



OVER-THE-COUNTER MEDICINES (OTC): A SURVEY CONDUCTED FOR ANTI ASTHMATIC DRUGS ON PATIENT INFORMATION AND EDUCATION

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ABSTRACT

The rapid proliferation of drugs being switched from prescription (Rx) to over-the-counter (OTC) drugs. The aim of this study was to investigate the general public's opinion and perceptions of OTC medicines. The study was conducted in randomly selected urban and rural areas of Saurashtra region of Gujarat, India, between the years 2009 and 2011. Qualified pharmacists appraised of the survey procedures and study was conducted using specially prepared questionnaires. 201 responses with bronchial asthma were recorded and analyzed. Questions were explore the social and demographic variables, detailed assessment of non-prescription use of anti asthmatic drugs and self-reported medical illnesses. During the purchase of OTC drugs, we were tried to know if the patient had any knowledge of drugs and its side effects and regularity in taking medicine. The results of present study suggested that non-prescription use of anti asthmatic drugs is relatively uncommon.

Key Words:- Over-the-counter medicines, Anti asthmatic drugs, Non-prescription use.

INTRODUCTION

In recent years there has been an increasing trend in self-medication with non-prescription drugs [over-the-counter (OTC) medicines] available in pharmacies and in retail outlets. In parallel, more products have been deregulated for purchase without a prescription (Bond C, 2001). Self-medication has advantages for healthcare systems as it facilitates better use of clinical skills of pharmacists, increases access to medication and may contribute to reducing prescribed drug costs associated with publicly funded health programmed (Hughes CM,

2001). However, increasing availability of non-prescription medicines may delay/mask the diagnosis of serious illness (Hughes C, 2003), with increased risks of interactions and adverse reactions and self-treatment being undertaken when medical aid should have been sought (Bradley CP, 1996; Hughes L, 2002). There has been relatively little systematic research on the topic. Therefore, this study sought to elicit the opinions of the public regarding OTC medicines for bronchial asthma. Over the past three years, we evaluated a number of patients at the saurashtra region of Gujarat, India, with co-operation of retail pharmacist in selected rural and urban areas, 201 responses were recorded and analyzed. Patients who visited retail pharmacy outlet to purchase non-prescription drug for bronchial asthma were interviewed and asked for the reason why they had gone for self medication.

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Questions were designed to highlight self-medication rate, number of drugs purchased, factors influencing self-medication and knowledge of patient regarding importance of entire course and side effects of drugs. The results of this study emphasize the need for comprehensive measures, including information, training, legislation and education at all levels of the drug delivery system, to rationalize drug therapy by improving prescribing patterns and influencing self-medication.

METHODS

This public opinion survey was administered using a structured interview technique (Mayyada Wazaify, *et al.*, 2005). The target sample size was 201. The questionnaire consisted of 18 questions (pre-formulated). All interviews were conducted in retail outlets; it was decided to study 5-10% retail pharmacy outlets in isolated area nearby to the bus / railway station, nursing home, government hospitals and reasonably populated residential area. We also considered geography of that particular cities or town. Selected retail pharmacy outlets covered all types of population of cities as well as nearby areas. The study took place between the years 2009 and 2011. Members of the public, who were randomly approached, asked to participate. Participants were informed that the questionnaire was about 'non-prescription' medicines. The questionnaire was divided into three sections: (a) attitudes towards community pharmacy and pharmacist; (b) attitudes towards the use of OTC medicines; (c) views on OTC medicines' use in terms of safety and regularity. Demographic data for each respondent were collected to assist with data interpretation and analysis.

RESULTS

With the increase in awareness to remain healthy, increase in literacy rate, patients getting information about medicine from different media has lead to increase the purchase of medicines from OTC. Out of total 201 responses, it was found that male patients (68.2%) visited more for OTC drugs than female (31.84%) (Table 1). Patients belonging to age group 41-60 years (40.3%) were found to prefer to purchase drugs through OTC as compared to those with age group 21-40 years (21.9%) or

>60 years (27.9%)(Table 1). Patients were found to purchase two (36.32%) or three (31.84%) categories of drugs from OTC compared to four or more (13.4%) drugs purchased on prescription. Few patients purchased one (18.4%) drug also (Table 1).

Among various reasons to make purchase of drugs from OTC, majority of patients faith expressed in pharmacist (31.8%) as one of the most common reasons. Purchase from OTC was also common based on previous prescription (24.9%) or taking a drug for a long time (20.9%). A few patients preferred to purchase from OTC because of economic reasons (25.9%) (Table 1).

During the purchase of OTC drugs, we were tried to know if the patient had any knowledge of drugs, side effects or regularity in taking medicine. Regarding knowledge of drugs 61.2% of the patients were found to have knowledge of drugs, while 38.8% had no knowledge of drugs. Knowledge of side effects of drugs was found in 44.3% of the patients whereas 38.3% of the patients had the knowledge of only few side effects (Table 2).

57.7% of the patients with bronchial asthma were found to be regular in taking all medicines (Table 2). 55.7% at the patients were found to take entire course, while 18.9% were found to take entire course only during the attack. Main reason for discontinuation of drugs was found to feel better with therapy (31.3%). High cost of drugs (23.9%) and side effects (11.4%) were other reasons for discontinuation therapy (Table 2). It was observed that more than 50% patients were regular with entire courses; this indicates awareness of patient with health care.

During their OTC visit, when they were asked about preventive aspects of bronchial asthma and physician's advice. It was found that 43.8% patients were advised to avoid contact with dust particles, 91.5% patients also advised to avoid contact with cold and not to take cold items. Some patients were also advised to avoid spices, sour, fried heavy food etc. Regarding fuel source use in family at home, 62.7% patients were found to use cooking gas as fuel source but with cooking gas, kerosene (27.7%), coke (8.7%) or wood (2.3%) was also used by certain families for water heating and some cooking purpose also.

Table 1. Demographic distribution of asthmatic patients

Age groups (yrs)	Male (137)	Female (64)	No. of drug purchased	No. of patients	Reason for OTC	No. of patients
<= 20	14	9	Single drug	37	faith expressed in pharmacist	64
21-40	31	21	Two drug	73	based on previous prescription	50
41-60	68	27	Three drug	64	taking a drug for a long time	42
>= 61	24	7	>= Four drug	27	economic reasons	52
					other	42

Table 2. Demographic analysis of knowledge and regularity of patients

Knowledge of drugs	No. of patients	Side effects of drugs	No. of patients	Regularity in taking medicine	No. of patients	Reason for discontinuation	No. of patients
All the name	123	All	89	Yes	116	Cost is high	48
Few of the name	73	Few	77	Few	83	Feel better	63
None	3	None	35	None	2	Side effects of drugs	23
						other	5

DISCUSSION

This study revealed that two-third of participants in this survey was male users of pharmacy services for self-medication purposes. Low literacy rate in female may be one of the reasons for this. The percentage of participants belonging to age 41-60 years was higher, represented a slight increase in frequency of pharmacy visits from that previously reported (Blyth F, 2001). There was rise in the number of drugs buying as OTC medicines which may reflect the public's growing confidence in self-care (Bissell P, 2000).

The main factor found to influence the public's choice of OTC medicines was pharmacist recommendation. This is reassuring especially with increasing availability of potent medications without prescription and the increased potential for interactions (Bell H, 2000; Honig PK, 1995). The mean cost of the drugs purchased on doctors' prescriptions was 2-fold higher than the cost of drugs sold over the counter (Dineshkumar B, 1995). Financial constraints were a major determinant in the purchase of OTC drugs.

45% of participants received OTC medicines, based on previous prescription or taking a drug for a long time. This may have implications in respect of safety. This

research revealed that almost 58% were found to be regular in taking all medicines, while 42% were not taking; the main reason for discontinuation was feel better with therapy or high cost of drugs.

Just over 60% of participants reported were found to have knowledge of OTC drug before they used the product. This could be due to an increase in people's confidence over time in relation to self-treatment (Hughes L, 2002). Detailed information of side effects of drugs was found in 45% of the patients. This decrease could be due to people's belief that only safe medicines are permitted to be sold without prescription and that OTC medicines do not usually have serious side-effects (Hughes L, 2002). Some patients were restricting to cold, spices, sour, fried heavy food etc was recorded, because some individuals have allergy induced asthma or exacerbation with them. By this way, one could control the asthma attack.

The challenge in controlling the problem of OTC drugs is to achieve the necessary high level of consumer safety for the few at risk, while not restricting access to OTC products for those who continue to use them safely. It is recommended that by monitoring usage of certain OTC products, in addition to education, safe and effective use of such medicines can be promoted.

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