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Healthcare Professionals' Perception Toward Pain Killers Misuse Among General Population In KSA: A Systematic Review

Hanyah Abdulhadi Alkhify[1], Hoda Jehad Abpusada[2], Hanan Abdullah Alrashidi[3], Sultan Salem Almohammadi[4], Dalya Fayez Alenazi[4], Abdulaziz Abdullah Alanazi[4], Lamia Naiaf Alotaibi[5], Omar Mohamad Alenazi[5], Areej Basheer Alanazi[5], Harbiyyah Mashan Alharbi[5], Hayat Abdulrazaq Alenezi[5], Afaf Shati Alenazi[6], Sbah Abdullah Asiri[6], Maha Basheer Alenazi[6] and Sabah Shati Alenazi[7]

Abstract

Background: *Medication misuse and abuse, particularly of painkillers, pose significant public health challenges worldwide, including in the Kingdom of Saudi Arabia (KSA). Healthcare professionals play a crucial role in identifying and addressing these issues. This systematic review aimed to explore healthcare professionals' perceptions regarding painkiller misuse among the general population in KSA.*

Methods: *A comprehensive search was conducted in electronic databases and gray literature sources to identify qualitative and quantitative studies investigating healthcare professionals' perceptions of painkiller misuse in KSA. Two independent reviewers screened articles for relevance and assessed full-text articles for eligibility. Data extraction was performed using a predefined form, and included studies were synthesized narratively.*

Results: *Out of 117 identified studies, five met the inclusion criteria. These studies employed diverse methodologies, including cross-sectional surveys, qualitative interviews, and questionnaire surveys, to investigate healthcare professionals' perceptions of medication misuse and abuse in KSA. Findings revealed significant suspicions of pregabalin abuse among community pharmacists, commonly misused over-the-counter medicines, high prevalence[1] of suspected inappropriate use of prescription and non-prescription drugs, ethical concerns regarding dispensing controlled drugs, and alarming rates of self-medication with analgesics among medical students and interns.*

Conclusion: *This review highlights the multifaceted nature of medication misuse and abuse among healthcare professionals in KSA. Addressing these challenges requires comprehensive strategies, including enhanced monitoring, regulatory measures, educational programs, and*

[1] Obestetric & gynecologists consultant, Althager Hospital, Jeddah, KSA
[2] Obstetric & Gynecology, KFSH, Jeddah , KSA
[3] Medical Doctor, second cluster, Riyadh, KSA
[4] Pharmacist, second cluster, Riyadh, KSA
[5] Nursing Specialist, second cluster, Riyadh,KSA
[6] Nursing Technician,second cluster, Riyadh,KSA
[7] Nursing Technician, Hafr AlBatin health cluster,KSA

increased awareness. However, the limited number of included studies underscores the need for further research in this area to inform effective interventions and policies.

Introduction

There is evidence that prescription medication addiction and misuse is a worldwide problem [1]. "Patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community" [2] is how the World Health Organization has described drug usage. Patients engage in drug abuse when they utilize pharmaceuticals in a manner that differs from how their doctors have prescribed them [3]. But according to the National Institute on medicine Abuse (NIDA), "taking a drug in a way or dosage that is not prescribed; taking somebody's prescription, even though it is for a valid medical reason like pain; or taking a drug to feel euphoric" is how prescription drug abuse is defined. Four, five. Contrarily, drug abuse refers to the misuse of drugs, which goes beyond both medical and legal guidelines. Neither of these methods is approved for the use of medicine [3]. According to records, a major source of misuse is the euphoria that manifests as an unpleasant response in around 10% of patients [6]. The United Nations Office on Drugs and Crime reports that 29.5 million teenagers, or about 5% of those who took drugs at least once in 2015, have a drug use problem [3,7]. The monetary risk to public health from drug abuse is rising. The estimated yearly societal costs of problematic drug use in the United Kingdom are around GBP 11,961 million, or GBP 35,455 per user [8,9]. Though data on drug use in Saudi Arabia is scant, what little there is suggests that alcohol, cannabis, and opioids are among the most often used substances in rehabs [10].

There is substantial evidence that the potential for misuse of some OTC medications, including opioids, antihistamines, and laxatives, poses a significant problem in the community pharmacy context [11–15]. Concerns about over-the-counter medication addiction and misuse raise ethical and clinical red flags. When people take over-the-counter medicines for reasons other than their intended medical use, such as to lose weight or experience mind-altering effects, this is known as drug abuse [11,16]. Abuse of over-the-counter pharmaceuticals occurs when people use medications for medicinal reasons, but they do it incorrectly, usually in terms of how long they take them or what amount they use [11].

As far as anybody can tell, a lot of Saudis utilize over-the-counter drugs [17]. Researchers in Arab nations have shown that drug misuse is on the rise due to the region's very rapid economic growth [18,19]. Evidenced by cross-sectional epidemiologic studies conducted at elementary, middle, and high schools as well as institutions of higher learning, a regional research in Saudi Arabia found a rather high prevalence of psychoactive drug intake [19]. Cannabis(51.4%), glue/solvents(48.6%), and amphetamine(45.7%) were the most often utilized illicit psychoactive drugs. Somewhere between 10% and 79.6% of people who used stimulants for the central nervous system were dependent on them, according to another regional survey [20]. According to the policy and regulations for delivery of narcotic and controlled pharmaceuticals provided by the Saudi Arabian Ministry of Health, narcotic and controlled drug prescriptions are categorized by specialization, department (emergency vs. clinic), or supply of prescribed medication. For example, according to the aforementioned laws, it is illegal to prescribe narcotics for a period longer than sixty days [21].

It has been suggested that pharmacists have an observing role in drug misuse among healthcare workers [22]. Essential functions of pharmacists include monitoring for drug addiction and misuse, determining the severity of patients' conditions, referring them to appropriate levels of

treatment, and providing appropriate instructions to those in recovery [23]. Many pharmacists may lack sufficient information concerning drug usage, despite the critical role they play. It is possible that pharmacists lack the necessary training to identify, intervene with, or manage individuals who are struggling with substance misuse. Only 48% of pharmacists have received training in combating medication diversion, according to a 2005 research [23,24]. There was a lack of education among pharmacists, namely on the need of early recording, referral, and patient counseling, which was cited as a barrier to successful drug abuser mediation [25]. There needs to be more training for pharmacists to advise patients who are addicted to drugs, according to a number of studies on drug misuse courses at pharmacy schools [26,27]. The efficiency of healthcare professionals in restricting over-the-counter drug usage and abuse may be enhanced by enhancing their understanding of the subject via the implementation of relevant programs.

Methods

Review Question

This systematic review aimed to explore healthcare professionals' perceptions regarding the misuse of painkillers among the general population in the Kingdom of Saudi Arabia (KSA).

Search Strategy

A comprehensive search was conducted in relevant electronic databases including PubMed, MEDLINE, Embase, PsycINFO, and CINAHL. Additionally, gray literature sources such as conference proceedings and relevant organizational websites were searched. The search strategy included keywords related to healthcare professionals, perceptions, painkiller misuse, and the Saudi Arabian context.

Types of Studies Included

This review included both qualitative and quantitative studies that investigated healthcare professionals' perceptions of painkiller misuse among the general population in KSA. Studies employing various methodologies such as surveys, interviews, focus groups, and observational studies were considered.

Participants

The participants of interest in this review were healthcare professionals practicing in Saudi Arabia, including but not limited to physicians, nurses, pharmacists, and other allied healthcare providers. Studies involving healthcare professionals from diverse specialties and settings were included.

Search Keywords

Keywords for the search strategy included terms such as healthcare professionals, perceptions, attitudes, beliefs, painkiller misuse, abuse, opioids, analgesics, Saudi Arabia, KSA, and related variations. Boolean operators were used to combine these keywords effectively.

Study Selection Process

Two independent reviewers screened titles and abstracts of identified articles for relevance. Full-text articles meeting the inclusion criteria were further assessed for eligibility. Any discrepancies between reviewers were resolved through discussion or consultation with a third reviewer if necessary.

Outcomes

The primary outcome of interest was the perception of healthcare professionals toward painkiller misuse among the general population in KSA. This included attitudes, beliefs, knowledge, and experiences related to the misuse of painkillers, as reported in the included studies.

Data Extraction and Coding

Data extraction was performed independently by two reviewers using a predefined data extraction form. Extracted data included study characteristics (e.g., author, year of publication), participant demographics, study methodology, and key findings related to healthcare professionals' perceptions of painkiller misuse. Any discrepancies were resolved through discussion and consensus.

Data Management

All retrieved citations were imported into reference management software for removal of duplicates and organization. EndNote or similar software was used to manage records throughout the review process. Detailed documentation of the search strategy, study selection process, and data extraction was maintained for transparency and reproducibility.

Results

The initial search identified a total of 117 studies from PubMed, Embase, Cochrane Library, and CINAHL. There were no duplicates and 121 studies were screened based on their titles and abstracts. Of these, 13 full-text articles were reviewed, and only five studies were eligible for inclusion in this systematic review (Figure 1).

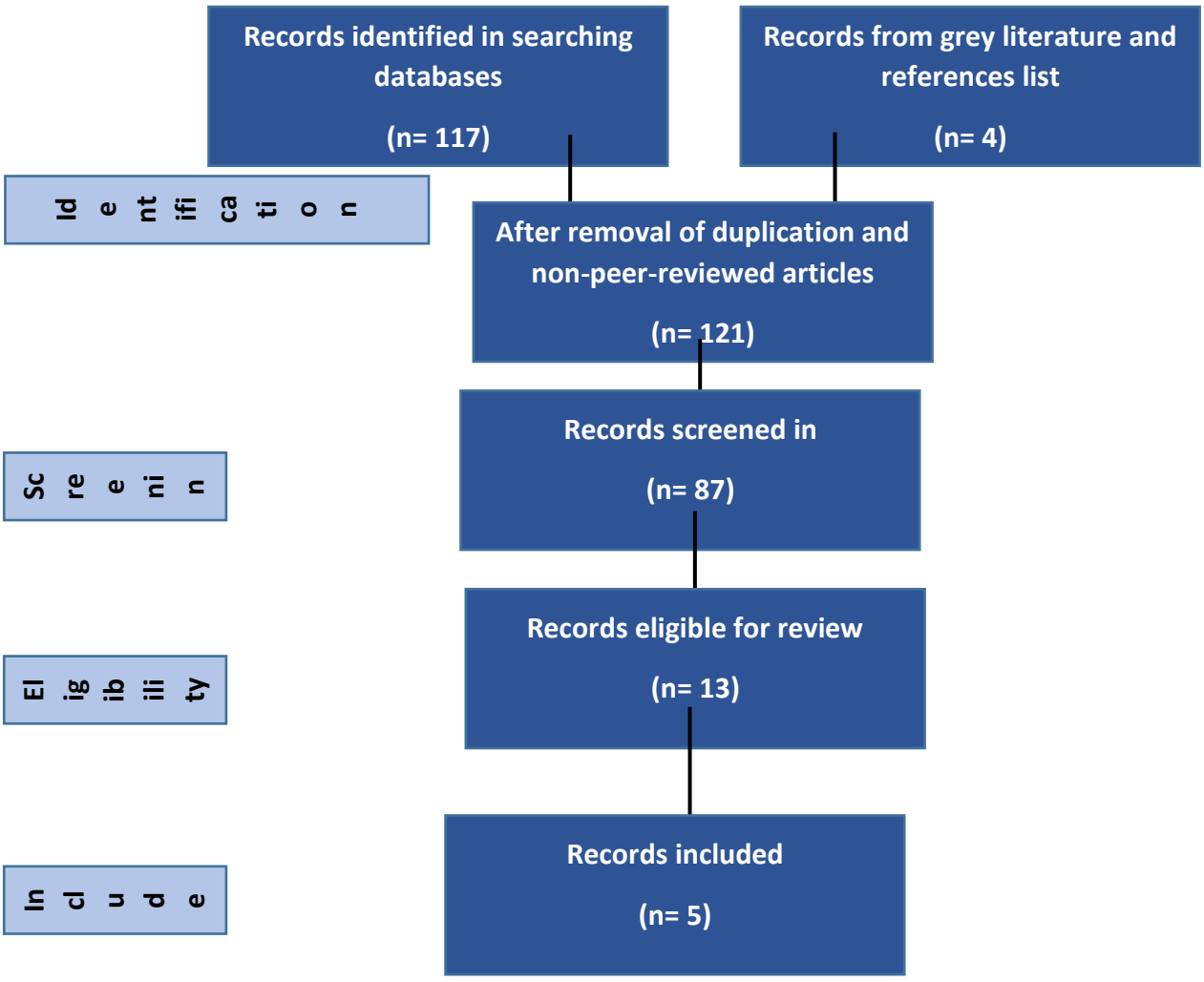

Figure 1: Flow chart of selection process

The included studies employed diverse methodologies to investigate healthcare professionals' perceptions and experiences regarding medication misuse and abuse in Saudi Arabia. Alshahrani et al. [28] conducted a cross-sectional survey among community pharmacists in the Aseer region, providing quantitative data on perceptions towards pregabalin abuse [28]. Algarni et al. [29] utilized qualitative interviews with community pharmacists to explore views and experiences regarding over-the-counter medicines misuse and abuse [29]. Yasmeen et al. [30] employed a questionnaire-based survey to gather perspectives on inappropriate use of prescription and non-prescription drugs among community pharmacists [30]. Mobrad et al. [31] conducted a cross-sectional study among community pharmacists in Riyadh city, assessing knowledge, attitudes, and beliefs regarding drug abuse and misuse [31]. Ibrahim et al. [32] utilized a cross-sectional study design among medical students and interns to determine the prevalence and predictors of self-medication with analgesics [32].

The findings of the included studies revealed various aspects of medication misuse and abuse among healthcare professionals in Saudi Arabia. Alshahrani et al. [28] highlighted a significant suspicion of pregabalin abuse among community pharmacists in the Aseer region, particularly

noting a male dominance among abusers [28]. Algarni et al. [29] identified commonly misused over-the-counter medicines and pharmacists' interventions to manage misuse and abuse [29]. Yasmeen et al. [30] reported high levels of suspected inappropriate use of both prescription and non-prescription drugs among community pharmacists, with commonly misused drug categories identified [30]. Mobrad et al. [31] revealed that while the majority of pharmacists had received training on recognizing drug abuse, ethical concerns regarding dispensing controlled drugs were prevalent [31]. Ibrahim et al. [32] identified alarming rates of self-medication with analgesics among medical students and interns, with living with family identified as a significant predictor of analgesic self-medication [32]. Table 1 summarizes characteristics of studies included in the current review.

Table 1: Characteristics of included studies							
Authors	Year	Design	Setting	Sample	Main Findings	Implications	Limitations
Alshahrani et al. [28]	2021	Cross-sectional survey	Aseer region, Saudi Arabia	Community pharmacists	Significant suspicion of pregabalin abuse; male dominance among abusers; increased abuse compared to previous year.	Emphasizes the need for monitoring and regulations to mitigate abuse.	Limited generalizability due to regional focus; potential for response bias.
Algarni et al. [29]	2022	Qualitative interviews	AL-Baha region, Saudi Arabia	Community pharmacists	Identified commonly misused over-the-counter medicines; pharmacists' interventions to manage misuse and abuse.	Highlights the importance of upskilling pharmacists and implementing comprehensive regulations.	Limited generalizability due to regional focus; qualitative nature may limit general applicability.
Yasmeen et al. [30]	2023	Questionnaire survey	Saudi Arabia	Community pharmacists	High prevalence of suspected inappropriate use of both prescription and non-prescription drugs; commonly misused drug categories.	Calls for stringent dispensing regulations and educational programs to address misuse and abuse effectively.	Potential for recall bias; convenience sampling may limit generalizability.
Mobrad et al. [31]	2020	Cross-sectional study	Riyadh city, Saudi Arabia	Community pharmacists	Majority had received training on recognizing drug abuse; ethical concerns regarding dispensing	Suggests the importance of effective implementation of pharmaceutical rules and laws.	Potential for social desirability bias; limited to Riyadh city, may not represent the whole country.

					controlled drugs were prevalent.		
Ibrahim et al. [32]	2015	Cross-sectional study	King Abdulaziz University, Jeddah, Saudi Arabia	Medical students and interns	Alarming rates of self-medication with analgesics; living with family identified as a significant predictor of analgesic self-medication.	Emphasizes the need for educational, regulatory, and managerial strategies to improve self-medication practices among students.	Limited to a specific population of medical students and interns; potential for recall bias due to self-reporting.

Discussion

This analysis highlighted the views of Saudi Arabian community healthcare providers on the subject of painkiller addiction and misuse. In Saudi Arabia's Aseer area, there has been no research on community pharmacists' perspectives on pregabalin abuse. Still, researchers in the Aseer area looked at the frequency of pregabalin misuse among medical professionals (doctors, pharmacists, nurses, and paramedical workers) from 2017 to 2018. According to this survey of medical practitioners, 42.9% of abusers used pregabalin to alleviate stress, and 52.2% of abusers combined the medication with another substance [33]. Drug usage and misuse in Saudi Arabia is at an alarming level, according to 48.9% of respondents (n = 44) in a cross-sectional survey conducted in the Eastern Region of Saudi Arabia [3]. In 2005, pregabalin was placed on schedule V in the United States, and in 2017, it was placed on schedule III in Jordan [34]. While it is illegal to sell high-alert pain relievers without a doctor's prescription in Saudi Arabia, there have been allegations of this happening anyhow. There has been an increase in the number of proven instances of pregabalin misuse at community pharmacies, in our opinion.

Reports indicate that pharmacists do not get sufficient training or education on drug misuse. Particularly those pursuing careers in pharmacy and those already working in the field lack the necessary skills to recognize, communicate with, and manage patients and coworkers who are struggling with substance misuse [35]. To ensure public safety and uphold professional boundaries, the pharmacy profession has established licensing laws and codes of ethics [36]. Because community pharmacists are the first responders to patient concerns and the most effective defense against drug abuse (both prescription and non-prescription), it is believed that drug scheduling and stricter inspections of community pharmacies selling the drug would reduce the problem [34,37]. When asked to fill antipsychotic prescriptions by coworkers, 89.5% of community pharmacists did so without first checking the paperwork [38]. Pregabalin was requested to be sold by 19.4% of community pharmacists in this research without a prescription. On the other hand, survey results show that prescription medicine dispensing is crucial to community pharmacies' bottom lines (36.4 percent) [35]. Overall, 55.3% of community pharmacists in the research [28] that they received incentives while selling medications.

The majority of the suspicious demands for pregabalin in the last six months came from patients claiming to have back pain (29.1%), neuropathy (21.4%), epilepsy (18.9%), or chronic pain (16%), according to a study of community pharmacists [28]. The most common dosage strengths were 75 mg and 150 mg. A prior study found that 28.6% of pregabalin users sought exhilaration from the medicine, whereas 42.9% sought relief from stress [33]. In addition, 80.1% of the cases in this research had suspicions of pregabalin abuse in men. Among medical experts, this research is comparable to one that came before it in the Aseer region [33]. A number of further research articles [34,39,40] investigate male gender as a potential factor contributing to addictive behavior. Additionally, it was shown that compared to regular or local clients, non-regular customers from other countries are more prone to misuse pregabalin products [28].

While some pharmacists did saw a decline in pregabalin abuse and misuse tendencies of 38.7 percent, the bulk reported an increase of 61.7% over the previous year [28]. Also highlighted by Al-Husseini and colleagues [34] is the possibility that sales incentives provided by customers are to blame for the rise in the usage of painkillers. It was shown that pharmacists with less than one year of experience were the ones more engaged when it came to the perceived change in pregabalin misuse throughout the past year. A research found that out of all community pharmacists surveyed, only 71% had received thorough training on drug usage and

abuse after graduating from pharmacy school [41]. Only 48% had received training to avoid drug addiction, according to a 2005 poll by the Center on Addiction and Substance Abuse [42]. Having said that, research has shown that the majority of community pharmacists learn how to recognize signs of drug misuse or dependence while pursuing their bachelor's degree in pharmacy. On the other hand, according to previous research [35,36], around 85.8% of community pharmacists expressed an interest in furthering their education in the field of drug misuse. Residency programs in pharmacy should include training or expertise in drug addiction treatment and community service, and pharmacists should be encouraged to participate in these studies [36].

Here, a pharmacist's professional and ethical discretion is crucial, as prescription-only medication does not allow them to distribute medications without a doctor's signed prescription [28]. It is possible that some drugstores may react by selling a lot of the desired items [34]. The request for pregabalin was approved by 9.7 percent of community pharmacists in the research [28], even though this was an unethical practice. In this research, community pharmacists in the Aseer region were asked to reduce the misuse of pregabalin products by implementing government-imposed legal limits. A majority of the community pharmacists (55.6%) agreed with this statement [28]. Traditional methods used by pharmacists include outright refusal to sell, hiding the medications, or requiring a doctor's prescription [44,45]. According to our data, 85.9% of community pharmacists are willing to prohibit sales in order to restrict the access of suspicious consumers. Patients may easily get their hands on products from other pharmacies, rendering these approaches useless [46]. Connecting all pharmacies on a national level via an electronic system may routinely notify other local pharmacies if a suspected abuser is detected, which can lessen the severity of the problem. Training for community pharmacists and more cooperation amongst healthcare providers are prerequisites for this paradigm [46,47].

Conclusion

This systematic review examined healthcare professionals' perceptions and experiences regarding medication misuse and abuse in Saudi Arabia. Despite an initial pool of 117 studies, only five were deemed eligible for inclusion, underscoring the limited available research in this area. Nevertheless, the included studies utilized diverse methodologies, ranging from cross-sectional surveys to qualitative interviews and analyses. Each study shed light on different facets of medication misuse and abuse among healthcare professionals, highlighting significant suspicions of abuse, commonly misused medications, pharmacists' interventions, and ethical concerns surrounding dispensing controlled drugs. The findings underscore the importance of addressing medication misuse and abuse through multifaceted approaches, including enhanced monitoring, regulatory measures, educational programs, and increased awareness among healthcare professionals and the public. However, the review also acknowledges the limitations of the available evidence, including regional focus, potential for bias, and limited generalizability. Future research efforts should aim to expand upon these findings and develop comprehensive strategies to mitigate medication misuse and abuse in Saudi Arabia effectively.

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