

**Artikel Asli/Original Article**

**Doctor Shopping Behaviour and Its Predisposing Factors amongst  
Dermatology Patients**  
(Perilaku Membeli-Belah Rawatan dan Faktor Penyebabnya dalam Kalangan  
Pesakit Kulit)

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ABSTRACT

*Doctor shopping increases health economic burden and morbidities. Its prevalence and predisposing factors have to be identified in order to formulate preventive measures. We aimed to determine the prevalence of doctor shopping, its reasons and predisposing factors by conducting a cross sectional study of new patients at the Dermatology Clinic, Universiti Kebangsaan Malaysia Medical Centre (UKMMC). Doctor shopping was defined as having consultation with  $\geq 3$  healthcare providers without a referral for the same illness prior to the patients' visit to UKMMC. Reasons and contributing factors were classified as disease, healthcare provider, logistic and cost related. Data was collected by a face to face interview. Dermatology Life Quality Index (DLQI) questionnaire determined disease impact on the patients. A total of 58 (55.8%) female and 46 (44.2%) male patients participated. Referral was patient-initiated in 51.9% while 40.4% were doctor shopping. Age, gender, ethnicity, income, occupation and type of health finance provider were not associated with this behaviour. About 95% doctor shopped due to disease factors: searching for a cure (95.2%), lack of improvement (88.1%), worsening disease (50.0%), dissatisfaction with treatment (31.0%), seeking other opinions (26.2%) and exploring treatment options (26.2%). Impaired DLQI (OR 1.17; 95% CI 1.08, 1.38),  $p$  0.04, and disease related factors (OR 6.57; 95% CI 1.52, 7.72),  $p$  0.041 were significant independent risk factors. Doctor shopping is very common among our patients. Reasons and predisposing factors are predominantly disease related. Patient education and counselling is important in management of dermatological diseases to prevent doctor shopping.*

*Keywords: Doctor shopping; second opinion; health seeking behaviour; self-referral; doctor hoppings*

ABSTRAK

*Sikap bertukar-tukar doktor meningkatkan beban ekonomi kesihatan dan morbiditi. Tahap kelaziman dan faktor-faktor yang menjurus perlu dikenal pasti supaya langkah-langkah pencegahan boleh diambil. Kajian ini bertujuan untuk mengenal pasti kelaziman sikap ini, sebab-sebab serta faktor-faktor penyumbang. Kajian keratan rentas telah dilakukan terhadap pesakit-pesakit baru di Klinik Dermatologi, Pusat Perubatan Universiti Kebangsaan Malaysia (PPUKM). Sikap bertukar-tukar doktor didefinisi sebagai perundingan dengan  $\geq 3$  orang doktor tanpa rujukan bagi penyakit yang sama sebelum pesakit mendapatkan rawatan di PPUKM. Sebab-sebab dan faktor-faktor penyumbang diklasifikasi sebagai berkaitan dengan penyakit, doktor dan kos. Data diperolehi melalui temuduga bersemuka. Soal selidik Dermatology Life Quality Index (DLQI) digunakan untuk menentukan kesan penyakit terhadap kehidupan pesakit. Sejumlah 58(55.8%) pesakit perempuan dan 46(44.2%) pesakit lelaki menyertai kajian ini. Rujukan ke PPUKM diminta oleh 51.9% pesakit sementara 40.4% telah bertukar-tukar doktor. Umur, jantina, etnik, pendapatan, pekerjaan dan jenis pembayar rawatan kesihatan tidak mempunyai kaitan dengan sikap ini. Lebih kurang 95% pesakit bertukar-tukar doktor kerana faktor penyakit: mencari penawar (95.2%), penyakit tidak bertambah baik (88.1%), penyakit bertambah teruk (50.0%), tidak puas hati dengan rawatan (31.0%), mencari pendapat lain (26.2%) dan meneroka pilihan rawatan (26.2%). DLQI yang terjejas (OR 1.17; 95% CI 1.08, 1.38),  $p$  0.04, dan faktor berkaitan penyakit (OR 6.57; 95% CI 1.52, 7.72),  $p$  0.041 merupakan risiko signifikan bagi sikap bertukar-tukar doktor.*

*Kata kunci: Membeli-belah rawatan; pendapat kedua; perilaku mendapatkan rawatan; rujukan sendiri; bertukar doktor*

## INTRODUCTION

Doctor shopping is defined as ‘the behaviour of consulting multiple physicians with regards to the same episode of illness without referral’ (Kasteler et al. 1976). The term has also been defined as the ‘unethical and illegal practice of seeking care from multiple health care providers for an illicit purpose (often, but not solely, to obtain prescriptions for controlled substances)’ (Medical Dictionary 2016). This study involved the behaviour described in the first definition.

The prevalence of doctor shopping varies from 6.3 to 56% depending on the study population (Hagihara et al. 2005; Hassan et al. 2005; Lo et al. 1994; MacPherson et al. 2001; Sato et al. 1995; Wang et al. 2010). There are advantages and disadvantages of this practice. Doctor shopping may promote better patient-doctor relationship as the health care provider is chosen by the patient. A diagnosis or management concurred by more than one physician increases patient’s satisfaction and confidence which will positively influence compliance. This aspect is important in the Asian culture where multiple alternative therapies are easily available.

Disadvantages of this behaviour include delay in diagnosis and treatment with subsequent related morbidities. Health resources are wasted and economic burden is increased as invariably, investigations are repeated and medications are unused. Disruptions in treatment result in worsening of the disease. More time is spent by patients in the health care facilities resulting in more time away from work. Drug interactions and side effects due to multiple treatment regimens is another potential problem. These disadvantages outweigh the benefits of doctor shopping.

From our experience in public dermatology clinics, doctor shopping is very common. It is important to assess the magnitude of this problem. The reasons and predisposing factors have to be identified in order to formulate necessary preventive measures.

## MATERIAL AND METHODS

This was a cross sectional study performed at a Dermatology Clinic of a tertiary centre. The objectives were to determine the prevalence of doctor shopping behaviour among new dermatology patients and to determine the predisposing factors for this behaviour. Inclusion criteria were new cases and age  $\geq$  18 years old. Those who were unable to communicate in the national language or English were excluded. Doctor shopping was defined as consultation with at least 3 different health care providers without a referral for the same complaint or illness prior to the patients visit to our Dermatology Clinic. Factors contributing to doctor shopping behaviour were classified into those related to the disease, healthcare provider, logistics and cost. Data was collected by a face to face interview. Dermatology

Life Quality Index (DLQI) questionnaire (Finlay & Khan 1994) was used to determine disease impact on the patients. Statistical Package for Social Sciences version 20.0 (SPSS 20.0) was used for statistical analysis. Independent student t-test, Pearson’s chi-square and Fisher exact tests was use for data analysis on hypothesis of difference. Logistic regression model was use to analyse the hypothesis on associations and predictions. A p value of  $< 0.05$  was considered significant. Ethical approval was obtained from the Research and ethics committee of the Faculty of Medicine, UKM; project code FF- 2014-235.

## RESULTS

A total of 135 patients fulfilled the study criteria, 104 agreed to participate. Fifty eight (55.8%) were females and 46 (44.2%) were males. The mean age was  $44.0 \pm 18.31$  years. Majority of patients were Malays (62.5%) followed by Chinese (29.8%) and Indians (5.8%). Most patients fall under the lower income group (75%), followed by middle income group (19.2%) and high income group (5.8%). Forty patients (38.5%) were unemployed/ pensioners, 16 (15.4%) were administrative and secretarial workers while 11 (10.6%) and 9(8.7%) were elementary and professional workers respectively. Socio-demographic characteristics are summarized in Table 1. Endogenous eczema was the most common disease with 34 (32.7%) cases, followed by fungal infections 10 (10%), acne vulgaris and psoriasis 7 (6.7%) each, chronic urticaria 5 (4.8%), diabetic dermopathy 4 (3.8%), and cutaneous lupus erythematosus 3 (2.9%). The rest of the study population had various other diagnoses. Characteristics of the patients are summarized in Table 1.

Slightly more than half of the study population (51.9%) requested to be referred to the dermatology clinic while the remaining referrals were initiated by the health care provider. Forty two (40.4%) subjects were doctor shopping prior to their visit to our clinic. There were no significant differences in terms of age, gender, income and occupation between the patients who doctor shopped and those who did not. About 59.5% of doctor shoppers visited private healthcare providers while 2.4% went to public services, 38.1% had visited both private and public health services. General practitioners (GP) were the most commonly consulted private healthcare providers. In the public sector, medical officers were the most common attending doctors. The choice of health services were due to location (35%), type of healthcare provider (29.9%), recommendation by family or friends (28.1%), medical benefit coverage (3.5%) and information obtained from the internet (3.5%) (Table 2).

All patients who doctor shopped reported duration of illness of more than 6 weeks. Seven (16.7%) perceived their skin disease as mild, 21 (50%) thought it was moderate while 14 (33.3%) felt they had severe disease. Their quality of life was moderately affected with mean

Dermatology Life Quality Index (DLQI) score of  $7.93 \pm 4.76$ . The duration of illness in those who did not doctor shopped was similar where 56 (90.3%) had the illness for  $> 6$  weeks. About half of the patients, 29 (46.8%) perceived their illness as moderately severe, 22 (35.5%) felt it was mild and 11 (17.7%) felt it was severe. The quality of life in this group is mildly affected with mean DLQI score of

$5.0 \pm 3.8$ . There were no significant differences in terms of illness duration and self-perceived disease severity between the two groups. However, the difference in mean DLQI was significant with  $p$  value of 0.001 (Table 1). Age, gender, ethnicity, income, occupation and type of health finance provider were not associated with doctor shopping behaviour (Table 1).

TABLE 1. Socio-dermography and clinical characteristics of patients with and without doctor shopping behaviour

Characteristics	Doctor shopping	No doctor shopping	<i>p</i> value
	( <i>N</i> = 42) Mean $\pm$ SD or n (%)	( <i>N</i> = 62) Mean $\pm$ SD or n (%)	
Age	43.9 $\pm$ 18.5	45.5 $\pm$ 18.3	0.673
Gender			
Male	18 (42.9)	28 (45.2)	0.816
Female	24 (57.1)	34 (54.8)	
Ethnicity			
Malay	28 (66.7)	37 (57.9)	0.635
Chinese	12 (28.6)	19 (30.6)	
Indian	2 (4.8)	4 (6.5)	
Other	0 (0.0)	2 (3.2)	
Monthly household income			
< RM 1 000	10 (23.8)	14 (22.6)	0.655
RM 1 001 – 2 999	19 (45.2)	35 (56.5)	
RM 3 000 – 4 999	10 (23.8)	10 (16.1)	
RM 5 000	3 (7.1)	3 (4.8)	
Occupation			
Professionals	5 (11.9)	4 (6.5)	0.216
Administrative & secretarial	11 (26.2)	7 (11.3)	
Technical & associate professionals	3 (7.1)	10 (16.1)	
Sales & customer services	3 (7.1)	3 (4.8)	
Elementary & Processing	4 (9.5)	14 (22.6)	
Unemployed & pensioner	16 (38.1)	24 (38.7)	
Health finances provider			
Self-paying	28 (40)	42 (60)	0.909
Government	14 (41.2)	20 (58.8)	
Insurance	0 (0.0)	0 (0.0)	
Employer	0 (0.0)	0 (0.0)	
Duration of illness			
Days to 2 weeks (acute)	0 (0.0)	1 (1.6)	0.0116
$\geq 2$ weeks to 6 weeks (subacute)	0 (0.0)	5 (8.1)	
$\geq 6$ weeks (chronic)	42 (100)	56 (90.3)	
Self-perceived severity of illness			
Mild	7 (16.7)	22 (35.5)	0.056
Moderate	21 (50.0)	29 (46.8)	
Severe	14 (33.3)	11 (17.7)	
DLQI score			
Total score	7.93 $\pm$ 4.76	5.0 $\pm$ 3.89	0.001
No effect at all	1 (2.4)	6 (9.7)	0.005
2-5 Small effect	12 (28.6)	38 (61.3)	
6-10 Moderate effect	14 (33.3)	9 (14.5)	
11-20 Very large effect	13 (31.0)	9 (14.5)	
21-30 Extremely large effect	1 (2.4)	0 (0.0)	

TABLE 2. Choice of healthcare services among patients with doctor shopping behaviour

Characteristics	n (%)
Type of health services	
Public	1 (2.4)
Private	25 (59.5)
Both	16 (38.1)
Type of healthcare provider	
General practitioner (GP)	37 (88.1)
Public clinic (Medical Officer)	17 (40.5)
Beautician/ alternative medicine	14 (33.3)
GP with interest in dermatology	9 (21.4)
Public clinic (Specialist)	4 (9.5)
Private dermatologist	3 (7.1)
Pharmacist	1 (2.4)
Public dermatologist	0 (0)
Reason for choice of healthcare provider	
Location	20 (57.6)
Type of healthcare provider	17 (40.5)
Recommended by family or friends	16 (38.1)
Health facility covered by medical benefits	2 (4.8)
Information from internet	2 (4.8)

About 95% of patients were doctor shopping due to disease related factors. In about a third of patients, healthcare provider, logistics and cost were additional factors. The main reasons identified in disease related factors include: searching for a cure (95.2%), lack of improvement despite multiple treatments (88.1%), worsening disease (50%), dissatisfaction with treatment (31%), seeking other opinions (26.1%) and exploring treatment options (26.1%). Lack of counselling on diagnosis (42.8%) and treatment (26.2%) were the commonest response in terms of healthcare provider related factors. Long waiting time (19.0%), inconvenient operating hours (16.7%) and cost (16.7%) were the common factors in terms of logistics and cost (Table 3). Multiple logistic regression analyses identified affected DLQI (OR 1.17; 95% CI 1.08,1.38),  $p$  0.04, and presence of a disease related factor (OR 6.57; 95% CI 1.52, 7.72),  $p$  0.041 as significant independent factors contributing to doctor shopping behaviour.

The patients expectations from a public dermatology clinic included disease cure (38.5%), finding the correct diagnosis (15.93%), cheaper cost (14.16%), getting the best treatment available (15.37%), followed by getting a better understanding of the disease (12.39%) and 5.31% would like investigations to be performed.

## DISCUSSION

Doctor shopping is very common in our study population. This type of health seeking behaviour appears to be more prevalent in the East compared to the West as it has been reported mainly in Asian countries. In a Japanese primary care outpatient clinic of a teaching hospital, 23% of patients

TABLE 3. Reasons for doctor shopping

Reasons for doctor shopping	n (%)
Disease related factors	40 (95.2)
Looking for a cure	40 (95.2)
No improvement despite treatment	37 (88.1)
Worsening condition	21 (50)
Not satisfied with treatment	13 (31.0)
Seek multiple opinions	11 (26.2)
Explore treatment options	11 (26.2)
Disagree with diagnosis	5 (11.9)
Investigations not performed	2 (4.8)
Healthcare provider related	14 (33.3)
Not counselled on diagnosis	18 (42.8)
Not counselled on treatment	11 (26.2)
Insufficient consultation time – too short	5 (11.9)
Lack of confidence towards the doctor	2 (4.8)
Undesirable personal qualities of the doctor	1 (2.4)
Logistic factor and cost	15 (35.7)
Unable to afford cost	7 (16.7)
Premise not convenient	5 (11.9)
Inconvenient operating hours	7 (16.7)
Long waiting time	8 (19.0)

visited 2 or more doctors with the same complaints (Sato et al. 1995). Another Japanese study found the prevalence of doctor shopping of 27.7% in an Internal Medicine outpatient clinic (Hagihara et al. 2005). In a Hong Kong public outpatient department, the estimated prevalence was 40% (Lo et al. 1994). Among patients with upper respiratory tract infection (URTI) in Taiwan, 6.3% were doctor shopping (Wang et al. 2010). A Canadian emergency department of a children's hospital reported 18% of patients visited  $\geq 3$  health facilities for the same illness (MacPherson et al. 2001). A study in a Malaysian university hospital's Family Medicine clinic reported a prevalence of 56% (Hassan et al. 2005). The Malaysian public and private health structures enable a patient to consult one health care provider after another and even multiple health care providers at the same time including in sub speciality services. This may partly explain the high prevalence of doctor shopping in this study and as observed by Hassan et al. 2005 despite the different type of patient populations. The resultant waste in resources and finances would be substantial especially in the public sector as the patients pay a minimal fraction of the actual cost of treatment. The public should be educated on the disadvantages of doctor shopping and its implication on healthcare economics. A system should be designed to monitor and discourage this behaviour.

There is no specific demographic profile of our dermatology patients who doctor shopped. In different cohorts of primary care patients, age, gender, ethnicity, income, occupation, marital status and residence were also not associated with doctor shopping (Sato et al. 1995; Hassan et al. 2005). However, younger females were more predisposed to doctor shopping among patients with URTI

(Wang et al. 2010). The health service of choice amongst our doctor shopping patients was GPs in the private sector. Easy access to private services and convenient opening hours were the most likely reasons. Long waiting time for a consultation date with our clinic was hypothesized as the main reason for doctor shopping, however this is the reason in only 19% of patients. The public dermatology service in the country is unable to improve patient waiting time as there are less than 40 dermatologists serving about 29 million population.

We found disease related factors as the strongest predictor of doctor shopping behaviour. The chronic nature of most dermatological diseases with periods of flares and remissions cause patients to search for a cure. Flares are usually perceived as failure of treatment that leads to dissatisfaction with the treatment and exploration of other alternatives. Most of our patients who doctor shopped due to healthcare provider factors thought they were not adequately counselled on their diagnosis and treatment. Both disease and healthcare provider related factors have been identified as the main causes of doctor shopping. Chronic illnesses (Sato et al. 1995; Hassan et al. 2005), persistence of symptoms (Lo et al. 1994) and lack of improvement (Hassan et al. 2005) were common disease factors. Dissatisfaction with the doctor's explanation is the most frequent healthcare provider factor reported (Kasteler et al. 1976; Hagihara et al. 2005; Sato et al. 1995). Other factors include the amount of time spent with the patient and doubts regarding doctor's competence, diagnosis and treatment (Kasteler et al. 1976; Sato et al. 1995). Patients' understanding of their disease and its management is essential. This may be achieved by improving patient education and counselling. The healthcare providers' ability to provide both is key in this aspect. Only about a third of primary care physicians felt their undergraduate training was adequate to diagnose common dermatological diseases and 28% thought it was sufficient for them to treat these diseases (Hansra et al. 2008). Seventy one percent of GPs in the United Kingdom thought dermatology is important in the medical curriculum (Kerr et al. 2005). A good undergraduate dermatology exposure is needed to prepare physicians for proper management of dermatological diseases.

Our patients who doctor shopped were more affected in their quality of life despite similar self-perceived illness severity with those who did not doctor shop. Patient's personal characteristics have been reported to contribute to doctor shopping behaviour. Sato et al. (1995) found a higher prevalence of mental disorders especially somatization disorders in doctor shopping patients. General hypochondriasis, disease conviction, affect disturbance and irritability were observed in self-referred patients compared to patients referred by physicians (Gou et al. 2001). This is an interesting aspect which has not been investigated in dermatology patients.

## CONCLUSION

There is a high prevalence of doctor shopping among our dermatology patients. Multiple factors contribute to doctor shopping behaviour. It was observed mainly in patients who are dissatisfied with their condition and received inadequate explanation or counselling from their healthcare provider. Patient education and counselling on their disease, treatment options and expected treatment outcome should be emphasized in the management of dermatological diseases to prevent doctor shopping. Primary care health providers have to be well versed in these aspects of management. The healthcare system can be improved in preventing redundant or simultaneous consultations, and this behaviour monitored and discouraged.

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