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Consumer attitudes towards community pharmacy services in Saudi Arabia

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Abstract

Objective The purpose of this study was to determine consumer attitudes towards community pharmacy and their preferences for the introduction of new services.

Methods A self-completion questionnaire was developed and 1,144 consumers in 55 community pharmacies were invited to complete it. The questionnaire covered consumers' choice of pharmacy; their perceptions of, and actual interactions with, community pharmacists; advice from pharmacists about general health and prescribed medicines; and privacy in the pharmacy. Respondents were asked for their views about five possible new services.

Setting The study was based in community pharmacies in Riyadh City, Saudi Arabia.

Key findings The response rate was 79.6%. Fifty-nine per cent of respondents often or sometimes visited a particular pharmacy. One-quarter of respondents perceived community pharmacists as having a good balance between health and business matters, while 56.1% thought pharmacists were more concerned with the business. The majority of respondents (69.7%) said they felt comfortable asking the pharmacist for advice. Just under half (44.8%) felt that pharmacists allowed them enough time to discuss their problem fully and listened well. In addition, 58.5% of respondents indicated that their pharmacists showed sensitivity to privacy by speaking more quietly across the counter. In 14.4% of situations pharmacists were reported to use a private area within the pharmacy when discussing personal or private matters. Most respondents (65.2%) indicated that their pharmacist was willing to discuss their health problems and tried to understand their feelings. Consumers' priorities for new services were: monitoring blood pressure; measuring weight, height and temperature; monitoring blood sugar; and monitoring cholesterol.

Conclusion This study showed that most pharmacy customers feel comfortable seeking advice from their pharmacist. Although many pharmacists were reported to show sensitivity to a possible lack of privacy in the pharmacy, few respondents reported that their pharmacy had a private area for discussion. Customers' views on possible new services were generally positive, with the exception of patient medication records.

Introduction

The primary objective of the community pharmacy is to improve the health and quality of life of the public and there is evidence that community pharmacy-based services contribute positively to patient care and improved health outcomes.[1] Pharmaceutical care aims to meet the drug-related needs of individuals and communities and has become a primary focus for the pharmacy profession.[2,3] However, as the profession tries to expand its clinical role, the pharmacist must ensure the public's acceptance. One important factor in advancing pharmacy practice is a better understanding of needs and expectations. Information about consumers' utilisation of, and views about, pharmacy services can help pharmacists address unmet needs, improving their services and increasing customer satisfaction.

Several studies have investigated customer satisfaction and attitudes to community pharmacy services in Australia,[4] Canada,[5] Japan,[6] the United Kingdom (UK),[7] and the United States of America (US).[8–11] These studies show that several aspects of pharmacy services were important in determining overall satisfaction. Over three-quarters of Australian consumers believed the pharmacist should explain about use of their medication,[4] while the functions most desired by Japanese consumers were communication with

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the pharmacist and convenient opening hours.[6] In Canada, high levels of satisfaction were reported in items measuring general satisfaction, interpersonal and explanation dimensions.[5] In the US, Briesacher and Corey[8] used a survey to measure customer satisfaction with community pharmaceutical services and reported that the interviewees rated the community pharmacies highly. Larson *et al*[9] measured patient satisfaction with pharmaceutical care using a modified questionnaire originally developed to measure patient satisfaction with traditional community pharmacy services. Patients were significantly more satisfied with the "friendly explanation" scale than with the "managing therapy" scale. Cerulli[10] studied customers' perceptions of independent community pharmacists and reported a positive impression of community pharmacists, indicating that the study pharmacies had established the necessary foundation for therapeutic relationships with their customers. The US national pharmacy consumer survey[11] revealed that satisfaction with pharmacy services remained high, with 85 per cent of respondents reporting satisfaction with the process of filling a new prescription and 90 per cent being satisfied with the refill process. In the UK, Hargie *et al*[7] measured consumer perceptions of and attitudes to community pharmacy services using a communication audit technique. The community pharmacist's role as perceived by the public ranged from 32 per cent who saw pharmacists as primarily business people, to 26 per cent who considered they were mainly concerned with health and 42 per cent who saw them as having a commitment to both health and business.

The health care system in Saudi Arabia is well developed and structured. The health care facilities are predominantly Governmental, offering their services to all citizens. Outside Government hospitals, consumers obtain their medications from over 3,200 private sector community pharmacies. With better knowledge of consumer needs and preferences, community pharmacies can improve the quality of services to satisfy these needs. Although pharmacy practice in community pharmacies in Saudi Arabia has made some improvements, it has not yet fully gained the public's trust for several reasons, including a lack of professionalism, commercial pressure on community pharmacies, and lack of enforcement of regulations governing pharmacy practice.[12,13] However, consumers' perceptions of and attitude towards community pharmacy services have not been evaluated. A literature search revealed a small number of studies that addressed prescribing patterns,[13] drug misuse,[14] management[15] and distribution[16] of community pharmacies. Therefore, we decided to conduct a survey to determine consumer attitudes towards community pharmacy in Riyadh City and their preferences for the introduction of new services.

Methods

Study sites

The 1999 Health Affairs Directorate register listed more than 700 community pharmacies in Riyadh City. Seventy pharmacies (a 10 per cent sample) were randomly selected from the register and contacted. An explanation of the study rationale was provided and pharmacists were assured that the survey would measure general attitudes towards community pharmacy practice rather than investigate the experience of consumers in relation to specific pharmacies. Permission was requested and obtained to approach customers when they entered the pharmacy to ask them to complete the questionnaire while they were on the premises. Fifty-five pharmacies agreed to participate in the study, nine refused, four were closed, and two said that they did not have enough space.

Questionnaire design

The survey questionnaire was developed from a similar study conducted in the UK.[7] It was designed to measure consumers' current experience of pharmacy services and their opinion concerning possible future additional services. Pilot testing was conducted in two pharmacies to test the survey form, to revise and finalise the questionnaire, and to ascertain the best time and method to collect data. Following the pilot some questions were reworded, instructions on approaching the customers and completing the questionnaire were reviewed and the optimum time for data collection was decided. The reliability of the instrument was assessed using Cronbach's coefficient alpha on 13 selected variables. The internal consistency of the instrument was 0.60. The self-completion questionnaire had 17 structured questions covering demographic data and questions on:

1 Consumers' patronage patterns.
2 Consumers' interaction with community pharmacists, their opinions of these interactions and their perceptions of the community pharmacist's accessibility and approachability.
3 Consumers' views on how the pharmacist dealt with personal health issues.
4 The pharmacy's dispensing procedure with regard to handling private consultations, and explanation offered by the pharmacist.
5 Consumers' preferences for selected services to be provided in community pharmacies.

Data collection

Data were collected over a four-month period starting in February 1999. All Arabic-speaking consumers were approached on entering the pharmacies. The purpose of the study was explained and they were invited to complete the questionnaire. An assurance was given regarding the confidentiality of the data obtained. The researcher asked the prospective respondents if they had previous contact with community pharmacists and emphasised that the study was based on actual experience of community pharmacy. This stage ensured inclusion of customers who had such experience and allowed customers who had not to opt out. Data were collected and recorded over a four-hour period (9:00–1:00 or 18:00–22:00) on one working day of the week for each pharmacy. The time spent at each pharmacy was randomised to account for variations in the type of customer depending upon the time of the day.

Respondents were selected for inclusion by approaching every fourth person entering the pharmacy (every second person at less busy pharmacies). If respondents could not complete the questionnaire, the researcher offered to complete the survey form with them.

Data analysis

The questionnaires were coded, checked for accuracy and analysed using the Statistical Package for Social Sciences (SPSS) version 10.01 for Windows (SPSS Inc, Chicago, Illinois). The analysis included frequencies of discrete variables and codescriptors and cross-tabulation of the variables. The Chi-squared test was used to assess statistical significance.

Results

Sample characteristics

Of 1,144 consumers approached, 911 consumers agreed to complete the questionnaire (79.6 per cent), 141 consumers refused (87 females and 54 males) and 92 consumers were excluded because they could not speak Arabic. The demographic characteristics of respondents in the study sample are shown in Table 1. Sixty-nine per cent were male. The mean age ±SD was 30 ± 9.75 years. The majority of respondents were young adults (80.7 per cent) while elderly participants (> 60 years) constituted 1 per cent of the sample.

Table 1 Sample characteristics (n = 911)

Demographic characteristics	Study number (%)	National census* %
Sex		
Male	627 (68.8)	50.8
Female	284 (31.2)	49.2
Age		
15–39	735 (80.7)	41.2
40–60	142 (15.6)	17.2
> 60	9 (1.0)	9.2
Marital status		
Single	371 (40.7)	39.7
Married	527 (57.8)	56.7
Others	13 (1.4)	3.6
Education		
University graduate	463 (50.8)	16.0
Secondary	249 (27.3)	16.0
Elementary	112 (12.3)	17.3
Primary	51 (5.6)	20.3
Others	36 (4.0)	30.4
Occupation		
Employed (public and private)	444 (48.7)	NA
Self-employed	144 (15.8)	NA
Student	241 (26.5)	NA
Housewife	63 (6.9)	NA
Retired	10 (1.1)	NA
Others	9 (1.0)	NA

*National Institute for Statistics.
NA, not available.

Pharmacy patronage and selection

Only 14.5 per cent of respondents said that they always attended the same pharmacy; 59.3 per cent said that they often or sometimes visited the same pharmacy. Male consumers and consumers with a higher educational level showed a significant trend towards loyalty to a particular pharmacy compared with females and consumers with lower educational levels ($P < 0.05$). There was no association between age and loyalty to a particular pharmacy. The main reasons for using a particular pharmacy were the presence of trusted and qualified pharmacists (35.9 per cent), convenient location (29.0 per cent) and availability of medicines (26.1 per cent). Other reasons included 24-hour service and friendly staff.

Consumers' perception of the pharmacist

For consultation about health problems, physicians were identified as the preferred source of advice by 73.2 per cent and pharmacists by 17.5 per cent. Family members and friends were cited by 5.2 per cent and 4.2 per cent, respectively. Consumers' perception of pharmacists by gender and educational levels were not significantly different. One-quarter of respondents perceived community pharmacists as health professionals who have a good balance between health and business matters, while 56.1 per cent thought that pharmacists were more concerned with the business (Table 2). More consumers with a higher education level (54 per cent) described community pharmacists as primarily business people compared with consumers with a lower educational level (46 per cent) ($P < 0.05$). Over 67 per cent of the respondents thought that all pharmacists should wear a white coat.

Pharmacist accessibility and approachability

The majority of respondents (69.7 per cent) reported feeling at ease about asking the pharmacist for advice, 10.6 per cent felt uncomfortable, 9.2 per cent said they did not get a chance to do so, and 10.3 per cent said the pharmacy premises design prevented their inquiry (Table 3). Consumers with higher educational levels were significantly more likely to report feeling at ease about asking the pharmacist for advice (53.2 per cent) compared with consumers with lower educational levels (46.8 per cent) ($P = 0.002$). According to 17.9 per cent of the respondents, pharmacists encouraged consumers to ask questions and to express any concerns on dispensing. Sixty-nine per cent of respondents who patronised community pharmacies to have prescriptions dispensed reported that they received advice about their medications only when they asked for it (Table 3). There were no significant differences in consumers' views of

Table 2 Public view of pharmacists

"I think that pharmacists..."	Respondents (%)
Are primarily business people who are more concerned with making money than with the health of their patients	150 (16.5)
Are interested in both health and business matters, but tend to be more concerned with the business side of things than health matters	361 (39.6)
Have a good balance between health and business matters	229 (25.1)
Are more concerned with the health of patients than with business side of their work	55 (6.0)
Are health professionals who know a lot about drugs and are concerned about and committed to caring for the public	114 (12.5)

Table 3 Pharmacist accessibility and approachability

	Respondents (%)
"When in the pharmacy I..."	
Feel totally at ease about asking the pharmacist for advice and so will ask if I need to	635 (69.7)
Feel awkward and uncomfortable about asking the pharmacist for advice	97 (10.6)
Usually can't get the chance to speak to the pharmacist	84 (9.2)
The current design of pharmacies does not allow me to ask the pharmacist	94 (10.3)
"When I am buying my prescription medication..."	
The pharmacist hands me my prescription and encourages me to ask questions or express my concerns or anxieties	163 (17.9)
The pharmacist puts it in a bag but does not inquire about any possible concerns	119 (13.1)
The pharmacist hands me my prescription and will answer any questions but only if I ask	629 (69.0)

community pharmacist provision of advice and support by gender or educational levels.

Handling consultations and response to problems

Forty-five per cent of consumers felt that pharmacists allowed them enough time to discuss their problem fully and that they listened well, whereas 30.7 per cent said that they were given a short time and only partial attention by the pharmacist to discuss their problems/concerns (Table 4). In relation to how the community pharmacist handled consultations on sensitive topics (Table 4), of 409 respondents who had raised a personal/private matter, 58.5 per cent indicated that pharmacists spoke more quietly across the counter and 14.4 per cent reported that the pharmacist used a private area within the pharmacy when discussing personal or private

Table 4 Handling consultations and response to problems

	Respondents (%)
"When I go to the pharmacy with a problem the pharmacist..."	
Does not allow any time for discussion	35 (3.8)
Gives me a short time but does not appear to be listening and there are many interruptions	280 (30.7)
Gives me enough time but does not listen to me carefully	184 (20.2)
Gives me enough time to discuss my problem and listens to me carefully	408 (44.8)
"When I raise a personal/private matter the pharmacist..."	
Continues to speak at his normal levels as if totally insensitive to my need for privacy	111 (12.2)
Speaks more quietly across the counter	239 (26.2)
Uses a more private area within the pharmacy	59 (6.5)
I have not raised such matters	502 (55.1)
"When I raise my health problem, the pharmacist..."	
Does not discuss any physical health problem or my feelings at all	105 (11.5)
Only discusses issues about my physical health problem but is not keen to deal with my feeling	202 (22.2)
Will discuss issues related to any physical health problems and may sometimes ask about how I am feeling	245 (26.9)
Is willing to discuss fully my physical health problem and my feelings, concerns and anxieties	349 (38.3)

matters. The majority of respondents (65.2 per cent) indicated that the pharmacist was willing to discuss their health problems and tried to understand their feelings. Only 11.5 per cent of respondents indicated that the pharmacist did not do so (Table 4). There were no differences in consumers' views of community pharmacists' handling of consultations and response to problems by gender or educational level.

Service preference and views on community pharmacists' status

Table 5 shows consumers' interest in five possible new pharmacy services. The order in which consumers favoured these services was: monitoring blood pressure; measuring weight, height and temperature; monitoring glucose levels; monitoring cholesterol levels; and patient medication records (PMRs). Significantly more consumers with higher educational levels (55.5 per cent) said they did not want PMRs compared with consumers with lower educational levels (44.5 per cent) ($P = 0.02$). There were no differences in relation to other services.

With respect to the status of community pharmacies in society, more than half the respondents (56.2 per cent) viewed them as performing only part of their expected role in society, while 28.6 per cent reported that they were fully performing their expected role. Ten per cent of consumers said that community pharmacies did not perform their expected role in society, and 4.7 per cent said that community pharmacies produced more harm than benefit. Significantly more consumers with higher educational levels viewed community pharmacies as performing part of their expected role (58 per cent) compared with consumers with lower educational levels (42 per cent) ($P < 0.0001$).

Discussion

This is the first study to describe public perception and attitudes towards community pharmacy services in Saudi Arabia. Several factors may have contributed to the high response rate, including the short time required to complete the questionnaire, filling in the survey form while in the pharmacy, and the high percentage of educated young adult males among respondents. The findings showed a trend towards loyalty to a particular pharmacy by male consumers with higher education levels. Previous studies have shown a trend towards an increase in consumer loyalty to a particular pharmacy as the consumer's age increased.[4,7] These findings could not be confirmed by this study as there were few older consumers in the study.

The reasons why consumers choose a particular pharmacy have remained remarkably stable over a decade of research. Convenience of location and availability of trusted pharmacists were the primary determinants in pharmacy selection in this study. However, the age–loyalty relationship may also be influenced by other factors such as resistance to change and degree of mobility.[7]

The majority of the Saudi population is young (under 40 years). This fact should be addressed by community pharmacies when determining the best approaches to encourage young consumers' loyalty. Factors which should be considered, as highlighted in previous studies,[6,7,11] include friendly staff, efficient services, a sensitive approach to customers who present with specific problems and provision of pharmaceutical care.

About 70 per cent of both the Saudi and British consumers rated the physician as their preferred source of information. The pharmacist was rated second by Saudi consumers and third by British consumers.[7] The majority of respondents who did not make pharmacists their first choice to answer health inquiries may have had unsuccessful experiences in seeking such information from pharmacists or may be unaware that the pharmacist has the knowledge to answer health or medication questions. Furthermore, these findings highlight the traditional belief in physicians' knowledge and experience. This belief is supported by a longstanding health care system dominated by physicians. The relationship between respondents' level of use of the pharmacist as a source of information and their satisfaction with various pharmacy services is an indication that if the environment in which consumers collect prescriptions was more conducive to direct pharmacist–customer consultation, then more customers might be encouraged to ask questions and overall patient satisfaction could be increased.[8] These findings should encourage pharmacists to take stronger steps towards educating the public on the pharmacist's ability to provide informational and patient care services.

Interestingly, two-thirds of respondents were in favour of pharmacists wearing a white coat. This is probably to reflect professional image and emphasise professional status.

Comparing findings from the present study with previously reported results for British consumers revealed several differences.[7] The main differences include the public's view of pharmacists, pharmacist accessibility, and

Table 5 Consumers' preference for new services

Types of service	Yes	No	Don't know	Missing
Measuring weight, height and temperature	609 (66.8%)	193 (21.2%)	92 (10.1%)	17 (1.9%)
Monitoring glucose levels	548 (60.2%)	242 (26.6%)	100 (11.0%)	21 (2.3%)
Monitoring blood pressure	631 (69.3%)	171 (18.8%)	89 (9.8%)	20 (2.2%)
Monitoring cholesterol levels	486 (53.3%)	269 (29.5%)	134 (14.7%)	22 (2.4%)
Patient medication record	368 (40.4%)	400 (43.9%)	125 (13.7%)	18 (2.0%)

pharmacist provision of advice and support. These differences could be attributed to system and cultural differences between Saudi Arabia and the UK. The community pharmacy sector in the UK is better established, organised, structured and monitored than that in Saudi Arabia. This may explain why British consumers viewed community pharmacies more favourably compared with Saudi consumers. However, Saudi consumers reported easier access to pharmacists compared with their British counterparts. This might be attributable to pharmacy premises design, with fewer physical barriers in Saudi Arabia, very few pharmacy technicians, the availability of prepacked medications and long working hours of pharmacists. More British consumers reported a favourable view of pharmacist provision of advice and support than Saudi consumers. This finding may highlight differences in the education and training of pharmacists between the two countries. Community pharmacy practice in Saudi Arabia is not emphasised in the College of Pharmacy curriculum and preregistration year training, unlike the situation in the UK. However, more British consumers reported that the community pharmacist handed their prescription to another member of staff to give it to them. Such practice does not exist in Saudi Arabia because of the absence of pharmacy technicians. It is interesting that the higher occurrence of handing out of prescriptions by pharmacists in Saudi Arabia does not appear to lead to greater interaction with the patient.

In terms of pharmacy professionalism, this survey has highlighted public perceptions of the balance between business and health aspects of practice. Over half of Saudi consumers viewed community pharmacists as being more concerned with business matters than health matters. These findings indicate a poor public image of community pharmacists in Saudi Arabia. Furthermore, the study showed that there is no consensus among the public on the role of the pharmacist in the health care domain. The tension between business and health in community pharmacies has been highlighted in the local media and needs to be addressed.

Good access to community pharmacists is considered one of the advantages that community pharmacies have over other primary health care settings. Community pharmacists in Saudi Arabia did not seem to utilise this to their benefit by increasing their contact time with the consumers. Less than one-fifth of Saudi consumers said that the community pharmacist encouraged them to ask questions when handing out their dispensed medication.

Two issues regarding community pharmacist consultation skills were highlighted in the present study. The majority of consumers reported that only when asked would a community pharmacist answer their questions. This may indicate that community pharmacists are handling prescription dispensing as part of their routine practice and assume that customers are already knowledgeable about their health problem. However, patient consultation by the community pharmacist when dispensing a prescription is of vital importance for the pharmacist's image and consumer satisfaction. Community pharmacists in some countries are required to perform certain patient education and monitoring tasks, including providing basic written information and counselling[17] but this is not the case in Saudi Arabia.

The second issue was the pharmacists' skills when responding to customer problems and handling private consultations. Many respondents reported that the pharmacist gave them enough time to discuss their problem, listened carefully, and was willing to discuss their physical health problem and feelings. Furthermore, most consumers reported that the community pharmacist spoke more quietly across the counter when discussing private matters. These findings indicate the willingness of the pharmacist to consult with their customers and help them get the most out of their medicines and the willingness of consumers to obtain such services. However, there are several barriers preventing Saudi Arabian community pharmacists from assuming a more active role in customer counselling. These may include lack of privacy, an inadequate number of qualified pharmacists, involvement of pharmacists in the business management of the pharmacy, and lack of appropriate training.

Consumers responded positively regarding possible new services to be provided in community pharmacy. These services include measuring weight, height and temperature, monitoring glucose and monitoring blood pressure and cholesterol levels. These services are expected to be part of the development of pharmaceutical care practice in community pharmacies that may take place during the next decade in Saudi Arabia. The findings emphasise the public's need and their willingness to trust the community pharmacist to play a role in society's health and well-being.[18] Experience of community pharmacy-based disease management programmes in which the pharmacist provides care to consumers with diabetes, asthma, hypertension or hyperlipidemia indicates that such programmes could lead to improved patient care and outcomes, at lower costs.[1] It is noteworthy, however, that in this study consumers were divided regarding establishment of PMRs in the community pharmacy and that almost half objected to them. More educated young adult males objected to PMRs and the reasons for this need to be investigated further.

Most respondents said that community pharmacies perform only part of their expected role in society's health and well-being. This finding suggests that consumers perceive that pharmacists could assume more responsibilities to help them take care of their health problems. More research is needed to investigate patients' and pharmacists' opinions on what changes should take place in community pharmacies that could improve the role played by community pharmacies.

Community pharmacy practice in Saudi Arabia needs several changes in order to improve its public image. These include separation of the pharmacy from the drug store and redesigning the pharmacy to include a private consultation area. Such changes can only be achieved if accompanied by changes in the current Saudi Arabian pharmacy law, pharmacists' involvement in health care system planning, recognition of pharmacy as a clinical profession, and a major public relations programme that interprets the value of the community pharmacist as pharmaceutical care provider.

This study has several limitations. Data were collected in 1999 which may not reflect the current situation. However, no major changes have taken place in community pharmacy practice during this period so it could be argued that the findings of this study remain relevant. The male-to-female ratio of participants (2.2:1) is not representative of gender distribution in the population (1.2:1), so males were over-represented in the sample. In addition, younger respondents and those with higher educational levels were over-represented and the elderly were under-represented. This may be a reflection of Saudi social and cultural features, where young men traditionally assume responsibility and attend to the needs of spouses and other female relatives and the elderly, including shopping for pharmaceuticals. The male gender of the researchers may also have contributed. On the other hand, a strength of the study is the higher proportion of younger people who are likely to be future pharmacy customers.

The questionnaire used in this study was based on the work of Hargie *et al*[7] published in 1992 and may not reflect the changes that might have taken place in pharmacy practice during the past decade.

Conclusion

Most respondents reported feeling comfortable about asking the pharmacist for advice. The availability of suitable facilities for private discussion is an issue and only a minority of respondents said their pharmacy had such an area. Consumers generally responded positively to the concept of several new services in community pharmacies. However, support for PMRs was considerably lower. The public appears to perceive tensions between the business and health-related role of community pharmacies. Obtaining feedback from the public will be an important part of future plans for changes in pharmacy practice.

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