

Self-Medication Practice in Community Pharmacies: The Case of Dessie Town, Northeast Ethiopia

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Abstract

Background: Self-medication is widely practiced for a wide range of illness or symptoms for both over the counter and prescription only drugs. It is the selection and use of medicines by individuals to treat self-illness. Inappropriate self-medication practice results economical wastages, impairment due to the adverse drug reactions, contraindication, prolong suffering and damaging of vital organs due to over dose. Misuse of antibiotics by the public results not only harm to the patients but also leads to the developments of drug resistant bacteria.

Objective: This study was conducted to assess self-medication practice in Dessie community pharmacies.

Methods: An institutional based cross-sectional study was conducted in Dessie community pharmacies starting from January 1 to 14, 2015. The sample size was 370 and we used systematic random sampling method to select the representative samples from the study population. Our data collection instruments were questionnaires. Data was analyzed by using Microsoft excel 2010.

Result: Eleven community pharmacies were included in the study during the period of data collection. The majority of the respondents, 89.5%, were between 13 to 64 years of age. Of these clients, 45.1% of them were females. From the total clients, 42.4% obtained drugs without prescriptions for self-medication. The common illness/symptoms that necessitate self-medication were headache/fever (34.65%). Analgesics were requested by 27.7% of the respondents. One third of the clients obtained advice from health professionals other than pharmacy professionals.

Conclusion: and recommendations: There is wide range of self-medication practice for a wide range of illness for over the counter and prescription only drugs at the study sites. Pharmacy professionals should maintain good dispensing practices and proper regulatory. Control mechanisms should be devised to prevent the use of prescription only medications without prescription.

Keyword: Self-medication; Community pharmacies; Dessie Town

Introduction

Illness is a common human experience. Health cannot be maintained by the care of healthcare providers only. Patients also make their own decisions and act accordingly [1]. It is, therefore, important to consider self-medication behavior as one of the components that are important for promotion of health [2]. The main part of all cares in disease management is self-medication. The ancient and most widely used medical practice that affects the health of individuals is self-medication. Self-medication is generally less complex and simple compared to medical care, often involving promotion of health or treatment of illness [3-5]. Although some medical practitioners attach negative implications to it, the world health organization [WHO] recognized the valid role of self-medication [1,6,7]. Individual's ability and willingness to cope with minor ailments without consulting a physician is of a vital importance and is potentially one of the most significant areas in which pharmacists can contribute to the maintenance of health. Pharmacists are uniquely positioned to take advantage of the changes being formed in our current health care system [2]. Pharmacists must retain knowledge not only of medicine that patients are receiving but also of the disease for which these medicines are prescribed. This is an immense potential for pharmacists for further development of counseling and advisory role in the treatment of minor illness [2]. In most developing countries, antibiotics can be purchased without prescription, which is an illegal practice. In many African, Asian, and Latin American countries, antibiotics are readily available on demand from hospitals, pharmacies, drugstores, roadside shops and vendors [8,9]. Misuse of antibiotics by the public results not only harm to the

patients but also leads to the developments of drug resistant bacteria. Generally inappropriate self-medication practice results in economical wastages, increase in resistant of pathogens, harm due to the adverse drug reactions, contraindication, prolong suffering, damage to vital organs due to over dose self-medicated drugs. Poor storage of drugs in the home creates a potentially dangerous environment, especially for young children [8]. In addition, assessing their own symptoms may lead incorrect decision regarding their diseases. This may result in misinterpretation of a symptom or its seriousness. Patients who have previously used self-medication may visit healthcare provider, but fail to inform him of the medication they have already used or are still using. Many prescribers do not request their patients what, if any non-prescription drugs they are taking [8]. This study was conducted to assess self-medication practice in Dessie community pharmacies. The result of this study is thought to be useful to fill the existing information gap related to self-medication practice in the country, particularly in the study area.

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Materials and Methods

An institutional based cross sectional study was conducted to assess self-medication practice of individuals from January 1 to 14, 2015. The study was conducted in Dessie community pharmacies. Dessie has a total population of 161, of which 50.5% are females [10]. There were eleven community pharmacies, during the study period. Study population was subjects who visited the community pharmacies to utilize drugs during the data collection period. Sample size determination is calculated by using single population proportion formula, taking prevalence of self-medication 0.39 by a study in 2006 at Asendabo Southwest Ethiopia. Correcting this for a population of less than 10,000 and adding a 10% expected non-respondents, finally the sample size was 370. The study was conducted using systematic random sampling method. Study subjects who were voluntary and conveyed on our consent were being included in our study. Subjects who were not voluntary for our consent, children [age less than 18 years]; very ill, unconscious and patients with hearing difficulty were excluded in our study. Two data collectors who were pharmacist collected the data within two weeks. The researcher gave training for data collectors before three days of the data collection time. The data collection instrument was tested before the actual study. The information gathered from the pretest was used to correct the format and the order of the data collection format. The data collection system was processed manually using a hand tallying method. After all questionnaire had been collected from each pharmacy, data analysis was done by using Microsoft excel 2010. Finally, data was summarized with tables then report preparation had been performed. Data collection was done after having full cooperation of pharmacy owners and study subjects. The data collectors and researcher were being confidential and honest to safe guard the privacy of study subjects as well as autonomy of community pharmacies.

Results

Socio demographic characteristics

Three hundred seventy clients visiting eleven community pharmacies were included to assess their self-medication practice. The majority of the respondents, 89.46%, were between 13 to 64 years of age group. Of these respondents, 45.14% of them were females of whom 3.78% were pregnant, and 2.7% were breast feeding mother. The Sociodemographic characteristics of the study participants is presented in Table 1.

Characteristics		Frequency	Percentage
Age	< 13 years	20	5.4
	13 to 64	331	89.5
	> 64	19	5.1
Sex	Female	167	45.1
	Male	203	54.9
Residence	Urban	270	73.0
	Rural	100	27.0
Educational level	Illiterates	65	17.6
	Primary school	70	18.9
	Secondary school	105	28.4
	Grade 12 and above	130	35.3
Specific drug consumers	Pregnant women	14	3.8
	Breast feeding women	10	2.7

Table 1: Socio democratic characteristics of clients visiting community pharmacies for self-medication in Dessie Town, Ethiopia, January 2015 (n=370).

Self-medication practice and illnesses for self-medication

From the total clients, 157 (42.43%) were obtaining drugs without prescriptions for self-medication and 213 (57.57%) patients came with prescriptions that were prescribed by physicians. The common illness/symptoms that necessitate self-medication were headache/fever (34.65%), gastro intestinal discomforts (28.22%), and upper respiratory tract problems (13.36%). 45 (30%) of self-medicated clients reported two and more symptoms at a time (Table 2).

Types of drugs requested for self-medication

Customers who came to the community pharmacies for self-medication were mentioning the specific name of the drug by generic or brand name. Analysis of the result indicated that the most frequently requested category of drugs were analgesics, 51 (27.72%). Antibiotics were requested by 12.5% of the respondents. Types of drugs requested for self-medication is shown in Table 3.

Sources of advice/information for self-medication

Asked about their sources of advice/information for self-medication, 33.76% of the respondents reported that they obtained advice from health professionals other than pharmacy professionals, whereas, 24.84% of them were advised by pharmacists. In addition, friends, relatives and neighbors, as shown in Table 4, advised about 19% of the respondents (Table 5).

Types of illness	Frequency	Percentage
Headache/fever & arthritis	70	34.6
GI discomforts	57	28.2
Upper respiratory tract problems	27	13.4
Eye disease/inflammation	10	5.0
Skin disease	9	4.5
All others*	29	14.4
Total	201	100

*Hypertension, diabetic mellitus and sexually transmitted infections.

Table 2: Reported illness by respondents visiting community pharmacies for self-medication in Dessie Town, Ethiopia, January 2015 (n=202).

Category of drugs	Frequency	Percent of request
Analgesics/antipyretics	51	27.7
Antimicrobials	23	12.5
GI drugs	47	25.5
Respiratory drugs	11	6.0
Ophthalmic agents	10	5.4
Dermatological agents	9	4.9
ORS	4	2.2
All other drugs *	29	15.8
Total	184	100

*Anti-hypertensive and Anti-diabetic drugs.

Table 3: Frequently requested category of drugs for self-medication by clients in community pharmacies in Dessie Town, Ethiopia, January 2015 (n=184).

Sources of advice for self-medication	Frequency	Percentage
Advice by health professionals other than pharmacy professionals	53	33.8
Advice by friends, relatives and neighbors	29	18.5
Recommended by pharmacy professionals	39	24.8
Received no information	21	13.4
Information from reading materials	14	8.9
Suggested by traditional healers	1	0.6

Table 4: Sources of advice for self-medication as reported by clients visiting community pharmacies in Dessie Town, Ethiopia, January 2015 (n=157).

Requested drug category	Frequency	Percentage
Antibiotics	23	21.7
GI drugs	35	33.0
NSAIDs	30	28.3
Others*	18	17.0
Total	106	100

*Anti-hypertensive and anti-diabetic drugs.

Table 5: Category of prescription only drugs requested for self-medication by clients visiting community pharmacies in Dessie Town, Ethiopia, 2015.

Prescription only drugs requested for self-medication

During the study period, consumers in Dessie community pharmacies requested one hundred eighty four drug items. Of these items, 106 (57.61%) were prescription only drugs, based on list of non prescription drugs for Ethiopia, 1996. Types of prescription only drugs requested for self-medication is indicated in Table 5.

Discussion

As the finding this study indicated, the prevalence of self-medication in Dessie Community pharmacies was 42.4%, which is nearly similar to study done in Assendabo (39.2%) but greater than the finding in Jimma town (27.6%), Mexico (30%), India (34.5%) and China (32.5%). These differences may be due to availability of drug outlets in the town where most of drugs for self-medication were obtained [6,8]. People in lower socio economic status were less likely to visit a physician when experiencing physical symptoms of illness, probably related to their ability to pay [1]. In this study the sources of information for the majority of self-medication consumers were health professionals other than pharmacy professionals, 31.85%, which is similar in the finding of a study in Addis Ababa [1,11]. However, this finding is different with the study done in Jimma (69.1%) [8,12] and Brazil (51.1%) [7], in the recommendation of self-medication by third party [8]. The differences may be due to the availability of more private health organizations access with more health professionals that disseminate the information about the availability of drugs. In this study, antibiotics were requested by 12.5% of the respondents. In most developing countries, antibiotics can be consumed without prescription [9]. The dispensing of prescription only drugs, particularly antibiotics, at partial dose is one of the practices of irrational dispensing [2,13].

Conclusion and Recommendations

Conclusion

The prevalence of self-medication practice in Dessie private pharmacies is 42.43%. Self-medication was widely practiced by people, even breast feeding mothers and pregnant women. The most frequently requested category of drugs were analgesics, (27.72%). About 33.8%

of the respondents reported that they obtained advice from health professionals other than pharmacy professionals sources of advice/information for self-medication. Of the total self-medicated products, 57.6% were prescription only drugs.

Recommendations

The findings of this research recommend that great effort must be done in teaching the public and health providers on the types of illness that can be self-treated, the types of drug to be self-medicated, and the proper use of antimicrobials.

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Conflict of Interest

We have no conflicts of interest.

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