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ORIGINAL ARTICLE

Analysis of patients' complaints in primary healthcare centres through the Mawid application in Riyadh, Saudi Arabia; a cross-sectional study

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Abstract

Introduction: The Saudi Ministry of Health launched a central appointment mobile application system (Mawid) that is linked to all primary healthcare (PHC) centres in the kingdom. The application allows patients to evaluate the healthcare services they receive. This study aimed to determine the frequency and nature of the complaints of patients visiting PHC centres through the Mawid application.

Methods: This cross-sectional study was conducted using 3-month secondary data from the Mawid application. The study included 3134 comments from 380,493 patients who visited 38 PHC centres in Riyadh and responded to the Mawid application evaluation questionnaire. Data were analysed using SPSS version 21.

Results: Approximately 59.1% of the patients' comments were negative (patients' complaints); only 19%, positive; 8.40%, mixed; and 13.6%, unrelated. The patients' complaints (n=2969) were obtained from 380,493 patients within 3 months, yielding a complaint rate of 2.6 per 1000 attendances per month. The majority of the complaints (79.3%) were from patients visiting non-specialised PHC centres. Approximately 59.1% of the complaints fell under the management domain; 23.6%, patient–staff relationship domain; and only 17.2%, clinical domain.

Conclusion: Management and interpersonal problems constituted the main patients' complaints in the PHC centres in Saudi Arabia. Therefore, future studies must clarify the reasons contributing to these complaints. Increasing the number of physicians, providing staff training and continuous auditing are mandatory to improve patients' experiences in PHC centres.

Introduction

Primary healthcare (PHC) centres are the first line of contact between patients and the healthcare system. They have a vital role in improving population health and lowering health expenditure.[1]

PHC centres in Saudi Arabia cover extensive preventive and primary curative healthcare services. These services include immunisation, child and maternity health, basic dental services, chronic disease management and follow-up, essential medications in addition to basic dental services and health education.[2]

There are 0.74 PHC centres per 10,000 population in Saudi Arabia with variations between rural and urban areas. PHC centres in urban areas have more examination rooms with lower densities than those in rural areas. Urban regions are more likely to offer general services but less likely to offer burn management and emergency services. PHC centres are mostly staffed with general medicine, family medicine and obstetrics and gynaecology physicians, whose numbers are more concentrated in urban areas; however, their densities are higher in rural areas. Finally, psychiatrists and nutritionists are rare in PHC centres.[3]

The Saudi Ministry of Health (MOH) launched a central appointment mobile application system (Mawid) in June 2017 to achieve the National Transformation Program's goals as part of the Saudi Vision 2030. The application is an instant, electronic and free service that is linked to all PHC centres (n=2400) in the kingdom. It allows patients to book or cancel/reschedule appointments, manage referral appointments and evaluate the healthcare services they receive in PHC centres.[4]

Patients' complaints about healthcare services are an indicator of patient dissatisfaction

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and could be utilised to determine areas of shortcoming in healthcare settings.[5] These complaints include different issues, including physical/emotional harms, prescribing errors, neglect/poor care, legal and malpractice.[6]

Healthcare settings receive over 100,000 complaints annually.[7] The Saudi MOH is keen on improving the experience of beneficiaries of healthcare services in the kingdom as well as on increasing the level of satisfaction for these services. Hence, the Saudi Healthcare Complaint Taxonomy was developed to standardise the classification of these health complaints in 2018.[8] This study aimed to utilise this taxonomy to analyse patients' complaints to determine different areas of shortcoming for PHC services.

Objectives

- To determine the frequency distribution of different complaints of patients visiting PHC centres through the Mawid application
- To investigate the different types of these complaints

Methods

Study design and setting

This cross-sectional study using secondary data from the Mawid application was conducted from October to December 2019.

Study participants

During the study period, 380,493 patients visited 38 PHC centres in Riyadh. Of them, 3134 patients responded to the Mawid application evaluation questionnaire and were included in the study.

Data collection

The study utilised secondary data obtained from the Mawid application evaluation questionnaire. The questionnaire included different items of patients' comments regarding their visits to the PHC centres.

Statistical analysis

The data were analysed using Statistical Package for the Social Sciences (SPSS) version 21 (IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.). The comments were initially classified into four categories: positive, negative (patients' complaints), mixed (both positive and negative comments) and unrelated comments. The patients' complaints were analysed and categorised into three main domains (clinical, management and staff–patient relationship) and their corresponding categories and subcategories. The management domain included institutional and timing issues, such as environment, services, staffing, finance, admission, discharge and referrals. The patient–staff relationship domain included communication, humaneness/caring and patient rights issues. The clinical domain included issues regarding quality and safety of care, such as staff skill, patient journey and medication errors. The frequency distribution of the different complaint categories and subcategories was determined.6,8

Ethical consideration

Ethical approval for this study was obtained from the Institutional Review Board of the MOH (IRB log no.: 21-76M). The information taken was kept confidential and will not be used for purposes other than that for the study.

Results

The study evaluated 3134 comments from 380,493 patients who visited 38 PHC centres in Riyadh within 3 months. Approximately 59.1% of the comments were negative; only 19%, positive; and 13.6%, unrelated (Figure 1). The patients' complaints (n=2969) were obtained from 380,493 patients within 3 months, yielding a complaint rate of 2.6 per 1000 attendances per month. The majority of the complaints (79.3%) were from patients visiting non-specialised PHC centres.

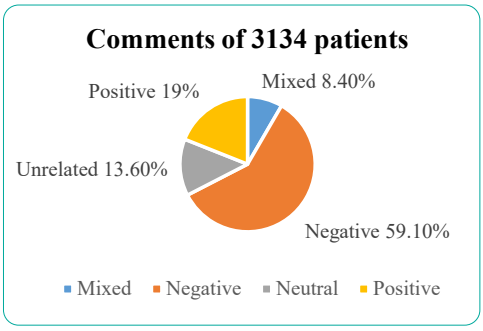

Figure 1. Classification of patients' comments recorded in the Mawid application.

Figure 3 displays the distribution of the three main domains of patients' complaints (n=2969). Approximately 59.1% of the complaints fell under the management domain; 23.6%, patient–staff relationship domain; and only 17.2%, clinical domain.

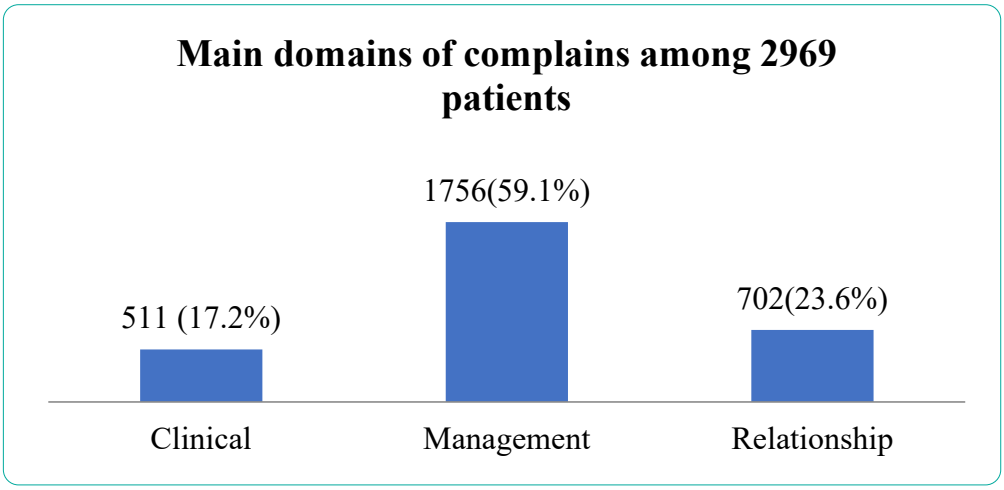

Figure 3. Distribution of the main domains of patients' complaints.

Table 1 shows the distribution of the patients' complaints in relation to management issues. More than two thirds of the complaints (67.6%) were due to institutional issues, while only one third were due to timing and access (32.4%). Institutional issues included mainly shortage in staffing and resources (28.6%), while timing and access issues included mainly delays and long waiting times (19.5%).

Table 1. Distribution of patients' complaints related to management.

Domain	Categories	Subcategories	n (%)	% of total complaints
Management	Institutional issues	Bureaucracy	181 (10.3)	6
		Environment	218 (12.4)	7.3
		Finance and billing	3 (0.2)	0.10
		Service issues	282 (16.1)	9.5
		Staffing and resources	502 (28.6)	17
		Subtotal	1187 (67.6)	39.9
	Timing and access	Access and admission	148 (8.4)	4.98
		Delays	343 (19.5)	11.56
		Discharge	1 (0.1)	0.03
		Referrals	78 (4.4)	2.63
		Subtotal	569 (32.4)	19.2
		Total	1756/2969 (59.1)	(100)

Table 2 shows the distribution of the patients' complaints in relation to patient–staff relationship issues. More than half of the complaints (50.4%) were related to humaneness/caring, including unprofessional patient–staff attitudes (41%) and disrespectful behaviours to patients (9.4%). In addition, about one third (31.8%) of the complaints were related to communication problems, such as communicating inadequately with patients (23.8%), conflicting or not listening to patients (6%) and providing incorrect information to patients (2%).

Table 2. Distribution of patients' complaints related to patient–staff relationships.

Domain	Categories	Subcategories	n (%)	% of total complaints
Patient–staff relationship	Communication	Communication breakdown	167 (23.8)	5.62
		Incorrect information	14 (2.0)	0.47
		Patient–staff dialogue	42 (6.0)	1.41
		Subtotal	223 (31.8)	7.5

Table 2. Continued

Domain	Categories	Subcategories	n (%)	% of total complaints
Patient–staff relationship	Humaneness/caring	Respect, dignity and caring	66 (9.4)	2.2
		Staff attitudes	288 (41)	9.7
		Subtotal	354 (50.4)	11.9
	Patient rights	Improper behaviour towards patients	11 (1.6)	0.37
		Confidentiality	86 (12.3)	2.89
		Discrimination	28 (4.0)	0.94
		Subtotal	125 (17.8)	4.2
		Total	702/2969 (23.6)	(100)

Complaints regarding clinical practice represented 17.2% of all patients' complaints. About three quarters of this issue was due to quality of medical staff practices (74%), such as absent/inadequate examination of patients (20.4%), patient journey (18.2%), substandard quality of care (17.4%) and treatment (16%). The remaining quarter (26%) was related to safety issues, such as safety incidents that threatened patients' safety (15.5%) and deficiencies in physicians' and nurses' technical and non-technical skills that compromise patients' safety (7%) (**Table 3**).

Table 3. Distribution of patients' complaints related to clinical practices.

Domain	Categories	Subcategories	n (%)	% of total complaints
Clinical practice	Quality	Examination	104 (20.4)	3.50
		Patient journey	93 (18.2)	3.13
		Quality of care	89 (17.4)	3.00
		Treatment	82 (16)	2.76
		Subtotal	378 (74)	12.38
	Safety	Errors in diagnosis	18 (3.5)	0.61
		Medication errors	10 (2)	0.33
		Safety incidents	79 (15.5)	2.67
		Skills and conduct	36 (7)	1.21
		Subtotal	133 (26)	4.82
		Total	511/2969 (17.2)	(100)

Discussion

The current study analysed 3134 comments of patients who visited 38 PHC centres in Riyadh medical cluster (C2) within 3 months. Approximately 59.1% of these comments were negative; only 19%, positive; 8.4%, mixed; and 13.6%, unrelated. The study recorded a complaint rate of 2.6 per 1000 attendances of PHC centres per month. Lim et al. reported a complaint rate of 4 per 100,000 attendances per year in family health centres in Singapore. They also documented that 43% of complaints were evaluated as justifiable, 38% as not justifiable and 19% as inconclusive.[9] This low rate of complaints in comparison with that in Singapore could be attributed to the low patient awareness, perceived lack of power to change and difficulty of the complaint procedures.[10]

In the current study, management complaints represented more than half (59.1%) of all patients' complaints, including long waiting times (19.5%) and institutional problems (39.9%). This finding is consistent with the report by Mattarozzi et al. that the most frequent causes of complaints concerned care system management (68.1%), particularly the time taken to access treatment.[5]

Shortage in resources represented 28.6% of the total complaints herein. This shortage included physicians, specialists, diabetic and hypertension medications, dental materials and examination tools. This finding is consistent with the 2002 report by Al-Khaldi and Al-Sharif in the Aseer region of Saudi Arabia that diabetic resources in PHC centres, such as medications and laboratory items, were inadequate.[11]

Another study conducted in Malaysia reported an average patient waiting time of 41.06 min.[12] Similarly, Aburayya et al. reported that the average pre-consultation time in Dubai was 34.2 min.[13] In our study, the average waiting

time was not measured; however, the patients mentioned in their complaints that they waited for more than 30 min to several hours to see physicians and for weeks to a month to receive their laboratory results. However, long waiting times represented only 11.56% of the total complaints, consistent with the findings by Lim et al. that 10.0% of patients' complaints were related to long waiting times.[9]

Qatari and Haran found that 25.1% of patients who visited PHC centres in Qateef, Saudi Arabia, were not satisfied with the waiting time.[14] The variation between their study and our study could be explained by the progress of the PHC services over the last two decades. This progress included marked health gains comprising an elaborate network of 2390 accessible PHC centres that have acceptable standards in terms of infrastructure, equipment and health workforce.[15]

In the current study, patient–staff relationship problems constituted 23.6% of the total complaints and were categorised into communication (31.8%), humanness/caring (50.4%) and patients' rights (17.8%). Among these issues, poor staff attitudes (11.9%), communication problems between staff and patients (7.5%) and communication breakdown by language barriers and staff absence (5.62%) represented the most common complaints.

In PHC centres, physician–patient relationships are of particular importance. Although studies suggest that the number of complaints about physician–patient relationships is increasing, limited knowledge exists about the underlying characteristics of physicians involved in complaints.[16,17] Skar and Soderberg documented patients' dissatisfaction with encounters and communication when they were not met in a professional manner in healthcare settings.[18] Similarly, the qualitative study conducted by Bakeera et al. in 2009 in Uganda supports this result, as they found that poor staff attitude towards patients was one of the most common patient barriers to utilising healthcare services.[19] Further, Al-ahmadi et al. reported that 80% of medical personnel in PHC settings in Saudi Arabia had language, traditional and cultural barriers, and poor communication between patients and healthcare providers was considered as one of the most common barriers to good-quality PHC services.[20]

Reader et al. and Lim et al. found that communication problems represented 13.7% and 7.8% of complaints, respectively.[6,9] Meanwhile, Mattarozzi et al. documented a higher rate of complaint regarding relationships (52.8%) and even linked clinical complaints to relationship issues.[5] Nevertheless, many factors affect patients' complaints, including the setting of the health facility (either urban or rural), week day and background variables (e.g. patient age, marital status, educational level and occupation).

In the present study, clinical complaints represented 17.2% of the total complaints and included mainly issues related to clinical care quality (12.38%) and safety (4.82%). This finding agrees with the report by Lim et al. and Reader et al. that professional skills and treatment items represented 17.8% and 15.6% of complaints, respectively.[6,9] However, higher rates (36.8% and 64%) of clinical complaints were reported by Daniel et al. and Mattarozzi et al.[5,21] Alghamdi et al. found that 28% of patients in Al-Madinah in Saudi Arabia did not utilise PHC services because they thought that PHC physicians are less qualified than hospital doctors.[22] Further, Cooper and Chuter mentioned that 1 per 50 patients in PHC settings experienced events due to safety incidents, and 1 per 20 patients faced substantial harm.[23] In our study, the complaints regarding the lack of staff skills and safety incidents represented only 1.21% and 2.67% of all complaints, respectively. This discrepancy between different studies could be attributed to the variation in the study setting, duration, sample size and method of data collection.

Strengths and limitations

The current study provides an insight into the patients' complaints in PHC centres in Saudi Arabia and explains the frequency distribution of each subcategory of these complaints. The findings could help identify areas of shortcoming within PHC centres. However, we could not relate the reported complaints to the underlying characteristics of patient–physician relationships, as such data are not available in the Mawid application. Other limitations include the cross-sectional design of the study and the subjective data collection method.

Conclusion

Management (59.1%) and interpersonal problems (23.6%) constituted the main patients' complaints in PHC settings in Saudi Arabia. Therefore, future studies must clarify the reasons contributing to these complaints. In addition, increasing the number of physicians,

providing staff training and continuous auditing for waiting times and other health-related issues are necessary to improve patients' experiences in PHC centres.

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Author contributions
Almusawi M. write the manuscript and analysed and interpreted the data results. Radwan N. and Mahmoud N. modified and reviewed the manuscript. All authors read and approved the final manuscript.

Ethical Approval
The study was approved by the Institutional Review Board of the MOH (IRB log No:21-76M).

Conflicts of interest
All authors declare no conflicts of interest.

Funding
The study was not funded.

Data sharing statement
The data that support the findings of this study are available upon request from the Saudi Ministry of Health. it is not publicly available because it contains information that could compromise the privacy of included participants and settings.

How does this paper make a difference in general practice?

- This paper provides information about what patients think about the offered primary health care services.
- It provides information regarding the frequency and distribution of patients' complaints
- It helps the primary health care centres to determine the areas of patients' dissatisfaction and service improvement.
- It helps the primary health care centres to improve the quality of care.
- It explains that, responding to patients' feedback and complaints improves the communication.

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