17.4)     | 0.732 |
| ≥5                                       | 10 (13.0)    |   |
| Gender                                   |              |   |
| Male                                     | 6 (20.0)     | 0.345 |
| Female                                   | 8 (11.4)     |   |
| Education                                |              |   |
| Illiterate                               | 6 (13.0)     | 0.799 |
| Literate                                 | 8 (14.8)     |   |
| Socioeconomic status                     |              |   |
| Lower (Class 4 and 5)                    | 10 (11.2)    | 0.045* |
| Upper (Class 1, 2 and 3)                 | 4 (36.4)     |   |
| Comorbidities                            |              |   |
| Yes                                      | 8 (14.3)     | 0.926 |
| No                                       | 6 (13.6)     |   |
| Duration of disease (years)              |              |   |
| <5                                       | 2 (4.0)      | 0.004* |
| ≥5                                       | 12 (24.0)    |   |
| Frequency of visits                      |              |   |
| Monthly                                  | 10 (11.5)    | 0.062 |
| Once in 3 months or more                 | 4 (30.8)     |   |
| Past treatment facility                  |              |   |
| Private                                  | 12 (31.6)    | <0.001* |
| Government                               | 2 (3.2)      |   |

*P < 0.05 based on Chi-square test
A considerable number of patients (14%) still utilize the indigenous forms of medicine and one-third prefers nonallopathic medical systems for treatment. However, this practice was found to be low in our study compared to other studies.[9] Switching between different health systems may interrupt glycemic control, affecting health. This needs to be explained to the patients and their family members and caregivers in order to ensure good treatment outcomes.

Seeking multiple physicians leads to poor continuity of care and adds excess costs to health care systems. There is a need for good interpersonal communication skills between the doctor and the patient. Spending of appropriate amount of time for consultation by the physician and education on importance of continuity of care will result in better understanding of the disease condition by the patients. Economic factors in doctor shopping behavior can be addressed by health system measures like strengthening the chronic disease clinics, especially in government hospitals. Implementing a proper referral system with efficient data exchange could also strengthen their care delivery. This can lead to increase trust of the community in government facilities and quality of care received. This can reduce out of pocket expenditures due to chronic diseases as well.

CONCLUSION

This study shows the prevalence of doctor shopping among diabetic patients to be 14% in urban Puducherry and this change in consultation was mainly due to the patient, illness, physician, or facility related factors. Patient education, good interpersonal communication skills, and health system strengthening measures can increase responsiveness of the community toward the health systems and thereby reduce doctor shopping behavior among diabetic patients.

Acknowledgments

This research has been done as part of ICMR STS - 2014 (Reference ID: 2014-01105).

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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