



Do Indian physicians heal themselves? An online cross-sectional survey of health access behaviour of doctors at a tertiary-care hospital in South India

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ABSTRACT

Background: The conflict of a doctor presenting as a patient is very much perceived in healthcare profession. Often overlooked, the well-being of physicians is an essential prerequisite to the health services they provide to their patients. Hence we aimed to assess the healthcare access behaviours of doctors of Saveetha Medical College and Hospital, Chennai, India and analyse barriers experienced by them in accessing healthcare.

Methods: After obtaining Institutional ethical clearance, all consenting doctors were administered a structured, validated questionnaire via WhatsApp and SMS. Means and proportions were calculated and Pearson's Chi-square test of significance was used to identify association among variables.

Results: Poor health-access behaviour was observed among majority of the 111 doctors who participated in the study. Familial involvement in healthcare was reported with 65% allowing their family to intervene in their health matters and 78.5% seeking consultation from their medically-qualified relatives. Younger ($p = 0.026$) and less experienced doctors ($p = 0.18$) were significantly more satisfied with self-treatment with no need felt for a primary care physician. Majority (75.7%) of doctors were inclined to informally consult for their personal medical conditions before seeking formal care. The respondents who weren't taking prescription medicines had significantly ($p = 0.01$) positive attitudes towards healthcare access. The major barriers in healthcare access were preference for informal consultations; worry about imposition on other busy doctors, pressure to stay healthy and long duty hours.

Conclusion: Indian doctors identified significant barriers in healthcare access. Strategies directed at enhancing doctors' healthcare access should focus on tackling their professional culture of self-reliance.

1. Introduction

The conflict of a doctor presenting as a patient is very much perceived in the healthcare profession.¹ The trend of self-treatment; ignoring personal health issues; reluctance in admitting to sickness due to concerns of losing license or stigmatization; apprehensions about confidentiality and sickness presenteeism is well recognized among doctors.^{2,3} Moreover, studies have shown that doctors tend to disregard their own advice to patients and often neglect their symptoms, thereby exhibiting a behaviour model of delusion, denial and delay.²⁻⁴ Often overlooked, the well-being of physicians is important to address as it's a vital prerequisite to the health services they provide to their patients. Indeed, surmounting evidence revealed that doctors whose health is impaired veer towards delivering sub-optimal healthcare services.⁵

Although doctors are presumed to have longer life expectancy due to their pre-emptive knowledge about health and fitness, the reality is that

their life span is almost ten years less than the general population, probably due to stress and absence of regular health check-ups.⁶ Additionally, though doctors have similar rates of chronic illness and health needs as the general population,⁷ a higher risk of certain physical and psychological problems are encountered among the medical fraternity.^{4,5,8,9} Moreover, a significant increase in the suicide rates among doctors in India¹⁰ and worldwide¹¹ had been reported recently.

The general practice among doctors is to self-investigate, self-diagnose, self-refer and self-treat which often prove to be hindrances to them accessing formal health care.^{3,5} Other barriers to personal healthcare include a lack of time for consultancy, overconfidence in one's own diagnosis, embarrassment to access professional opinion, work pressure or matters related to health information confidentiality.^{5,12,13} These barriers significantly impact their mental health too. Stress and burnout often lead to impaired health, grief and contribute to increased suicides among doctors.^{5,8-11} Exploring the mental and

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physical health needs of doctors and recognizing the barriers they experience in accessing healthcare will aid in improving their well-being. Though a study assessed the levels of burnout, compassion fatigue, and self-care among clinical oncologists in India,⁸ to the best of our knowledge, no study investigating the health-access behaviours of Indian doctors has been conducted so far. Hence we aimed to assess the healthcare access behaviours of doctors of Saveetha Medical College and Hospital, Chennai, India; evaluate the influence of sociodemographic and personal variables on their healthcare access behaviour and analyse the barriers experienced by them in accessing health care.

2. Methodology

An online cross-sectional survey was conducted among the medical doctors (MBBS and higher degrees) of Saveetha Medical College and Hospital, Chennai, a tertiary-care hospital in South India between March 2020 and October 2020.

2.1. Study questionnaire

A structured questionnaire was developed through literature review^{2-5,7,12,13} and content-validated by a general physician, a community medicine specialist and a psychiatrist. Subsequent to pilot testing, detailed explanations regarding the study and appropriate instructions were incorporated as a patient information sheet (PIS). The questionnaire comprised of 19 statements (all closed-ended) and took about 10–15 min to complete. The parts of the questionnaire were:

1. Demographic information including medication history
2. Current practices in accessing healthcare: primary care/mental health expert consultation, self-treatment, informal consultations and COVID-19 related information: ascertained through a Yes or No response. (Ten statements)
3. Barriers in accessing healthcare: long duty hours; informal consultations; concern about imposing on colleagues; pressure to stay healthy; confidence in self-treatment; confidentiality issues, financial issues; family interventions. (Nine statements). Responses were scored on a five-point Likert scale with 5 = *strongly disagree*; 4 = *disagree*; 3 = *unsure/neutral*; 2 = *agree* and 1 = *strongly agree* and a maximum attainable score of 45. One statement was scored in reverse for ease of analysis. High scores indicated positive attitudes towards healthcare access.

2.2. Data collection

All the doctors of Saveetha Medical College and Hospital, Chennai were invited to participate in the study. Non-medical PhDs and those doctors who were unwilling to give consent were excluded. Convenient sampling was employed for data collection.

The questionnaire with add-ons (PIS and informed consent form) was entered into "Google form" and its web link with the description was sent to the participants via WhatsApp and SMS. All statements were mandatorily to be answered for submission and only one submission was permitted per respondent.

2.3. Ethical consideration

The Checklist for Reporting Results of Internet E-Surveys (CHERRIES) guidelines was used to report this study.¹⁴ The study was approved by the Institutional Ethics Committee of Saveetha University in Chennai, India. Approval number: SMC/IEC/2020/03/240. Participation in the study was voluntary, informed consent was obtained from participants and anonymity and confidentiality of responses was maintained throughout the study by avoiding personal identifiable data and unchecking the "collect email addresses" box in the settings of the google forms.

2.4. Statistical analysis

Data analysis was conducted statistically using Statistical Package for the Social Sciences (SPSS), Version 25 (IBM Corp., Armonk, New York, USA). Means and proportions were calculated and Pearson's Chi-square test of significance was used to identify association among variables. Wilcoxon rank-sum test was utilized to compare the median (range) total and individual scores of statements elaborating the barriers in accessing self-healthcare. The internal consistency of this part of the questionnaire was evaluated using Cronbach's alpha. A $p \leq 0.05$ was deemed statistically significant.

3. Results

Out of the 170 doctors contacted, 121 had responded. However, 10 had not provided the consent and 111 completed the survey with a participation rate of 71.2%.

3.1. Participants' characteristics and prevalence of prescription medications

More than half of the participants were aged 40 years or less and males. Majority of them were married and clinicians with postgraduate degrees. The mean age and years of experience were 41.07 ± 11.68 years and 11.23 ± 10.46 years respectively. Majority of doctors were not taking any prescription medications for chronic diseases with significant differences observed by age, experience, specialty and designation. The participants' characteristics and prevalence of prescription medications is detailed in [Table 1](#).

The commonly prescribed medications were anti-hypertensives (13.5%), anti-diabetic drugs (12.6%), thyroxine (4.5%), hypolipidemic drugs (3.6%) and anti-anginal drugs (2.7%). The mean age of respondents on prescription medications was 51 ± 11.97 years.

Table 1
Sociodemographic characteristics and medication history of respondents.

Sociodemographic Characteristic		Number of Respondents (%)		P Value
		Total	Prescription Medications	
			Yes	
Age	≤40 years	65(58.6)	7(6.3)	<0.001
	>40 years	46(41.4)	26 (23.4)	
Gender	Male	69(62.2)	20(18)	0.826
	Female	42(37.8)	13 (11.7)	
Years of experience	≤8 years	56(50.5)	6(5.4)	<0.001
	>8 years	55(49.5)	27 (24.3)	
Specialty	Non-clinicians	22(19.8)	11(9.9)	0.02
	Clinicians	89(80.2)	22 (19.8)	
Designation	Senior doctors	55(49.5)	25 (22.5)	<0.001
	Junior doctors	56(50.5)	8(7.2)	
Qualification	Graduate	6(5.4)	0(0)	0.101
	Post-graduate	105 (94.6)	33 (29.7)	
Marital Status	Single	18(16.2)	3(2.7)	0.185
	Married	93(83.8)	30(27)	
Total		111 (100)	33 (29.7)	
			78 (70.3)	

3.2. Healthcare access

The majority didn't have a primary care clinician/general physician (GP) whom they consulted for minor illnesses and most didn't consult one in the previous year. Most of the respondents had medically-qualified family members, sought consultations from them and also informally consulted their colleagues before seeking formal care. The less experienced doctors were significantly more satisfied with self-treatment, sought consultation from medically-qualified relatives and were significantly more affected by the ongoing COVID-19 pandemic. **Table 2** gives the details of the participants' healthcare access.

Younger doctors (≤ 40 years; 34.2%; $p = 0.026$) and those **not** taking prescription medications (40.5%; $p = 0.008$) were significantly more satisfied with self-treatment as compared to their older counterparts (>40 years; 15.3%) and those on prescription medicines (9%). Physicians with family members in the healthcare field (58.6%) were informally consulting significantly more ($p = 0.011$) than those without any medically-qualified relatives (17.1%). No other socio-demographic factor influenced the health access behaviours of the respondents.

Table 2
Health-access parameters of respondents by years of experience (N = 111).

S. No	Health-Access Parameters		Number of respondents (%)		Total sample	P Value
			Years of experience			
			≤ 8 Years (n = 56)	> 8 Years (n = 55)		
1	Have a primary care physician for consultation for minor illnesses	Yes	22 (19.8)	16 (14.4)	38 (34.2)	0.258
		No	34 (30.6)	39 (35.1)	73 (65.8)	
2	Consultation with primary care physician in past one year	Yes	9(8.1)	8(7.2)	17 (15.3)	0.823
		No	47 (42.3)	47 (42.3)	94 (84.7)	
3	Satisfaction with self-treatment with no need felt for a primary care physician	Yes	34 (30.6)	21 (18.9)	55 (49.5)	0.018
		No	22 (19.8)	34 (30.6)	56 (50.5)	
4	Consultation with a mental health expert in past one year	Yes	0 (50.5)	2(1.8)	2(1.8)	-
		No	56 (50.5)	53 (47.7)	109 (98.2)	
5	Family member was a healthcare professional	Yes	43 (38.7)	36 (32.4)	79 (71.2)	0.188
		No	13 (11.7)	19 (17.1)	32 (28.8)	
6	Sought consultation from family health care professional(n = 79)	Yes	37 (46.8)	25 (31.6)	62 (78.5)	0.027
		No	5(6.3)	12 (15.2)	17 (21.5)	
7	Informal consultation with colleagues for personal medical conditions before seeking formal care	Yes	41 (36.9)	43 (38.7)	84 (75.7)	0.542
		No	15 (13.5)	12 (10.8)	27 (24.3)	
8	Taken prophylactic medications for COVID-19 pandemic	Yes	21 (18.9)	12 (10.8)	33 (29.7)	0.071
		No	35 (31.5)	43 (38.7)	78 (70.3)	
9	Professional duties during COVID-19 pandemic had impacted mental and/or physical health (n = 100) ^a	Yes	32(32)	18(18)	50(50)	0.009
		No	19(19)	31(31)	50(50)	
10	Became more cautious of self-healthcare due to professional duties during COVID-19 pandemic (n = 102) ^b	Yes	0	3	3(2.9)	-
		No	53(52)	46 (45.1)	99 (97.1)	

^a 11 didn't respond.

^b 9 didn't respond.

3.3. Barriers to healthcare access

The internal consistency coefficient Alpha of the questionnaire dealing with barriers to healthcare access was 0.601 (95% confidence interval: 0.48 to 0.704). The respondents who weren't taking prescription medicines had significantly positive attitudes towards healthcare access. **Table 3** elaborates the barriers to healthcare access.

Younger ($p = 0.001$); less experienced ($p = 0.008$); junior ($p = 0.002$); graduate doctors ($p = 0.027$) and those who weren't informally consulting ($p = 0.007$) had significantly higher median (range) scores for the statement "I am able to pay attention to my health in spite of my long hours of duty" versus their counterparts. Less experienced doctors were significantly more ($p = 0.019$) willing to disclose their medical issues without worrying about its impact on health insurance premiums versus their more experienced counterparts. Moreover, those who weren't informally consulting were significantly ($p = 0.013$) more worried about their workplace receiving confidential information than those who were informally consulting their colleagues.

4. Discussion

To the best of our knowledge, this is the first study investigating the practices opted by Indian doctors in accessing healthcare for themselves and the barriers they faced. The older, more experienced, senior doctors were taking prescription medications significantly more than their junior counterparts. As morbidities usually increase with increasing age,¹⁵ our results are quite justified. However, an interesting difference was the higher prescriptions taken by clinicians when compared to the non-clinicians. We postulate that this may be a consequence of the higher stress and burnout faced by clinicians as compared to the non-clinicians.¹⁶

Majority (66%) of our respondents didn't have a GP whom they approached for minor illnesses. This is contrary to most studies wherein one-fifth to almost all doctors had their own GP,^{12,17} probably due to impositions by the authorities or differences in national health systems which require compulsory registration with a GP.¹² Though Canadian residents on prescription medicines were more inclined to have a local GP,¹⁷ we didn't observe such an association. It is reported that better delivery of preventive healthcare and easier access to healthcare system is facilitated through an independent GP.^{7,12} Moreover, Canadian physicians without GP were more inclined to self-medicate or informally consult rather than seeking appropriate healthcare.¹⁷ Hence, insistence on having a local accessible GP would boost better healthcare access for our doctors.

Almost half of our participants were satisfied with self-treating themselves with no need felt for a GP. This is in accordance with many studies which reported that one-quarter to nearly all physicians practiced self-treatment, especially for minor illnesses.^{3-5,12,17,18} Unlike older US physicians who were more likely to self-prescribe,¹⁸ our younger, less experienced doctors were significantly more satisfied with self-treatment. Similarly, 41% young Canadian residents had practised self-medication.¹⁷ However, it is reassuring to note that our participants on prescription medications weren't inclined to self-prescribe.

Majority (85%) of our respondents had not consulted a GP and only two of them had visited a mental health expert in the past year, indicative of either excellent health or barriers concurring with earlier studies which suggest that fear of confidentiality breaches; embarrassment about illness and a working culture of ignoring ill-health discouraged the admission of vulnerabilities.^{2,4,5} Analogously, 34% Canadian residents had also reported that they had not consulted a GP in the last two years.¹⁷ Though gender and specialty related differences in healthcare access were reported among Finnish physicians,³ our study did not observe such findings. A qualitative study among Irish GPs revealed that they were very embarrassed about their personal illness, reluctant to acknowledge it (especially psychological issues) and work even when they're sick.² These perceptions take root earlier during student life with

Table 3
Barriers to healthcare access (N = 111).

S. No.	Statements ^a	Number (%)			Median (Range) Scores ^b			All responses (N = 111)
		Strongly Agree/Agree	Unsure	Strongly Disagree/Disagree	Prescription Medication			
					Yes (n = 33)	No (n = 78)	P Value	
1	I am able to pay attention to my health in spite of my long hours of duty. ^c	29(26.1)	36 (32.4)	46(41.4)	3(4)	3(4)	0.397	3(4)
2	I prefer to seek medical opinion informally from my peers (e.g. corridors, phone calls) rather than a formal consultation.	67(60.4)	19 (17.1)	25(22.5)	2(4)	2(4)	0.14	2(4)
3	I am worried about imposing myself on another busy doctor.	46(41.4)	31 (27.9)	34(30.6)	2(3)	3(4)	0.001	3(4)
4	I am worried about my workplace receiving any confidential information.	26(23.4)	42 (37.8)	43(38.7)	3(4)	3(4)	0.349	3(4)
5	I am concerned about my colleagues/superiors finding out my personal medical information.	23(20.7)	25 (22.5)	63(56.8)	3(4)	4(4)	0.017	4(4)
6	I feel there's pressure on doctors to stay healthy.	78(70.3)	14 (12.6)	19(17.1)	2(4)	2(4)	0.091	2(4)
7	I tend to find my illness as trivial and believe I have enough knowledge to justify my symptoms.	31(27.9)	44 (39.6)	36(32.4)	3(4)	3(4)	0.596	3(4)
8	I generally do not allow my family to intervene in matters related to my health	27(24.3)	12 (10.8)	72(64.9)	4(4)	4(4)	0.175	4(4)
9	I am unwilling to disclose my medical issues as I am worried about increasing my health insurance premiums.	12(10.8)	16 (14.4)	83(74.8)	4(4)	4(3)	0.136	4(4)
	Total Median (Range) Scores for all nine statements;	–	–	–	26 (21)	28.5 (18)	0.01	28(22)
	Maximum score: 45							

^a Possible responses were: 1 = strongly agree, 2 = agree, 3 = unsure, 4 = disagree, 5 = strongly disagree.

^b High Median scores indicate positive attitudes towards healthcare access.

^c : This statement had its scores reversed. Higher scores for this statement indicated that more doctors agreed with it.

the stigma associated with mental illness, concerns over privacy and fear of repercussions on future career advancement hindering many medical students from seeking professional help.¹³ Compulsions to project a healthy image to their patients and colleagues; doctors' general discomfort with the patient role and fear of their illness being trivialized by the consultant have also been reported to influence doctors' reluctance to seek healthcare.^{2,4,5,12} Consequently, physicians have been reported to be more neglectful of their health compared to the general public.^{3,5}

Informal/curbside consultation may be quite casual encounters with colleagues including telephonic conversations or "corridor consultations".¹⁸ Three-fourth of our participants reported that they consulted their colleagues informally before seeking formal care. This was also reiterated by the fact that 60% of them agreed/strongly agreed with the statement about preference to seek medical opinion informally (Table 3). Likewise, almost half of Canadian residents had either written prescriptions for their colleagues or received prescriptions from them¹⁷ and 74% of US paediatricians had received their prescriptions from informal doctor-patient encounters.¹⁸ Though no socio-demographic factor influenced informal consultations in other studies,^{17,18} our doctors with medically-qualified relatives were more inclined to informally consult. We presume the easy accessibility to a colleague or the convenience in garnering a second opinion may drive the physicians to seek informal consultations. However, such informal patient-doctor encounters rarely involve an elaborate medical history or a complete physical examination and so do not achieve "standard of care". Moreover, sensitive information (alcohol/smoking history) which is relevant to drug prescribing may be withheld from colleagues. These encounters may also involve an implicit assumption by the consultant that the requesting physician is aware of all these factors prior to the request.

With the ongoing COVID-19 pandemic, half of our participants reported that COVID duty had impacted their mental and or physical health. Many other studies have reported high psychological distress among healthcare professionals.¹⁹ Though gender had been implicated as an important factor in COVID-19-associated health,¹⁹ we didn't observe such an association. Instead, our less experienced doctors reported being significantly impacted by it. In spite of worldwide reports of healthcare professionals at a higher risk of contracting COVID-19,²⁰

only 2.9% of doctors reported that they became more cautious in dealing with patients during this crisis and only one-third had taken prophylactic medications for the infection. As the study was conducted during the first wave of COVID-19 pandemic, the responses of the participants could have been affected by the timing of the study. We postulate that the responses may not be the same if the questionnaire was rendered during the second wave of COVID-19.

Many of our respondents weren't able to pay attention to their health due to long hours of duty, preferred informal consultations, didn't want to impose themselves on another colleague and confessed there was pressure on doctors to stay healthy. These attitudes support previous assertions that the long duty hours as well as the professional culture of projecting an impression of invincibility while concealing vulnerability were barriers to doctors seeking healthcare.^{2,4,12}

Medical knowledge along with self-confidence in treating their illness generally empowers doctors to trivialize their symptoms resulting in a lack of compliance in seeking health care.^{4,12} Contrary to this, one-third of our clinicians didn't believe they had enough knowledge to justify their symptoms while two-fifth of our respondents were unsure. Unlike earlier studies wherein lack of assurance of confidentiality was considered an important barrier,¹³ our doctors weren't concerned about peer confidentiality; not worried about their workplace confidentiality and had no qualms about disclosing their medical issues.

Familial involvement in healthcare was observed with many (65%) reporting that they allowed their family to intervene in their health matters. As spousal support has been reported to be a protective factor in physician wellness, the overall well-being of our doctors would be benefitted by this engagement.^{5,21} However, the downside of familial involvement was that 78.5% of respondents with medically-qualified relatives had consulted these relatives. Likewise, 76% of US paediatricians had been requested to render prescriptions for their close relatives.¹⁸ While, our less experienced doctors often sought consultations from medical relatives, male and older US physicians were contacted more often by family members for informal consultations.¹⁸ Most medical societies have released ethical guidelines deterring doctors from treating their relatives.^{22,23} When physicians treat their relatives, professional objectivity might be undermined, clinical judgment might be affected by their personal relationships and the doctor may not solicit

sensitive medical history or conduct intimate physical examination due to embarrassment. Doctors may also be compelled by their relatives to treat conditions beyond their expertise or outside their comfort zone. Patient autonomy and informed consent may also be challenged and awkwardness may prevent patients from revealing sensitive information or enduring a thorough physical examination from a relative.^{23,24}

A worrying finding was that the respondents needing regular prescription medicines had less positive attitudes towards healthcare access. Moreover, older, senior doctors weren't paying more attention to their health versus their counterparts. Advancing age and chronic illness needing medication should in fact warrant more attention to health, as also reported by Canadian residents with chronic medical conditions who had better healthcare access.¹⁷

Many doctors don't utilize regular channels for accessing healthcare.^{2,5} Our results too indicate that the respondents preferred informal consultations and did not have any GP whom they approached for minor illnesses, suggesting that these are significant barriers to doctors seeking formal health care. Other barriers reported were worry about imposition on other busy doctors, pressure on doctors to stay healthy and inability to pay attention to health due to long duty hours. Medical training, unfortunately, tends to normalize stressful lives, promotes behaviors of self-denial and inculcates a professional culture which indirectly prevents physicians from seeking help.²⁵ Doctors need to adopt better self-health access behaviors and must recognize that negligence towards their physical or mental health care may directly impact the vital services they offer to their patients. Additionally, changes in professional attitudes and institutional policies with appropriate accessible supportive services are required. Early recognition and interventions at an individual level by appropriate support, monitoring, rehabilitation through mentorship, integrated and accessible stress-management programs and increased efforts to reduce the stigma for seeking help may improve doctors' health and consequently their medical practice.²⁵

Due to a relatively small sample size caution is needed in generalizing the results. The study population also varied according to specialty, age and gender of the medical practitioners surveyed and these factors may account for the differing responses reported. Given that recommendations against self-treatment are well known in the healthcare profession, responses may have been influenced by social desirability factors and it is possible that more respondents would support self-treatment in real-life situation. Moreover, information about any rejection of informal consultation requests made by our participants wasn't solicited. Nevertheless, in view of the limited literature regarding the health-access behaviors of Indian doctors, our study endeavors to bridge the gap in our knowledge and understanding of it.

5. Conclusion

Our study endeavors to elaborate the health-access behaviors of physicians of a tertiary hospital in South India. Poor health-access behaviours was observed with majority of doctors inclined to informally consult their colleagues and involve their family in their health matters before seeking formal care. The respondents who weren't taking prescription medicines had significantly positive attitudes towards healthcare access. The major barriers in healthcare access were long duty hours, preference for informal consultations, worry about imposition on other busy doctors and pressure to stay healthy. Strategies directed at enhancing doctors' healthcare access should focus on tackling their professional culture of self-reliance. Further research with a broader context of understanding and developing solutions is required to improve the poor healthcare access among the Indian medical fraternity.

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Authors' contributions

Both the authors participated in the conception and design of the study. PT collected the data. Both authors analyzed the data, contributed to manuscript preparation, editing and review.

Declaration of competing interest

There are no conflicts of interest.

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