Original Research Article

Doctor shopping behaviour and its determinants among people with chronic diseases in rural Kancheepuram district, Tamil Nadu: a cross-sectional study

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ABSTRACT

Background: Doctor shopping is defined as the practice of patient seeking multiple health care providers without making efforts to coordinate care or informing physicians of the multiple care givers for the same illness or to procure prescription drugs illicitly. This study was planned to explore the doctor shopping behaviour and its determinants among people with chronic diseases in rural Kancheepuram district, Tamil Nadu.

Methods: A cross sectional study was conducted among patients of chronic diseases residing in Sembakkam village, Kancheepuram District, Tamil Nadu. Data was collected using a pre-tested semi-structured schedule adopted from Agarwal et al will be used.

Results: Prevalence of doctor shopping was found to be 73.7% among the study population which is visiting more than one doctor for the same diagnosis. The main reason given by the participants for consulting more than one doctor was consistence of the symptoms (34%) followed by location of the health facility (15.9%) and non-acceptance of the diagnosis (15.5%).

Conclusions: 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 behaviour.

Keywords: Cross sectional study, Doctor shopping, Rural

INTRODUCTION

Doctor shopping is defined as the practice of patient seeking multiple health care providers without making efforts to coordinate care or informing physicians of the multiple care givers for the same illness or to procure prescription drugs illicitly.1 Even though, Consumer Protection act states to sought second opinion as the right of the patient, it often leads to lack of continuum of care and increasing health care cost.2 Doctor shopping behaviour ranges from 6.3% to 53% depends upon the definition of doctor shopping and sample of the study. Literature studies have cited physician related factors, illness related factors and psychological factors of the patients as the important predictors of doctor shopping. It often reflects the trust of the patient over the physician. There has been a major metamorphosis in the trust of patients over health care system from blind faith to a calculated and strategic approach over a period of time.
because of changing socio-political environment of health care system in India.3

Moreover, non-communicable diseases accounts for 53% of burden of disease in India and about 20% of India’s population is having at least one chronic disease and over 10% of the population is having more than one chronic diseases.4 Growing burden of the chronic diseases and lack of adequate trust of patients over health care system has immense effect on the pattern of health seeking behaviour of chronic patients. There is still a paucity of research on the evaluation of doctor shopping behaviour in the context of chronic diseases in India. So, this study is planned to explore the doctor shopping behaviour and its determinants among people with chronic diseases in rural Kancheepuram district, Tamil Nadu.

METHODS

A cross sectional study was conducted among patients of chronic diseases residing in Sembakkam village, Kancheepuram District, Tamil Nadu. Data was collected using a pre-tested semi-structured schedule adopted from Agarwal S et al was used.2 It was translated to local language Tamil while interviewing the participants. Details of their socio demographic data was asked in part I of the schedule, part II consist of questions pertaining to their doctor shopping behaviour and part III consist of questions pertaining to factors responsible for doctor shopping behaviour. The data was collected between June and August 2018 among patients with chronic diseases residing in Sembakkam village of Kancheepuram district, Tamil Nadu. Patients with chronic diseases like diabetes mellitus, hypertension, coronary artery diseases, chronic obstructive pulmonary diseases, cancer, stroke, tuberculosis, and other diseases for which they are taking treatment for more than three months and adults of age 18 and above (either male or female) residing in this area was included in the study and Patients who were not willing to participate in the study was excluded from the study. Houses that were locked even after three visits were not included.

Sampling method and sample size- Prevalence of chronic diseases was found to be 20% in the general population of India, as reported by Partnership to Fight Chronic Disease advisory report was used to calculate the required sample size .4

N=\left \left [ Z \alpha^2 p \times q \right \right ] / d^2 = \left [ 4 \times 20 \times 80 \right ] / (5)^2 = 256, \text{ (where } Z \alpha = 4, p=20, q=80 \text{ and } d=5\% \text{ absolute error). Assuming a 5\% non-response rate, the final sample size is approximated to 270. List of patients with chronic diseases will be obtained local village health nurse and will be line listed. Sample size of 270 will be chosen using simple random sampling method through random number table.}

Institution Ethical committee clearance was obtained. Participants were explained about the study and importance of their participation in the study. Those who were willing to take part in the study were included after getting an informed consent.

Statistical analysis

The collected data were entered in Microsoft Excel and analyzed using the statistical software SPSS version 21.0 Chi square test was applied for testing difference in proportion and a p value less than 0.05 was considered statistically significant.

Operational definition

Doctor shopping

For the study purpose doctor shopping is defined as the behavior of visiting more than one doctor for the same disease or diagnosis.

RESULTS

A total of 270 people participated in the study, out of which majority of the study participant were male (59.6%), more than 30% of the participants were in the age group of 51-60 years. Most of the study participants were Hindus by religion (76.7) followed by Christians and Muslims. 60% of the participants belong to nuclear family and maximum numbers (85.2%) of participants were married at the time of study. Maximum numbers of the study participants were educated up to UG/PG (28.5%) followed by diploma holders (22.2%), more than 20% of the study participants were semiskilled workers followed by skilled workers (13%), about 30% of the participants belongs to upper middle class according to modified BG Prasad classification (Table 1).

Table 1: Socio demographic profile of the study participants (n=270).

| Variable          | Frequency | %   |
|-------------------|-----------|-----|
| Sex               |           |     |
| Male              | 161       | 59.6|
| Female            | 109       | 40.4|
| Age group in years|           |     |
| 1-30              | 51        | 18.9|
| 31-40             | 34        | 12.6|
| 41-50             | 56        | 20.7|
| 51-60             | 84        | 31.1|
| Above 61          | 45        | 16.7|

Continued.
Table 2: Factors attributing to doctor shopping (n=270).

| Variable                           | Frequency | %   |
|------------------------------------|-----------|-----|
| **Religion**                       |           |     |
| Hindu                              | 207       | 76.7|
| Muslim                             | 24        | 8.9 |
| Christian                          | 39        | 14.4|
| **Type of family**                 |           |     |
| Nuclear                            | 162       | 60.0|
| Joint                              | 21        | 7.8 |
| Extended nuclear                   | 87        | 32.2|
| **Marital status**                 |           |     |
| Single                             | 31        | 11.5|
| Married                            | 230       | 85.2|
| Separated                          | 2         | 0.7 |
| Widowed                            | 7         | 2.6 |
| **Education**                      |           |     |
| No schooling                       | 21        | 7.8 |
| Less than primary school           | 41        | 15.2|
| Primary school completed           | 7         | 2.6 |
| High school completed              | 19        | 7.0 |
| Higher secondary completed         | 38        | 14.1|
| Intermediate/diploma               | 60        | 22.2|
| UG/PG                              | 77        | 28.5|
| Professional                       | 7         | 2.6 |
| **Occupation**                     |           |     |
| Professional                       | 7         | 2.6 |
| Semi-Professional                  | 38        | 14.1|
| Skilled                            | 35        | 13.0|
| Semi-skilled                       | 55        | 20.4|
| Unskilled                          | 25        | 9.3 |
| Student                            | 21        | 7.8 |
| Unemployed/house wife              | 89        | 33.0|
| **Socio economic status**          |           |     |
| Class I                            | 27        | 10.0|
| Class II                           | 79        | 29.3|
| Class III                          | 56        | 20.7|
| Class IV                           | 67        | 24.8|
| Class V                            | 41        | 15.2|

| Variables                           | Frequency | %   |
|-------------------------------------|-----------|-----|
| **Health insurance**                |           |     |
| Yes                                 | 85        | 31.5|
| No                                  | 185       | 68.5|
| **Attitude of the patient to his/her disease** |   |     |
| Positive                            | 211       | 78.1|
| Negative                            | 59        | 21.9|
| **Types of health facilities sought for the treatment** | |     |
| Government                          | 61        | 22.6|
| Private                             | 108       | 40.0|
| Both                                | 101       | 37.4|
| **Frequency of health check up**    |           |     |
| Monthly visit                       | 45        | 16.7|
| Once in 3-6 months                  | 165       | 61.1|
| More than 6 months once             | 15        | 5.6 |
| Irregular in check ups              | 45        | 16.7|

Continued.
Variables | Frequency | %
---|---|---
**Number of doctors consulted since the time of diagnosis**<br>1 | 71 | 26.3<br>2 | 78 | 28.9<br>3 | 86 | 31.9<br>4 | 24 | 8.9<br>&gt;4 | 11 | 4.1

**Simultaneous consultation with more than one physician**<br>Yes | 12 | 4.4<br>No | 31 | 11.5<br>NA | 227 | 84.1

**Reasons**<br>Inconvenient consultation hours | 9.0 | 2.92<br>Long waiting hours | 2.0 | 0.65<br>Location of the health facility | 49 | 15.91<br>Lack of better communication | 7 | 2.27<br>Persistence of symptoms | 105.0 | 34.09<br>Worsening of the symptoms | 5 | 1.62<br>Non acceptance of the diagnosis | 48.0 | 15.58<br>Non acceptance of the treatment | 5.0 | 1.62<br>Lack of trust over doctors | 1.0 | 0.32<br>Lack of availability of regular physicians | 4.0 | 1.30<br>Prescription of costly drugs | 2.0 | 0.65<br>Other reasons | 71.0 | 23.05

**Choice of the physician depends on**<br>Consultation fee | 37 | 9.32<br>Holding of post graduate degree in that specialty | 85 | 21.41<br>Word of mouth referral by neighbours | 126 | 31.74<br>Better infrastructure of the hospital | 5 | 1.26<br>Advertisement of the hospital | 23 | 5.79<br>Location of health facility | 103 | 25.94<br>Number of patients visiting the hospital | 18 | 4.53

**Satisfaction with the current treating physician**<br>Fully satisfied | 75 | 27.8<br>Partial satisfaction | 117 | 43.3<br>Yet to decide on the satisfaction level | 27 | 10.0<br>Can’t say | 49 | 18.1<br>Still not satisfied | 2 | 0.7

*Multiple response question.

In this study, 78% of the study participants had positive attitude towards their disease, private health facility is the most preferred health facility for their illness (40%). Regarding the frequency of health check up 61% of the participants does health check up every 3-6 months.

A total 73.7% of the participants consulted more than one doctor at the time of diagnosis out of which 4.4% was simultaneous consultation with two doctors (Table 2).

The main reason given by the participants for consulting more than one doctor was consistence of the symptoms (34%) followed by location of the health facility (15.9%) and non-acceptance of the diagnosis (15.5%) and regarding the choice of physician, word of mouth (31.7%) was the major reason for the participants to choose a doctor followed by the location of the health facility (26%). And only 27.8% of the study participants were fully satisfied by the current treating physician (Table 2).

In this study the prevalence of doctor shopping is found to be 73.7%, and this practice is more among males compared to female, participants in the age group of 51-60 years and people living in nuclear family. From the results it is found that the participants who are diploma or degree holder practice doctor shopping more compared to other. The association between the gender, age, religion, marital status, occupation and doctor shopping were found to be statistically significant (Table 3).

The practice of doctor shopping was found to be more among the participants who have a positive attitude towards their diseases, those who are using both government and private health facility and those who does a health check up every 3-6 months. The association
between doctor shopping and duration of chronic diseases, type of health facility visited and frequency of the health checkup were found to be statistically significant (Table 4).

Table 3: Association between doctor shopping and socio demographic profile of the study participants (n=270).

| Variable                  | Doctor shopping | Total | Chi-square value (p value) |
|---------------------------|-----------------|-------|---------------------------|
|                           | Yes             | No    |                           |
| Sex                       |                 |       |                           |
| Male                      | 53              | 108   | 161                       | 9.026 (0.003) |
| Female                    | 18              | 91    | 109                       |
| Age                       |                 |       |                           |
| 21-30                     | 3               | 48    | 51                        |
| 31-40                     | 4               | 30    | 34                        |
| 41-50                     | 20              | 36    | 56                        | 23.879 (0.000) |
| 51-60                     | 28              | 56    | 84                        |
| Above 61                  | 16              | 29    | 45                        |
| Religion                  |                 |       |                           |
| Hindu                     | 56              | 151   | 207                       | 5.331 (0.062) |
| Muslim                    | 2               | 22    | 24                        |
| Christian                 | 13              | 26    | 39                        |
| Type of family            |                 |       |                           |
| Nuclear                   | 42              | 120   | 162                       | 0.594 (0.743) |
| Joint                     | 7               | 14    | 21                        |
| Extended nuclear          | 22              | 65    | 87                        |
| Marital status            |                 |       |                           |
| Single                    | 0               | 31    | 31                        | 17.973 (0.000) |
| Currently married         | 70              | 160   | 230                       |
| Separated                 | 0               | 2     | 2                         |
| Widowed                   | 1               | 6     | 7                         |
| Education                 |                 |       |                           |
| No schooling              | 8               | 13    | 21                        |
| Less than primary school  | 11              | 30    | 41                        |
| Primary school completed  | 2               | 5     | 7                         | 5.239 (0.634) |
| High school completed     | 4               | 15    | 19                        |
| Higher secondary completed| 11              | 27    | 38                        |
| Intermediate/diploma      | 19              | 41    | 60                        |
| UG/PG                     | 15              | 62    | 77                        |
| Professional              | 1               | 6     | 7                         |
| Semi-professional         | 13              | 25    | 38                        |
| Skilled                   | 10              | 25    | 35                        | 14.543 (0.020) |
| Semi-skilled              | 18              | 37    | 55                        |
| Unskilled                 | 9               | 16    | 25                        |
| Student                   | 0               | 21    | 21                        |
| Occupation                |                 |       |                           |
| Professional              | 1               | 6     | 7                         |
| Semi-professional         | 13              | 25    | 38                        |
| Skilled                   | 10              | 25    | 35                        |
| Semi-skilled              | 18              | 37    | 55                        |
| Unskilled                 | 9               | 16    | 25                        |
| Student                   | 0               | 21    | 21                        |
| Per capita income         |                 |       |                           |
| Class I                   | 8               | 19    | 27                        | 2.273 (0.686) |
| Class II                  | 16              | 63    | 79                        |
| Class III                 | 17              | 39    | 56                        |
| Class IV                  | 19              | 48    | 67                        |
| Class V                   | 11              | 30    | 41                        |
|                           |                 |       |                           |
| Duration of chronic       |                 |       |                           |
| Less than 2               | 105             | 23    | 128                       | 10.519 |
| 3 to 4                    | 65              | 34    | 99                        | (0.013) |
| 5 to 6                    | 15              | 10    | 25                        |
| Above 6                   | 14              | 4     | 18                        |
| Disease in years          |                 |       |                           |
| Positive                  | 159             | 52    | 211                       | 1.359 (0.244) |
| Negative                  | 40              | 19    | 59                        |
| Attitude of the patients  |                 |       |                           |
| Yes                       | 17              | 15    | 32                        | 7.932 (0.005) |
| No                        | 182             | 56    | 238                       |
| Family h/o similar complaints |             |       |                           |

Continued.
DISCUSSION

Not many studies on doctor shopping was done in this region of the country, this study found the prevalence of doctor shopping to be 73.7% among the rural population of Kancheepuram district which is consulting more than one doctor for the same diagnosis on their own accord without any doctor’s referral. This is one of the few studies which assessed doctor shopping in this region of the country. This was not 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%.1

Out of the patients who were doctor shopping 17 patients are consulting the government physicians while 83 patients are availing private facilities and 99 are availing both government and private facility at present. Change in their treatment facility was mainly due to consistence of the symptoms followed by location of the health facility and non-acceptance of the diagnosis. 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, extended waiting times, inconvenient office hours or locations, undesirable attitude of the physician and insufficient time for communication between the doctor and the patient.1 In this regard, Yeung et al, determined that extended waiting times contributed to doctor shopping among patients in a Hong Kong community medicine clinic.5 Feroni et al, reported that physician attitude, particularly being stringent, stern, or strict, as a factor in doctor shopping among French patients in buprenorphine maintenance programs.6 In another study, the most striking characteristics of doctor-shopping patients were chronicity of illness (p<0.005), inability to understand doctor’s explanations (p<0.005), and high general health questionnaire scores (p<0.05).7

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. Seeking multiple physicians leads to poor continuity of care and adds excess costs to health care systems. 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. The response from the participants might be biased as the study was conducted by a medical professional and smaller sample size were couple of limitations of the study.

CONCLUSION

This study shows the prevalence of doctor shopping to be 74% in rural area of Kancheepuram district and this change in consultation was mainly due to consistence of the symptoms followed by location of the health facility.
and non-acceptance of the diagnosis. Patient education, good interpersonal communication skills, and health system strengthening measures by inversing the quality and quantity of the health centers at rural areas can increase responsiveness of the community toward the health systems and thereby reduce doctor shopping behaviour. Doctor shopping is a worldwide phenomenon that concerns both health care providers and its users. It is therefore in the best interests of all parties to have a deeper understanding of this phenomenon and formulate solutions to address the problem.

**Recommendations**

Keeping in mind the high prevalence of Doctor Shopping, the whole community of this specific population 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 behaviour. Since location of the health facility was one of the reasons for doctor shopping, adequate health services should be provided for the population.

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