

Exploring the community pharmacy services in Gulf Region: a scoping review protocol

Authors

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Abstract

Objective: The objective of this scoping review is to identify and describe the nature and extent of healthcare services in the community pharmacy setting in Gulf region (Saudi Arabia, United Arab Emirates (UAE), Kuwait, Qatar, Oman, and Bahrain).

Introduction: Despite the evolving role of community-pharmacists worldwide in promoting public health and patient-centred care by providing direct patient care services, the role of community-pharmacists in Gulf countries is mainly limited to dispensing and counselling while the non-dispensing services are still in an infancy stage and in need for improvement and expansion.

Inclusion criteria: As this scoping review aims to explore all services in the community pharmacy in Gulf countries, this review will consider studies conducted in the Gulf countries regarding existing, or piloted community pharmacy services or services that being explored for readiness and willingness for future implementation and considering the community pharmacists, community pharmacy consumers, and other stakeholders.

Methods: The JBI methodology for scoping reviews and the Preferred Reporting Item for Systematic Review and Meta-Analysis extension for scoping review (PRISMA-ScR) checklist will be followed to conduct and report this review. The search will be conducted in multiple databases including Ovid MEDLINE, EMBASE, CINAHL, and Scopus. Each database will be searched from inception until the day of searching the databases. All original primary research methodologies will be considered. Evidence published in Arabic or English language will be included. Results will be synthesised narratively and accompanied by summary tables which will be presented in the result section of the final review.

Keywords

Community pharmacist-led intervention; Extended community pharmacy services; GCC; Health promotion; Pharmaceutical care services.

Introduction

Community Pharmacies are easily and highly accessible healthcare centres, with long opening hours and non-appointment-based services, which make them the first point of contact in many occasions. Indeed, it is more convenient for the healthcare consumers to access the community pharmacies without the need for appointment or referral (Bawazir, 2010, Al-Arifi, 2012). Therefore, expanding the community pharmacy services would be a promising strategy to reduce the emerging rise in pressure on the primary care (Anderson and Sharma, 2020). Pharmacists are experts in medicines; they have special training and expertise in the clinical and appropriate use of medications that enable them to provide a wide range of patients care services and play a vital role in ensuring medication safety, optimal use of drugs and consequently improving patients' health outcomes (Bradshaw and Doucette, 1998, Hämmerlein et al., 2007). Community pharmacists are licensed and clinically trained healthcare professionals, and it is argued that their skills and knowledge should be further utilised (Mossialos et al., 2015, O'Sullivan et al., 2020).

Community Pharmacy practice has dramatically evolved over the years. Pharmacists worldwide have been contributing to promote public health and patient-centred care by providing direct patient care services. For instance, community pharmacists in the UK, USA, Australia and Canada work closely with general practitioner to create treatment plan, address medication needs, help in chronic disease management as well as minor aliment management by providing patients education, medication therapy management services, physical assessment and monitoring adherence and progress (Tan et al., 2014, George et al., 2010, Aly et al., 2018). In Canada, community pharmacists offer additional professional services such as post-surgical and home care services (George et al., 2010). Community pharmacists in the USA play essential role in improving immunization rate by being immunizers, vaccine educators and facilitators (Bach and Goad, 2015). Community pharmacist-led vaccination service is also available in UK, Canada and Portugal (Alsaleh, 2020).

Despite the high accessibility of the community pharmacy and the evolving clinical role of community-pharmacists in health promotion and disease management worldwide, patient-centred care services in community-pharmacies in Gulf Cooperation Council (GCC) countries (Saudi Arabia, United Arab Emirates (UAE), Kuwait, Qatar, Oman,

Bahrain) are not well established and still in its initial stage of planning and implementation (Rasheed et al., 2020, El Hajj et al., 2021, Sadek et al., 2016). Some of the recently established services in some community pharmacies in Saudi Arabia are e-prescription such as wasfaty “my prescription” to ensure patients adherence (WASFATY, 2021), specialised education such as diabetes education (Khan et al., 2019), “Wazen” programme to control body weight and promote healthy lifestyle (Nahdi, 2020), vaccination, video consultation with general practitioner, measuring blood pressure, and performing blood test including blood glucose, HbA1C, lipid profile and CRP (Nahdi, 2021). However, these services still in an infancy stage, limited to few pharmacies and need to be evaluated to ensure their effectiveness and explore any area for improvement as well as any learning lessons to inform other patient-centred services.

Transformation of healthcare system in the Gulf countries:

Over the past decade, significant improvement and transformations have been made in the health care sector in the Gulf countries. These transformations include: an increased number of hospitals, clinics, and health care providers; the promotion of public-private partnerships; the facilitation of health education initiative; the development of preventive and curative programme that prioritise non-communicable diseases (NCDs) and mental health; the management of communicable diseases; the establishment of a monitoring and surveillance system; the encouragement of health research; the development of home-based and community-based health care; and, the provision of value-based healthcare by establishing an integrated health system and promoting the E-health system. The main reason behind these transformations is the increased demand of the primary health care services attributable to the massive population growth, increasing life expectancy and high incidence of NCDs (Saudi Vision 2030., 2022, MOH, 2017, Khoja et al., 2017, WHO, 2017a, WHO, 2017b, MOH, 2015, MOH, 2014, MOPH, 2018).

Health status and disease epidemiology in the Gulf countries:

Noncommunicable diseases (NCDs), also known as chronic diseases are among the main challenges facing the healthcare system globally. Diabetes, respiratory diseases, cardiovascular diseases (CVDs), and cancer account for 74% of death worldwide (WHO, 2022). The lifestyle in GCC countries such as unhealthy eating habits, tobacco

consumption and limited physical activity are the main risk factors for the alarming increase in the prevalence of chronic diseases in Gulf countries (WHO, 2018, Fadhil et al., 2022). According to WHO noncommunicable disease progress monitor 2022 (WHO, 2022) NCDs account for 86% of all deaths in Bahrain, 80% in Oman, 79% in Kuwait, 77% in Qatar, 73% in Saudi Arabia and 77% in UAE. CVDs contributed to the highest proportion of the NCD-related mortality in all GCC countries, followed by cancer and diabetes (WHO, 2018). GCC countries rank among the highest prevalence of diabetes in the world. The recent edition of the International diabetic federation (IDF) diabetes atlas 2021 estimated the comparative prevalence of diabetes at 24.9% in Kuwait, 19.5% in Qatar, 18.7% in Saudi Arabia, 16.4% in UAE, 13.8% in Oman and 11.3% in Bahrain in comparison to the global diabetes prevalence 9.8% (IDF, 2021).

Plan for extended community pharmacy services in the Gulf countries:

Community pharmacy practice in GCC countries is mainly limited to dispensing and counselling services while the extended community pharmacy services (ECPS) such as medication review, patient education, immunisation, physical assessment are either not practiced or minimally practiced in limited countries and pharmacies (Nahdi, 2021, Rasheed et al., 2020, Palaian et al., 2022)

However, several GCC countries are planning to expand the role of community pharmacists. For example, Saudi Arabia, UAE, and Qatar have recently released comprehensive plan and strategies aimed at enhancing scope and responsibilities of community pharmacist. On the other hand, it is noteworthy that Kuwait, and Oman have focused on enhancing the overall provision of pharmaceutical care services without defining specific measures exclusively tailored to community pharmacy settings (MOH, 2019b, Al-Haqan et al., 2023). In Bahrain, no published regulatory framework specific to pharmaceutical care were found.

In Saudi Arabia, the recently published and updated Ministry of Health (MOH) executive regulations stated new interventions that community pharmacists can provide within the community settings such as vaccination, vital signs assessment, health, and medical device education. Besides, non-urgent care services such as medication therapy management (MTM), minor illnesses care, pharmaceutical consultations and compounding (MOH, 2019a). These regulations allowed the

transformation of community pharmacy practice to more patient-centred care practice. Therefore, the community pharmacists have a significant opportunity to contribute to promoting public health, reducing the pressure on primary care, and achieving the vision 2030 that aims to improve the health, wellbeing, and quality of life of Saudi citizens (Saudi Vision 2030., 2022).

The Health Authority Abu Dhabi (HAAD) has taken new initiatives to extend the role of community pharmacists, for example developed training programme to prepare the community pharmacist to apply the extended role and meet the current needs. These training programme include Pharmacist diabetic educator programme, Asthma educator programme, Immunization course and smoking cessation training programme. In addition, HAAD has extended the range of services provided by the community pharmacist to include screening, point of care testing, vaccination, medicines use management, patients counselling and education on preventive health and lifestyle modification (Sadek et al., 2016)

Qatar National Health Strategy has adopted new direction for the community pharmacy to expand the accessibility to medicines and enhance the role of community pharmacist in providing more care to the public. The strategy involved developing new model for the community pharmacy network to ensure the availability of all drugs at the community pharmacies and decrease the reliance on hospitals pharmacy, establishing education and training programme to train the health care providers on the appropriate use of the community pharmacies and increase the utilization of the community pharmacy services (MOPH, 2018).

Previous evidence:

The community pharmacists can play an essential role in providing patient-centred care, controlling, and preventing chronic conditions (Mossialos et al., 2015). Nevertheless, to date, patient-centred-care services still not well established in all community-pharmacies in all GCC countries (Rasheed et al., 2018, Rasheed et al., 2020, Sadek et al., 2016). Previous studies focused on exploring opportunities and challenges for extended community pharmacy services (ECPS) (Palaian et al., 2022). Several studies assessed the perception of community pharmacists toward the extended role, their willingness to provides more patient-centred care services and the

barriers to provide the services (Alshehri et al., 2022). For instance, a systematic review conducted by Rasheed et al. (2018) to assess the knowledge, attitude, roles and practices of Saudi community pharmacists in providing patient-centred care services, found various barriers hindering the provision of patient-centred care in Saudi Arabia. These barriers include inadequate knowledge and time, the absence of a pharmacy information database, a lack of continued professional development training, unavailability of adverse drug reaction reporting forms, and other challenges related to professional and cultural factors. Another study in UAE assessed community pharmacist's perception, practice and the perceived barriers and willingness to provide ECPS, showed that most of the community pharmacists were willing to provide ECPS and had positive perception, however, they highlighted additional barriers beside the barriers outlined in Rasheed et al. (2018); lack of incentive, lack of documentation and lack of patients demand (Palaian et al., 2022).

In addition, some studies evaluated the perception of health consumers towards community pharmacist's role and their willingness to engage with ECPS (Almansour et al., 2020, Alhaddad, 2019). For example, Awad et al. (2017) performed a cross-sectional survey to explore the public perceptions, expectations, satisfaction and views of community pharmacists in Kuwait. It was reported that the participant predominantly held negative perception of community pharmacists in Kuwait. The study highlighted several concerns expressed by certain respondents regarding the current community pharmacy services including lack of privacy, inadequate counselling, limited time for discussing and listening to costumers, and that pharmacist had insufficient knowledge to answer their inquiries. Overall, the participant had positive attitude towards the provision of the future extended services. In contrast, a study in Saudi Arabia assessed the perception, attitude, and satisfaction of public towards the community pharmacists and community pharmacy services, found that participant had positive perception and attitude. Furthermore, most of the participant were satisfied with the community pharmacist's commitment and skills, but not with the level of services provided in community pharmacy. These findings encourage further improvement and expansion on pharmaceutical care services (Almohammed and Alsanea, 2021).

There is lack of evidence on the nature, extent, and impact of community pharmacy services among GCC countries apart from few studies that evaluated the effectiveness

of some community pharmacy services focusing on the dispensing and counselling services. For instance, three studies; in Qatar, UAE, and Saudi Arabia, evaluated the counselling practices by community pharmacists for asthmatic and diabetic patients, for hormonal contraceptive medication, and for a prescription-only medicine and an OTC medicine respectively, all studies found that patient counselling was suboptimal and need to be improved, where most of community pharmacists did not ask the patients about medication history, allergy or gave information about drug interaction and side effects (Paravattil et al., 2017, Mobark et al., 2019, Al Qarni et al., 2020). Additionally, little is known about the currently implemented and practiced services at the community pharmacy in the GCC countries. The implementation and evaluation of the ECPS are limited and in need for improvement and expansion.

In order to provide a comprehensive insight of the current services and practice in the community pharmacies in the Gulf Countries, this scoping review aims to describe and summarise the available evidence regarding the community pharmacy services implemented, practiced or tested for future implementation in the Gulf Region.

Review question

What services are provided or tested to be provided within the community pharmacy setting in Gulf Region including its type, nature, extent, and/or effectiveness?

Eligibility criteria

The following PCC framework referred to: Participants, Concept and Context will be used to determine the eligibility and exclusion criteria for this review, and to help develop an effective search strategy, the detailed inclusion and exclusion criteria presented in **Table 1**.

Participants

This review will consider pharmacists who work in the community pharmacy, the community pharmacy consumers, and any other stakeholders such as clinical practitioner.

Concept

The concept of interest is any community pharmacy services such as dispensing, medication prescribing, medication refill, medication review and management, patient counselling, adverse drug reaction reporting, performing diagnostic testing and administering vaccination, vital signs assessment, health, and medical device education, medication therapy management (MTM), pharmaceutical consultations, lifestyle modification.

Context

This scoping review will include all studies in Gulf Countries in the context of community pharmacy practice and the role of community pharmacists in promoting public health. According to the World Health Organisation (WHO) the definition of community pharmacy may vary across countries based on the range of services offered. Nonetheless, by combining the common activities stated in various country-specific definitions, a comprehensive definition of community pharmacy can be formulated. In this regard, community pharmacy can be defined as “private healthcare establishments that serve the public interest by guaranteeing continued and uninterrupted care for the population, ensuring the adequate supply of medicines and other products, and offering a series of pharmaceutical services including the retail sale, distribution, and preparation of pharmaceutical products, as well as counselling and other services related to pharmaceutical products (WHO Regional Office for, 2019).

Types of Sources

This review will consider all original primary research methodologies: qualitative, quantitative, and mixed methods.

Table 1. Inclusion and exclusion criteria

	Inclusion	Exclusion
Participants	Community pharmacists, community pharmacy consumers, and any other stakeholders such as clinical practitioner.	Pharmacists work in a setting other than community pharmacy such as: hospital pharmacists, clinical pharmacists, ambulatory care pharmacists.
Setting	Community pharmacies in Gulf region (Saudi Arabia, United Arab Emirates (UAE), Kuwait, Qatar, Oman, and Bahrain).	Hospitals, primary care centres or community pharmacies in countries other than Gulf countries.
Type of services	All services provided within the community pharmacy setting (patient-oriented, or product-oriented services) including but not limited to dispensing, medication prescribing, E-prescribing, medication refill, medication review and management, patient counselling, adverse drug reaction reporting, point of care testing, vaccination, vital signs assessment, health, and medical device education, medication therapy management (MTM), pharmaceutical consultations, lifestyle modification.	Any service provided in a setting other than the community pharmacy setting.
Type of study	-Studies that assess the existing services, piloted services, or studies that assess the readiness and willingness for future services implementation. -Studies that assess attitude, perception, or knowledge about community pharmacy services.	Studies that assess attitude, perception, or knowledge that is not related to the services.
Type of publication/Methodology	Primary research methodologies: qualitative, quantitative, and mixed methods.	Reviews, case study, reports, posters, conference abstracts, abstracts without full-text, study protocols.
Language	Only Arabic and English language.	Any other languages.

Methods

The proposed scoping review will be conducted in accordance with the JBI methodology for scoping reviews with the guidance of the Preferred Reporting Item for Systematic Review and Meta-Analysis extension for scoping review (PRISMA-ScR) checklist.

Search strategy

Specific search strategy was developed through initial limited search of one database to identify articles on the topic. The text words contained in the titles and abstract of the relevant retrieved articles and the index terms in each article were used to develop a full search strategy for this review (see Appendix 1). Published studies on this topic will be identified using the agreed search strategy on multiple databases including Ovid MEDLINE, EMBASE, CINAHL, and Scopus; as these databases are more relevant to the pharmacy practice. Additionally, the reference lists of retrieved articles will be screened for additional relevant publication. Studies published in Arabic and English language will be included, as we are looking for studies conducted in Arabic speaking population, we might find some studies published in Arabic. Databases will be searched from inception until the day of searching, to capture all studies relevant to the community pharmacy practice in Gulf region.

Study/Source of Evidence selection

Following the searching step, all retrieved studies will be imported into EndNote 20 reference manager software and Covidence software to manage the processes of this review, and the duplicates will be removed by the primary reviewer (SN) before being assessed for eligibility. After deduplication, the remaining studies will be screened by the primary reviewer (SN) and another independent reviewer (HA) first, by title and by abstract, then the full text screening will be performed to be assessed for eligibility and to exclude studies that cannot satisfy the inclusion criteria. Reasons for excluding any study after the full-text assessment will be reported in the scoping review report. The selection process will be undertaken also by the primary and secondary independent reviewers (SN and HA) and supported by experienced reviewers (AK and NW) to resolve any conflict that arises. A Preferred Reporting Item for Systematic Review and Meta-Analysis extension for scoping review (PRISMA-ScR) flow diagram will be used

to report the number of studies identified and screened at each stage and illustrate the inclusion and exclusion process.

Data Extraction

Data will be extracted by two independent reviewers (SN and HA) using a data extraction form generated and piloted by the primary reviewer (SN) (see Appendix 2). The form was designed to extract a comprehensive and detailed information including author name, year of publication, study design, purpose of the stud, study participants, detailed information about the concept, and context of the study, the study findings, conclusion, and recommendations relevant to the review. The drafted data extraction form will be revised and modified throughout the extraction process as necessary. Any modification will be clarified in the final scoping review.

Data Analysis and Presentation

The extracted data will be presented in a tabular form accompanied by a narrative descriptive summary of the evidence that align with the review question and objectives. The followed framework to organise and present the data will be decided on the final review, depending on the content of the extracted data. For example, the data might be grouped according to the country or to the type of service such as despising and non-despising, clinical and traditional, or product-oriented and patient-oriented services, or according to the stage of service implementation.

Acknowledgements

I would like to acknowledge Elaine Blair from the Faculty Librarian Science at University of Strathclyde for her assistance with the development of the search strategy; Special thanks to my supervisors, Dr. Amanj Kurdi and Dr. Natalie Weir for their valuable feedback on early drafts of this protocol.

Conflicts of interest

The authors declare no conflict of interest.

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Appendix 1

Search strategy

Database: Embase Classic+Embase <1947 to 2023 July 25>

Search Strategy:

- 1 exp "pharmacy (shop)"/ (29393)
 - 2 community pharmacy.mp. (9438)
 - 3 community pharmacist.mp. (4490)
 - 4 community pharmacist/ (2724)
 - 5 retail pharmacy.mp. (628)
 - 6 private pharmacy.mp. (159)
 - 7 pharmaceutical care services.mp. (411)
 - 8 exp pharmaceutical care/ (23364)
 - 9 community pharmacy-led intervention.mp. (3)
 - 10 Extended community pharmacy services.mp. (10)
 - 11 Extended community pharmacy.mp. (11)
 - 12 community pharmacist-led intervention.mp. (10)
 - 13 patient-centered care.mp. (9996)
 - 14 patient-oriented care.mp. (173)
 - 15 dispensing services.mp. (97)
 - 16 non-dispensing.mp. (115)
 - 17 community pharmacist-led.mp. (134)
 - 18 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 (70249)
 - 19 GCC.mp. (4160)
 - 20 Gulf Cooperation Council Countries.mp. (181)
 - 21 UAE.mp. (8356)
 - 22 KSA.mp. (2618)
 - 23 Saudi Arabia.mp. (36226)
 - 24 United Arab Emirates.mp. (6199)
 - 25 united arab emirates/ or exp abu dhabi/ or exp ajman/ or exp dubai/ or exp sharjah/ (5476)
 - 26 Qatar.mp. (5526)
 - 27 Bahrain.mp. (2471)
 - 28 Kuwait.mp. (7440)
 - 29 Oman.mp. (5119)
 - 30 Gulf region.mp. (743)
 - 31 Gulf countries.mp. (495)
 - 32 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 (69469)
 - 33 18 and 32 (709)
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Appendix 2

Data extraction form

Author name (year of publication)	Study design	Purpose of study	Study participant	Type of service/ intervention	Service provider	Setting	Time required	Service-targeted population	Targeted health outcome	Stage of implementation	Study findings		Conclusion/ recommendation
											Clinical outcome	Perception/ Knowledge /satisfaction/ willingness/other	