



To estimate the prevalence of self medication in rural areas of Medak District of Telangana "

KEYWORDS

self-medication, over the counter (OTC), pharmacies

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ABSTRACT *Background: Many of the studies have shown the prevalence and nature of self-medication. Self-medication is an age old practice. World Health Organization promotes the practice of self-medication for effective and quick relief of symptoms without medical consultations to reduce the burden on health-care services, which are often understaffed and inaccessible in rural and remote areas. Aim: The aim of the study was to determine the extent and pattern of self-medication among the population (patients) attending pharmacies at study sites. Subjects and Methods: The present study was a community based cross sectional study aimed to gather information about the prevalence of self-medication in the rural areas of Medak District of Telangana from March 2014 to September 2014. The sample size comprised of 1200 patients. Statistical Analysis: Data were collected through a prepared questionnaire. All descriptive data were coded, entered and analyzed using the statistical package for Social sciences program version 17.0 (Chicago, IL, USA). Descriptive data analysis was conducted and reported as frequencies and percentage. Results: The percentage of patients who were seeking self-medication was approximately 80% (1200/1500). Most of the patients were seeking self-medication for headache and other pain (23.3% [280/1200]), fever (14.5% [174/1200]), urinary tract infections (9.7% [116/1200]) and respiratory tract infections (11.7% [140/1200]). The drugs most commonly purchased for practicing self-medication were non-steroidal anti-inflammatory drugs (25.3% [304/1200]), medications used for gastro intestinal problems (20.8% [250/1200]) and antibiotics (16.7% [200/1200]).*

Conclusion: Prevalence of self-medication was high primarily among illiterate males. Patient health awareness programs and pharmacist continuing education are necessary for controlling self-medication. There is a need for planning interventions to promote rational self-medication through mass medias such as newspaper, magazine, TV.

Introduction

Self-medication is an age old practice. William Osler once said that "a desire to take medicine is perhaps a great feature which distinguishes man from animals."⁽¹⁾ People desire to take responsibility for their own health care management. Many do so via self-medication.[2] Self-medication is defined as the use of over-the-counter (OTC) drugs without consulting a professional health care practitioner. [3] Self-medication involves acquiring medication without a prescription, resubmitting an old prescription to procure medication, sharing medications with others, or utilizing a medication that is already available in the residence.[4] Many factors underlie self-medication, such as geographical difficulties in accessing health care centers and unavailability of qualified medical doctors. Self-medicating is easier than accessing health care services located far from where the patient resides and is common among poor communities.[5] Thus, social, financial and health-related factors drive the use of medications.[6] The growing number of OTC drugs and the abuse of medications have been cited as major obstacles to the effective and safe use of medications. Several studies have shown both beneficial and harmful effects of self-care practices.[7] World Health Organization (WHO) promotes the practice of self-medication without medical consultations for effective and quick relief of symptoms to reduce the burden on health-care service centers, which are often understaffed and inaccessible in rural and remote areas.[1] In developing countries like India, easy availability of a wide range of drugs coupled with inadequate health services results in increased proportions of drugs being used as self-medication as opposed to drugs being prescribed by physicians.

of proven efficacy and safety, their improper use due to lack of knowledge about their side effects and interactions could have serious implications, especially in extremes ages (children and old ages) and during special

physiological conditions like pregnancy and lactation. There is always risk of unknown interactions between active ingredients present in OTC drugs and prescription medicines as well as increased risk of worsening of existing disease pathology. [8] Previous studies have shown that the prevalence of antibiotic related self medication to be 37% in rural India and overall self-medication to be 31.3% in urban India.[9] Very few studies have focused on overall self-medication in rural areas in India. The present studies aims to (a) look at the self-medication practices among the rural population, (b) identify the drug classes used for self-medication and the common ailments for which self-medication is sought. The purpose of this study was to determine the extent and pattern of self-medication among customers attending community pharmacies in a rural area of Medak District of Telangana

Subjects and Methods

A cross-sectional study was carried out at community pharmacies in a rural area of Medak District, Telangana from March to September 2014. Self-medication data were collected from well stocked licensed retail pharmacies located in Medak, 12 pharmacies (out of 40 Pharmacy) was randomly selected as the study site. The inclusion criteria identified was the purchasing of medicines from the community pharmacies without prescription. The data was collected by conducting the interview with patients when they exited from the pharmacy.

Although OTC drugs are meant for self-medication and are

The questionnaire draft was adopted from our previous

study [10] and modified accordingly based on input from our study population. The modified questionnaire was provided to around 40 patients and 12 pharmacists to confirm the understanding and acceptability. Changes were made and newly prepared questionnaire was used throughout the study. Questionnaires were filled by asking each question verbally to the customer in Telugu. Contents of the questionnaire were: how often customers practiced self-medication, sources from where they came to know about choices of drugs, reasons for practicing self-medication and perception about self-medication practice. Sample size calculation as recommended by the WHO document was done to determine the population required for the study. The WHO document recommends there should be 600 patients per survey [11]. In this study, 12 pharmacies were used to procure data related to self medication. An informed consent form was given to the customers.

Statistical analysis: All data were coded, entered and analyzed using the statistical package for Social sciences program version 17.0 (Chicago IL, USA). Descriptive data analysis was conducted and reported as frequencies and percentage of population practicing self-medication the different drug classes used for self-medication and the ailments treated through self-medication.

Results

Out of 1800 subjects, 1500 came to purchase medicines without prescription and out of those 1500, 1200 agreed to participate in the study. Response rate was 80% (1200/1500). Among the respondents, 66% (792/1200) of the participants were males and 34% (408/1200) were females.

Table 1 shows most commonly used medications for self-medication : Non-steroidal anti-inflammatory drugs (NSAIDs)(25.3% [304/1200]), gastrointestinal drugs (20.8% [250/1200]) with the most common being ranitidine (9.2% [55/600]), antihistamines (19.7% [230/1200]) and antibiotics (16.7% [200/1200]) with the most common being tetracyclines (8.2% [98/1200]).The ailments for which self-medication was practiced are represented in Table 2. These comprise of mainly headache and other pain (23.3% [280/1200]), fever (14.5% [174/1200]), urinary tract infection (9.7% [116/1200]), cough and cold (7% [98/1200]).

Table1.Frequencies of drug classes commonly used for self-medication

Drug class	No. of agents prescribed n(%)
NSAIDs	304(25.3)
GI medication	250(20.8)
Antihistamines	230(19.7)
Antibiotics	200(16.7)
others	216(18)

NSAIDs: Non-steroidal anti-inflammatory drugs

Table 2: Frequencies of common ailments for which medicines were used

Disease condition	Frequency n(%)
Headache and other pain	280(23.3)
Fever	174(14.5)
UTI	116(9.7)
Cough and cold	98(7)
Gastric problems	92(7.7)
Diarhoea	52(4.3)
Others	388(32.3)

Discussion

The prevalence of self-medication among the study site population was high. In this study, self-medication was reported to be extensively practiced in about two third of the study sample. Similar studies were carried out in Erode[12] and Nepal[13] and the prevalence rate was found to be 62% and 59% respectively. The results of our study indicated that mostly males were practicing self-medication. Headache and other pain and fever were the most common diseases for which respondents practiced self-medication. Paracetamol (with other medicine combinations such as diclofenac, ibuprofen, nimesulide and dicyclomine) and NSAIDs were the most common type of drugs used for self-medication.

There may be two major problems regarding self-medication with analgesics. The first problem is the possible risk of nephropathy and the second problem is a possible drug-induced gastric ulceration. Gastrointestinal medications were the 2nd most commonly used drugs for self-medication out of which ranitidine was the most commonly used followed by proton pump inhibitors. These findings were similar to other studies conducted in rural North India and Erode, South India.[12] Antihistamines were the 3rd most commonly used drugs. Antibiotics (16.67%) were the 4th most widely used medication and these were used to treat respiratory infections, diarrhea and other problems. This indicates the belief among the community that antibiotics can treat and eradicate any infections irrespective of their origin. It also revealed that the participants were unaware of the dangers and consequences of inappropriate use of antibiotics. A major problem with self-medication with antibiotics is the emergence of drug resistance particularly in developing countries.[14,15] Though many of the medications that people use for self-medication are pain killers and antibiotics, some of the medications were also used for managing chronic disease conditions such as BP, diabetes, cardiac problems, urinary tract infections, asthma and respiratory issues. Habituation to antacids, cough syrups and pain relievers, increased risk of stroke due to analgesic intake in patients with blood pressure and congenital anomalies and birth defects in unborn babies of pregnant women are some of the other disadvantages associated with self-medication.[16] There are fewer health-care facilities in rural areas compared to cities and hence there is a higher possibility that people perform self-medication.

People residing in rural areas have a lower socioeconomic status compared to people residing in the city, which might explain the lack of funds for treatment in health clinics. Government needs to establish a committee to check into pharmacies/chemist shops which are unlicensed, stop the illegal distribution of drugs and penalize the pharmacists/chemists practicing the same. Future research should focus on interventions to create awareness about self-medication among Indians with limited literacy. Research should also look at how medication access can be improved for rural areas and how health-care professionals can improve awareness about the disadvantages of self-medication among the population. Health policies should be developed and implemented to prevent the OTC sale of prescription medications.

Conclusion

The prevalence of self-medication in the community at the study site was high. This may reflect the trends in the entire rural part of Medak. Self-medication was higher in males with less education. A workshop should be organized for community pharmacists regularly to update and

improve their knowledge. In simple ways, awareness about self-medication can be created through media such as newspaper, magazine and TV.

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