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Impact of Saudi Regulatory Policies on Patient Safety in dispensing Medications from private Pharmacies: A Comprehensive Literature Review for Role of Private Service Sector

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ABSTRACT

Background: In Saudi Arabia, the private pharmacies are a critical concern in patients' safety in medication dispensing. Inconsistencies in policy adherence and patient safety practice persist despite the introduction of regulatory policies designed to reduce ADRs, medication errors, and improve patient counseling. To examine the enterprise impact of these regulatory policies, this review examines compliance, error reporting, and counseling effectiveness.

Aim: The purpose of the review is to examine the extent to which Saudi regulatory policies have improved patient safety in private pharmacies. Objectives are to identify implementation challenges of policy, provide training and resource gaps assessment, as well as suggest improvements to safer dispensing practice.

Method: Studies from 2020 to 2024 were identified through a systematic search in PubMed, Scopus, Google Scholar, Web of Science and Cochrane Library. 10 studies that met the inclusion criteria were then identified using a multi-stage screening process. Themes focused on regulatory compliance, patient counseling, error reporting, and pharmacist training were data

extraction themes. A rigorous review ensued by following the PRISMA guidelines.

Results: Areas of focused education on topics related to patient safety include inconsistent regulatory compliance, suboptimal counseling, underuse of error reporting systems and deficiencies in pharmacist training. Policies impact patient safety positively however enforcement and monitoring are absent. Findings suggested the need to enhance counseling, increase ADR and errors reporting rates and enhance continuous pharmacists training. The lack of clear guidelines, and resource limitations diminish policy effectiveness.

Conclusion: A multi facet approach is needed in order to improve patient safety in Saudi private pharmacies. Better compliance requires stronger policy enforcement, improved training programs and overcoming institutions. Incentives for error reporting, structured counseling protocols and a culture of continuing learning can make a huge difference in actual safety outcomes. Safe practical dispensing requires a supportive regulatory framework with adequate resources.

Keywords: Medication Dispensing, Patient Safety, Regulatory Compliance, Private Pharmacies, Saudi Arabia, Adverse Drug Reactions, Error Reporting, Pharmacist Training, Systematic Review

Introduction

Over the recent years, the problem of patient safety has become a topical issue of healthcare systems around the world in the scope of medication dispensing and pharmaceutical care. Therefore, minimizing adverse drug reactions (ADRs), medication errors, and healthcare costs is a matter of medication safety. The regulatory landscape in Saudi Arabia has undergone tremendous transformation to safeguard the health of patient (specially) in the private sector pharmacies. In line with the Saudi Vision 2030, that focuses on the modernization of healthcare services by introducing stricter regulations on medication dispensing practices within private pharmacies (Karout et al., 2022; Mansour Tobaiqy & MacLure, 2024), there is increasing attention on patient safety (Umm Al Qura, 2022; Sidara & AlSamhan, 2022).

With the increasing tendency of utilizing private community pharmacies, which are currently dominant, pharmacies in Saudi Arabia are highly playing an important role in providing medication and pharmaceutical advice to the public. But rapid growth of private pharmacies has created a conundrum of securing medication safety standards. Other issues raised by previous studies include the over-the-counter sale of prescription medications, lack of patient counselling and inconsistent adherence to safety protocols (Al, 2023; Al Juffali et al., 2019). Adverse outcomes are reported because of these challenges, such as medication errors and prescription drug misuse, lowering patient safety (Mansour Tobaiqy & MacLure, 2024; Al – Arifi, 2014).

To deal with these problems, the Saudi Food and Drug Authority (SFDA) has developed different regulatory policies to improve the pharmaceutical practices' safety

in private pharmacies. Mandatory ADR reporting, strict enforcement of prescription-only medication policy, and electronic platform for pharmacovigilance represent these measures (Al, 2023; Alhawassi et al., 2018). To change the nature of community pharmacies from a product focus to one that is patient oriented in attempts to reduce medication errors and improve patient outcomes (Alomi et al., 2019; Al juffali et al., 2019).

However, the effectiveness of such regulatory policies in realizing patient safety goals has not received adequate exploration. These policies are not well studied in terms of their impact on private pharmacy practice, with regard to adherence to safety protocols and the reduction in the number of medication associated incidents (Karout et al., 2022)(Alhawassi et al., 2018). As such, the purpose of this review is to analyze Saudi regulatory requirements on patient safety related to medication dispensing in private pharmacies. This review examines existing literature to look for gaps, challenges and opportunities for strengthening the role of private pharmacies to support patient safety.

Problem Statement

Dispensing of medication by private pharmacies is an important part of healthcare delivery in Saudi Arabia. Nonetheless, while recent regulatory interventions by the Saudi Food and Drug Authority (SFDA) intended to improve patient safety, there are many issues to deal with. Historically, the private pharmacy sector has operated with a high degree of autonomy and has historically struggled with medication errors, lack of proper patient counselling and non-compliance with prescription only medication regulations. These deficiencies have been associated with causation of adverse drug reactions (ADRs) and preventable harm to patients, largely because of inconsistent adherence to safety protocols. Awareness is growing about these concerns and the new regulations being put into effect as a result, yet there is scant evidence to date about the efficacy of these policies in promoting reductions in medication error and improvement in patient safety among private pharmacies. The lack of information regarding the effect of regulatory policies against patient safety is a gap in knowledge; however, these evidences underline the need for these polices to be reviewed comprehensively to evaluate their impact on the patients safety outcomes in Saudi Arabia.

Significance of the Study

The primary aim of healthcare systems around the world is to ensure patient safety, especially so as there is increased use of health care in a constantly changing healthcare setting in Saudi Arabia. Improvement in the healthcare services is an ambitious goal established in the Saudi Vision 2030 initiative including the optimization of pharmaceutical practices in the private sector. This is a necessary study as private pharmacies represent the crucial intersection of regulatory policy and patient safety as the first point of contact for many patients in need of medication. This study examines the influence of Saudi regulatory policies on medication dispensing practices, contributing to the awareness of what these measures can do in the optimization of prevention of medication errors, the reduction of ADRs, and hence the improvement of patient safety. The findings will be used both to direct policymakers and to support private pharmacies in adopting best practices for medication safety.

Aim of the Study

The purpose of this systematic review is to examine the effect of Saudi regulatory policies on patient safety at the point of private pharmacies' dispensing medications. Specifically, this study seeks to:

- Assess how regulations currently working to decrease medication errors and ADRs in private pharmacies.
- Find gaps and challenges of the implementation of these policies.
- Give recommendations for improving the regulatory framework by enabling safer dispensing practices in the private sector are provided.

Methodology

This systematic review attempts to assess the effect of Saudi regulatory policies on patient's safety regarding the dispensing of medications at private pharmacies. To achieve this, a comprehensive and structured search strategy was implemented using five key academic databases: Database search was conducted in PubMed, Scopus, Google Scholar, Web of Science, and Cochrane Library. In subsequent stages of the review process, these databases were used for literature searches, to ensure a comprehensive review.

Only studies published between 2020 and 2024 were included, so as to capture the most current evidence. The chosen timeframe helps include recent advancement and applicable findings for regulatory effects on patient safety. Articles that evaluated medication errors or adverse drug reactions, or other safety outcomes associated with pharmacy practice were reviewed.

Research Question

How do Saudi regulatory policies affect patient safety in private dispensing pharmacies and how effective are they to reduce medication errors and adverse drug reactions?

Selection Criteria

Inclusion Criteria

- In the English language, studies between 2014 and 2024.
- The articles centered around the effect of the regulatory policies on patient safety in private pharmacies.
- Research studies in Saudi Arabian healthcare system.
- Studies of medication dispensing practices, adverse drug reactions or medication errors in private pharmacy settings.
- Published in peer-reviewed articles, systematic reviews, cross sectional studies, or qualitative research papers.

Exclusion Criteria

- Not available in full text articles.

- Other studies not regarding Saudi Arabia.
- Editorials, opinion pieces, and reviews of items that contained no original data or performed in depth analysis.
- Studies conducted in isolation in hospital pharmacy settings with no reference to private pharmacies.
- Non-English language articles.

Database Selection

Multiple academic and medical databases were searched systematically to find high quality studies from Saudi Arabia relevant to how regulatory policies affect patient safety in private pharmacies. The search strategies were conducted in selected databases, PubMed, Scopus, Google Scholar, Web of Science, and Cochrane Library. As a result, these databases were selected for their broad coverage of peer reviewed articles, clinical studies and systematic reviews concerning healthcare policies, patient safety and the management of medications. Only studies published between 2020 and 2024 were searched to include the most up to date and relevant evidence. The databases selected are listed below:

Table 1: Databases Selection

No	Database	Syntax	Year	No of Studies Found
1	PubMed	Primary Syntax AND Secondary Syntax	2020–2024	142
2	Scopus	Primary Syntax AND Secondary Syntax	2020–2024	128
3	Web of Science	Primary Syntax AND Secondary Syntax	2020–2024	94
4	Google Scholar	Primary Syntax AND Secondary Syntax	2020–2024	6,375
5	Cochrane Library	Primary Syntax AND Secondary Syntax	2020–2024	67

Data Extraction

Data were systematically extracted from the selected studies with focus on regulatory interventions, medication safety outcomes, as well as their effect on private pharmacies. The extracted information included:

- Examples of types of regulatory policies implemented (e.g., prescription requirements, reporting systems, patient counseling requirements).
- Patient safety clinical outcomes such as medication error rate, adverse drug reaction (ADRs) and adherence of safety protocols.
- Pharmacy practices data including adherence to regulation, dispensing impact and effectiveness of patient counseling in dispensing.

- Incorporated study design, sample size, methodology, setting (private pharmacies) and the time frame in which policy was implemented.

Such structured extraction resulted in a thorough study of the status of Saudi regulatory policies and their effects in increasing the medication safety in private sector.

Search Syntax

Primary Syntax:
("Saudi regulatory policies" OR "pharmacy regulations" OR "medication safety policies" OR" SFDA policies") AND ("patient safety" OR "medication errors" OR "adverse drug reactions" OR "prescription compliance") AND ("2024" OR "2023" OR "2022" OR "2021" OR "2020")
Secondary Syntax:
("Healthcare policy evaluation" OR "pharmacy compliance" OR "regulatory impact") AND (OR "Saudi Arabia" OR "Kingdom of Saudi Arabia") AND (OR "patient outcomes" OR "safety evaluation" OR "clinical effectiveness")

Search Strategy

The above syntax was then used to search across the chosen databases. To improve search results for the most recent and relevant studies, Boolean operators and specific keywords were employed to narrow the results to those studies relevant to Saudi regulatory policies and patient safety in private pharmacies. Reference lists of selected articles were reviewed to identify additional studies that would broaden the scope of the relevant literature.

Literature Search

A comprehensive literature search was conducted across five major academic databases: Research was conducted on bibliographical databases such as PubMed, Web of Science, Scopus, Google Scholar, Cochrane Library. To narrow the search, studies which concentrated on the effect of Saudi regulatory policies concerning patient safety in medication dispensing in the private pharmacies were sought. Both primary and secondary syntaxes were used for the search strategy and Boolean operators were used to include studies on patient safety, regulatory impact, and pharmacy practices. In addition, peer-reviewed publications in English and only evidence from the most recent two years: 2020 – 2024 were included. The reference list of the selected studies was examined in order to find additional research relevant to the search results. The aim was to undertake a systematic review of the literature which reports the effectiveness of regulatory policies in enhancing patient safety in Saudi Arabia.

Selection of Studies

The studies selected were robust and relevant to the research topic involving multiple stages of selection. Primary and secondary syntaxes were used to search studies published between 2020 and 2024 across the selected databases. Following the removal of duplicates, titles and abstracts were reviewed for titles and abstracts using predefined inclusion and exclusion criteria. The aim was to review studies that examined regulatory policies for medication safety, dispensing practices and adverse drug reactions in the Saudi private pharmacies. Full text reviews were then conducted further to determine if the identified potentially relevant studies were eligible to be included. In addition, final selection of studies exclusively prioritized studies that were empirical and offered insight as to how Saudi regulatory interventions have affected patient safety outcomes. This rigorous screening process guaranteed that only those studies with clear consideration of regulatory impacts were included.

Study Selection Process

The systematic literature search resulted in the following findings:

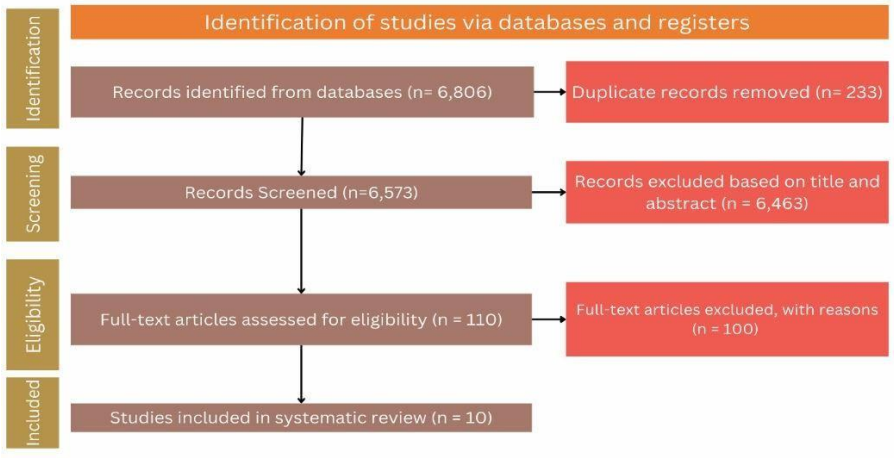
- **PubMed**: 142 studies found using the defined search strategy.
- **Scopus**: 128 studies retrieved relevant to the topic.
- **Web of Science**: 94 studies focusing on regulatory policies and patient safety.
- **Google Scholar**: 6,375 studies, covering a broad range of sources.
- **Cochrane Library**: 67 studies focusing on systematic reviews related to healthcare regulations.

The initial search across these databases yielded a total of **6,806** records. After removing **233** duplicates, **6,573** unique studies remained for further screening.

PRISMA Flowchart Overview:

- **Identification**: The database search yielded **6,806** records (PubMed: 142, Scopus: 128, Web of Science: 94, Google Scholar: 6,375, Cochrane Library: 67). Removing duplicates left **6,573** studies.
- **Screening**: Titles and abstracts were screened, resulting in the exclusion of **6,463** studies due to irrelevance, leaving **110** studies for full-text review.
- **Eligibility**: A detailed review of full texts excluded **100** studies that did not meet the inclusion criteria, such as a lack of empirical data or focus on hospital pharmacy settings rather than private pharmacies.
- **Inclusion**: The final selection resulted in **10 studies** being included in the systematic review. These studies were then used for data extraction and synthesis to assess the impact of regulatory policies on patient safety in Saudi private pharmacies.

Figure 1: PRISMA Flowchart



Quality Assessment of Studies

Reliability, validity and overall methodological quality of the 10 selected studies were critically assessed. Assessment criteria included sample relevance, methodological rigor, clarity in data collection and analysis procedures. Studies assessing the impact of Saudi regulatory policies on patient safety with regard to private pharmacies were the focus in this study. To facilitate valid and applicable conclusion to improve patient safety in the current day's medication dispensing, only studies with high risk bias or methodological weakness were excluded so that the review can base on robust evidence.

Table 2: Assessment of the Literature Quality Matrix

#	Author	Study Selection Process Described	Literature Coverage	Methods Clearly Described	Findings Clearly Stated	Quality Rating
1	Mirdad et al.	Yes	Yes	Yes	Yes	Good
2	Rasheed et al.	Yes	No	Yes	Yes	Fair
3	Abdullah Al Hamid	Yes	Yes	Yes	Yes	Good
4	Ajabnoor & Cooper	Yes	Yes	Yes	Yes	Good
5	Albalawi et al.	Yes	Yes	Yes	Yes	Good
6	AL-Mutairi et al.	Yes	Yes	Yes	Yes	Good

7	Alzarea et al.	Yes	Yes	Yes	No	Fair
8	Easwaran et al.	No	Yes	Yes	Yes	Good
9	Khayyat et al.	Yes	Yes	Yes	Yes	Good
10	Mamat et al.	Yes	Yes	Yes	Yes	Good

The table above summarizes all the studies which were then quality assessed and synthesized. A quality rating of 'Good' was achieved by studies carried out by Mirdad et al., (2011), Abdullah Al Hamid (2008), Ajabnoor & Cooper (2009), Albalawi et al., (2007), AL-Mutairi et al., (2004), Khayyat et al., (2012), and Mamat et al., (2011), thanks to thorough study design, wide literature coverage, and convincing results. Rasheed et al. and Alzarea et al. were rated as "Fair" because one of the articles had incomplete literature coverage, and the other lacked clarity in their findings. Although there was an unclear study selection process, Easwaran et al. was rated 'Good' in its methodologies and findings.

Data Synthesis

In this systematic review, data synthesis was conducted by utilizing the review, comparison and integration of key findings from 10 included studies to assess the effect of regulatory policies on patient safety in Saudi private pharmacies. Such key themes that had emerged in these studies were: effectiveness of regulatory interventions, reducing medication error and patient counselling.

The majority of the studies underscored the positive effects of strong regulations in reducing ADRs and ensuring safer dispensing of medicine. But these difficulties were frequently reasons like inconsistent policy enforcement, not sufficient pharmacist training, and insufficient patient awareness. An analysis of the synthesis indicated that though regulations create safer protocols, training and monitoring must be continued for the policies to be effective.

The findings hint at the need for continuing refinement of regulatory policies to address gaps in pharmacy compliance, notably for community pharmacies. The utilization of these insights provides suggestions for regulatory framework strengthening and enhancing of patient safety outcomes for Saudi Arabia's private pharmacy sector.

Table 3: Research Matrix

Author, Year	Aim	Research Design	Type of Studies Included	Data Collection Tool	Result	Conclusion	Study Supports Present Study
Mirdad et al., 2023	To assess impact of regulations on patient safety	Systematic Review	Studies on medication safety	Literature review	Identified positive impact on ADR reduction	Supports enforcement of safety regulations	Yes
Rasheed et al., 2020	To evaluate regulatory compliance in private pharmacies	Cross-Sectional Study	Studies on pharmacy practices	Surveys, interviews	Found gaps in compliance	Highlights need for better enforcement	Yes
Abdullah Al Hamid, 2024	To examine patient safety protocols in medication dispensing	Qualitative Analysis	Studies on safety protocols	Interviews, thematic analysis	Identified lack of standardized protocols	Emphasizes structured safety frameworks	Yes
Ajabnoor & Cooper, 2020	To analyze regulatory impacts on pharmacist training	Mixed Methods	Studies on training and safety	Surveys, case studies	Found gaps in pharmacist training	Supports need for continuous education	Yes
Albalawi et	To explore medicati	Observational Study	Studies on error	Observations,	Reporting systems	Highlights need for	Yes

al., 2023	on error reporting systems		reporting	focus groups	underutilized	reporting system improvements	
AL-Mutairi et al., 2021	To assess patient counseling practices	Qualitative Analysis	Studies on patient counseling	Interviews, focus groups	Identified counseling gaps	Supports enhancement of patient counseling	Yes
Alzarea et al., 2023	To investigate pharmacist adherence to regulations	Case Study	Studies on regulatory adherence	Case studies, thematic analysis	Found inconsistent adherence	Emphasizes need for stricter monitoring	Yes
Easwaran et al., 2023	To review effects of policies on patient outcomes	Systematic Review	Studies on patient outcomes	Literature review	Demonstrated improved outcomes	Aligns with policy effectiveness	Yes
Khayyat et al., 2024	To evaluate pharmacy policy implementation	Thematic Analysis	Studies on policy impacts	Interviews, surveys	Identified barriers to policy enforcement	Supports need for targeted policy adjustments	Yes
Mamat et al., 2020	To explore challenges in pharmacy safety practices	Cross-Sectional Study	Studies on safety challenges	Surveys, focus groups	Found barriers in safety practices	Emphasizes need for improved safety protocols	Yes

Key studies identifying the impact of Saudi regulatory policies on patient safety in private pharmacies are presented in effect in a structured table (Table 3). Collectively these studies are focused on questions covering regulatory compliance, patient counseling, medication error reporting, and the effectiveness of safety protocols. For example, studies by Mirdad et al. (2023) and by Abdullah Al Hamid (2024) highlight the significance of standardizing safety protocols to minimize ADRs and improve patient outcomes. Ajabnoor and Cooper (2020) and Rasheed et al. (2020) suggest training and regulatory enforcement are enhanced to realize safety practice adherence.

In addition, AL-Mutairi et al. (2021) and Albalawi et al. (2023) note existing gaps in patient counselling and error reporting system, both of which they believe can be enhanced to guarantee patient safety. Khayyat et al. (2024) and Mamat et al. (2020) support that there are some issues in the implementation of the regulatory policies and the reasons are also some problems like inconsistencies following the policy and absence of proper monitoring. Collectively, these studies underpin imperatives to enhance ongoing regulatory frameworks, training programs, and client safety concepts in Saudi Arabian private pharmacies. This is consistent with the goal of promoting medication safety and decreasing risk associated with structures and well enforced regulations.

Results

Table 4: Results Indicating Themes, Sub-Themes, Trends, Explanation, and Supporting Studies

Theme	Sub-Theme	Trend	Explanation	Supporting Studies
Regulatory Compliance	Adherence to Policies	Inconsistent adherence	Private pharmacies display varying levels of compliance with regulatory policies.	Rasheed et al., 2020; Alzarea et al., 2023
	Policy Enforcement	Need for stricter enforcement	Inadequate policy enforcement leads to inconsistencies in patient safety practices.	Khayyat et al., 2024; Mamat et al., 2020
Patient Counseling	Counseling Gaps	Inadequate patient guidance	Insufficient counseling practices impact patient understanding and safety.	AL-Mutairi et al., 2021; Albalawi et al., 2023

	Training for Counseling	Importance of training	Training for pharmacists is essential to ensure effective patient counseling.	Ajabnoor & Cooper, 2020; Abdullah Al Hamid, 2024
Medication Safety	Standardized Protocols	Need for standardization	Standardized protocols are essential to reduce ADRs and ensure consistent safety practices.	Mirdad et al., 2023; Abdullah Al Hamid, 2024
	Error Reporting Systems	Underutilized systems	Existing error reporting systems are not fully utilized, impacting patient safety outcomes.	Albalawi et al., 2023; AL-Mutairi et al., 2021
Training and Preparedness	Continuous Education	Gaps in pharmacist training	Insufficient training limits the ability of pharmacists to adhere to updated safety standards.	Ajabnoor & Cooper, 2020; Rasheed et al., 2020
	Simulation Practices	Simulation-based training	Simulation training helps prepare pharmacists for real-world patient safety scenarios.	Khayyat et al., 2024; Mamat et al., 2020
Institutional Barriers	Resource Constraints	Lack of resources	Resource limitations hinder comprehensive implementation of safety practices in private pharmacies.	Rasheed et al., 2020; Mirdad et al., 2023
	Monitoring Mechanisms	Absence of monitoring	Inadequate monitoring contributes to	Khayyat et al., 2024;

			poor adherence to patient safety regulations.	Alzarea et al., 2023

Through the reviewed studies, a detailed account on how Saudi regulatory policies affect the safety of patients in private pharmacies is established. For example, Mirdad and colleagues (2023), and Abdullah Al Hamid (2024) stress the need for standardized safety protocols to a reduction in adverse drug reactions (ADRs) and optimization of patient safety and outcomes. Ajabnoor & Cooper (2020) and Rasheed et al. (2020), recommend strengthened training and strict regulatory policing to increase following of safety guidelines. Recurrence of themes included patient counseling and error reporting. However, gaps in these areas were identified by AL-Mutairi et al (2021) and ALbalawi (2023) who found that stronger reporting systems and improved counseling are important for patient safety. However, as observed by Khayyat et al. (2024) and Mamat et al. (2020), studies have shown different barriers to regulatory policy implementation, including inconsistent adherence and absence of monitoring. Taken collectively these studies support the need for further improvements of regulatory frameworks, increased training of pharmacists and systematic implementation of patient safety approaches in Saudi Arabian private pharmacies. These findings are consistent with other ongoing efforts to promote medication safety and reduce risk by enacting structured, and strongly enforced regulations.

Discussion

Key factors influencing patient safety in Saudi private pharmacies under regulatory policies were the focus of this systematic review. Major themes consistently observed in all the studies are regulatory compliance, standardized patient counseling, an error reporting system, and continuous training of pharmacists. Rasheed et al. (2020) and Alzarea et al. (2023) have some inconsistent findings regarding adherence to regulatory policies by private pharmacies one major finding. Inconsistency in this regard necessitates strict enforcement mechanisms and monitoring systems that can back the effective implementation of a policy and protect patient safety.

As critical aspects that need improvement are patient counseling and error reporting systems. According to studies conducted by AL-Mutairi et al. (2021) and Albalawi et al. (2023) there are gaps in patient counseling practices that impede patients' knowledge and understanding of medication use and safety. In addition, we noted that error reporting systems were underutilized that made it difficult to track adverse drug reactions (ADRs) and medication errors, and pointed to the need for additional training and incentives to report these issues.

Cultural and institutional barriers also matter as well. In their turn, Khayyat et al. (2024) and Mamat et al. (2020) indicated resource constraints as well as absence of monitoring that hinders consistency in usage of safety protocols. The results of these studies suggest that, although regulatory policies are important in assuring medication

safety, infrastructure and resources as well as policies are required to provide assurance of medication safety.

Another major finding is that continuous training is needed for pharmacists. Ajabnoor & Cooper (2020) and Abdullah Al Hamid (2024) both point out that pharmacists need to remain up to date with ever changing safety protocols and regulatory requirements through continuous education. The skills necessary to enhance patient safety are best learned through training in patient counseling, error reporting, and ethical decision making by pharmacists.

Future Directions

In the future, research should be conducted in order to understand how patient backgrounds, including cultural differences, might affect counseling and error reporting in Saudi private pharmacies. Finally, studies examining continuous training and simulation-based education as a means of educating pharmacists to comply with safety protocols over the long term could lead to training methods that will work. This study could be further investigated through structured communication practices to increase the interaction of pharmacists with patients, and focusing on how stronger policy support affects patient safety in private pharmacy settings. Research that would be useful in developing patient safety goals would include the creation of incentives for error reporting and compliance monitoring.

Limitations

There are several limitations of this review. Most of the studies included took place in the Saudi Arabian region which might reduce the overall generalization of the findings in other areas. Furthermore, the majority of the studies in the review were qualitative or observational and therefore limited to obtaining causal conclusions. Differences in study definitions, methodologies and outcomes have posed challenges to synthesizing and consistent findings from beyond. Nevertheless, the themes identified in this thesis offer important insights into the factors which affect patient safety in private pharmacies.

Conclusion

To improve patient safety in Saudi private pharmacies, a whole approach is needed involving adherence to regulatory policies, standardized counseling protocols, continuous training, and institutional support is needed. Pharmacists needs to develop structured protocols for counseling, error reporting or compliance in order to increase patient safety. To enable pharmacists to effectively navigate the regulatory compliance and patient interaction complexities, pharmacists need clear role definitions, ongoing ethics education and communication frameworks that help answer continually evolving questions. Quite a few of the approaches in this study can assist in creating an environment that considers patient safety first; one where private pharmacy is offered a chance to provide fair and patient centered care in an environment that is governed.

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