**Pharmacists protect the community by assisting in the reduction of drug abuse and dependence in Iraq's al-Basra province.**

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**Abstract**

**Background:** Prescription drugs are well-known to be highly addictive, which contributes to the epidemic that continues to affect people in our country. Pharmacists act as gatekeepers between prescribers of these drugs and their patients, putting them in an ideal position to screen for drug misuse among patients getting these prescriptions and counsel them on safe usage.

**Objectives:** The pharmacist's ethical responsibility is to serve the community. The pharmacist's advice to patients is one of the services provided to the public in order to improve their condition. This service also aims to assist people in troubleshooting and resolving issues related to behavior change. However, it may also assist a drug abuser in making a successful attempt to quit. The goal of this study is to look into pharmacists' roles in reducing addiction and substance abuse.

**Methods:** Following the training, participating pharmacists were given all of the materials and topics related to the misuse of drugs that cause risk, such as addiction. The 244 volunteers were analyzed, and divided into two main groups, the first one for adult cases and the other for pediatric cases. The adult population was divided into subgroups based on their health status. All ages were considered as part of the inclusion criteria, and interviews began on July 10 and ran through August 20, 2022. After data collection was complete, a t-test was used to analyze the data and determine significance.

**Results:** Following this survey, the results show that of the 230 participants who were enrolled, 70.1% were identified as healthy individuals, while 29.9% had chronic diseases like cardiac disease, diabetes, and respiratory problems. Among the 20%, 17.7%, 14.8%, 13.5%, and 13.5% of participants who received education on the advantages and risks of using diazepam and allermine tablets, amitriptyline tablets, lyrica capsules, rivotril, and tegretol tablets, respectively. In this research project, the participating pharmacists also reported an improved ability to identify and diagnose patients at risk of drug overdoses as a result of training received before the study began. This improved the conversation with the patients, ultimately leading to advanced patient care and patient education.

**Conclusion:** Pharmacists play a vital role in preventing drug abuse and overdose, but their work is constricted by structural factors in the pharmacy profession. Community pharmacists additionally offer clinical preventive services, such as education, screenings, to enhance population health.

**Keywords:** Community pharmacist, pharmacist, gatekeeper, drug abuse, addiction.

**Introduction**

 Community specialist pharmacists are accustomed to performing specific tasks such as formulating, marketing, and distributing medicines. As healthcare professionals, this has allowed them to specialize and exercise independence. However, due to the rapid development of science, research, and education, the changing social, economic, and cultural conditions of many populations, and the increasing demands of patients. These changes eventually led to the gradual emergence of roles for pharmacists in these specialties(1). To adapt to the changing environment and the growing needs of patients, as well as to maximize the utilization of community pharmacists' unique structured knowledge of a drug's safety profile (side effects, interactions, and contraindications)(2), drug efficacy, patients' preferences, monitoring outcomes, and drug selection, new roles were introduced to the community pharmacy profession(3).

 Several studies have shown that expanding community pharmacists' involvement can result in a variety of advantages for patients, including improved treatment quality, optimized medication therapy(4), reduced general practitioner workload, and lower long-term healthcare expenditures. Improvements in professional standing, work satisfaction, and pay are among the possible benefits for community pharmacists(5). However, potential drawbacks of expanding the role of community pharmacists include greater effort and the development of a troubled relationship between pharmacists and physicians(6). Community pharmacists may be well positioned to improve appropriate service utilization, either via direct service delivery or by offering education and recommendations(7). Because over 70% of Iraqis reside in areas with a community pharmacy, there is a potential for other health care and public health experts to collaborate with community pharmacists to increase the population's access to clinical preventive treatments(8).

 In the last decade, the abuse of medications that produce addiction, such as hypnotics and opiates, has swept over the country and most communities(9). The harm caused by increasing cases of these medications' usage has been significant, including emergency and inpatient hospitalizations, as well as overdose mortality, and it is still not decreasing(10). Concerns that many people abusing prescription drugs used a prescription drug as their entry point and that many patients did not consider these drugs to be unsafe because they had been prescribed by a healthcare provider have made the current crisis more complicated for pharmacists(11). Pharmacists act as the guardians of patients' safe medication use. As part of this, the appropriateness and safety of the medication being prescribed must be confirmed, and the patient must be informed about how to use it properly(12). The objective of the project was to identify and diagnose the number of people during the study period who abused addiction treatments for all patients receiving prescriptions for these drugs. Patient records given by participating pharmacists were used to assess this goal. This qualitative study will advocate for the pharmacist to have a more proactive role in the prevention of drug misuse(13).

**Material and method**

 Some of the interested pharmacists from community pharmacies throughout Basrah were invited to participate in the study through an information campaign organized by the clinical pharmacy section in the Basrah health directorate. The owners of five pharmacies agreed to participate. Following the training, participating pharmacists were given all of the elements and topics of the misuse of drugs that cause risk, such as addiction(13).

 The data of a total of 244 volunteers were analyzed. and divided into two main groups, the first one for adult cases and the other for pediatric cases. The adult population was divided into subgroups based on their health status: cardiovascular disease, respiratory disease, other diseases, and no health issues. A form with eight questions was created and filled out through direct interviews with the volunteers. This form was then covered by a massage that described the background and purpose of the research. Volunteers were questioned about their history of chronic diseases such as hypertension, breathlessness, diabetes, and heart problems. However, their main concern was whether they were taking any sedatives, hypnotics, opioids, or even analgesics on a routine basis. The responses should be recorded and saved in a specific format of an Excel sheet. Each volunteer was also asked about their age, sex, smoking status, drug use, and willingness to follow a pharmacist's advice. Some study participants were contacted by phone for a month to encourage and educate them, or they were contacted by having them visit a pharmacy the following time.

 The questionnaire and materials used for the study were evaluated and approved by the research center in the pharmacy department/Basrah health directorate. All ages were considered as part of the inclusion criteria, and interviews began on July 10 and ran through August 20, 2022. After data collection was complete, a t-test was used to analyze the data and determine significance. Out of 244 participants recruited with criteria satisfied, 230 participants completed the study form. Remaining participants (14) were excluded from the study due to loss to followup.

**Data collection and analysis**

 Using the outcomes worksheet, pharmacists completed a summary of the care provided following each patient encounter. Five volunteer pharmacists collected this information over a 6-week period and submitted completed paper outcomes worksheets on their first 244 patients who were continuously using drugs like hypnotics, opioids, and others that cause dependence. The information from the outcome worksheets was then entered and used to complete the data analysis. Excel was used to compute the total, proportion, and correlation results reported in this paper.

**Statistical analysis**

 When suitable, percentages, frequencies, and mean SD were used. A p value of less than 0.05 was considered statistically significant. Predictive Analytics Software version 19.0 was used(14).

**Results**

 The findings of this study indicate that, with the exception of 14 (5.73%) participants who refused to provide information, the majority of the 244 people who were asked to participate in the study said they would like to. From July 10 to August 20, we received 230 (94.26%) formula responses in roughly 200 hours, starting at five hours per day. Tables 1 and 2 illustrate the sociodemographic characteristics of the patients. Participants over the age of 25 years comprised 57.4%. Women account for 37% of the population. and men represented approximately 64% of the participants. However, the median age ±SD for women was 28±4 and 35±6 for men as shown in figure 1.

 The results show that of the 230 participants who were enrolled, 70.1% were identified as healthy individuals, while 29.9% had chronic diseases like cardiac disease, diabetes, and respiratory problems. Furthermore, 47% of the population in the study was a smoker, with the majority of them being men, while the remaining 53 % did not smoke. Patients were given a wide range of pharmacist advice services through their visits to the pharmacies chosen for the study field based on the clinical evaluations of the pharmacist of screening information and patient need. Of the 230 participants in the study, information about community support services was given to them. Additionally, their providers were contacted to discuss their prescriptions. Among the 20%, 17.7%, 14.8%, 13.5%, and 13.5% of participants who received education on the advantages and risks of using diazepam and allermine tablets, amitriptyline tablets, lyrica capsules, rivotril, and tegretol tablets, respectively, as shown in figure 2. Figure 3 shows our findings, which showed the percentage of participants that they continued to take the medication in dependence use even though they knew the risk was 67%. other people that they don’t have any knowledge about the risk of drugs is 33%. In the present study, based on the pharmacist's clinical evaluations of the screening data and patient requirements, 80.5% of the 230 patients took the pharmacist's advice on the potential hazards of utilizing these on-demand drugs, while 19.5% disregarded it.

  In this research project, the participating pharmacists also reported an improved ability to identify and diagnose patients at risk of drug overdoses as a result of training received before the study began. This improved the conversation with the patients, ultimately leading to advanced patient care and patient education.

Table 1. Sociodemographic characteristics of people (n=230).

|  |  |  |
| --- | --- | --- |
| **Age** | **No.** | **%** |
| >25 y | 132 | 57.4 |
| 5-25 y | 74 | 32.2 |
| 1 month-5 y | 24 | 10.4 |
|  **Sex** |
| Male | 146 | 64 |
| Female | 84 | 37 |

Table 2:Descriptive characteristics of participants (n=230).

|  |  |  |  |
| --- | --- | --- | --- |
| **Age** | **Total no.** | **Male** | **Female no.** |
| **No.** | **%** | **No.** | **%** |
| **>25 y** | **132** | **85** | **64.4** | **47** | **36** |
| **5-25 y** | **74** | **46** | **62.2** | **28** | **38** |
| **1 month-5 y** | **24** | **15** | **62.5** | **9** | **38** |

Figure 1: The study's age graph.

Figure 2: The percentage of people who continue to use drugs and become addicted to them.

Figure 3: Data on society's knowledge about drug complications.

**Discussion**

 Over the past few decades, the role of the pharmacist has changed. In the past, the pharmacist's main duty was to distribute medications in a precise and safe manner. Nowadays, pharmacists collaborate with other medical specialists to improve the standard of patient care by ensuring that medication regimens are appropriate and effective. Although the health care system has undergone many changes, it is increasingly understood that the way care is transitioned needs to be improved(15). Our study found that 20% of people who use hypnotic drugs do not follow the recommendations of the Iraqi Ministry of Health on drug addiction, on the other hand, most patients receive hypnotic drugs on a daily basis, over long periods of time, and without adequate dosage titration(16). According to the results of our study, the participating pharmacists were able to push the majority of continuous medication users to stop their use, which they categorized as having a high risk of developing dependence. As a result, they were successful in attempting to reduce drug abuse among approximately 83.5% of the population in this study.

 In general, pharmacists understood their responsibility as a "gatekeeper in prevention" for the abuse of addictive drugs like hypnotics and opioids in their populations; table 3 summarizes the key issues they observed. They saw the role as critical to providing proper care and treatment to the local populations.

Pharmacists stated that the goal was to collaborate with prescribers to develop safe and effective treatment plans. The dosing, frequency, duration, and taper schedules can all be optimized in this process. On the other hand, the participating pharmacists claimed that there were no clear guidelines for dispensing drugs that cause addiction, particularly in doctor's clinics. As a result, the pharmacist in his pharmacy was forced to make difficult decisions about whether to accept or reject a doctor's prescription if he perceived any risks. These decisions were based on the pharmacist's knowledge of patient education and the established dispensing limitations(17). Call the doctor if there are concerns, questions, or warning signs, but most of the time, doctors either don't answer the phone when the pharmacists call them back or don't follow the pharmacist's advice, whether they suggest it or not. This poor understanding of the pharmacist's function produced fear about providing services within their area of practice. Pharmacists reported being "greeted with animosity" by prescribers when they questioned a prescription.

 Previous research has shown, however, that some pharmacists are less confident in communicating with patients about drugs that cause addiction and are less likely to discuss misuse with patients. Indeed, pharmacists who report less training in prescription misuse disorder are less likely to discuss misuse with patients(18, 19). According to the results of our study, pharmacists may be unable to provide consultations effectively due to a lack of time or concerns about patient privacy. If these problems were resolved, it would be more practical to implement additional interventions that could raise the caliber of patient consultation delivery, such as continuous learning for pharmacists in addiction drug techniques and motivational interviewing techniques to make it easier for them to have conversations with their patients about medication use.

Table 3: Obstacles and responsibilities that pharmacists face when dispensing addictive drugs.

|  |  |  |
| --- | --- | --- |
| **Classification** | **Topics** | **Clarifying points** |
| **Role of pharmacists** | Prevention gatekeeper | Preventing early fills, identifying overuse, consulting prescribers about overuse, and counseling patients about the risks of misuse are all responsibilities of the gatekeeper.  |
| Patient education | Every pharmacist should advise (patients) on how to prevent the problem from occurring. |
| Communication with pharmacists | It is the pharmacist's responsibility to question the duration of therapy as well as diagnosis. We must remain focused on the prescribers. The issue starts there. |
| **Barriers to pharmacists fulfilling their role** | Absence of clear rules | Because the majority of patients believe a pharmacist simply dispenses medications in response to any prescription without consulting him, pharmacists are concerned that they'll be perceived as going beyond their authority and limitation. Therefore, if the pharmacist doesn't allow the administration of some drugs to the patients when he detects a risk, the patients will complain, and sometimes these complaints will reach the health directorate. |
| Community pharmacy practice | The current workload would not permit even the most interested pharmacist to take the necessary time to talk and take feedback from patients. However, the nature of the disease state requires such. |

**Conclusions**

 Despite decades of evidence supporting reduction and cessation, chronic use of drugs that cause dependence in the elderly, such as hypnotic drugs like benzodiazepine, remains a clinical issue. Patients are still at risk for dependence, falls, fractures, car accidents, and impaired cognition, with the possibility of permanent cognitive impairment. The evidence supports a strategy that raises awareness and provides deprescribing resources to patients, physicians, and pharmacists. The best method for discontinuing BZDs in the elderly is unknown. The majority of older patients were given therapeutic doses of BZDs for insomnia or anxiety. Those who should consult with a mental health or addiction specialist are advised to do so(20). This study demonstrated the capability and feasibility of screening for drug misuse risk in the community. Proactive pharmacist involvement in disease prevention and health promotion is a critical contribution to reducing medication misuse, particularly that which leads to addiction, and improving population health outcomes such as opioid dependence, loss of muscle strength, constipation, lethargy, impaired judgement, and death.

 As the medication gatekeeper for patients getting prescriptions, pharmacists are able to provide high-quality, evidence-based education to patients in need, which is becoming extremely important in public health. This study discovered that pharmacists act as gatekeepers, which may encourage researchers to search for new topics related to.

**Limitations**

 The main limitation of this survey was the selection of pharmacists based on their interest in participating in the study. In order to avoid different interpretations during the interviews, the questionnaire was simple and worded in such a way that the questions were asked directly to the patient and in a limited manner. In other parts of the area where racial and ethnic groups may be more diverse, the study may not be representative. The average number of years a licensed pharmacist has been practicing suggests that the study's findings may not apply to all generations of pharmacists. Since some of the terminology used in the survey was not defined, it's possible that respondents confused terms like "drug misuse" and/or "addiction" because these concepts are frequently misunderstood in real-world situations, even when people are educated on them. The resulting impact, however, was probably minimal because participants were also asked how pharmacies can assist in lowering drug overdoses among their patients, which is a potential risk among patients who misuse medication that leads to addiction.

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**Conflict of interests**

 No conflicts of interest.

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