Assessment of controlled substances, dependence on them, and their management by pharmacists

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Introduction
Substance abuse is more than just a health problem; it is a formidable moral, social, and economic challenge of pandemic proportions. Palestine is not an exception to this problem, and the trend of use is increasing. Healthcare providers, primary care physicians, pharmacists, patients themselves, and their families, can all play a role in identifying and preventing prescription drug abuse.

Methodology
The study population included 205 public pharmacies distributed across the Gaza Strip governorates. Data was collected by means of an interview questionnaire administered to pharmacists working in the pharmacies.

Study objectives
The aim of the study was to identify and verify several variables and attributes affecting drug abuse, including the knowledge, attitudes, and practices of pharmacists, and to study and analyze the drug abuse situation in the Gaza Strip.

Results
The majority of pharmacists (90.2%) acknowledged drug addiction as an existing phenomenon in the Gaza Strip society, and 32.2% of pharmacists believed that the physician, the pharmacist, and the inspection department all shared the responsibility for its existence. Most pharmacists believed that the increased anxiety and tension in the community was the most common reason for this increase in demand for drugs. Approximately 50.2% of pharmacists did not believe that their colleagues dispensed any of the controlled drugs without a doctor's prescription. Approximately 89.8% of pharmacists were convinced of the need for a medical prescription to dispense any of the drugs listed, and of these 89.8%, 84.8% did not dispense any of the controlled drugs to a person they suspected of being dependent on drugs, even if that person had a medical prescription. Hence, the study showed no significant relationship.

Conclusion
The study showed that drug abuse is an existing phenomenon in the Gaza Strip and there is a lack of attention to reduce its spread and impact on society. There are similarities between female and male pharmacists in the Gaza Strip with regard to knowledge about drug abuse; however, there are differences in practice and attitude among them.

Recommendation
Physicians, pharmacists, and the inspection department should assume their respective responsibilities toward prevention of drug abuse as a shared responsibility in order to ensure a safe future for the entire community.

Keywords:
addiction, controlled substance, pharmacist, tramadol

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Introduction

Substance abuse is more than just a health problem; it is a formidable moral, social, and economic challenge of pandemic proportions. Not a single country in the world can be called 'drug free'. The question we need to face and find an answer to is the following: Why, despite all efforts, do the issues related to substance abuse continue to increase in seriousness? (WHO report, 2004).

The risks for addiction to prescribed drugs increase when the drugs are used for reasons other than for those prescribed. Healthcare providers, primary care physicians, pharmacists, and patients themselves, can all play roles in the identification and prevention of prescription drug abuse. The pharmacist, physician, and patient each has a role in the drug abuse problem.

Preventing or stopping prescription drug abuse is an important part of patient care. However, healthcare

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providers should not avoid prescribing or administering stimulants, central nervous system depressants, or opioid pain relievers if needed.

Physicians should be aware of prescription drug abuse and the fact that the supply of these drugs comes initially from family and friends. Clinicians need skills to tailor addiction treatment according to the treatment group, including women, different sociocultural groups, age-specific groups, the medically ill, and people with legal problems. Addiction treatment, especially psychotherapy and psychopharmacology, is still an art (Tommasello, 2004).

The American Society of Health-System Pharmacists believes that pharmacists possess the unique knowledge, skills, and responsibilities required for assuming an important role in substance abuse prevention, education, and assistance. Pharmacists, similar to healthcare providers, should be actively involved in reducing the negative effects that substance abuse has on society, healthcare systems, and the profession of pharmacy (ASHP, 2003).

The role of a pharmacist in supervising and educating the public on prescription drug misuse has been steadily increasing over the past several decades. However, there continues to be confusion regarding the roles and responsibilities of pharmacists in recognizing prescription drug abuse and suitably intervening to prevent it (Cohen and McCormick, 2008).

Greater attention has been given to integrating treatment for co-occurring psychiatric disorders; medical conditions such as HIV/AIDS, hepatitis, and tuberculosis; and the psychosocial problems that complicate addictive illness.

According to the data from United Nations Office on Drugs and Crime, globally, there are an estimated 200 million people who make use of one or another type of illicit substance. The most common is cannabis, followed by amphetamines, cocaine, and opioids. Illicit substance use is more prevalent in the male population compared with the female population, much more so than cigarette smoking and alcohol consumption. Substance use is also more prevalent among young people than among those belonging to an older age group. An estimated 205 million people around the world use illicit drugs, including 25 million who suffer from illicit drug dependence. This constitutes a public health, socioeconomic, developmental, and security problem for both industrialized and developing countries alike (UNODC and WHO, 2008).

Drug use in Egypt remains a problem. The number of drug users in Egypt ranges from 1 million to 6 million, with most drug users being in the 15–25 years age group. Accurate statistics are difficult to obtain, given the taboo nature of drug abuse and the stigma associated with being an addict (WHO, 2010).

Treatment facilities are not evenly distributed throughout Egypt, and the most widespread drug used at present is 'Bango' (cannabis derivative) (Abdel-Gawad, 2002).

Thousands of young men in Gaza are becoming addicted to a prescription painkiller used to alleviate the stress of living in the besieged Palestinian territory. Students, laborers, and even professionals are buying large quantities of tramadol, a synthetic opioid painkiller similar to morphine, although milder, on the black market. It is estimated that the number of drug abusers in the Gaza Strip and the West Bank and East Jerusalem is 32 000–45 000, of whom 20% are addicts. It is estimated that up to 30% of men in Gaza between the ages of 14 and 30 years take tramadol regularly, with around 15 000 showing signs of addiction (ANGA, 2005).

Subjects and methods

A cross-sectional study was conducted on the pharmacies in the Gaza Strip governorates.

They were selected by means of a stratified random sampling method. The study was conducted from April to July 2009 in five governorates in the Gaza Strip. The number of pharmacies in the Gaza strip is 411, distributed in each governorate as follows: (Palestinian Enterprise Development PED project, medicine consumption and supply study November 2007).

The sample of 205 pharmacies in the present study represented 49.87% of all pharmacies distributed across all regions of the Gaza Strip based on the proportion of pharmacies in each region [North Gaza (37), Gaza city (90), Middle governorate (26), Khanyounis (36), and Rafah (16)]. Data were collected by means of an interview questionnaire administered to the pharmacists working in the pharmacies. Interviews were conducted using the questionnaire and information pertaining to the pharmacist with regard to knowledge, attitudes, practices, sociodemographic factors, sex, age, number of years of experience, year of graduation, the University and state from which he/she graduated, and the way he/she dealt with narcotic drugs and hazardous materials was collected in the following manner: 12 medicines were selected and questions were asked on whether these drugs were available without prescription, whether the holder of this prescription was an addict, and whether the pharmacists were convinced of the need for a prescription for dispensing these drugs in all cases, and, if not, the reasons for nonpersuasion. The questionnaire inquired about concern for the phenomenon of addiction to narcotic drugs and hazardous materials in terms of the following: the belief that the phenomenon of addiction exists, who bears responsibility and knowledge of pharmacopoeia and of legislation relating to medicines, awareness of knowledge centers caring for addicts, whether there was an increase in the demand for these drugs and, if so, the reasons for such an increase. Finally, comments or suggestions from the pharmacist were also taken.

Statistical analyses were performed with SPSS for windows (version 18; SPSS Inc., Chicago, Illinois, USA). It included frequency distributions of the events of interest. Pearson's χ^2-test was used for comparing categorized variables, and P-value less than 0.05 was considered statistically significant.

Results

This study included 205 pharmacies distributed across the Gaza Strip governorates, which were selected randomly according to a stratified sampling procedure. The age range of the pharmacists was 25–30 years (44.9%), and most of them were men (59.5%) with 1–3 years of experience (35.6%). The sociodemographic characteristics of the pharmacists are presented in Table 1.

About 86.8% of pharmacies relied on books and journals as sources of information, whereas 17.6% relied on websites (Table 2).

The majority of drug users were over the age of 24 years (74.1%), and most of them were employed (Table 3).

The study showed that the demand for drugs was mostly in the evening and night (39.02%; Table 4).

The number of inspections carried out by the Department of Drug Control in terms of the number of visits made to pharmacies in the Gaza Strip according to the pharmacists is shown in Table 5.

The study demonstrates the fallbacks of the system involved in the inspection and control of the illegal dispensing and use of these controlled drugs (Table 6).

Table 7 shows that about 50.2% of pharmacists do not believe that their colleagues dispense the items listed without a doctor's prescription, although 45.4% believe they do.

When asked whether the pharmacist dispensed medication to a person suspected of being an addict although he or she possessed a doctor's prescription, only 14.1% of the pharmacists admitted to doing so (Table 8).

This study shows that the three most commonly demanded drugs in the pharmacy were Tramal (Germany), pulmadrin compound, and xanagis (Table 9).

More than 90% agreed that there existed a phenomenon of addiction to narcotic drugs and that more than one person or institution is responsible for it (Table 10).

Most pharmacists (66.3%) did not attend any courses or seminars on drug addiction, and 89.3% of the pharmacists felt the need for such courses and seminars. Despite a lack of these courses, the study shows that 51.7% of pharmacists contributed to or tried to find a solution to this phenomenon of addiction.

With regard to the knowledge on the existence of centers providing medical care to addicts, the study showed that 30.2% were aware of the existence of such centers, whereas 69.8% were not. The study also showed a strong lack of knowledge on the existence of centers providing education to addicts (92.2%).

More than 70% (70.7%) of pharmacists noted an increase in the demand for narcotic drugs in their pharmacies (Table 11).

With regard to the causes of drug addiction, pharmacists believed that increased anxiety and tension in the com-

Table 1 Distribution of pharmacists by socio-demographic factors

Characteristics	*N* (%)
Sex	
Male	122 (59.5%)
Female	83 (40.5%)
Age	
Less than 25	52 (25.4%)
25–30	92 (44.9%)
More than 30	61 (29.7%)
Years of experience	
1–3	73 (35.6%)
4–6	55 (26.8%)
7–10	36 (17.6%)
11 or more	41 (20.0%)
The country of graduation	
Palestine	160 (78.0%)
Arabic countries	21 (10.2%)
Others	24 (11.8%)

Table 2 The availability of information resources in Gaza strip pharmacies included in the study

Availability of information resources	
Availability of books, journals	178 (86.8%)
Availability of computer	69 (33.7%)
Availability of websites	36 (17.6%)

Table 3 The classes of majority of whom demand these drugs according to the outer appearance of them

Characteristics	*N* (%)
Rich and affluent people	8 (3.9%)
Staff and middle-class income	36 (17.56%)
Workers and artisans class	108 (52.68%)
The poor class	19 (9.27%)
Nonspecified	34 (16.59%)

Table 4 The most times of demand of these drugs

Characteristics	*N* (%)
Morning	6 (2.93%)
Afternoon until evening	24 (11.71%)
Evening and night	80 (39.02%)
Unspecified	95 (46.34%)

Table 5 The number of inspection department (department of drug control) visits to the pharmacy each year

Characteristics (number of visit)	*N* (%)
None	40 (19.5%)
Once a year	53 (25.9%)
Twice a year	62 (30.2%)
More than twice a year	50 (24.4%)

Table 6 The effectiveness of the system used in the inspection and control

Characteristics (effectiveness)	*N* (%)
Effective	43 (20.98%)
Not effective	140 (68.29%)
Do not know	22 (10.73%)
Total	205 (100%)

Table 7 The dealing with narcotic drugs and hazardous materials from pharmacist point of view

General trend	Repetition (%)
No	103 (50.2%)
Yes	93 (45.4%)
Neutral	9 (4.4%)
Total	205 (100%)

Table 8 The pharmacists dispense the medication to a person whom they doubt even though he had a doctor's prescription

General trend	Repetition (%)
No	158 (77.1%)
Yes	29 (14.1%)
Neutral	18 (8.8%)
Total	205 (100%)

Table 9 The most three types of medicines in demand in your pharmacy

Drug	Order	*N* (%)
Tramal	1	201 (32.8%)
Pulmadrin compound	2	116 (18.9)
Xanagis	3	69 (11.3)

Table 10 Who bears the responsibility of this phenomenon

Who bears the responsibility for this phenomenon?	
Physician	3 (1.5%)
Pharmacist	34 (16.6%)
Inspection Service and the General administration of Pharmacy	46 (22.4%)
Physician and pharmacist	56 (27.3%)
Others: more than one	66 (32.2%)

Table 11 The demand for narcotic drugs in their pharmacies

Is there a marked increase in the demand for narcotic drugs in your pharmacy	
Yes	145 (70.7%)
No	48 (23.4%)
Do not know	12 (5.9%)
Total	205 (100%)

Table 12 Causes of drug addiction phenomena

Decline in the prices of these drugs	11 (7.6%)
Increased anxiety and tension in the community	98 (67.6%)
Both reasons	25 (17.2%)
Other reasons	11 (7.6%)

munity was the most common reason (67.6%) for the increase in demand for narcotic drugs in the Gaza Strip pharmacies (Table 12).

Inferential analysis

The relationship between the dispensing any of these controlled drugs by a pharmacist only on submission of a prescription in all cases and the possibility of dispensing one of these drugs to a person suspected of being addicted to drugs but who has a prescription is presented in Table 13.

Data in Table 13 show that 89.8% of pharmacists are convinced of the need for a medical prescription to dispense any of the drugs listed in all cases and that, of these 89.8%, 84.8% do not dispense any of these drugs to a person they suspect of being an addict even if that person has a medical prescription.

With regard to the relationship between the inspection system and pharmacies in terms of the number of annual visits made to the pharmacies by the Department of Inspection, data showed that 18.7% of the pharmacies had not been subjected to any inspection during the year; 26.1% of the pharmacies covered by the study had been inspected only once; and 24.6% of the pharmacies had been inspected more than twice. With respect to differences between governorates in terms of the number of annual inspections, the test statistics revealed that differences between governorates were real (moral) and that Rafah was the governorate that received the most number of inspection visits, twice annually (75%) (Table 14).

With regard to the relationship between the increase in demand for narcotic drugs and years of experience of pharmacists, Table 15 shows that 81.4% of pharmacists who noted a marked increase in the demand for narcotic drugs had experience of 3 years or less, whereas 83.0% had 4–6 years of experience.

Discussion

The present study was conducted to investigate the sociodemographic characteristics, knowledge, attitude, and practices of pharmacists. In addition, the sociodemographic characteristics of drug abusers from the pharmacists' point of view in the Gaza Strip were studied as being important indicators for the pharmacists' practice.

Distribution of pharmacists according to sex and age group showed a male predominance of 59.5%, as against 40.5% of women. It is known that after marriage women do not agree to work in pharmacies because of the long hours of work, which does not fit in with their married life, and because of the low salary paid for this work; hence, they prefer staying at home, unlike men, who have no choice but to work because of the responsibility of providing for their family.

The study showed that the majority of pharmacists (44.4%) were of an average age of 25–30 years and 24.9% were of an average age of less than 25 years. This is logical because a pharmacist graduates at an average age of 23–25 years and those who are unable to work immediately after graduation need further training to obtain work. Pharmacists aged more than 30 years are those who would have obtained jobs other than in public pharmacies. Hence, most pharmacists are of an average age of 25–30 years.

The major sources of scientific information available to pharmacies were books and journals. However, the researchers noticed that the pharmacists considered the medic book as an information resource, although the medic is, in fact, an alphabetical and pharmacological index and not a source of scientific information.

Table 13 The relationship between the conviction of pharmacists about dispensing

	Conviction of the need to dispense any of the medications listed under a medical prescription in all cases		
	No	Yes	Total
Dispensing medication to a person requesting one of these drugs but you suspect that he is an addict and is in possession of a doctor's prescription			
No	88.9%	84.8%	85.2%
Yes	11.1%	15.2%	14.8%
Total	10.2%	89.8%	100.0%

χ^2-square value=0.214; n=176; P=0.264, not significant.

Table 14 The relationship between the inspection system to pharmacies and the governorates

	Number of annual inspection visits (%)				
Governorate	None	Once	Twice	More than twice	Total
Gaza	31.0	26.4	25.3	17.2	100.0%
North	17.9	28.2	30.8	23.1	100.0%
Middle	0	19.2	42.3	38.5	100.0%
Khan yunis	8.6	34.3	45.7	11.4	100.0%
Rafah	6.3	12.5	6.3	75.0	100.0%
Total	18.7	26.1	30.5	24.6	100.0%

Cramer's value=0.282; n=203; P=0.0001, significant.

The study showed that most drug abusers were of an average age of 24 years or more. However, the pharmacist noted an increase in the number of drug users who were of an average age of less than 24 years, which is indicative of a dangerous situation in Gaza schools and universities. It is known from many published studies that most drug users are of this average age (Yusef, 2010).

The majority of drug abusers were workers and artisans (52.7%), which could be because of two main reasons:

(1) The years spent working and living in Israel among Israeli people, leading to adoption of a particular lifestyle;
(2) The difficult economic conditions and unemployment that these people suffer from following the closure of the borders, making life difficult and leading to a state of despair and frustration.

Political, economic, and social conditions have changed in recent years. Rapid changes have adversely affected the country's stability, and citizens face a lot of problems in adapting to the changes. Adaptation problems lead to others, which affect the members belonging to the weakest section of society. Such unstable conditions are conducive to the spread of drugs in society (Stonkutė and Magnus, 2000). However, an increasing number of pharmacists (16.6%) believe that drug users belong to all strata of the society (Research and Social Survey Unit of Democracy Watch, 2001). Socioeconomic factors related to drug use include low educational levels and dropping out of school at an early age; unemployment, low salaries, and difficult jobs; low income and debt; insecurity of accommodation and homelessness; mortality and drug-related diseases; poor access to care; and social stigma (European monitoring center for drugs and drug addiction, 2003).

Demand for drugs is more frequent during the evening and night because of three main reasons:

(1) The pharmacist knows that inspection mainly takes place in the morning and afternoon; hence, he will be more flexible in dispensing these controlled drugs without a prescription in the evening and at night, reflecting a trend created by the pharmacist himself.
(2) Drug users may note that the pharmacist is more flexible in dispensing drugs at this time; further, the pharmacist himself may inform drug users about the time of inspection, as a result of which drug addicts avoid these times for demanding drugs.
(3) In Gaza, pharmacists working in the morning and afternoon are usually women, who usually do not agree to dispense these drugs without a prescription. The drug users can note this easily.

Most pharmacists (30.2%) reported that the inspection department visited the pharmacies twice a year; however, 68.3% of pharmacists believed that the inspection was not effective. From the pharmacists' point of view, inspection was routine, nonserious, and usually on non-registered Egyptian medications and tramadol. They also recommended that inspection be carried out on stores and pharmaceutical companies and at doctor's clinics by reviewing prescriptions. The researcher noticed an increase in drug abuse, indicating that the inspection was not effective.

The study showed that most pharmacists (83.9%) were convinced that dispensing any medication in the list needed a medical prescription, and 77.1% of the pharmacists did not dispense medication to a person whom they suspected of being an addict even though he/she had a doctor's prescription. In practice, this implied that there was a gap between pharmacists and doctors in terms of confidence and collaboration because of the absence of regulation in prescription, which makes it easy to obtain one.

Pharmacists noticed that tramadol tablets or capsules were the most commonly demanded drugs, followed by pulmadrin compound syrup and xanagis tablets. Gazans cannot travel outside the Strip; they have very few places to go to for fun and are faced with a failing economy. These factors could be the reason for the boom in the popularity of tramadol, a painkiller known here by the common brand name 'Tramal'. The drug's popularity has been propelled by its availability, as large quantities have been smuggled through tunnels under the Gaza–Egypt

Table 15 The relationship between the increase in the demand for narcotic drugs and the years of experience

	There is a marked increase in the demand for narcotic drugs in your pharmacy		
Years of experience	Yes	No	Total
3 years or less	57 (81.4%)	13 (18.6%)	73 (100.0%)
4–6 years	44 (83.0%)	9 (17.0%)	53 (100.0%)
7–10 years	24 (70.6%)	10 (29.4%)	34 (100.0%)
11 or more	20 (55.6%)	16 (44.4%)	36 (100.0%)
Total	145 (75.1%)	48 (24.9%)	193 (100.0%)

Cramer's value=0.239; n=193; P=0.012, significant.

border. Tramadol has spread widely and very fast because, until 2009, it was available over the counter in pharmacies and is now available in the illegal market.

The majority of drug users are between 24 and 34 years of age. There are 8000 cases of drug use in courts and 3000 cases of trafficking and distribution. Most drug crimes are committed by men. There are about 40 000 drug users in Gaza. There are usually more drug users in places where there is an absence of police force (UNODC, 2008).

Most pharmacists believed that more than one person or institution is responsible for this phenomenon (32.2%). This means that physicians, pharmacists, and the inspection department all share the burden of this responsibility, which is very logical because all of them have an active role in spreading this phenomenon and we cannot exclude any of them.

Pharmacists and physicians need more efficient methods to communicate with each other so as to more effectively share information about specific clients/patients and to access more general community-wide and province-wide trends in fraudulent prescriptions and prescription drug abuse and misuse.

Furthermore, although some health professionals may contribute to the misuse and abuse of prescription drugs because of inappropriate prescribing behavior, others may provide inadequate pharmacotherapy for pain and other conditions because of the fear that their patients will become addicted or that they will incur regulatory scrutiny (NIDA, 2008).

The study showed that 51.7% of pharmacists contributed to or tried to find a solution to this problem; however, the researcher noticed that the solution used was mostly refusal to dispense the drugs and nothing else.

Inferential analysis

Data showed that 85% of pharmacists said that they were convinced of the need for a medical prescription in all cases. They claimed that they did not dispense medication to a person they suspected was an addict. Hence, apart from a medical prescription, pharmacists also considered the external appearance of the patient before dispensing drugs.

Several studies have associated quality of dispensing with factors such as pharmacist's age, educational background, and social and demographic factors. The pharmacists' opinions about their practice have been proposed as potential determinants of the quality of dispensing. However, these factors have been analyzed individually, and so far no comprehensive theoretical model has been proposed to explain their effect (Field, 2008).

The study showed that the pharmacists who have fewer years of experience (3 years or less) are those who notice an increase in the demand for narcotic drugs in their pharmacies (81.4%). This is because the pharmacist with more number of years of experience would be familiar with the identity of the drug user and will refuse his or her request. At the same time, the drug user, realizing this fact, would avoid going to that particular pharmacist and try to find a newly graduated pharmacist, exploiting the new pharmacist's lack of experience in this field, to ask for one of these drugs.

The study showed that Rafah is the governorate that was subjected to the most number of inspections (75% twice annually). Because of its proximity to the border with Egypt, and therefore being considered a center for smuggling of narcotic drugs through the tunnels, inspectors are keen to search Rafah pharmacies more than they are others.

The tunnels have been used to smuggle foreign currency, weapons, cigarettes, narcotics, alcohol, electronic items, and prostitutes from Egyptian Rafah to the Palestinian areas of the Gaza Strip. At the same time it is noticeable that weapon smuggling is more concerning from the perspective of world governments in comparison with smuggling of narcotics because of the relation of weapon smuggling with Israeli security (Sharp, 2008).

Conclusion

This cross-sectional analytic study was conducted in Gaza Strip pharmacies from April 2009 to July 2009. An overall conclusion can be summarized as follows:

(1) Drug abuse is an existing phenomenon in the Gaza Strip but sufficient attention has not been paid to curb its spread and reduce its impact on society, particularly among young people. It is considered a public health issue in the region, but it is not declared as such by the government.
(2) Drug abuse is predominant among men of an average age of 24 years or more, although there is a growing increase in the number of drug users among school and university students.

(3) Tramadol is the most commonly demanded drug in the Gaza Strip pharmacies and is the most important medication in terms of being subjected to strict inspection and control measures compared with other drugs, which do not receive the same attention.
(4) Most pharmacists lack knowledge about recent regulations and rules.
(5) The majority of pharmacists have never attended lectures or seminars on drug abuse even though they are convinced about the importance of such lectures or seminars.
(6) No adequate treatment for drug abusers exists in the Gaza Strip.
(7) Socioeconomic factors related to drug use include low educational levels, early school leaving; unemployment, low salaries, and difficult jobs; low income and debt; insecurity of accommodation and homelessness; and bad political situation, all of which contribute to the increase in drug abuse in the Gaza society.
(8) Although the inspection visits to pharmacies are conducted mostly twice a year, the inspection is still ineffective against drug abuse increase from the pharmacist's point of view.
(9) More than one person or institution should bear the responsibility of the phenomenon of drug abuse. Hence, physicians, pharmacists, and the inspection department all of them share the burden of this responsibility; no one is excluded.
(10) The majority of pharmacists do not advise all individuals who request these controlled substances all the time; they advice individuals based on the extent of their belief in a patient's response to their advice about the danger of addiction.

Recommendations

(1) More attention should be focused on the increase in the number of drug abusers among school and university students and among workers in order to find a logical and practical solution to reduce them.
(2) More workshops, courses, and specialized seminars should be held for pharmacists to provide adequate information regarding this subject in terms of laws of exchange and the classification schedules.
(3) Pharmacy colleges must have resources to prepare students to care for addicts. In addition to strengthening the undergraduate experience, pharmacy colleges must develop residency programs that produce experts in the field.
(4) Conducting sessions to educate new graduates and students of the Faculty of Pharmacy and Medicine to sensitize them to the dangers of this phenomenon and inform them about what they could be subjected to by means of practical training in pharmacies and clinics.
(5) Full awareness programs should be held by syndicates and universities to sensitize various sections of society toward addiction risks and symptoms and ways to overcome them.
(6) All parties, such as physicians, pharmacists, and the inspection department, should assume responsibility for this phenomenon and not burden the other parties because ensuring a safe future for the entire community should be a shared responsibility.
(7) There must be restriction on who can write the prescription containing any of these controlled substances through Ministry of Health new laws.

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Conflicts of interest

There are no conflicts of interest.

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