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Research Paper

Self-Medication and over-the-Counter Medicine Usage Among the University Students in Chidambaram

Management

KEYWORDS : Self-medication, OTC medicine, University students

Gomathisankar K — Business Administration, Marketing, Faculty of Arts, Annamalai University

Selvarasu A — Business Administration, Marketing, Faculty of Arts, Annamalai University

ABSTRACT

The sources of information are similar, whether one lives in a developing country or in a developed one. A person may seek advice from 'an older person in your household who possesses the knowledge of simple herbal remedies for common illnesses' or with a pharmacist because they can 'provide a good help to assess the symptoms' and 'spend time explaining how to use the medication properly' Or one may purchase an over-the-counter (OTC) medicine 'based on a previous medical recommendation'. The present study evaluates the practice of self medication through over the counter medicines usage in a selected group of university students, both male and female, living in Chidambaram. 300 subjects (150Male and 150Female) aged 19-25 years, participated as random volunteers in the study. Students were asked to fill out self-reported questionnaire that included questions on their medication habits. Also, their preferences on OTC medicines related to their general ailments. The surveys showed that OTC medicines are needed to treat common health problems, Well respected by consumers, used appropriately, carefully and safely, appreciated for their wide availability, Seen by many as being as effective as prescription medicines. Nowadays people are keen to accept more personal responsibility for their health status. Pharmacists are advisors to the public on everyday health care and key figures in the supply of medicines. To establish awareness about self medication and OTC medicine usage, conduction of a large scale survey has been suggested.

1. Introduction:

1.1 Self Medication

Self-medication is the use of nonprescription medicines by people on their own initiative. Statistics indicate that modern Americans especially prefer to self-medicate. One survey reports that 73 percent would rather treat themselves than see a physician and often use nonprescription medicines before seeking the advice of a doctor or pharmacist (Bienkinsopp and Bradley, 1996; Koch et al., 2002). Self-medication is the treatment of common health problems with medicines especially designed and labeled for use without medical supervision and approved as safe and effective for such use. A definition of self-care from WHO: "Self-care refers to unorganized health activities and health-related decision-making by individuals, families, friends, colleagues at work, etc.; it includes self-medication, self-treatment, social support in illness, first aid in a 'natural setting', ie, the normal social context of people's everyday lives. Self-care is definitely the primary health resource in the health care system. It does not imply purposeful organization and is often provided on an ad hoc basis in intimate settings." Pharmacists have a key role to play in providing people with assistance, advice and information about medicines available for self-medication (Peter J. Kielgast &Anthony J. Jamison, Responsible self medication WSMI, 1999). Self-medication with OTC drugs has long been a part of human life (Covington, 2006; Stallings, 1992). Since the "dark age" of patent medicines, peoples have turned to OTC medicines for self-treatment (Soller, 1998). However, the behavior is especially prevalent today, and the trend represents an opportunity for OTC marketers (Pinto and Gehthrt, 1991). Medicines for self-medication are often called 'non-prescription' or 'over the counter' (OTC) and are available without a doctor's prescription through pharmacies.

1.2 OTC Medicines

OTC medicines are required to be thoroughly screened and approved as reasonably safe and effective for self-medication (Berry, 2001).

OTC drugs are:

drugs that do not require a doctor's prescription;

bought off-the-shelf in stores; and

Regulated by the Food and Drug Act (FDA) through OTC drug monographs which tell acceptable ingredients, doses, formulations, and labeling of drugs.

The trend toward self-medication is driven by a number of factors – increasing patient autonomy (empowerment), the shifting balance of power in the health professions (e.g. more involvement of the pharmacist in patient advisement), and the expanding accessibility of health information (Bienkinsopp and Bradley, 1996). The doctors prescription accounted for 51.3% as against self-medication rate of 46.9%. In most less developed countries (LDCs), almost any drug available on the market may be purchased over-the-counter (Ferguson, 1981; Krishnaswamy et al., 1983; Logan, 1983; Tomson and Sterkey, 1986; Greenhalgh, 1987; Hardon, 1987; Van der Geest, 1987; Haak, 1988; Price, 1989; Goel et al., 1996; Trostle, 1996; Van der Geest et al., 1996). In the same time developed countries like USA ,one report says that 92 percent of Americans consider OTC drugs effective, 83 percent consider them safe, 50 percent would like to see more Rx drugs switched to OTC, and 90 percent are confident in their abilities to treat themselves (Covington, 2006; Koch et al., 2002). In the case of 19-25 age peoples mostly OTC products are an essential component of any health care system. According to a one-year survey in the United States, six of the ten most frequently used drugs, including the top four, were OTCs.

1.3. Methods:

The samples were male and female students from annamalai university hostel, Chidambaram, Tamilnadu. In total there were 150 female & 150 male students in different years. We aimed to consider students aged between 17-25 years. A total of 300 students, who were present at the hostel at time of the study were asked to complete the self administered questionnaire of 25 items distributed by the researchers. The aim of the study and the contents of the questionnaire were explained to each subject, and voluntary participation was requested. Subjects who had history of critical health problems like diabetic, heart disease were not eligible for the study. All participants gave written informed consent before enrollment. The questionnaire included data regarding demographic features, primary health problems, medication pattern, severity and associated symptoms of self medication, knowledge about OTC medicine, impact of OTC medicines, the source of their knowledge about OTC medicine & self medication, and whether they required medical help (from a doctor, nurse or midwife) for primary health problems or not and the key drivers behind self-medication practice. Students were asked to identify the year of their first self-medicating practice. Questions such as "Do you remember which grade you were in when you started practicing self medication?", "Do you remember when you first exposed with OTC medicines?" were used to help the subjects remember the experience with self medication and OTC medicine usage. We asked pharmaceutical

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retailers opinion about 'self medicating practice and OTC medicine usage among students'. We asked about which category of OTC medicine preferred by students? The data were analyzed through statistical software.

1.4. Data:

The data used in this research were collected from a wide survey of adult student society, aged 17-25 years, conducted in the students' hostel of Annamalai University. Data were collected in the months of March, April, May and June by using a self administered questionnaire designed to gather information on a wide range of medicine-using behavior. Adults were selected to be personally interviewed on the basis of their self care behavior and the probability samples drawn from 300students randomly selected. From a total of 300 interviews, 282 usable questionnaires were completed. The results presented here are based on the data. Dependent variables were derived from the section of the questionnaire dealing with the use of OTC drugs. Data were collected on the use of a total of 5 different categories, anti cold, antacid, painkillers, anti diarrheal and multivitamins. Data were collected for each category separately and then assigned for analytical purposes.

The entire survey had 25 items and collected data on medication non adherence; patient demographics; minor diseases such as Head ache, fever , ulcer; treatment characteristics such as self medication via OTC, home remedy, etc…, and beliefs in medications; self-efficacy, self-regulation, internal locus of control; social support and attitude by others toward disease; perceptions about own health and illness; and self-reported severity of illness using self-reported illness level and allergic control test.

1.5 RESULTS

Baseline characteristics of participants

All the students (n=300) responded to the questionnaires, of whom 18 were excluded in accordance with the exclusion criteria like incomplete information. Remaining 282 (94%) student's questionnaires were considered for evaluation. Their mean age in years ± SD was 20.13± 2.32 (from 17 to 25 years)

Students action taken against Minor illness

Most of the students had a trust in OTC medicine system (70.21%). Home remedy, Prescription in home, physician's consultation and nil action comprised 6.38%, 13.47%, 5.67% and 4.25% respectively, which satisfied/ drive students for the purchase of OTC medicines for their illness.

Table-1 Actions Taken by 17-25 years students in Response to Minor Illness

Action taken	17-25 years male	17-25 years female	Total	Total %
No action	7	5	12	4.25%
Home remedy	7	11	18	6.38%
OTC products	110	88	198	70.21%
Prescription in home	20	18	38	13.47%
Physicians consultation	6	10	16	5.67%
	150	132	282	100

Diagram-1 Students response to Minor Illness

(C)Prevalence of OTC medicines

About 98% positive respondents committed that they were involved with self medication practices. Drugs which were taken by self medication in various diseases states are Pain killers, anti-cold/cough, antacid, anti-diarrheal, and Multivitamins.

Table-2 Percentage of OTC medicines usage by its Category:

sl.no	Category of OTC medicine	17-25 years Boys	17- 25 years Girls
1	Pain killers	99%	98%
2	Anti cold/cough	73%	43%
3	Antacid	70%	60%
4	Anti-diarrheal	76%	42%
5	Multi vitamins	65%	76%

Diagram-2 Percentage of OTC medicine used by its Category:

Discussion:

We acknowledge that this type of study, using a self administered questionnaire, is largely dependent upon information given by respondents. Although students were encouraged to complete the questionnaire independently, mutual influence between pupils could not be entirely ruled out. However, given the high level of response, the results should closely approximate the behavior of the adolescent students aged 17-25 years. Among the university students 98% of them were preferred self medication. The main purpose of self medication is self-care, establishing and maintaining good health, prevent and deal with illness. It is a broad concept encompassing: hygiene (general and personal); nutrition (type and quality of food eaten); lifestyle (sporting activities, leisure etc.); environmental factors (living conditions, social habits, etc.); socioeconomic factors (income level, cultural beliefs, etc.). Only 20% of girls and 2% of boys preferred physicians' consultation. Self care and self medication are the main keys for the movement of OTC products. Totally 70% of 17 -25 years students (boys & girls) purchase or select OTC products for minor illness. In other study Ya-Ning (Helen) Lo proved that every participant (96.1 percent) had bought OTC medicines from pharmacies for their minor illness. Most respondents (80.7 percent) were aware that OTC medicines could be purchased in convenience stores; however, only 42.2 percent of respondents had purchased OTC medicines from such locations (Ya-Ning (Helen) Lo, August 2006), it indicates that, most of the OTC customers used to get advice from pharmacist. The same result derived from Reader's Digest it suggests that 79 percent of consumers in Canada self-medicate in same way. Hence the pharmacist also plays a vital role in educating the importance of self-care and OTC medicine usage.

Students action against illness

The common disease they faced is Head-ache, Body-ache, Stomach-ache, Gastro-intestinal problem, cough and cold, dysentery, tiredness and sleepiness. Hence majority of the students preferred self-medication with the help of OTC medicines rather than the self-regulated prescriptive medicines. Among the major five categories of OTC medicines, Pain killers took a lead with 99% consumption by boys and 98% consumption by girls; followed by anti-diarrheal 76% : 42%, anti-could/cough 73% : 43%, antacid 70% : 60% and Multi-vitamins 65% : 76% respectively. In another report Rohit K Verma, 2010 briefed the same as maximum respondents 61.27% used Crocin for fever and headcache. Disprin and combiflam were used as 52% and 26% respectively. Remarkable thing was that nice and brufen were also used by students. People throughout the world suffer common health problems and their symptoms are roughly with the same frequency. Surveys conducted in numerous countries indicate that 9 out of 10 people suffer from atleast one aspect of illness during the course of any 4-week period(Responsible self-care and self-medication – A worldwide Review of Consumer Surveys, WSMI-2004).

Conclusion

This descriptive survey shows that the majority of students preferred self medication against the symptoms associated with a short-term, trivial and self-limiting illness (Minor illness). Further, most people in the entire University hostel surveyed 98% students taking OTC medicine carefully.

Our study shown that literate people were more likely to self-medicate than the physician consult to treat their minor illness. Our study suggest that to establish awareness about self medication and OTC medicine usage, conduction of a large scale survey throughout the nation is essential. We also suggest that the students should be educated about the dangers of discriminate use of drugs, and take self medication through OTC medicines in a safest way.

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