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

Assefa Mulu Baye* and Oumer Sada
Department of Pharmacology and Clinical Pharmacy, College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia

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

*Corresponding author: Assefa Mulu Baye, Department of Pharmacology and Clinical Pharmacy, College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia, Tel: +251-9-10980410; E-mail: mulubaye@gmail.com

Received January 20, 2018; Accepted February 19, 2018; Published February 25, 2018

Citation: Baye AM, Sada O (2018) Self-Medication Practice in Community Pharmacies: The Case of Dessie Town, Northeast Ethiopia. Adv Pharmacoepidemiol Drug Saf 7: 221. doi: 10.4172/2167-1052.1000221

Copyright: © 2018 Baye AM, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.
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 age group. Of these respondents, 45.14% of them were females of age group.

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 dysfunctions (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       |
| Gl discomforts                      | 57        | 28.2       |
| Upper respiratory tract problems    | 23        | 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=201).

| Category of drugs                     | Frequency | Percent of request |
|---------------------------------------|-----------|--------------------|
| Analgesics/antipyretics               | 51        | 27.7               |
| Antimicrobials                        | 23        | 12.5               |
| Gl 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).
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.

Acknowledgement

We would like to give our gratitude for Dessie community pharmacies staffs for their cooperation in providing basic information. Our thanks go to all research participants who took part in the study.

Conflict of Interest

We have no conflicts of interest.

References

1. Andualem T, Gebre-Mariam T (2014) Self-medication practices in Addis Ababa: a prospective study. Ethiopian J Health Sci 14: 1-11.
2. Drug Administration and Control Authority of Ethiopia (2007). Manual for Good Dispensing Practice. (1st edn). FMHACA. Addis Ababa.
3. WHO (2000) World Health Organization guide lines for the regulatory assessments of medical products for use in self-medication. WHO/EDM/QSM/001. WHO.
4. Lau JT, Yu A, Cheung JC, Leung SS (2000) Studies on common illness and Medical care utilization patterns of adolescents. J Adoress Health 27: 443-452.
5. Sleath B, Rubin HR, Cambel W, Gwyther L, Clarck T (2000) Physician-Patient communication about over the counter medicine. Soc Sci Med 53: 357-369.
6. Suleman S, Ketsela A, Mekonnen Z (2009) Assessment of self-medication practices in Assendabo town, Jimma zone, southwestern Ethiopia. Research in social and administrative pharmacy 5: 76-81.
7. Caamano F, Fgueiras A, Lado Lema E, Gestalo-otero JJ (2000) Self-medication; concept and user profile. Gac sainti 14: 294-299.
8. Solomon W, Abebe G (2003) Practice of self-medication in Jimma town. Ethiopian J health Dev 17: 111-116.
9. Iruka N (1999) Socioeconomic and behavioral factors leading to acquired bacterial resistance to antibiotics in developing countries. Emerg Inf Dis 5: 18-21.
10. Central Statistical Agency (2010) Dessie city administrative health office 2010 annual plan. Dessie, Ethiopia.
11. Andualem T, G/Mariam T (2004) Self-medication practices in Addis Ababa. Ethiopia J Health Sci 14: 92-97.
12. Worku S, G/Mariam A (2003) Practice of self-medication in Jimma town. Ethiop J Health Dev 17: 111-116.
13. Drug Administration and Control Authority of Ethiopia (2003) List of non-prescription drugs for Ethiopia. FMHACA. Addis Ababa.

| 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.