Original Article

OTC Medicines

Assess the Attitude and Practices of Pharmacists regarding Selling of Various Over-the-Counter Medicines in Mirpurkhas District

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ABSTRACT

Objective: This study was done to see the pharmacist practices in rural areas where no account is taken for doses, side effects and administration of OTCs. This study provides evidence of mishaps being done with poor and uneducated population of remote areas regarding unsafe practices of non-prescription medicines, and to assess the knowledge of pharmacists regarding the indications, contraindications, doses and side effects of various over-the-counter medicines in District Mirpurkhas.

Study Design: An analytical cross-sectional study

Place and Duration of Study: This study was conducted in District Mirpurkhas from June 2011 to July 2012.

Materials and Methods: This study was carried out to collect data on pre-structured, self-administer questionnaire asking questions regarding demographic variables, qualifications/ experience of pharmacists in the field, license of pharmacists, knowledge of pharmacists regarding indications, contraindications, side effects, doses, route of administration of various OTC medicines.

Result: The current study was undertaken in district Mirpurkhas. 97 pharmacies/medical stores/ general stores/ super stores where chosen randomly. The person who used to sell medicine there was asked to fill the questionnaire. Beyond this point this study will use term pharmacist for all the respondents who used to sell medicine and consented for this study. The mean age of respondent was 34.93%, their attitude and type of qualification of seller as well as type of shop and availability of license and their experience of selling the medicine.

Conclusion: Pharmacist in district Mirpurkhas are less knowledgeable regarding the indications, contraindication, side effects, doses and routes of administrations of OTC medicines. They neither take care while selling these OTC medicines to addiction patients nor advise the safety measures to their customers.

Key Words: Practices of Pharmacists, Counter Medicines, Attitude, Mirpurkhas District

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INTRODUCTION

Over the counter medicine or nonprescription medicine are defined as drugs that are safe and effective for use by the general public without seeking treatment by a health professional

These are called so because these are sold over the counter, which means they are sold directly to the consumers/ patients without a prescription from a doctor as compared to prescription drugs, which may be sold only to consumers possessing a valid prescription.[3].93% of American adults desire to treat their negligible illnesses with OTC medicines before looking for health care. 85% of U.S. parents choose to treat their children's slight complaints with an OTC medicine before going to health professionals.[4] The Substance Abuse and Mental Health Services Administration's (SAMHSA) National Survey on Drug Use and Health [2] exposed that more than 2 million teenagers misused OTC & prescription drugs in 2005[5]. In the United States, the Food and Drug Administration decides whether a medicine is safe enough to sell over-the-counter[6]. In Pakistan currently there is no such effective institution working which could decide and monitor this issue. Because after the enactment of the 18th Amendment the issue of regulating manufacturing, licensing, registration and sale of drugs remained suspended Prior to that the Drugs Control Authority was monitoring all the issues of pharma industry[8]. There is much communal and professional distress about the illogical use of drugs.[2] The frequency proportions are great all over the world; up to 68% in European countries, while much higher in the developing countries[3] with rates going as high as 92% in the youths of Kuwait.[4] Our neighboring countries have prevalence rates of 31% in India and 59% in Nepal.[3] Very few studies regarding self- medication have been conducted in Pakistan which have also

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confirmed high rates of prevalence of around 51%.[6] It is also shocking that the occurrence rates are on the increase in spite of struggles to limit this problem.[5] Various earlier studies have revealed that self-medication observes are more common in women and in those; who live alone, low privilege status, have more chronic ailments, have psychiatric conditions, are of younger age and in students.[3,8,9]

Pakistan has one of the poorest safety records when it comes to pharmaceuticals. Several charges of indecent doings by the pharmaceutical companies surface each year but they all strangely vanish after a period. The government of Pakistan does not officially sustain any facts concerning unjust deaths and serious damages that rise in the general public due to the intake of doubtful medicine. This is not due to deficiency of equipment for data collection, but a conscious and suitable plan to not deal with the problem at all.[5,6]

The statistics of drug inspectors, drug controllers who efficiently lookout or observer thousands of retail chemist shops are inadequate and hence small towns and rural areas are unnoticed. Abuse recommendation of medicine and OTC drugs can often lead to psychological and physical dependence. People use greater than before amounts of drugs to confirm a sense of wellbeing while treating dissimilar illnesses or health problems, or for non-medical purposes. Many medications contain alcohol and narcotics such as codeine, which can be addictive and life-threatening. There is a lengthy list of side effects and health concerns.[11]

In Pakistan, nearly every pharmacy sells drugs without a instruction; a occurrence seen in many developing countries. Consequently, antibiotics and potentially habit forming medicines are easily available to the common man. This together with poor awareness leaves the layman uninformed about the potentially fatal properties of some of these drugs. [5] Also, the lack of a good primary health care system together with cost matters causes the general public to attitude various other doors instead of a doctor's to seek help for a problem. In Pakistan there is practically no difference between recommendation of drug and OTC products. The nonmedical use of drug drugs in the past month among young adults aged 18 to 25 increased from 5.4% in 2002 to 6.3% in 2005, primarily because of an increase in the abusive use of pain relievers.[13]

Patients in drug-addiction recovery may be even more vigilant than the physician. They are acutely aware of the significances of decline and do not want to experience the problems of addiction again. For that reason, some people in retrieval may for go opioid medications even in the phase of severe trauma.[12]

MATERIALS AND METHODS

A Descriptive cross sectional study was carried out in the District of Mirpurkhas during a period of one Year.

Sample size: Taking the prevalence of knowledge of pharmacists at 50% in Pakistan, level of significance 90%, margin of error 10%, and using single proportion formula the sample size calculated is 96.4, rounded off to 97.

Sampling technique: Simple Random Sampling.

Sample selection: A list of pharmacies/ medical stores and general stores where OTC medicines are sold was obtained from the Drug Inspector's office of District Mirpurkhas. Pharmacists/ Sellers of medicine of randomly selected pharmacies were approached by researcher himself.

Inclusion criteria:

- Pharmacy or a General store where only prescription medicine are sold over the counter.
- A person who is selling the over the counter medicine in his shop.

Exclusion criteria:

- Pharmacy or a General store where nonprescription medicine are sold over the counter.
- Unwilling to participate in the study.

Data Collection Procedure: Data were collected on pre-structured, self -administer questionnaire asking questions regarding demographic variables, qualifications/ experience of pharmacists in the field, license of pharmacists, knowledge of pharmacists regarding indications, contraindications, side effects, doses, route of administration of various OTC medicines. Attitude of pharmacists towards the patient or the buyer type of different OTC groups, average number of buyers of OTC were asked. Age, gender of the patient or the buyer whom pharmacists sell medicine, prescription, commonly asked OTC medicines, queries of the patient or the buyer & instructions given by pharmacists were asked.

Data Analysis Procedure: After entering the data in SPSS version 16, descriptive statistics like mean, median, were calculated for numerical variables. Results were displayed in frequency tables, bar graphs, pie charts etc.

Ethical Consideration: Study was started after approval from Baqai Institute of Health Sciences, Baqai Medical University. An informed consent was taken from the participants.

RESULTS

The current study was undertaken in district Mirpurkhas. 97 pharmacies/ medical stores/ general stores/ super stores where chosen randomly. The person who used to sell medicine there was asked to fill the questionnaire. Beyond this point this study will use term pharmacist for all the respondents who used to sell medicine and consented for this study.

A. General characteristics of the respondents:

i. Age of respondent

Table: 1. Descriptive Statistics

n=97	Minimum	Maximum	Mean	Std. Deviation
Age of respondent (Years)	18	55	34.93	12.07

Table No.2: Age categories of respondents

Age categories	Frequency	Percent
Below 20 Years	10	10.3
21- 40 Years	49	50.5
41 and above	38	39.2
Total	97	100

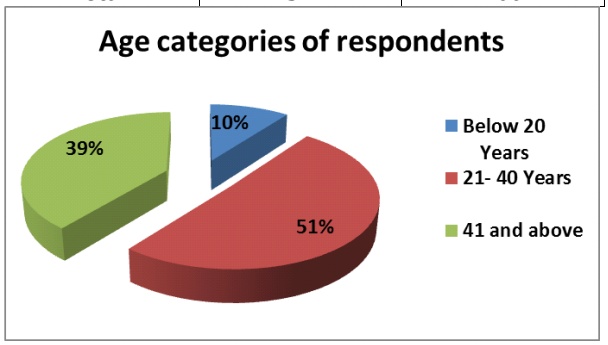

Figure No.1: Age categories of respondent

ii Qualification of respondent

Table No. 3: Qualification of respondent

Qualification	Frequency	Percent
B. Pharm	4	4.1
B. Sc.	6	6.2
Intermediate	17	17.5
Matriculation	41	42.3
Primary	21	21.6
None	8	8.2
Total	97	100

Type of shop of selling OTC medicine

Table No.4: Type of shop

	Frequency	Percent
Pharmacy	4	4.1
Medical Store	51	52.6
General Store	30	30.9
Super store	2	2.1
Other	10	10.3
Total	97	100.0

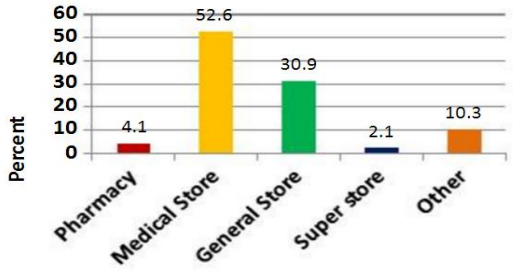

Figure No.2: Type of shop

iv . Availability of License

Table No.5: Availability of License

License	Frequency	Percent
Yes	47	48.5
No	50	51.5
Total	97	100

V. Experience of selling medicine

Table No. 6. Work experience of pharmacist

Working as pharmacist since	Frequency	Percent
Upto 10 years	53	54.6
11 to 20 years	35	36.1
21 to 30 years	9	9.3
Total	97	100.0

B. Knowledge of regarding the indications, contraindications, doses and side effects of various over-the-counter medicines:

Table: 7. Knowledge of generic names, trade names, different indications and contraindication of OTC medicine

n=97		Frequency	Percent
Knowing the difference of generic and trade name	Yes	72	74.2
	No	25	25.8
Knowing different trade names of OTC medicine	Yes	62	63.9
	No	35	36.1
Knowing the indications of different OTC medicine)	Yes	50	51.5
	No	47	48.5
Contraindication	Yes	51	52.6
	No	46	47.4

Table No. 8. Knowledge of doses, side effects and potential addiction of OTC medicine

n=97		**Frequency**	**Percent**
Knowing doses of medicines in children <2 years of age	**Yes**	31	32.0
	No	66	68.0
Side effects	**Yes**	34	35.1
	No	63	64.9
medicine which you think pts can become addict	**Yes**	60	61.9
	No	37	38.1

DISCUSSION

In response to demands for more consumer choice and reduced health care costs, there has been a movement worldwide to make prescription drugs available as over-the-counter (OTC) products.[2,4] .The availability of drugs on an over-the-counter basis, including those previously available only by prescription, provides patients with improved access to effective therapies. In Pakistan there is practically no distinction between prescription and OTC products.[5] Pakistan has been impressing upon the MOH that like in UK, USA and other developed countries or even in any developing country separate lists of OTC products and prescription products should be maintained. Under our Drug Act all drugs are meant to be prescribed. [5,6] But, unfortunately,

it is not taken into account by these authorities despite of cry. The law is there. But no one to enforces it. Anyone can just go to a chemist shop and buy whatever medicine he wants; and the chemist would not say no, because there is no check.[5]

Many studies conducted on the subject of OTC drugs have examined the users' understanding of the cause of symptoms and of indications for using the drug but saw the knowledge, attitude and practice of those who are selling this OTC medicine to the consumers.[5,6,17,20,23] To the best of our knowledge this is first study at local level to understand pharmacist perspectives regarding OTC medicine

It was seen that in district Mirpurkhas there is lack of proper lawful selling of over the counter medicines. We counted all the shops where medicine was sold as a pharmacy in order to understand the actual situation of pharmacy practices which was aim of this study. More than half of pharmacies did not have a license of selling medicine. Among these 44% were general stores, super stores and other shops. It was also important to note that even at some medical stores the license of selling the medicine was not available. For getting a license to sell medicine or run a pharmacy one must be qualified and have at least an education till intermediate. In this study it was observed that only 28% people had a educational level of intermediate or above. While the rest of 72% people who used sell OTC medicine in district Mirpurkhas had education till matriculation or below matriculation. . At these shops the owner had hired the license from someone else that had a diploma in pharmacy and was licensed to sell medicine. Simultaneously it was interesting to note that about 8% of the respondent, who were selling OTC medicine, were completely illiterate

Further it was also seen that the knowledge of these pharmacist was not sufficient regarding the generic names, trade name, indication, contraindications and side effects of OTC medicine. Twenty five percent of pharmacists could not differentiate between the generic and trade names of OTC medicine. Nearly one third of the respondent pharmacist could tell us at least three different names of similar generic name OTC medicine. About 1/3 could answer the side effects of selected OTC medicine while only two thirds had knowledge about OTC medicine to which one can become addict like Avil, Diazepam and codeine etc.[22-25]

Thus it is great public health issue in our society and must be taken care of because due to the difficulty in accessing health care services, self-medication is often the simplest option for the patient. Upon stratified analysis it was observed that age was significantly associated with knowledge about generic/ trade names of OTC medicine (P value <.0001), their indications (P value 0.005) and side effects (P value =0.035).

The role of district drug inspector in prevention of irrational and unlawful selling of OTC medicine is of critical importance.

This study has some limitations. Firstly due to time and financial limited resources small number of pharmacist were selected. Secondly if the perspective of consumers could be recorded that it would have increased the internal validity of this study. Still the study has identified many weaknesses of the pharmacy sell system in the studied area. The study also had identified areas of further research among which most important is consumer perspective.

CONCLUSION

Pharmacist in district Mirpurkhas are less knowledgeable regarding the indications, contraindication, side effects, doses and routes of administrations of OTC medicines. They neither take care while selling these OTC medicines to addiction patients nor advise the safety measures to their customers. Pharmacists, being active members of the healthcare team can play an important role in providing patients proper OTC medicine and counseling so as to improve patient compliance and hence the therapeutic outcomes and quality of life. It also helps in many ways to improve the quality of healthcare system with better patient care and therapeutic outcomes. There is need to increase and tighten the monitoring and vigilance mechanism of these medicines in order to impose the safe pharmacy practices and to prevent any kind of misconduct.

Recommendations:

- Rules should be revisited and amended by the policy makers in order to stop the unlawful selling of any kind of medicine in Pakistan
- Strict monitoring by the drug inspectors of the area should be implemented by doing regular as well as secret and sudden visits of pharmacies
- OTC medicine should be sold only on medical stores and pharmacies
- Only qualified persons should have the license and authority to sell these medicine
- No unqualified person should be allowed to open a pharmacy or medical store
- Underage selling and purchase of OTC medicine should also be banned
- Pharmacist should inform the law & order system about the addict person who tries to purchase these OTC medicines
- Prescription only medicine should not be sold as OTC medicine at any cost
- Heavy fines and punishment should be imposed on those who do not abide by the rules

Conflict of Interest: The study has no conflict of interest to declare by any author.

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