

Brief Communication

The irrational offering of benzodiazepines by medicine shops in Bangladesh: Recommends implementation of retail pharmacy as soon as possible

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Abstract

As controlled drugs, benzodiazepines are one of the most familiar prescription drugs. This present study was designed to determine the proportion of medicine shops that irrationally offered benzodiazepines without prescription in the Chittagong division of Bangladesh. A cross-sectional study on the sample of 563 medicine shops was conducted from July 2015 to August 2015. A simulated client methodology was used to complete this survey. Among the total 539 medicine shops, 237(43.97%) medicine shops were offered benzodiazepines. On the other hand, 302(56.02%) medicine shops were denied to sell benzodiazepines. The offering of controlled drugs without the prescription was terrifyingly high by medicine shops in the Chittagong division. Thus, the responsible authority should be taken steps to overcome this irrationality.

Keywords: Benzodiazepines, medicine shops, prescription and irrationality.

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Introduction

Benzodiazepines are one of the most ordinary prescription drugs used as medically and non-medically.¹ They enhance the effect of the neurotransmitter gamma-aminobutyric acid (GABA) at the GABA_A receptor, resulting in sedative, hypnotic (sleep-inducing), anxiolytic (anti-anxiety), anticonvulsant, and muscle relaxant properties.^{2,3} Benzodiazepines may be categorizing into three major categories, namely short, intermediate, or long-acting. The short and intermediate-acting benzodiazepines are preferred for the treatment of insomnia, whereas longer-acting benzodiazepines are suggested for the treatment of anxiety-like disorder.⁴ In elevated doses,

various shorter-acting benzodiazepines may also cause anterograde amnesia and dissociation. These types of properties make benzodiazepines useful in treating several medical conditions like anxiety, insomnia, agitation, seizures, muscle spasms, alcohol withdrawal together with as a premedication for medical or dental procedures.⁵ The non-medical use of benzodiazepine drugs is recognized as misuse or abuse. The make use of benzodiazepines without a prescription often for recreational purposes which possess risks of dependence, withdrawal and other long-term effects.^{6,7,8} In terms of recreational use, benzodiazepines are usually administered orally but sometimes they are taken

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intranasally or intravenously. Recreational use produces similar effects to alcohol intoxication.^{8,9} In investigations on pentobarbital trained rhesus monkeys and benzodiazepines produced effects similar to barbiturates.¹⁰ The common five generics of benzodiazepines were alprazolam, bromazepam, chlordiazepoxide, lorazepam and triazolam.¹¹ In all over the country, these drugs must be dispensed with a prescription of the certified physician.

In Bangladesh, many pharmaceutical companies marketed several generic of benzodiazepines and these are widely available in medicine shops. This study was designed to determine the number of medicine shops that irrationally offering these controlled drugs without prescription in Chittagong division of Bangladesh and to increase awareness on the basis of the irrationality.

Materials and Methods

A cross-sectional study on the sample of 563 pharmacies was conducted in Chittagong division of Bangladesh, between July 2015 and August 2015. The sample was taken randomly from different regions of Chittagong division, such as Chittagong city corporation area, Noakhali and Comilla.

For this study, a simulated client methodology was used.^{12,13} First, each pharmacy was visited once by one investigator who asked the retailer as a buyer about the availability of these drugs with their brand name or generic name. Second, investigator analyzed the motive of retailer about whether he wants to offer or not. Last, immediately after leaving the pharmacy, investigator completed a standardized data form that included information about the name and location of the pharmacy. The possibility of the irrational offering of drug recorded on the data sheet marking with tick sign. The actors used to lay language along with refraining from using any jargon.

Every investigator analyzed the data individually and submitted the report to the principal investigator. After that, the principal investigator accumulated all the data. In this regard, simple statistics were applied to the collected data and results were finally expressed in percentages.

Results and Discussion

In this study, total 539 pharmacies were studied, where controlled drugs benzodiazepines were offering by the 237 (43.97%) pharmacies. On the contrary, but 302(56.02%) of pharmacies denied to offer these drugs.

This study found that many of the medicine shops were offered benzodiazepines. According

to the First Schedule of the Narcotics Control Act, 1990 benzodiazepines are C-class controlled drugs.¹⁴ The National Coordinating Council for Medication Error Reporting and Prevention defines a “medication error as any preventable event that may cause or lead to inappropriate medication use or patient harm. The events of medication error may be related to professional practice, healthcare products, procedures and systems, including prescribing; order communication; product labeling, packaging and nomenclature; compounding; dispensing; distribution; administration; education; monitoring and use”.^{12,15} Regarding this definition, it was an irrational practice by the retailer and they dispensed controlled medicines without a prescription, therefore, a patient can be misused this medicine, thus, it was a medication error also. According to the National Drug Policy 2005, drugs or medicines, other than non-prescription (OTC) drugs should not be sold or dispensed without the prescription¹⁶. So, this irrational practice also had broken the established rule.

There were different reasons for irrational offering of these controlled drugs without prescription, such as lack of availability of retail pharmacies, lack of proper functions of retail pharmacies as well as retail pharmacist, patient acceptability with lack of awareness, to maintain business policy of pharmaceutical company and to minimize loss of pharmaceutical company, improper monitoring system of dispensing of drugs, and improper utilization of established law etc.

First, irrational offering and easy availability of these drugs might be leading to drug abuse among the young generation because of the possibility of getting drugs might be leading them to addiction. Second, it might be leading to drug misuses in all aged people through the unnecessary taking of drugs for mental satisfaction. Third, benzodiazepines addiction might be leading to the acceptability of more potent drugs like morphine and amphetamine. Last, it will be leading the social crimes and erosion of social and religious values and people are losing their faith to one another and suicide rates are also to be increasing. To minimize this type of irrationality, as well as medication error following initiatives are recommended. First, the regulatory authorities should be monitored through the regular supervision and they must ensure licensed and registered pharmacist for every retail pharmacy. Second, the proper functions of the retail pharmacist should be implemented and without medical prescription, a

retailer should not sell controlled drugs. Third, every retail pharmacy should obey the rules of regulatory authorities; they should be given priority on the patient safety prior to their own benefits. In the end, regulatory authorities of the government (especially, health ministry and drug administration) should be worked together to ensure implementation of retail pharmacy and positions for the registered graduate pharmacist in a retail pharmacy.

Conclusion

Considering the above discussion, in medicine shops of Chittagong division, the practicing pattern of benzodiazepines were very unsatisfactory. The responsible person should take necessary steps to stop this irrationality and it is the best time to ensure proper pharmacy practices in the whole of the country. On the contrary, if the implementation of proper pharmacy practices right now, in the near future, there is an extreme possibility of our country

people to suffering for dangerous health hazards and drug abuse or misuse will be more serious. This study has also opened the gateways for further research on this issue, besides showing that it is a real problem and should not be ignored. There some limitations of this study were, this study was limited to a division of Bangladesh and different drug of benzodiazepines were selected from different regions.

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