



Original Article

Knowledge, Attitude and Experience of Community Pharmacy Practitioners Regarding Abuse and Misuse of Prescription and Non-Prescription Drugs in Zawia City-Libya: A Cross-Sectional Study

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ABSTRACT

Background and Aim: The misuse and abuse of prescription and over-the-counter drugs present a significant global public health concern, particularly in Libya, where there is a lack of information regarding the knowledge and perspectives of community pharmacy personnel on this issue. This study aims to assess the knowledge, attitudes, and experiences of community pharmacy practitioners concerning the misuse/abuse of prescription and non-prescription medicines. To identify the strategies employed to mitigate drug misuse and abuse. **Material and Methods:** A cross-sectional study utilizing a standardized questionnaire was undertaken among 170 community pharmacy practitioners in Zawia City between January and March 2023, with data analysis conducted using SPSS. **Results:** Out of the 170 participants surveyed, 150 provided responses, yielding insights that 77.9% of respondents were able to differentiate between drug abuse and misuse. 81.3% believed that some OTC medicines were being misused /abused in their pharmacy. 75% of the study sample thought that it was unethical to sell misused controlled drugs. The two most used strategies were advising consumers about adverse drug reactions (69.3%) and refusal to sell (58.6%). **Conclusion:** This study has provided valuable insights into community pharmacy practitioners' knowledge, attitudes, and perspectives regarding the misuse/abuse of OTC and prescription medicines. Strategies for OTC medicine regulations, ongoing pharmacy educational and training programs, and patient awareness are imperative to mitigate the risks associated with drug misuse and abuse.

Keywords: Prescription drugs, OTC drugs, Abuse, Misuse, Community Pharmacy practitioners, Libya.

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INTRODUCTION:

Drug misuse and abuse are a considerable global issue with varied physical, social, and financial consequences. There may be confusion between the terms 'misuse' and 'abuse', and sometimes they are used interchangeably; however, they have different meanings. Misuse of drugs refers to using them for purposes other than those prescribed, taking nonprescribed medications, or using them at a higher dose or longer than directed. In contrast, 'abuse' refers to using drugs for nonmedical reasons, such as seeking mind-altering effects [1]. Several over-the-counter medications (OTC) are associated with misuse problems and potential for abuse. Furthermore, they were documented to have harmful health outcomes similar to those caused by illicit drugs, such as psychosis, tachycardia, and seizures [2]. Various reasons contribute to exacerbating the misuse/abuse of OTC drugs, such as easy accessibility to drugs without a prescription and increasing self-medication, especially among young individuals [3]. Frequently misused OTC medications were used to lose weight or achieve euphoric feelings, including antihistamines, sedatives, pain relievers, including antihistamines, sedatives, pain relievers, caffeine, ephedrine, pseudoephedrine, cough suppressants and expectorants, codeine or other opiate-containing medications, dextromethorphan, anabolic steroids, and laxatives [4]. Since the coronavirus epidemic, patients have relied on themselves in making treatment choices for their mild illnesses [5]. On the contrary, the three classes that are frequently abused are opioids, central nervous system (CNS) depressants, and stimulants [6]. Misuse or abuse of prescription drugs can lead to serious, potentially fatal complications influenced by the specific medication. Abuse of opioid causes respiratory failure and coma, whereas misusing sedatives and stimulants may sudden respiratory depression and cardiac failure, respectively [7].

Several studies conducted in Libya revealed that misuse of some OTC medications, systemic antibiotics, and self-medication was widely practiced among the Libyan population [9–12]. Another study

The first section requested respondents to provide their demographic information, including age, gender, level of education, and years of experience. The second section focused on assessing respondents' knowledge, attitudes, and opinions regarding the overuse and abuse of drugs. In the third section,

reported that there was a rise in prescription drug abuse, particularly with diazepam sedative-hypnotics [7]. The pharmacy is the primary source for these medications, and pharmacists can regulate drug dispensing and consult patients about their medications. Consequently, it is essential for pharmacists to have the confidence and skills to provide psychosocial and medical advice regarding addiction issues and their risks [10]. Enhancing community pharmacy practitioners' knowledge of drug misuse and abuse through effective programs will improve their ability to restrain the misuse of OTC and prescription medications.

To the best of our knowledge, limited research has focused on community pharmacists' and pharmacy practitioners' knowledge, attitudes, and practices toward the inappropriate use of medications in Libya. Therefore, this study aims to evaluate community pharmacists and pharmacy practitioners' knowledge, attitudes, and beliefs regarding prescription and non-prescription drug misuse and abuse in Zawia city. Also, it aims to explore community pharmacy practitioners' perspectives on strategies to reduce drug misuse and abuse.

MATERIALS AND METHODS:

Study Design:

A cross-sectional study was conducted among community pharmacies allocated randomly in Zawia, Libya, from January to March 2023. The intended sample size was 170 community pharmacy practitioners. To make the necessary adjustments, the study was piloted on 10% of the target population (n = 17 community pharmacists). The validated questionnaire was distributed using a "drop and pick" technique. All study participants were informed about the study's purpose, and their participation was voluntary. Anonymity and confidentiality were strictly maintained throughout the study.

Data collection:

The validated questionnaire utilized in this study was adapted from previous research conducted in Jordan and the Kingdom of Saudi Arabia [13–15]. The questionnaire comprised five sections.

respondents were asked about their beliefs regarding drug abuse/misuse. The fourth section displayed the common. Packages for the Social Sciences (SPSS V. 25), which include Frequency Tables, pie charts, bar charts, and the chi-square

1: Demographic data of participants:

strategies used to mitigate abuse and misuse. Finally, the fifth section explored the perspectives of To evaluate the responses of the study sample, descriptive statistics have been used to analyze the data and test the hypotheses using Statistical

participants on strategies to reduce drug misuse and abuse.

Statistical Analysis:

RESULTS:

Out of the 170 participants surveyed, 150 provided responses. The demographic data of participants is presented in Table 1.

Table 1: Demographic data of participants

	Count	%
Age		
< 24	60	40%
25-34	72	48%
35-40	15	10%
> 40	3	2.0%
Gender		
Male	55	36.6%
Female	95	63.3%
Education level		
Pharmacy students	53	35.3%
Medical students	40	26.6%
Bachelor of Pharmacy	32	21.5%
Bachelor of medicine	14	9.3%
Bachelor of dentistry	11	7.4%
Years of experience		
< 1	32	21.3%
1-5	91	60.6%
6-10	20	13.3%
>10	7	4.6%

Table 2: Participants' knowledge, attitude, and experience with drug misuse and abuse

Questions	Yes		No		Don't know		P-value
	Count	%	Count	%	Count	%	
Do you know the difference between the terms "drug abuse" and "misuse"?	116	77.3	12	8.0	22	14.6	0.00
Have you had any courses about abuse during your study?	59	39.3	38	25.3	53	35.3	0.074

Are there any OTC products you think are being misused/abused in your pharmacy?	122	81.3	19	12.6	9	6	0.000
Do you personally know someone dependent on or addicted to any OTCs?	106	70.6	36	24	8	5.3	0.000
Have you ever considered consumers to be dependent on or addicted to any OTCs?	109	72.6	27	18	14	9.3	0.000
Do you think that the legal restrictions applied by the government help in reducing prescription drug abuse?	77	51.3	27	18.0	46	30.6	0.000
It is suitable to advise suspected drug misusers in pharmacy about the risks	132	88	7	4.6	11	7.3	0.000

In **Table 2**, the participants' knowledge, attitudes, and experience about drug misuse and abuse are assessed on a 3-point Likert scale.

Table 3: Participants' beliefs about drug misuse and abuse:

Questions	Agree		Disagree		Not sure		P- value
	Count	%	Count	%	Count	%	
Some OTC medications may cause dependence	120	80	10	6.6	20	13.3	0.000
Dispensing controlled drugs without a prescription is an essential source of money for the pharmacy	98	65.3	27	24	16	10.6	0.000
I believe that it is unethical to sell misusers controlled drugs	113	75.3	11	7.3	26	17.3	0.000
I believe that controlled drugs must be dispensed through the pharmacy instead of a central clinic	80	53.3	29	19.3	41	27.3	0.000

The results presented in **Table 3** explore the participants' beliefs regarding drug misuse and abuse.

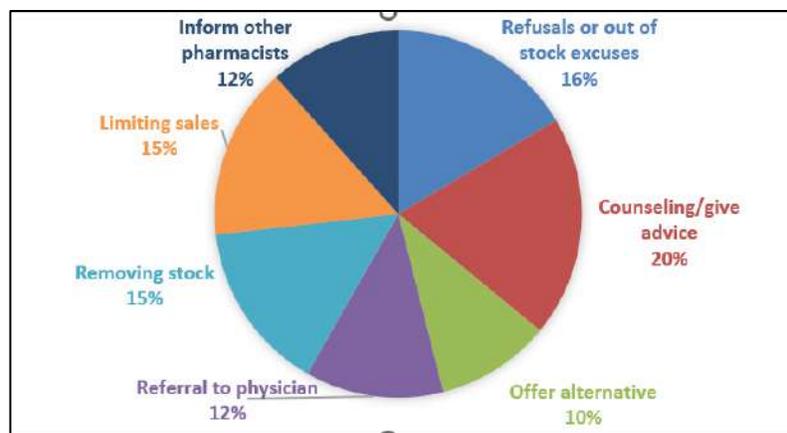


Figure 1: Common strategies employed by community pharmacy practitioners to reduce abuse/misuse:

The results presented in **Figure 1** revealed different strategies employed by community pharmacy practitioners to reduce abuse/misuse.

Table 4: Perspectives of respondents on strategies used to decrease drug misuse and abuse

	Strongly agree/ agree		Strongly disagree/ disagree		Not sure	
	Count	%	Count	%	Count	%
All pharmacy staff must be trained on recognizing drug abusers	133	88.6	5	3.3	11	7.4
All pharmacy staff must be informed of the kinds of drugs abused in the local area of the pharmacy	131	87.3	8	5.3	10	6.7
All staff should be trained on how to deal with drug abusers	125	83.3	9	6.0	15	10.1
All staff should be informed of drugs likely causes abuse	103	68.6	11	7.3	35	23.5
All suspected abusers should be referred to a physician	82	54.6	10	6.6	57	38.3

Table 4, the study reveals the participants' perspectives on strategies to reduce drug misuse and abuse.

DISCUSSION:

In general, our results demonstrate a good knowledge and attitude regarding drug abuse/misuse. Several studies reported that pharmacy students are not sufficiently educated to classify, intervene, or treat patients and colleagues with substance abuse issues. Additionally, they did not receive adequate training on drug misuse and abuse, nor on managing patients with dependence and addiction issues during their studies [16]. Similar findings were observed in this study, 39.3% of participants stated that they had a course about abuse during their bachelor's degree. This was not surprising since 43.3% of the study sample were medical professionals practicing pharmacy. Nonetheless, most participants (89.3%) believe that every pharmacy staff member should receive training on recognizing abuse and dependence. These results underscore the need for increased educational initiatives and training programs addressing drug abuse both prior to and following graduation. Additionally, pharmacy residency programs should include specialized training, and pharmacists should be encouraged to participate in community service and research related to drug abuse management.

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Pharmacists play a vital role by supplying current information to patients and healthcare providers while also overseeing the utilization and potential misuse of controlled substances as required by drug regulatory agencies [17]. Our study showed that most participants offered appropriate guidance, either verbally or in writing, regarding the risks associated with drug use and its management within their pharmacies. A study from the United Kingdom reported that pharmacy staff rarely or never questioned individuals who were or had previously been dependent on their purchases [18]. Participants who spent more time counseling patients were more adept at identifying abuse issues, evaluating their severity, and providing valuable guidance for those in recovery. This emphasizes the necessity of logistical support for pharmacists and pharmacy practitioners in their practice settings to offer such counseling and services effectively and professionally.

Of the notable results regarding ethical concerns, about 65.3% of participants believe that dispensing controlled medications without a prescription is an essential income source for pharmacies. This was high compared to a Jordanian and Saudi study that

reported 34.4% and 36.4% of participants held the same view, respectively [14-19]. Nevertheless, three-quarters of those surveyed consider it unethical to sell controlled substances to misusers. No doubt, pharmacy owners often maintain a business alongside their healthcare services, which may promote ethical problems. Unfortunately, in Libya, some private pharmacies and wholesalers work without licenses. Owners and dispensers at some of them are not pharmacists [20]. This confirms the need for the Food and Drug Control Center to monitor and enforce legislation and regulations to prevent illegal, unethical, and unprofessional practices.

The strategies used by participants to reduce misuse/abuse were similar to those in other studies [7,8,10,14], which include: counseling about the expected adverse effects, refusing to sell or limiting sales, removing stock, and referring to a physician. However, these actions may not be effective as the consumers indulge in pharmacy hopping to attain medications [21]. Our findings suggest that public awareness about the risks of misuse/abuse of prescription and non-prescription drugs is necessary to encounter the misuse/abuse issue. Additional training and educational programs for pharmacy staff on all subjects of addiction to assume a leadership role in detecting and preventing prescription drug abuse.

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