



ISSN: 2277- 7695

TPI 2015; 4(1): 87-90

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www.thepharmajournal.com

Received: 20-02-2015

Accepted: 05-03-2015

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Present condition of self-medication among general population of Comilla district, Bangladesh

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Abstract

The aim of the study is to evaluate the prevalence and factors affecting self medication among the general people of Comilla, Bangladesh. The results of the study will focus on the data regarding reasons, public awareness and safety aspects of self medication in Comilla, Bangladesh. It's a questionnaire based study which were conducted on adult male and females. A total of 300 questionnaires were analyzed, among respondents, 73.6% were practicing self medication frequently. The reasons of self medication were remedy is known (56%) and high fee of doctors (45%) and not enough time (32%). The most common diseases in which self medication are applied are fever (63.6%), pain (46.3%), heartburn (21.3%), Allergy (17.33%), headache (15%). Among drugs analgesics (45%), antipyretics (12%), anti-ulcerative drugs (29%), antihistamine drugs (17.33%), and anti-infective drugs (11%) are the mostly common taken.

Keywords: Self medication, prevalence, public awareness, OTC medicine.

1. Introduction

In recent years there has been increasing practice of using OTC drug, which means over-the-counter drug. OTC drugs are non prescription drugs found in pharmacies and retail outlet. Self-medication is the use of drugs with therapeutic intent but without professional advice or prescription. It has also been defined as the use of nonprescription medicines by people on their own initiative Jamison AJ *et al.* [1]. Recently 'increase in the quantities and varieties of pharmaceuticals' and a number of 'prescription-only medications (POM)' drugs have been changed OTC products Bond C *et al.* and Ali SE *et al.* [2, 3]. 'Thereby giving options for misuse' and promotes by the patients and promotes 'inappropriate use of medicines' which 'is a prominent constraint in ensuring the safe and effective use of essential medicines' Ali SE *et al.* [3]. The WHO (1995) stressed that rational self-medication helps in the prevention and treatment of minor pathological conditions at an affordable cost WHO. [4]. Self-medication is widely practiced worldwide Hughes CM *et al.* [5]. The practice of self-medication must be based on authentic medical information. Irrational use of drugs can cause wastage of resources, increased resistance of pathogens, and can lead to serious health hazards such as adverse drug reactions and prolonged morbidities Hughes CM *et al.* [5].

Self-medication trends in different regions of the world are high WHO and Bradley C *et al.* [6, 7] like in India, it is 31% Deshpande S *et al.* [8], and 59% in Nepal Shankar P *et al.* [9] and it is alarming despite the efforts made to curb this problem Hsiao FY *et al.* [10] it increases day by day both in developing Geissler PW *et al.* and Sawair FA *et al.* [11-17] and developed countries Greenhalgh T and Grigoryan L *et al.* [18-24].

In developing countries like Bangladesh, self-medication is a common practice as it provides a low-cost alternative for people who cannot afford the high cost of clinical service and also as many drugs are dispensed OTC without prescription from a registered medical practitioner Hussain S *et al.* [25]. Self medication is a predominant therapeutic activity consisting 30-40% of the disadvantaged populations including women, elderly ethnic minorities and marginalized people of Bangladesh Ahmed SM [26]. OTC medicines have emerged as drugs of serious misuse across Bangladesh, and other neighboring countries Mudur G [27]. Along with the common practices of self medication, almost every drug store salesperson is illegally involved in the recommendation and sells of prescription only medicines in Bangladesh Abu Syed Md *et al.* [28].

In this study evaluation of the prevalence and factors affecting self medication among the general people of Comilla district, Bangladesh has been performed.

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2. Materials and Methods

2.1 Study design: The study was a questionnaire based survey carried out from September 2014 to December 2014. The samples were selected randomly among the general population of Comilla district. A questionnaire was developed based on the parameters related to the awareness of adoption of self medication of drugs. Total 350 were given the questions among them 300 of them actively answer the questions. Rest of them answer incompletely hence data of 300 were considered and rest were excluded.

2.2 Questionnaires: A questionnaire was prepared which contains three parts. The first part includes participant's demographic information like, name, age, sex and educational qualification. Second part includes the information about his/her medical history like system of medicine used, on the use of same prescription of family members etc. Third part of the questionnaire contains information about the reason of self medication, conditions in which they adopt self medication, side effects of self medication, preference of any particular pharmaceutical company's medicine, source of the drug's information like from doctor, previous prescription, retailer seller etc. and effectiveness of self medication.

2.3 Ethical Considerations: Careful consideration was given to ethical issues in the design of the study. The objective of the study was explained and confidentiality ensured to the participants.

3. Results

3.1 Demographic data of the participants: The total number of questionnaires distributed was 350 and 300 completed forms were collected. This resulted in a response rate of 85.7%. There were 55.33% male and 44.67% female. Demographic data including age, sex, level of education, living place and financial condition of the respondents are shown in Table 1.

Table 1: Demographic characteristics of respondents

Sex	n	%
male	166	55.33
Female	134	44.67
Age (years)		
15-24	56	18.67
25-34	72	24
35-44	78	26
45-54	53	17.67
>55	41	13.67
Educational Qualification		
School level	70	23.33
UG level	108	36
G level	83	27.67
PG level	39	13

It was also found that 18.67% were between the age group of 15 - 24 years, 24.% were between 25-34 years, 26% were between 35 - 44 years, 17.67% were between 45-54 years and 13.67 % were ≥ 55 years. The educational background reveals that, among the participants there were 23.33% of school level, 36% of undergraduate level, 27.67% of graduate level and 13% were post graduate level.

3.2 Self-Medication Practice Assessment Data: Among the participants 85% use Allopathic, 11% use homeopathy and 4% use ayurveda as a system of medicine.

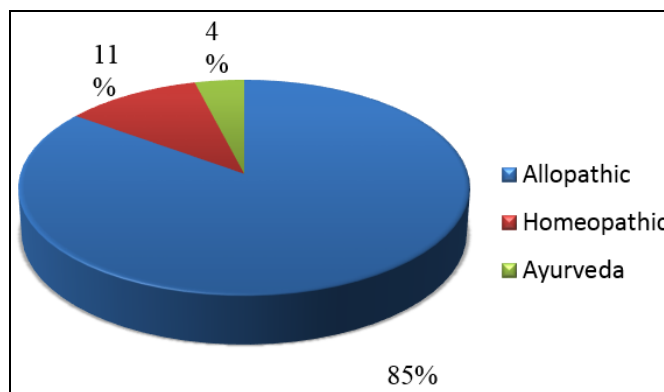


Fig 1: System of medicine used by the participants

Among the 300 participants 50.33% regularly check the expiry date of medicine, 24% of them sometimes check the date and 25.67% of them never check the expiry date. 18% of the participants sometimes use same prescription of their family members. The conditions in which self medication is applied are fever (63.6%), pain (46.3), allergy (17.33%), headache (15%), heart burn (21.3%) etc. The reasons for self medication identified are high fee of doctors (45%), remedy is already known (56%), not enough time (32%).

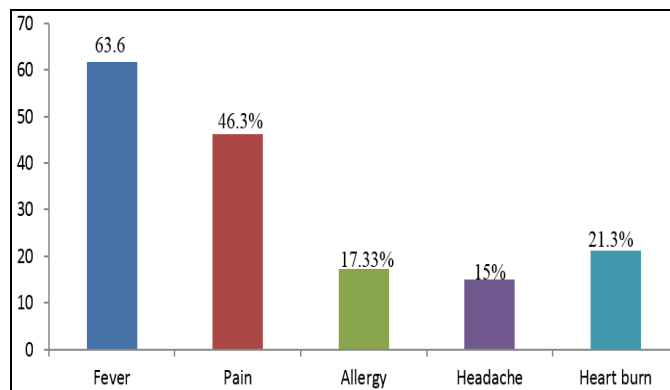


Fig 2: Conditions in which self medication is applied.

The sources of drug information are previous prescription (16%), friends and relatives (19%), previous doctor's consultation (37%), family members (11%) and retail seller (19%). The most commonly taken drugs are analgesics (45%), antipyretics (12%), anti ulcerative drugs (29%), antihistamines (17.33%), anti-infective drugs (11%) etc.

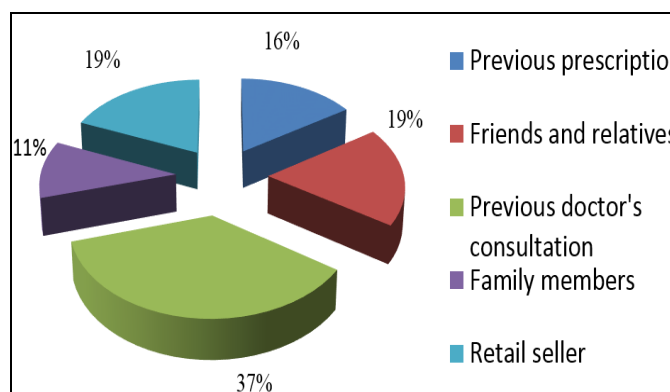


Fig 3: System of medicine taken

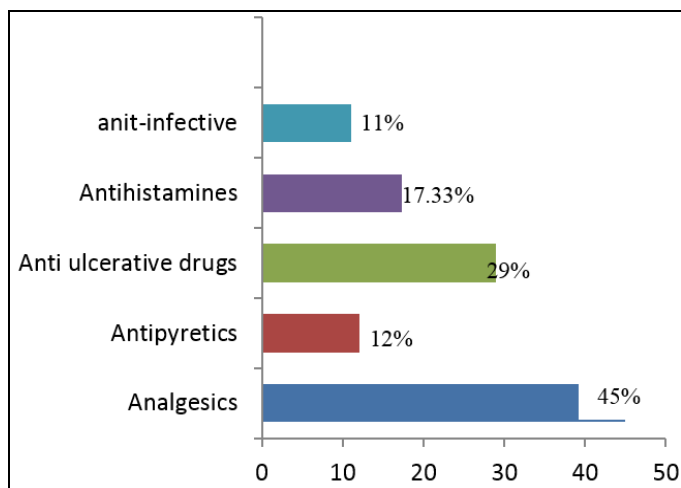


Fig 4: Commonly taken drugs

29.67% of the participants think self medication is really effective and 22.67% think it is not effective for all diseases. 18.67% of the participants prefer a particular manufacturing company. 9.67% of them told about some side effects like heartburn, dizziness etc after taking self medication.

4. Discussion

In this study 300 people take part and 73.67% people very frequently practice self medication. Among the participants 53.33% are male and 44.67% are female. Shankar *et al.* (2002) [9, 2] and Parimi *et al.* (2002) [30] also supported the findings in this study that gender was not significantly associated with self-medication. People between the ages of 35-44 years (29.33%) are the major group taking self medicine. 36% undergraduate participants practice self medications. Education identified to be a factor influencing self medication which contradicts with the findings of Hafeezullah *et al.* (2014) [31]. Allopathic system of medicine is used by 85% of the participants which is parallel to the findings of Malvi Reteesh *et al.* (2011) [32]. 50.33% of the respondents check the expiry date of the medicine which must be checked before taking a medicine. Common conditions identified are fever (63.33%), pain (46.3%), allergy (17.33%), headache (15%), and heartburn (21.3%). Self medication is mostly practiced because major of the participants think that the remedy of the diseases (fever, pain, allergy, headache, heartburn etc) are already known (56%). Another reason which plays an important role in self medication practice are found to be high fee of doctors (45%) and the people are finding it difficult to go to the doctors for some common diseases as they have not enough time (32%). Major people have come to know about the drugs by the previous doctor's consultation, previous prescription, friends and relatives and retail seller. Most commonly taken drugs are found to be analgesics, antipyretics, antihistamines, anti-ulcerative and anti-infective drugs. 29.67% of the people are practicing self medication believe that it effective. 18.67% of the people prefer a particular manufacturing company which is famous and has good reputation in the country. Only 9.67% of the participants has reported side effects like acidity, dizziness etc.

5. Conclusion

From the study it is evident that self medication is adopted only for the minor ailments as drugs are known to the people from various sources and people use drugs for the quick relief or sometimes doctor's high fee is an obstacle or sometimes

people don't have enough time from their busy schedule. But people must be careful before taking drugs without knowing the adverse side effects or reaction in the body. This is an alarming sign as indiscriminate use of allopathic drugs can come out with drug interaction and adverse reaction if the person concerned is using some other drugs on regular basis. This kind of practice may be perilous to pregnant ladies, children and geriatrics patients. Public awareness need be increased about the drug safety.

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