The Malpractices in Drugs Sale and Implementation of Pharmaceutical Care

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ABSTRACT
Pharmaceutical care is a necessary element of health care system and is provided for the direct benefit of the patient. Community pharmacists are considered the professionals of choice in this area as they are in direct contact with a large number of population. In order to properly implement the concept of pharmaceutical care, it is necessary to first fulfill the legal requirements as those are directly related to the sales of drugs. The current scenario of pharmacies / medical stores in terms of legal aspects was investigated by carrying out a field survey. A questionnaire was prepared and distributed to 250 local pharmacies and medical stores at various locations of Karachi. The questionnaire contained some basic information in terms of the presence of pharmacist, qualification of non-pharmacist, presence of a valid license, availability of compounding facility in the pharmacy, whether the selling of non-OTC drugs is on prescription or without prescription, storage facility of drugs, disposal of expired drugs and awareness of drug act, 1976 and related rules. Out of 250 visited medical stores and pharmacies, 160 participated in the survey, whose results are summarized in the study.

Keywords:

INTRODUCTION
Proper use of drugs is the key factor for the successful outcome of a treatment. For the proper use of medicines, pharmacists are the professionals of choice as they are considered as “Drug Experts”¹. The mission of a pharmacist is to provide pharmaceutical care to the patient². Pharmaceutical care is the direct, responsible provision of medication-related care for the purpose of achieving definite outcomes that improve a patient’s quality of life²-⁵. These outcomes include⁵:

i) Cure of a disease;
ii) Elimination or reduction of a patient’s symptomaticity;
iii) Arresting or slowing of a disease process; or
iv) Preventing a disease or symptomaticity.

Community / retail and hospital pharmacists are in close contact with the patients so that they have an important role in assisting patients to make the best use of their prescribed medicines¹-⁴. In the recent past, some additional responsibilities such as patient counseling have been assigned to pharmacists¹-⁶. They maintain and improve people's health by providing advice and information, and supplying prescription and non-prescription medicines. They work according to legal and ethical guidelines to ensure that correct and safe medical products have been supplied to the general public¹-⁶.

Pharmacists, whether working in community, hospital, industry, institution, etc., must be aware of the legal requirements that apply to their daily professional activities. Every country has its own legal requirements. More or less these legal aspects are similar in principle, which for obvious reasons are meant for the correct, safe, stable and effective supply of medicines to the consumers. In Pakistan, the Drugs Act⁷, 1976 is
implemented to regulate import, export, manufacture, storage, distribution and sale of drugs which is exercised in each province by their own documented rules\textsuperscript{8-10}.

The object of this survey is to assess the current situation in the community pharmacies and medical stores for the availability of pharmacists, awareness of drugs act and related rules and ability to council the patients. This information may give an idea of the practice of pharmaceutical care in our society, which is essential for a better health care system.

METHOD
A total of 250 medical stores and pharmacies located at various prominent areas of Karachi were visited and surveyed. A questionnaire was distributed to the shop owners / in charge and filled on the spot. It should be mentioned here that no ethical approval is required for such type of a survey.

Questionnaire Development
The questionnaire was written in English and consisted of questions regarding following information:
1. Number of employees in the establishment?
2. Whether a pharmacist is present or not?
3. Qualification of non-pharmacists present in the shop (if any)?
4. Whether the shop claiming to be a pharmacy is actually a pharmacy or not?
5. Do they possess the valid license to sell the drugs?
6. Whether the selling of non-OTC drugs is on prescription or without prescription?
7. Is the storage of drugs according to the prescribed conditions or not?
8. How the expired drugs are disposed off?

At the end of the questionnaire there was a section of comments from the person carrying out the survey so that personal observations would also be noted.

RESULTS AND DISCUSSION
It is to be noted that 250 shops were visited out of which 160 participated in the survey while the remaining 90 shops didn't respond or entertained the surveyor. Therefore, the survey analysis is based on the data collected from 160 shops (Table 1).

Availability of pharmacists in the shops was unsatisfactory as 125 shops were found to be functioning without pharmacists (Table 2). According to the law\textsuperscript{8}, each pharmacy or medical store must be run under the supervision of a registered pharmacist or a registered compounder / dispenser or a registered apprentice, which was unfortunately not seen in most of the cases. The qualification of the non-pharmacists working in the remaining 125 shops was also unsatisfactory (Fig. 1). A major proportion of the workers (i.e. 30.4\%) didn't respond to the query whereas the majority of the remaining workers were found to be non-graduates (Fig. 1).
According to the Sindh Drugs Rules, 1979 a pharmacy is a place where compounding facility is available along with retail selling of drugs whereas if only retail selling is done then it should be termed as a medical store. During the survey it was observed that some of the shops claiming to be a pharmacy were actually medical stores as no compounding facility was available there (Table 3). Similarly, in terms of a valid licence, most of the shops possessed a valid license to sell drugs but it was interesting to find out that some of the shops were working without any license (Fig. 2).

<table>
<thead>
<tr>
<th>Pharmacies visited</th>
<th>Compounding facility</th>
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<tbody>
<tr>
<td></td>
<td>Available</td>
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<tr>
<td>25</td>
<td>15 (60%)</td>
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Table 3. Number of pharmacies where compounding facility was available.
All the drugs are chemicals, therefore, their proper use is necessary for good therapeutic action otherwise some sort of toxicity may arise\textsuperscript{2,3}. Due to this reason, patient counselling is very important which provides a guideline about the proper use of the medications\textsuperscript{1-6}. There are some drugs that can be taken without prescription (OTC) from the pharmacy while the remaining can only be bought by a prescription of a physician (non-OTC)\textsuperscript{11}. The survey results showed that in the majority of cases the shopkeepers didn't bother for a prescription, they just gave the medicine even on verbal communication of the patient (Fig. 3). This is a common practice, which is of great concern for the proper use of medicines and patient's safety.
Drugs may also deteriorate if they are not properly stored\(^\text{12}\). Therefore, maintenance of appropriate storage conditions is very important to maintain the stability and efficacy of the drugs\(^\text{12}\). Drugs should always be stored according to the prescribed conditions\(^\text{8}\) in the medical stores/pharmacies for example, room temperature, refrigerated, protected from light, humidity, rodents, etc. The survey results showed that the storage conditions were satisfactory in more than 50% cases but still a large number of shops were not maintaining the optimum storage conditions (Fig. 4). This is of great concern as improper storage may result in some deterioration and altered bioavailability, which ultimately affects the patient.

![Graph showing storage conditions of drugs in the shops.](image)

**Fig. 4.** Storage conditions of drugs in the shops.

Although medicines play an important role in treating many disease conditions but when they are expired it is necessary to properly dispose them in order to avoid any harm to other people as well as to the environment\(^\text{13-16}\). The pharmacies in advanced countries like USA, Canada, etc. have a drug take-back facility that collects and disposes of the public's unused and expired drugs in an environmentally safe manner\(^\text{17-20}\). Unfortunately in Pakistan, there is no such awareness and facility available in the pharmacies / medical stores for properly disposing off the drugs in an environment friendly manner. Generally, the local practice is to return back the expired medicines to the concerned pharmaceutical industries, where these drugs are disposed off according to the prescribed regulations. According to this practice, the survey results were found satisfactory in the majority of the cases (Fig. 5). Improper disposal of drugs by some shopkeepers was also observed, which is of great concern for both people and the environment. There is a growing evidence that throwing drugs and other personal care products in the garbage or flushing them down the toilet or the sink or burying them in the ground have a harmful effect on the environment and, indirectly, on human health\(^\text{13-20}\).

![Graph showing disposal conditions of drugs in the shops.](image)

**Fig. 5.** Disposal conditions of drugs in the shops.

When the shopkeepers were asked about the Drugs Act\(^\text{7}, 1976\) and related rules (e.g. The Sindh Drugs Rules, 1979\(^\text{8}\)), majority of them were unaware of it (Fig. 6). This unawareness regarding the legal requirements is the basic problem for not performing the professional responsibilities according to the prescribed rules.
We have documented details of legal aspects but their implementation and compliance is not up to the standard. Huge lacking was observed during the survey regarding the knowledge of drug act and related rules. This may be due to the fact that majority of the shops are run by non-pharmacists, who don't have any proper training regarding drug usage, patient counseling, storage, etc. This is one of the reasons associated with the selling of non-OTC drugs without prescription. The product should remain safe, stable, and effective throughout the period from production to the usage. Proper storage of drugs in the pharmacies / medical stores is of immense importance. Even if high quality products are being manufactured by pharmaceutical industries but not stored appropriately, can lose their quality and efficacy and may harm the patient in spite of the giving benefit. Similarly, proper disposal of expired drugs is a very important factor to be considered as it may cause serious hazards to the environment.

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**REFERENCES**

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