SHORT COMMUNICATION

FREQUENCY AND RISK FACTORS ASSOCIATED WITH SELF MEDICATION OF SEDATIVES AND HYPNOTICS

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ABSTRACT
The frequency of administration of sedatives and hypnotics has been discussed. The questionnaire filled by female volunteers of different age groups revealed that these drugs were used illegally for sedation purposes and are administered without any prescription. A total number of 100 self reporting questions were distributed to students of different age group. The percentage of self-administered hypnotics and sedatives were high last year. The drugs often used for common symptoms were seasonal flu followed by fever, pain and discomfort. Antihistamines are usually self-administered at night as sleep aids. The patients’ selection criteria of drugs were mostly without any prescriptions. They preferred cheaper, less toxic and more effective drug. Those medicines which were effective in their past experiences or easier to get after the consultation with the pharmacist were preferred. The self medications of these sedatives and hypnotics resulted in adverse effects in almost all the patients. These results were stomach upsets, headaches, and severe dizziness and addiction. The patients changed the drugs after experiencing the adverse effects. Most of the patients find it very relaxing and acceptable practice to take the drugs without any guidance or consultation. However, sedatives and hypnotics are not good for health so they should be prohibited as self medication.

Keywords: Sedatives, hypnotics, addiction, anxiety, pain, allergy, self medication.

1. INTRODUCTION
Self-medication is a component of self-care and it is considered as primary public health resource in health care system. It is defined as use of non-prescription medicines by patients on their own initiative. Self-medication also encompasses the use of the medicines for self-perceived health problems. Self-medication consists of health-related decision taken by individuals, families, friends or colleagues at work, among others. It includes self-treatment, social support in illness and first aid in daily life.

Self-medication increases the chances of illicit use of drug and drug dependency. It masks the sign and symptoms of underlying disease thus complicating the problem, creating drug resistance and delaying diagnosis. Easy availability of the drugs over the counter facilitates self-medication. It is a universal phenomenon and practiced globally with varied frequency. However, it is higher in low and middle income population. Research showed that literate people tend to practice self-medication more than illiterates.

Since the non-prescribed use of tranquilizers or sedatives is a cause for concern, the present study aims to estimate the prevalence, hazards and risk factors associated with it.

Sedative-hypnotics are a group of drugs that cause CNS depression. Their effects range from calming down anxious people (sedation) to promote sleep (hynpnosis). The tranquilizers and sleeping pills can have either effect, depending on its frequency. Benzodiazepines and barbiturates are the most commonly used agents while those which treat allergic reactions are known as anti allergics. Most of these drugs act by preventing the release of inflammatory mediators or inhibiting the actions of...
released mediators on their target cells. It may include skin rashes, cough, wheezing, sneezing, etc. Benzodiazepines such as Xanax enhance the effect of the neurotransmitter gamma-aminobutyric acid, which results in sedative and hypnotic effects. This study presents the results on the Pakistani population, their attitude and practice towards self-medication. The study was designed to:

1. Find out the frequency of self-medication.
2. Find out the difference in the proportions of drugs used for its sedative effect.
3. Find out the most common category of drugs used for sedation.
4. To study harmful effects of self-medication because of the lack of doctor’s advice.

2. METHODOLOGY
A cross-sectional questionnaire-based study was conducted during October 2013 to November 2013. A total of one hundred self-reporting questions were distributed to students from different level of medical education, relatives, friends and neighborhood. The adapted questionnaire consisted of 16 different questions from various studies.

The questionnaire consisted of both open and close ended questions. The act of filling and returning of the forms was taken as consent of the people to participate in the survey. The lead question was “Have you ever treated yourself (self medicated) with any sedative or hypnotics?” This question was chosen because sedatives, tranquillizers are not included in OTC drugs. They are prescribed by the physicians and normally not to be taken as self medication. Other questions included: "The reasons for indulging in self-medication, conditions for which the drugs were taken and the sedatives hypnotics that were being used. The information obtained included bio-data of the respondents, history of self medication, type of drugs employed and the reasons for resorting to self medication. The data obtained was collected and analyzed using frequency tables as well as excel sheet.

3. RESULTS AND DISCUSSION
The percentage of self-administering sedatives/hypnotics was 73% during the past 12 months. The most common problem for self-administration of sedatives/hypnotics were common cold (59.6%), fever (46.2%), and cough (40.0%). Other reasons were anxiety, depression, insomnia, pain etc. and the drugs taken most commonly among them were anti allergies. According to the result found from the bar chart plotted on excel sheet, the use of anti allergies was 54%, cough syrups 31%, benzodiazepines 29% and pain killer 17%. Among anti allergies piriton, new introduced combination of paracetamol and chlorphenamine (panadol CF), avil and rigix were frequently used besides these cough syrups. The second widely used types of sedatives included sancos, hydraline and tandegyl. Dangerous effects of cough syrup addiction must not be underestimated. Overdose of cough syrup, particularly when combined with alcohol and other drugs is possible. Among the 27 respondents who self medicated with sedatives, the majority (80%) had previous experience in using such sedatives; in which such a previous successful experience was the main reason of such use (54%). About 82% of population know the dosage from their previous experience, 19% by checking the package insert, 27% by consulting the family member and 2% from internet. The patient’s ratio about checking the instructions on the package was 76.4%.

The surveys indicate that people throughout the world encounter the same common health problems in roughly the same frequency. The common cold is the most frequent ailment among the population sampled followed by headaches, cough, sneezing body aches and pains. The study highlighted patterns of use where panadol CF, piriton, arinac and different cough syrups were the self-medicated sedatives that are purchased mainly from pharmacies. Such practices were based on reasons of previous
experiences, which saves time and money. This is based on the information obtained from health professionals, lay people, and printed materials. The pharmacy personnel tend to be businessmen rather than professional. When sedatives especially benzodiazepines are requested by consumers, requests are neither refused nor questioned. This is again one of the reasons for high frequency of self-medication of tranquilizers.

It was found that high percentages of the population always read the label or package insert thoroughly before taking a non-prescription medicine. The information about sedatives or hypnotics were obtained from health professionals, friends/relatives, and printed materials. About 56% of them do not change doses or type of sedatives during self treatment, other sometime switch or change the dose to improve the condition because the former medicine did not work which increases the chances of adverse effects. Some of the people who were using benzodiazepines or self prescription experienced adverse reactions i.e vertigo, dizziness, fatigue. Abrupt cessation can lead to convulsions, fits, seizures, etc. therefore, the dose must be tapered down. The study identified that main reason for self medication was convenience or cost saving. A small percentage showed lack of trust towards doctors. Above 85% think that self medication is not an acceptable practice for self health care. A high percentage of people consider the brand at the time of selecting sedatives and their selection is based on previous doctor prescription and 48% on the opinion of friends. It is necessary to consult doctors on the second exposure with the problem because he knows better which type of sedative and what dose with what combination is suitable for your existing problem. The wrong dose, type and combination, the risk of developing adverse effects and hazards can increase two folds for example if a patient recently prescribed anti depressants or anxiolytics for his complaint and he is also suffering from cough and fever then he must consult his physician before taking the cough syrup because now he needs dose adjustment, otherwise cough syrups or any antihistamines having sedative effect with the prescribed barbiturates or BZD can potentiate or prolong the effect of sedation which is dangerous.

**Fig. 1.** Frequency of self medication among population (n=100).

**Fig. 2.** Most widely used drug classes.

4. CONCLUSION

The study indicated the need for legal regulations regarding the sale of sedatives without prescription. Health education is required for the community to decrease the frequency of usage of sedatives because it is not a good practice and may increase the risk of adverse effects.

REFERENCES


2. Joint Statement by the International Pharmaceutical Federation and the World Self-Medication Industry. Responsible Self-


