

# PERCEPTIONS OF PEOPLES TOWARDS HEALTH CARE SEEKING BEHAVIOUR FROM HEALTH CARE PROFESSIONALS – FINDINGS FROM SAUDI COMMUNITY PERSPECTIVE

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## Abstract

The purpose of this study was to analyse the individuals' attitudes about seeking medical care from healthcare professionals in the Riyadh Region of Saudi Arabia (SA). Between November 2022 and January 2023, a cross-sectional, web-based study was performed among residents of Riyadh in SA. In this study, 19-items questionnaires with three sections were employed. IBM Statistic SPSS was used to evaluate the data, and the level of statistical significance was set at  $p < 0.05$ . Among the participants, 77.7% ( $n = 411$ ) agreed that Saudi rules prohibit pharmacists from prescribing drugs without a prescription, while 45% ( $n = 193$ ) had an unsatisfactory event with a medical doctor. The most common reason for people seeking pharmacist consultation was a common cold 79% ( $n = 343$ ) followed by cough 64.5% ( $n = 280$ ), headache 57.1% ( $n = 248$ ), diarrhoea 38.5% ( $n = 176$ ), constipation 34.6% ( $n = 150$ ), fever 45.9% ( $n = 199$ ). As the insurance status increased, there was a significant decrease in the unsatisfactory event associated with a medical doctor ( $B = -0.138$ ;  $t = -2.901$ ;  $p = 0.004$ ), respectively. A multiple regression predictor analysis revealed that education and health insurance statistically significantly predicted unsatisfactory events with medical doctors ( $p = 0.001$ ). In conclusion, a significant number of Saudi adults seek a diagnosis from pharmacists, and the majority of them have a mis-conception about the function of pharmacists in the healthcare system.

## Rezumat

Scopul studiului a fost de a analiza atitudinea populației privind solicitarea de asistență medicală în regiunea Riad din Arabia Saudită (SA), în perioada noiembrie 2022 - ianuarie 2023 printr-un studiu transversal, online. Astfel, au fost folosite chestionare cu 19 itemi, cu trei secțiuni. Softul IBM Statistic SPSS a fost folosit pentru analiza datelor, iar nivelul de semnificație statistică a fost stabilit la  $p < 0,05$ . Dintre participanți, 77,7% ( $n = 411$ ) au fost de acord că regulile saudite interzic farmaciștilor să prescrie medicamente și să le elibereze fără prescripție medicală, în timp ce 45% ( $n = 193$ ) au prezentat un istoric cu un eveniment nesatisfăcător cu un medic. Cele mai frecvente motive pentru solicitarea consultării farmacistului a fost: răceala comună 79% ( $n = 343$ ), tusea 64,5% ( $n = 280$ ), cefaleea 57,1% ( $n = 248$ ), tranzitul intestinal accelerat 38,5% ( $n = 176$ ), tranzitul intestinal lent 34,6% ( $n = 150$ ) și febra 45,9% ( $n = 199$ ). Valoarea mare a asigurărilor medicale a fost invers corelată cu o scădere semnificativă a evenimentului nesatisfăcător asociat cu un medic ( $B = 0,138$ ;  $t = -2,901$ ; respectiv  $p = 0,004$ ). O analiză cu predictorii de regresie multiplă a arătat că educația și asigurările de sănătate influențează semnificativ statistic evenimentele medicale nesatisfăcătoare ( $p = 0,001$ ). În concluzie, un număr semnificativ de adulți saudiți caută un diagnostic prin intermediul farmaciștilor, iar majoritatea dintre ei au o concepție greșită referitor la poziția farmaciștilor în sistemul de sănătate.

**Keywords:** health-seeking behaviour, pharmacist, physician, flue, allergies, fever

## Introduction

The quality and accessibility of healthcare services have significantly increased recently, especially in developed nations like Saudi Arabia (SA). The Ministry of Health (MoH) and other entities that manage hospitals and medical facilities for their employees are primarily in charge of managing health care in SA [1-3]. Additionally, Saudi nationals and others residing in the kingdom are given free medical care by the MoH [3, 4]. Patients' dissatisfaction with official treatment

in SA was a result of the usage of private healthcare institutions [5]. The most often cited criticism of the healthcare system in SA was that it is plagued by high waiting time, a lack of human resources, medical errors and deteriorating services [5, 6].

The term "health-seeking behaviour" (HSB) refers to how people look for any activity or information related to their health and sickness to find a suitable treatment [7]. The patient's prognosis and course of treatment must be determined by the HSB [7, 8]. Better health outcomes and decreased rates of morbidity

and mortality depend on appropriate HSB. Even when they experience an increase in fever or other respiratory-related symptoms, people have started to take better care of themselves, according to previous results [5-8]. It may be possible for the general public, healthcare professionals and legislators to improve the healthcare system by better understanding towards how people seek out for their health care.

Although the interaction between the patient and the healthcare provider and the patient's financial situation has a significant impact on health-seeking behaviour, other factors identified in the literature include the cost of services, gender and the physical and psychological conditions of the patient [9, 10]. Additionally, a more recent study by Mou *et al.* in 2022 found that factors such as a person's cultural background, level of religion and mental health all play a substantial effect in their tendency to seek out health [11]. Another study from Albania found that older people were more likely than young persons to seek medical care [12]. Individuals' socioeconomic status, the price of health services, their gender, where they were born (urban or rural) and other factors, all have an impact on how they choose to receive healthcare. Additionally, earlier research found that young women are more likely than young men to seek medical care [9].

The majority of people have so far sought medical advice from doctors and used online resources for their healthcare, according to reports on prior health-seeking behaviour [6, 13]. According to available literature, going to medical facilities, utilizing the Internet and talking to a pharmacist are the three most frequently mentioned health-seeking behaviours [6, 14, 15]. When someone is ill, health-seeking activity is meant to remind them to take care of their health [7-9]. Physicians were the leading choice for seeking medical attention in SA, followed by self-help and families, respectively [16].

Furthermore, studies have shown that the importance of healthcare behaviour in this circumstance is highlighted by the variance in healthcare-seeking behaviours for a variety of causes, including doctors, self-care, family counsel and pharmacists [7-9]. Previous studies on people's health-seeking behaviour or the preferences of medical experts in the treatment of being healed of diseases have been published in several papers from all over the world [7-9]. As far as we are aware, no similar study or survey has been carried out in Riyadh to investigate the effects of health-seeking behaviour on SAs population as a whole. Hence, the present study was designed to investigate the individual's perceptions toward health seeking behaviour of pharmacists and physicians in the Riyadh Region, SA.

## Materials and Methods

### *Study design, sample and data collection*

A cross-sectional online survey study was carried out among SA's capital city's residents between November 2022 and January 2023. The survey was open to anybody under the age of 18 who expressed a willingness to participate. A revealing statement followed by consent and agreement to utilize filled-out data for publication purposes was noted at the start of the survey, after the study title. The study excluded individuals under the age of 18 and people who were not Saudi citizens.

### *Sample size estimation*

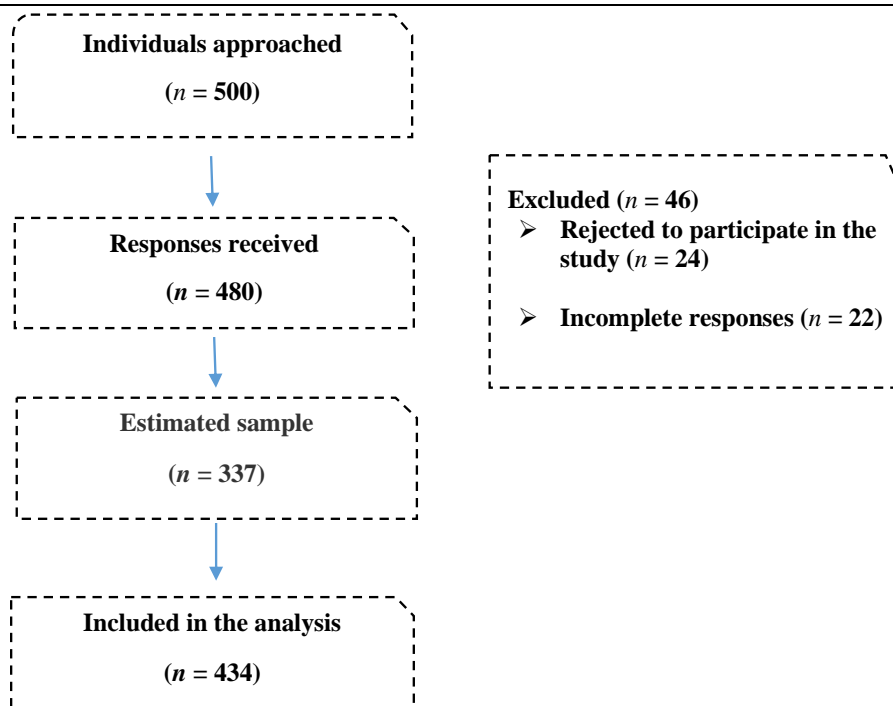
The convenience sampling method was used. The sample size required for the current study was calculated with a 95% CI (confidence level) and a 5% ME (margin of error) using an online sample size calculator. We predicted that the response distribution for each question would be 50% because we were unsure of the probable outcomes for each. The estimated sample size was 377 people. However, to boost the data's trustworthiness, we decided to survey at least 500 people.

### *Questionnaire design*

The questionnaire used in this study was developed after assessing the current literature on health-seeking behaviours [15-18]. The questionnaires featured three sections and a total of 19 items. The first section of the survey consisted of five questions that inquired about the participant's gender, age, insurance status and other demographic information. In the second section, 11 questions about health-seeking behaviour were answered on a 3-point scale ("Yes" or "No" or "I don't know"). The final component gathered data on circumstances that merit engaging in healthy behaviour using multiple-choice answers. Pilot research was conducted among a randomly selected small sample ( $n = 15$ ) of people living in Riyadh, SA, to ensure the readability and ease of administration of the questionnaires. The findings of the pilot study were not included in the final analysis. The study's methodology was performed successfully by using a Cronbach's Alpha score of 0.85 to establish the reliability of the questionnaire.

### *Statistical analysis*

The data collected were processed for analysis using Statistical Package for Social Sciences version 26.0 (SPSS Inc., Chicago, IL, USA). Categorical data are presented as frequency ( $n$ ) and percentages (%). A multiple regression linear model was used to examine the relationship between an unfavourable incident involving a doctor and some demographic characteristics of the participants at a  $p$ -value of  $< 0.05$  were considered statistically significant. Figure 1 describes a flowchart of the responses.



**Figure 1.**  
Flowchart of the responses

**Results and Discussion**

A total of 434 people completed and returned the questionnaires, yielding an 86.8% response rate. According to the current findings, 223 (51.4%) were females, while the remaining 211 (48.6%) were males. 33% (141) were between the ages of 20 and 29 and 23% (100) were over the age of 50. The majority of

the surveyed adults reported < 5000 Saudi Riyals (< 1200 EUR), while 28.1% reported 11 - 20,000 Saudi Riyals monthly income (2600 - 4800 EUR). Additionally, most of them were university graduates 351 (80.9%) and only 45.2% were insured. A detailed perspective of the demographic characteristics is presented in Table I.

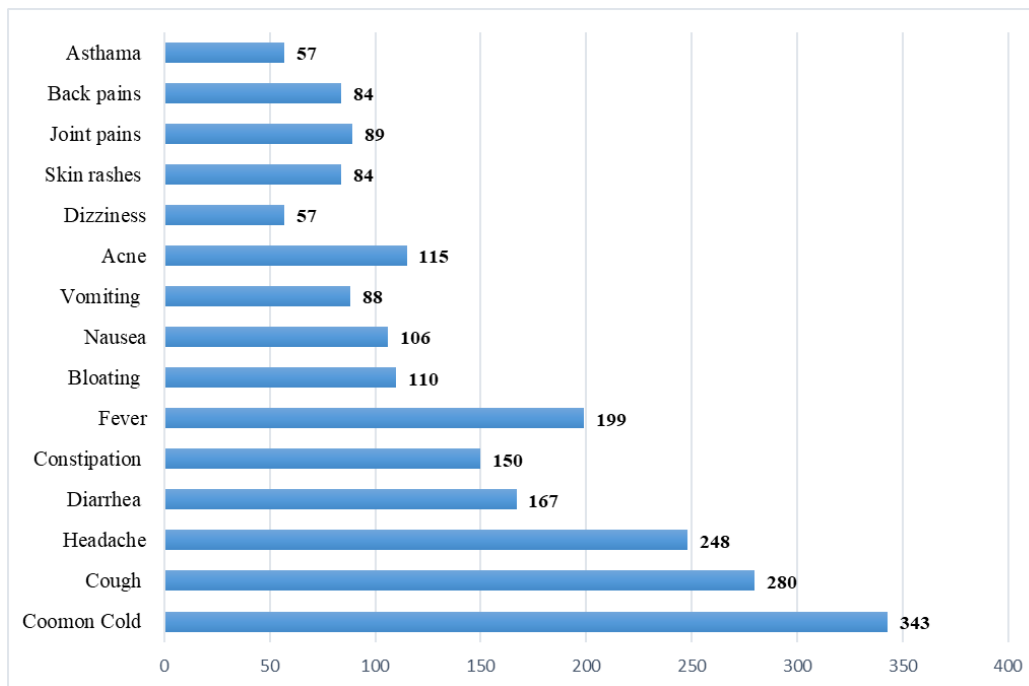
**Table I**

Participant's demographic characteristics

Variables	Frequency, n (%)
<b>Gender</b>	
Male	211 (48.6%)
Female	223 (51.4%)
<b>Age group</b>	
< 20	20 (4.6%)
21- 29	141 (32.5%)
30 - 39	77 (17.7%)
40 – 49	96 (22.1%)
> 50 years	100 (23.0%)
<b>Monthly income</b>	
< 5000 Saudi Riyals (< 1200 EUR)	176 (40.6%)
6000 - 10,000 Saudi Riyals (1400 - 2500 EUR)	91 (20.9%)
11 - 20,000 Saudi Riyals (2600 - 4800 EUR)	122 (28.1%)
> 21,000 Saudi Riyals (> 5000 EUR)	45 (10.4%)
<b>Education</b>	
University	351 (80.9%)
Schooling or less	83 (19.1%)
<b>Presence of Health insurance</b>	
Insured	196 (45.2%)
Not insured	238 (54.8%)
<b>Availability Physician visited regularly</b>	
Yes	93 (21.4%)
No	341 (78.6%)

The most common condition for which individuals sought pharmacist consultation was a common cold 343 (79%), followed by cough 280 (64.5%), headache 248 (57.1%) and fever 199 (45.9%). Additionally, most Saudi adults seek preference health care from the pharmacist for, GI problems like diarrhoea 167 (38.5%), constipation 150 (34.6%), bloating 110 (25.3%),

nausea 106 (24.4%) and vomiting 88 (20.3%). Nearly a third of the participants in the study sought therapy by a pharmacist for one or more of the following conditions: dysphagia (48.1%), skin rashes (84.4%), joint aches (89.5%), back pains (84.4%), asthma (57.1%) and giddiness 57 (13.1%) (Figure 2).



**Figure 2.**  
Conditions to seek pharmacist consultation reported by participants

In this study, 77.7% of participants agreed that Saudi laws prohibit pharmacists from prescribing medicines without a prescription, while 95.4% agreed that pharmacists should give health care education and advise on medication safety. Additionally, the majority

of them (87.6%) reported that pharmacists should formulate and distribute drugs according to physician prescription. A detailed knowledge of response to pharmacist duties in the Arabian health care system was given in Table II.

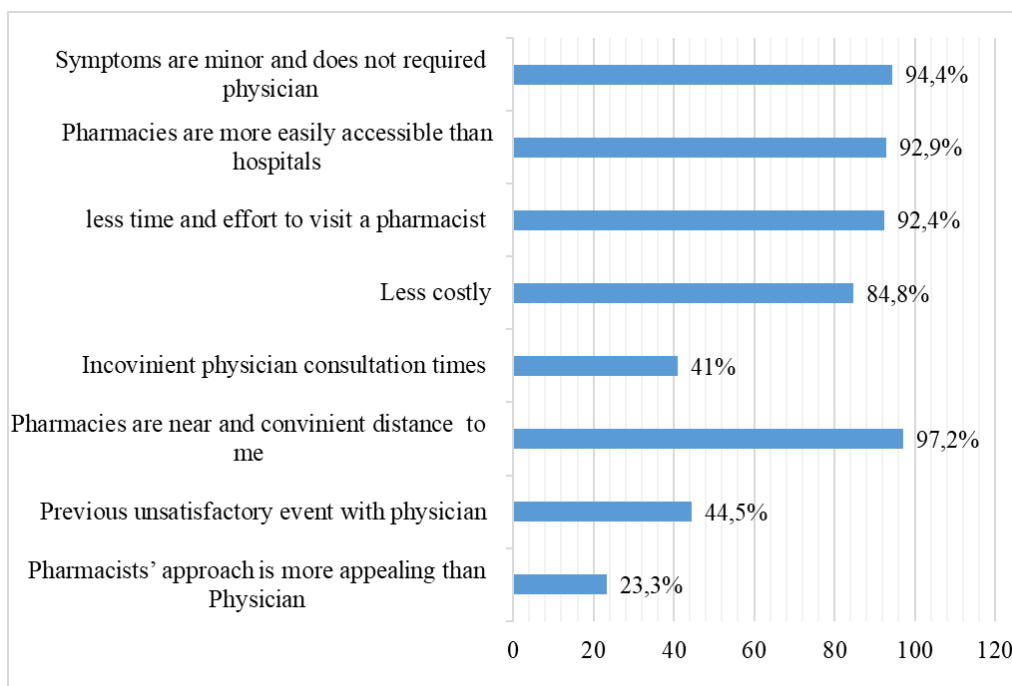
**Table II**

Participant's responses toward knowledge about pharmacist duties in the Arabian healthcare system

Statements	Frequency, n (%)
Pharmacists are prohibited by Saudi law from prescribing drugs without a prescription.	
Yes	411 (77.7%)
No	111 (21%)
Pharmacists should offer guidance on the safe use of drugs as well as health care education.	
Yes	414 (95.4%)
No	03 (0.7%)
I don't know	17 (3.9%)
Drugs should be formulated and sold by pharmacists under a doctor's prescription.	
Yes	380 (87.6%)
No	28 (6.5%)
I don't know	26 (5.9%)
Pharmacists should not dispense drugs without prescription.	
Yes	333 (76.7%)
No	64 (14.7%)
I don't know	37 (8.6%)
Pharmacists should not diagnose chronic diseases and prescribe a treatment regimen.	
Yes	355 (81.8%)
No	38 (8.8%)
I don't know	41 (9.4%)

In this study, the majority of peoples, 410 (94.47%) reported that minor symptoms, which does not require a physician visit or the seriousness of a complaint/sickness, are the most important factor that encourages the population to seek pharmacists for a diagnosis. While only 23.3% of the participants agreed that a pharmacist's approach is more appealing than the physician's one. However, 45% (n = 193) of the participants reported an unsatisfactory event with a

physician, while more than half of 59% find difficulties in physician's appointments. In addition to this most of the participants reported less time and effort to visit a pharmacist 401 (92.4) followed by less costly 368 (84.8) and more easily accessible than hospitals 403 (92.9). The detailed responses of participants about factors influencing the decision to seek medical care from a pharmacist is depicted in Figure 3.



**Figure 3.**  
Factors influencing the decision to seek medical care from a pharmacist

To determine the relationship between an unsatisfactory event with a medical doctor, gender, age, income, education level and presence of insurance, a multiple regression linear model was utilized, in which all demographics including insurance status were considered as explanatory variables and unsatisfactory event with a medical doctor as the dependent variable. As the insurance status increased, there was a significant decrease in the unsatisfactory event associated with a

medical doctor (B = -0.138; t = -2.901; p = 0.004), respectively, as shown in Table III. A multiple regression predictor analysis revealed that education and insurance statistically significantly predicted unsatisfactory events with medical doctors. However, there was no association between unsatisfactory events with a medical doctor and gender, age, or participant's income (p > 0.05).

**Table III**  
Results of the unsatisfactory event with a medical doctor with some demographic features of participants using regression analysis

Variables	B Regression coefficient	Std. Error	t	p-Value	95%CI for B	
					Lower bound	Upper bound
Gender	0.066	0.047	1.384	0.167	-0.28	0.159
Age	0.015	0.020	0.712	0.477	-0.026	0.55
Education	0.177	0.061	2.887	0.004	0.056	0.0297
Presence of insurance	-0.138	0.048	-2.901	0.004	-0.232	-0.045
Income	0.010	0.016	0.647	0.518	-0.021	0.041

The current research examined how Saudi adults in Riyadh sought medical attention for particular health conditions. According to the current study, the majority of participants reported consulting a pharmacist for

problems relating to their gastrointestinal, respiratory system and skin, and 84.8% of those who did so, claimed that the cheaper cost of doing so than seeing a doctor was a factor in their choice. These findings

were consistent with similar findings reported nationally and internationally [17-19]. It was evidenced that pharmacists were allowed to provide diagnosis and treatment for minor ailments [20].

In this study, the majority of participants stated that visiting a pharmacist rather than a doctor is preferable because it takes less time and effort, while Soubra *et al.* reported that participants were affected by delayed medical doctor appointments and prolonged waiting times at medical doctors' offices in a way that led 36.4% and 35.6% of participants, respectively, to seek health care from pharmacists rather than medical doctors [18]. On the other hand, El Hajj and Salem among Qataris reported that the necessity of taking physician appointments before consultation and long waiting was another potentially cited reason to seek diagnosis and treatment from a pharmacist rather than a physician [21]. Another study among Canadians found that convenience and trust in pharmacists were the most frequently cited reasons for choosing a pharmacist over a doctor. Earlier data indicated that people would have gone to the emergency room or doctor's office if the minor ailment service in the studied country's pharmacy locations was not available [20]. These findings suggested the importance of pharmacy services in the health care system. According to a recent study conducted in Italy, more than one-third of patients (37.9%) did not seek medical assistance, and nearly 42% of all medications were believed to be taken by patients based on self-medication (17.7%), while 24.4% of individuals treated gastrointestinal problems as prescribed by pharmacists [22].

In this study, the most common conditions among participants to seek pharmacists' consultation were a cold (343; 79%), cough (280; 64.5%), headache (248; 57.1%) and fever (199; 45.9%). These results were comparable to earlier literature that had been published in other countries. For instance, Soubra *et al.* among Lebanese people in 2021, observed that common colds accounted for 71.2% of diagnoses, followed by coughs and headaches (64% and 67.7%, respectively) [18]. Similar findings were found by Mansell *et al.* in 2015, who stated that cold sores were the most common minor ailment (34.4%) among Canadians seeking health care from pharmacists, followed by bug bites (20%) and seasonal allergies (19.2%) [20].

It has been proven that pharmacists are qualified to recommend medications for minor illnesses when a physician has already established the diagnosis and course of therapy. According to the literature, skin diseases including acne, eczema and rashes, as well as infections like cold sores and ear, nose and throat problems, were the most frequent ailments for which pharmacists were permitted to write prescriptions [23] (UNIPRIX). Furthermore, the current findings suggested the important role of the pharmacist in the health care system, two earlier studies reported that

pharmacist prescribing enhanced the quality of care for patients, reduced prescribing errors and assisted patients in avoiding physician follow-up [20, 24].

In Saudi Arabia, prescribing remains informal with no legislation. Additionally, pharmacists in the Kingdom of Saudi Arabia take courses in pharmacy practice regulation as part of their curricula, and they must finish residency training programs that gave them increased clinical skills and knowledge so they could provide direct patient care [24-26]. As a result, pharmacist prescribing was identified in the earlier literature as a new effort in the Kingdom of Saudi Arabia as a new project, it calls for specialized training and education from clinical pharmacists, dispensing pharmacists and technicians as well [27].

Although the current study has some strengths, among those it provided insight into the public's perceptions of medical care behaviour about available health services such as a visit to a clinic or pharmacy. The findings could help shape the establishment of improved inter-professional roles for pharmacists and other healthcare providers (HCPs) in SA and other countries. The participants were recruited from the capital city and were limited to Riyadh, hence, the lack of a sample that represented rural/remote locations may have been a drawback. Because it was limited to one location in SA, the current study's findings are not representative of others and are not generalizable globally. Another limitation could be the study's restricted participation of school-aged or lower-graded people. One reason for this could be because the snowball sampling began with a professional main researcher who most likely only passed referrals to their colleagues. As a result, more detailed perspectives on literacy level concerns in seeking health care have emerged. Furthermore, the findings were based on a self-completed questionnaire, which raises the risk of recall bias. Despite these limitations, our study suggests a greater emphasis on increasing health-seeking behaviour awareness and correcting misconceptions about pharmacist services, such as using them as a primary care provider for minor ailments, which saves physicians time, and a method to make them more competent in raising public health outcomes in the community where they served.

## Conclusions

Our study highlights an increasing trend of pharmacy services use among people in Riyadh, SA. The findings showed that many Saudi people would go to pharmacists for diagnosis, and a considerable percentage of them had misconceptions regarding the function of pharmacists in the Saudi healthcare system. More importantly, highlights the growing need to provide primary care services that are both easily accessible and cost-effective for the entire population. The findings also highlight the need to increase public knowledge of the various tasks that pharmacists and physicians are

assigned within the healthcare system. To optimize treatment, pharmacists must receive additional training on how to handle frequent and minor complaints. Furthermore, an interprofessional approach to education that addresses the safety and utility of providing health services could be the most practical way to address such a complex issue.

### Acknowledgement

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### Conflict of interest

The authors declare no conflict of interest.

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