Patient Medication Use Prior to Hospital Visit in Debark Hospital, Northwestern Ethiopia

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Summary

Although OTC drugs are designed to be safe and effective the potential for harm always exists. Both prescriptions and non prescriptions drugs are being sold without a prescription in developing countries including Ethiopia. Thus, this study aimed to assess patient medication use prior to hospital visit in Debark hospital in March 2007. A cross sectional study was conducted at Debark hospital in March 2007. The study population was patient who visits Debark hospital in two weeks study period. Patients were selected randomly and each were interviewed using semi-structured pre-tested questionnaire with key indicators on demographic characteristic, type of medication, source of drugs and the information's and the reasons for self-medications. A total of 341 patients were interviewed. Out of the total number of respondents 123 (36%) have self-medicated and most of the respondents 140 (41.1%) were illiterate. Reasons for practicing self-medications were unqualified services given at governmental health institutions, increasing cost of private doctors and not necessary to consult health professional for common diseases. Most of the drugs purchased were OTC and some were antibiotics. Thus, health education to the general public, skilled pharmacy personnel and enforcement of regulations on the sale of prescriptions drugs are recommended to bring about a change in the public health.

Keywords: Patient medication use; Debark Hospital; Self medication.

Introduction

Non prescription drugs are defined as drugs that are recognized by experts to be safe and effective for consumers to use by following the required label directions and warnings [1]. They are intended to be used to treat symptoms of minor discomfort illness or injury [2]. Although OTC drugs are defined to be safe and effective that may be obtained and used without the supervision of a physician or other health Professional the potential for harm always exists. Drug products can cause significant adverse reactions, mast the existences of potentially serious conditions and some OTC drugs may be dangerous when used alone or in combination with other drugs [3].

It is important to educate the general public that although non prescription medicines are perceived as being freely available and the pharmacist has been involved in their supply there are still potential problems with their use. These will be minimized, if the medicine is being used for its intended purpose and at the correct dose and dosage interval [4]. More than one – third of the time people treat their routine problems with OTC Medication in order to receive symptomatic relief from their ailments. This fact demonstrates the popularity of the OTC drugs and reflects the public enthusiasm for medical self - care [3].

As the trend toward self- medicating is increasing and more prescription drugs are switching to OTC status, it is important that health care providers and patients are aware of the potential and hazards of self-treatment. The benefits of self-medicating enable consumers to assume a greater role in the management of their own health and to decrease health care expenditures, but only if they are well informed and administer the medications responsibly [5]. The majority of patients lack an adequate background to accurately diagnose most of the clinical conditions. They may make inaccurate clinical assessment. They may select inappropriate products for their needs or they may not wisely use products that have been selected. So, medications (prescription and non-prescription drugs) can be misused [6].

Self medications present different features in developed and developing countries. In developed countries ethical drugs cannot be purchased freely by consumers but must be prescribed by a physician but in a number of developing countries, however, many ethical drugs are dispensed over the counter without medical supervisions, in this case self-medication provides a lower cost alternative for people who cannot afford to pay medical practitioners and obviates long periods of waiting in over burdened health services. It is often the first responses to illness among lower income people [7].

In America, studies show that billions of health problems are treated annually with one or more non prescriptions drugs as primary therapy or major adjunctive therapy [8]. In the UK, medicines are being reclassified from prescriptions only drugs to allow supply without prescriptions. This allows faster and easier access to medicines to treat minor ailments and allows patients to take greater responsibility for their health. However OTC drugs may pose risks to patients; thus, it is important to understand patients OTC medicine use [9]. In Zimbabwe a study indicated that drugs use before hospital administrations, which is often poorly documented, is a source of potential drug toxicity and may obscure diagnosis of infective illness [10]. Generally, the number of non-prescriptions drugs which can be bought from pharmacies or supermarkets is increasing. Much former prescriptions only medication have been deregulated to pharmacy medicines. These changes make medicines more available to the public. At the same time information on their use becomes less available [4].

The sales of these OTC products will continue to increase in importance for two reasons i.e. the continued sophistications and knowledge of consumers in self-medications and movement of additional prescriptions products to OTC status. The move to self- care, the ongoing switch of potent medications to OTC status and the inability to read and understand OTC labels effectively all point to the potential importance of the pharmacist as an information sources with OTC products. It is clear that the pharmacist is in an opportune position to help consumers with their self -care needs but must take a proactive role to do so [6]. The pharmacist can perform a real services at the time of non prescriptions drug purchase by calling the consumer‘s attentions to labeling, particularly to important directions or warnings [2]. It is critical for pharmacists to become knowledgeable about drugs. So they can appropriately counsel patients on the benefits and risks associated with the drugs. They must remain up - to - date on trends and have a balanced understanding of nonprescription products [11].

In our country much study has not been done in this area i.e. self-medication and OTC drugs this brings limitations to the responsible organ such as the pharmacy in their conduct of work and also the harm of irresponsible drugs use by the society remains unsolved. Thus, this study aims to assess patient medication use prior to hospital visit i.e. on extent of patient medication use, main reasons for using medication and commonly used drug prior to hospital visit.

Methodology

Description of the study area:
The study was conducted at a place called Debark which is found in the northern Ethiopian 100kms away from Gondar town, which was established in the era of Alemseged in 1639 Ethiopian calendar.
It covers about 648 hectares. The annually rainfall goes up to 400ml and more. The temperature ranges from 11^{o}c to 27^{o}c. The total population in the town accounts for about 26,817 among which 13489 are males and 13328 are females. The health institutions are working to their capacity to fulfill the health needs of the community; there is one hospital, a health center, one private pharmacy and two private clinics. There are also several health posts and drug vendors outside of the town. The top ten diseases occurring in this area include pneumonia, tuberculosis, intestinal parasitosis, diarrhea, upper respiratory tract infections, peptic ulcer disease and HIV/AIDS.

Study Design and Population:
A cross sectional study was conducted at Debark hospital using semi-structured questionnaire in March 2007. The study population was patient who visits Debark hospital in two weeks study period.

Data Collection and Management:
The data was collected for two weeks at Debark hospital. The number of patients visit per day at that time was estimated 150. The sample size taken was 341 patients for the two weeks. Patients were selected randomly and each were interviewed using semi-structured pretested questionnaire with key indicators on demographic characteristic, type of medication, source of drugs and the information's and the reasons for self-medications.

Data analysis and interpretation:
After data collection was completed data entry, clearance and analysis was done using EPI Info version 3.2 statistical package. During analysis frequencies of the different variables were determined.

Ethical Considerations:
Permission was obtained from the medical director of the hospital to interview patients at any time in the hospital. Patients who participated in the study were requested to give verbal consent.

Results and Discussion

Socio demographic Characteristics:
The total number of respondents was 341, among them 206 (60.4%) were males and 135 (39.6%) females. More than half of the respondents 223 (66.3%) were in the age group between 23 and 44. In Debark hospital patients come from the urban as well as rural areas. Concerning educational status of the respondents about 140 (41.1%) of the respondents are illiterate. Most of the respondents (65.7%) are married. Concerning the job 48.7% are full time workers where as 21.4% are house wives.

Table 1: Socio demographic characteristics of respondents (n=341), March 2007.

Characteristics	Frequency	Percent (%)
Sex		
Male	206	60.4
Female	135	39.6
Age		
<22	59	17.3
23-33	104	30.5
34-44	119	34.9
>45	59	17.3
Marital status		
Married	224	65.7
Unmarried	84	24.6
Divorced	20	3.9
Windowed	13	3.8
Educational status		
Illiterate	140	41.1
Read /write	63	18.5
Primary	55	16.1
Secondary	70	20.5
Higher education	13	3.8
Residence		
Rural	151	55.7
Urban	190	44.3
Job		
Full time	166	48.7
Part time	19	5.6
House work	12	3.5
House wife	73	21.4
Student	51	15
Retried	13	3.8
Disabled	7	2.1

Patient Extent of Medication Use prior to Hospital Visit:

Of the total number of respondents 123(36%) have self-medicated at least one time in the last 12 weeks. Among the 123, males were 80(65%) and females 43(35%). According to one study conducted in Jimma town, out of the 152 ill people, 27.6% were self-medicated [12], which is almost similar to this study (35%). A study in Vietnam indicated 40-60% of people depend on self-medication [13]**.** A study done in Arabian Gulf University showed that majority 76.9% of the respondents had a positive attitude favoring self-medication and self-medication was practiced by 44.8% of the subjects [14].

Patient Knowledge on Side Effects and Interaction

Most of the respondents who self-medicated are illiterate, and concerning side effects and interactions most of the patients (98.4% and 74.8% respectively) have no idea. This indicates the problems in assessing and understanding labels before taking the medication. In the first place, the respondents don't even know that they have to understand the labels and follow instructions.

Of the total number of those who self-medicated 120 (97.6%) of them don't know the side effects of the drugs that they took. And 92 (74.8%) of the total number of self- medicated don't know the drug –drug or drug –food interactions. Several studies in over 370,000 primary and secondary care patients found that between 2.2% and 73.3% may be affected by potential drug interactions. Up to 11.1% of patients actually experienced symptoms that may have been attributable to the effects of an interaction [15].

Patient knowledge is one of the essential prerequisites for patient compliance with treatment. Patient compliance is influenced by the dosage form, frequency of administration, number of drugs prescribed and adverse drug effects, as well as by the patient's age and ability to comprehend instruction [3]. Many factors determine patient knowledge, including the quality of the consultation and the information about the prescribed medicines given by the consulting health worker. The person dispensing the medicine is in a position to reinforce this information [16].

Over use or misuse of OTC products may induce significant medical problems, for example recent evidence suggests that use of OTC products containing aspirin, other salicylates and acetaminophen may increase the risk of hepatotoxicity and gastrointestinal hemorrhage in individuals who consume three or more alcoholic drinks daily [17]. New warnings against misuse recommended for a number of products, including analgesics and antipyretic products containing salicytates and acetaminophen [2].

The pharmacist is in a major position to guide patients. A pharmacist must develop good history taking skills. Hence, pharmacists must concentrate on the history and accumulate a subjective data base from which an assessment can be made [2].

Nineteen percent of the drugs were taken from home left from past and 13% from friends and relatives. They believe any drug can be used for any disease and it saves time and cost. Taking drugs without health professional advice and diagnosis leads to misuse, complication of the disease, drug resistance (e.g. antibiotics) and the like. Sharing of drugs may also be related to the increasing hospitalization of patients hence patients share drugs with friends/relatives and wait hoping for the relief of pain. That is, they don't go to health institutions immediately.

Patients get the drugs by several ways such as, by mentioning the name of the drug directly, by showing an old sample of the drug or by informing symptoms for the pharmacist during purchase from pharmacies or drug vendors. Prescription drugs are being sold without a Prescription or physician consult and advices/instructions are not given properly. Patients take the drugs as long as a relief of pain and discontinue. They don't think about relapse, resistance or any other matters, hence the information was not delivered to them. This indicates regulatory bodies should work hard to enforce regulations.

Although, OTC drugs are designed to be safe and effective the potential for harm always exists. Because there are no formal controls over the use of OTC drugs, abuse often occurs. In extreme situations, the abuse of OTC medications can be very troublesome, even causing structural damage to the body. Proper education about the pharmacological features of these agents is necessary if consumers are to make intelligent and informed decisions about OTC drug use [3].

Common drug groups used in self-medication:

Among the common drug groups used in self-medications paracitamol accounts for 50% and antibiotics Ampicillin and Amoxicillin 25%, Anthelmentics 13%, antacid suspension 4%. The use of antibiotics without a physician consult (prescription) leads to misuse. Thus, the required advices and instructions are not given and the patients are not able to understand the labels. This may be attributed to the increase in antimicrobial resistance.

Concerning OTC drugs, as stated before, even if they are designed to be safe and effective the potential for harm exists. Especially in our case, hence there is a problem in understanding labels and follow advices and instruction, they can be misused. So, there is a great need to educate the public at large about drug and their effect.

Reasons for practicing self-medication:
Several reasons were given for practicing self-medication such as unqualified services given at governmental health institutions, increasing cost of private doctors and not considering the disease to be that serious as to require professional care (see Table 2).

Table 2: Patients Reasons for Practicing Self-medication prior to Hospital Visit

Reasons	Strongly agree	Agree	Disagree
Services given at governmental health institution are not good or qualified	47(38.2%)	58(47.2%)	18(14.0%)
Increasing cost of private doctors	46(37.4%)	63(51.2%)	14(11.4%)
Don't have time to consult physicians	8(6.5%)	36(29.3%)	79(64.2%)
It is not necessary to consult health professional for common illnesses	35(28.7%)	77(63%)	10(8.2%)

Unqualified services given at governmental health institutions such as long waiting time, not attaining the attentions of the health professionals and also distance of the institutions from their homes force patients to practice self-medications, and hence there is an easy way that they can get the medications from pharmacies, drug vendors or at their home.
The decision of the patient concerning which product to purchase usually is based on prior experience with the product, advice received from the pharmacist, neighbor and/or relatives. However, the pharmacist is the only expert/specialist in this area of knowledge and should make his particular expertise available to the patient [6]. Consumer trends in the developed world indicate that the pharmacist slowly is gaining recognition toward providing information to the patient about OTC drugs. Consumers seek out pharmacists who provide service. The factors in descending order of importance/germane to the selection of pharmacist were discussion of instruction for use of the product, including effectiveness, side effects and ingredients, being available for consultation, providing willingness to offer advice on general health problems and being friendly and approachable [13].

Conclusion

This study has shown patients have self-medicated. The medications used were both prescription and non-prescription drugs. Several reasons were given for practicing self-medication among which unqualified services given at governmental health institution, increasing cost of private doctors and not necessary to consult health professional for common illnesses are the most common. Most of the medications were non-prescriptions and paracetamol accounts for about 50%. Although designed to be safe and effective for self-medications, the potential for harm of OTC products always exists. amoxacillin and ampicillin were used to treat common illnesses. Respondent have minimal knowledge on side effects, interactions on self-medicated medicines. Thus, the study finding recommends health education to the general public as well as on the rational use of drugs should be given on regular basis through mass media, posters, in health institution or other relevant forums and enforcement of regulations on the sale of prescriptions drugs by regulatory bodies is mandatory.

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