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### Self medication with over the counter drugs: A questionnaire based study

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#### ABSTRACT

*To obtain baseline data on self medication with over the counter drugs in Perinthalmanna. Also to gain information on the factors influencing self medication with over the counter drugs and to note any association of self medication with demographic factor. Datas were collected via face to face structured interview of respondents in the community pharmacy using the questionnaire from December 2009 to February 2010. Samples of 80 patients were selected from the community pharmacy. The inclusion criteria for selection of patients were those came to retail pharmacy to buy over the counter drugs .Few patients were excluded in accordance with exclusion criteria like incomplete information and some were not accepting to participate in the study .Each individual was given explanation about the purpose of study. The results were based upon the data captured from 80 patients. The prevalence of self medication was reported as percentages. Of the 92 questionnaires distributed, 80 (86.95 %) were answered and the rest were probably ignored by the patients and noticed a certain difficulty in answering . This study shows the need to carry out educational companion to alert the population about the use of many medicines available in the market. For that it is paramount to have an active participation of health care professionals, specially physicians and pharmacist, besides the help from the pharmaceutical industry, government regulations and continuous inspection by the competent authorities. Although self medication is difficult to eliminate, interventions can be made to discourage this practice and ensure safer usage of drugs. The intervention will require better patient education of public and health professionals to avoid the irrational use of drugs.*

**Key words:** Rifampicin; Niosomes; Cholesterol;

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#### INTRODUCTION

Self-medication is defined as “obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment”. In developing countries, most of the illnesses are treated by self medication. [1]According to WHO’s definition, self- medication is “the selection and use of medicines by individuals to treat self- recognized illnesses or symptoms”. The World Health Organization reports that rational use of medicines occurs when

patients receive adequate medication for their clinical needs, at doses corresponding to individual requirements, and at the lowest possible cost for the patient and the community. [2] Taking this definition into account, an effective drug treatment requires patient compliance and consultation with a medical professional together with close follow-up, conditions rarely attained. Irrational drug use and especially self-medication with antibiotics is common throughout the world. [3]

Self medication includes the use of nonprescription drugs and a range of different alternative medicines such as herbal remedies, food supplements, and traditional products home remedies (Eg, salt-water gargles for sore throat or garlic and honey for flu) can either be conceptualized as one form of self medication or as a part of nonmedical self- care. Self medication with drugs is an economical choice of treatment for common self limiting illnesses.[4] Responsible self medication can help, prevent and treat ailments that do not require medical consultation and reduce the pressure on medical services for the relief of minor ailments.[5]. These potential benefits seem to be of a particular interest in the financially less privileged countries with limited health resources.[6] Self-care is the care taken by individuals towards their own health and well being, including the care extended to their family members and others.[7] In practice self-care includes the actions people take to stay fit and maintain good physical and mental health; meet social and psychological needs; prevent illness or accidents; avoid unnecessary risks; care and self-medicate for minor ailments and long-term conditions; and maintain health and well being after an acute illness or discharge from hospital.[8] Self-medication is the treatment of common health problems with medicines especially designed and labeled for use without medical supervision and approved as safe and effective for such use [9] Medicines for self-medication are often called 'non-prescription' or 'over the counter' (OTC) and are available without a doctor's prescription through pharmacies.[10] In some countries OTC products are also available in supermarkets and other outlets. Medicines that require a doctor's prescription are called prescription products (Rx products).Self-medication with OTC medicines is sometimes referred to as 'responsible' self-medication to distinguish this from the practice of purchasing and using a prescription medicine without a doctors' prescription.[11] This is irresponsible (and potentially even dangerous) 'self-prescription', and has no place in self-care or (responsible) self-medication. Self-medication is an age old practice.[12] Urge of self care, feeling of sympathy towards family members in sickness, lack of health services, poverty, ignorance, misbelieves, extensive advertisement and availability of drugs in other than drug shops are responsible for growing trend of self-medication. [13] .WHO is promoting practice of self-medication for effective and quick relief of symptoms without medical consultations and reduce burden on health care services, which are often understaffed and inaccessible in rural and remote areas. William Osler has said that a desire to take medicine is perhaps the great feature which distinguishes man from animals.[14] This desire however may play havoc when a person starts taking medicines on his own, forgetting that all drugs are toxic and their justifiable use in therapy is based on a calculable risk.[15] It is said that every patient has at least two prescribers his own doctor and himself, while many have additional prescribers in the form of friends, well wishers etc. [16] .However, the practice of self medication can rather frequently have adverse effects, it can generate an additional burden on the system and increase counter productive out of the pocket expenditure in already impoverished population. Major problems related to self medication is wastage of resources, increased resistance of pathogens, and generally entails serious health hazards such as adverse reactions and prolonged suffering.[17] Antimicrobial resistance is a current problem worldwide particularly in developing countries where antibiotics are often available without a prescription. As more medications are available and as these, population of elderly continues to increase, a need arises to monitor how elderly individuals use these agents. Elderly living independently often self medicate for common problems such as fever, mild pain, colds, allergies, indigestion-gas, constipation and insomnia. Self treatment of

common illnesses by people is common in developing countries.[18] Common reasons cited for self medication are inaccessibility of health care facilities, economic constraints and previous experience of illness. Positive and responsible attitudes towards self-care and self-medication are spreading throughout the world. [19]There is a demand by consumers for more information and particularly for reliable sources of information about healthcare in general and medicines in particular. In a comprehensive survey, members of patients' organizations expressed their strongest agreement with the need for improving healthcare systems through accurate, relevant and comprehensive information, to help them make informed decisions about treatment. Today the internet is emerging as a major source of information on health issues and (with appropriate quality control) offers great promise in helping people with self-care. [20].

## MATERIALS AND METHODS

A questionnaire with multiple choice questions was designed to obtain our data with 10 questions about self medication habits, which was answered by the patients during his/ her visit to community pharmacy. Datas were collected via face to face structured interview of respondents in the community pharmacy using the questionnaire from December 2009 to February 2010. Samples of 80 patients were selected from the community pharmacy. The inclusion criteria for selection of patients were those came to retail pharmacy to buy over the counter drugs .Few patients were excluded in accordance with exclusion criteria like incomplete information and some were not accepting to participate in the study .Each individual was given explanation about the purpose of study. A structured questionnaire was used to collect the necessary information .The patients were interviewed and the investigator captured all the information .The questionnaire used for data collection consisted of two sections with a total 16 questions .The first section included questions on the persons descriptive characteristics (age ,sex ,marital status, education level & occupations ).The second section included questions on intension to self medication with over the counter drugs .The intension to self medication with over the counter drugs was determined with yes or no questions: The interviews conducted by one person lasted approximately 10 - 20 minutes. Over the counter medicines were classified according to the World Health Organization anatomical, therapeutic, chemical classification (ATC classification). Self reported over the counter medicines belonged to 10 ATC categories. Analgesics, laxatives, anti thrombotic agents, antacid, cough & cold preparations, anti histamines, dermatological throat preparations, nasal preparations and anti diarrheal. The most common variables associated with use of over the counter medicines were identified through a literature review of relevant studies.

## RESULTS

The results were based upon the data captured from 80 patients. The prevalence of self medication was reported as percentages. Of the 92 questionnaires distributed, 80 (86.95 %) were answered and the rest were probably ignored by the patients and noticed a certain difficulty in answering. Despite all the explanations provided 60 (75 %) were male and rest were females (25 %). The age distribution of respondents is shown in table of 80 patients. Approximately 38 (47 %) belong to the age group of 46-55, 11(13 %) were in 26 – 35 years, 16 (20 %) were in 36-45 years, 9 (11 %) were in 55 & above years and only 6 (7 %) were in 15-25 years of age. 18 (22.5 %) took advice from the drug store pharmacist or salespersons and 20 (25 %) from third parties (relative, neighbor, friend). Most used medication were analgesics 24 (30 %) anti pyretic 9 (11.25 %), followed by cough & cold symptom medication 13 (16.25 %) and antacids 8 (10%). The other commonly used medications were anti allergic/anti histamines 4 (5 %), antiemetics 2(2.5 %), antidiarrhoeals 1 (1.25 %), laxatives 1(1.25 %), dermatologicals 2 (2.5 %). Our study

shown that the use of over the counter drugs for headache 12 (15 %), fever 11 (13.8 %), cough & cold symptoms 16 (20 %), acidity reflux 9 (11.3 %), allergy 4 (5 %), nausea /vomiting 3 (3.8 %), constipation 1 (1.25 %) were observed in our study. About 59 (73.5 %) of patients answered that they do not follow the label expressions. The most probable reasons for practicing self medications were as lack of time 30 (37.5 %), financial problem 19 (23.75 %), confidence in self medication 20 (25 %) and others 11 (13.75 %). The remaining questions in the questionnaire were not relevant for final goal of this study.

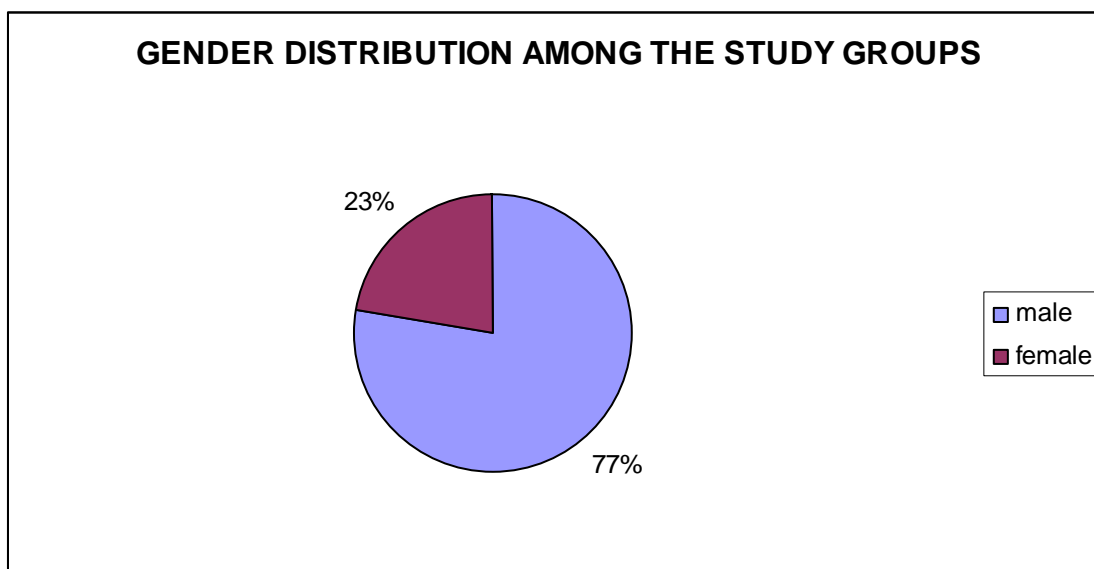


Fig.1

fig -2 Age distribution among the study groups

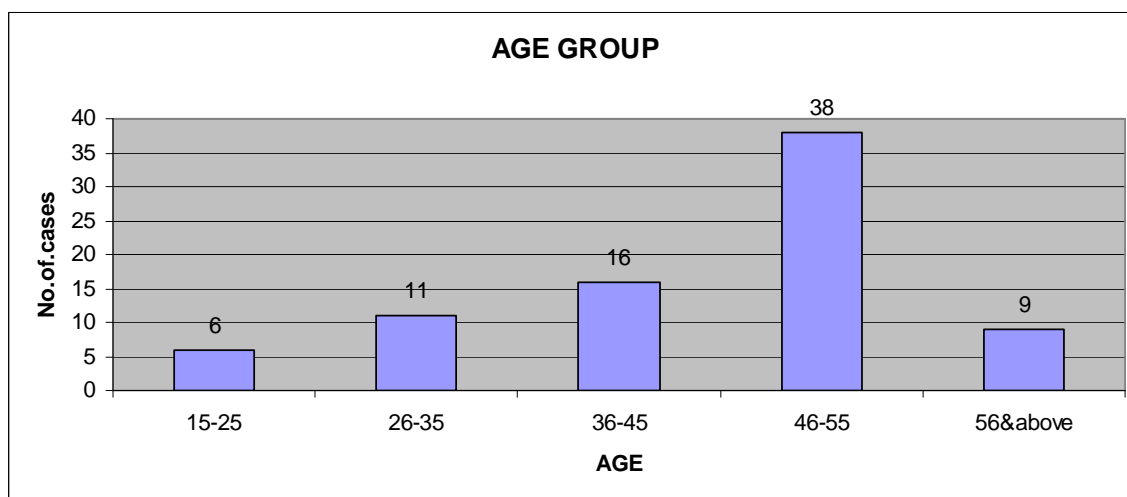
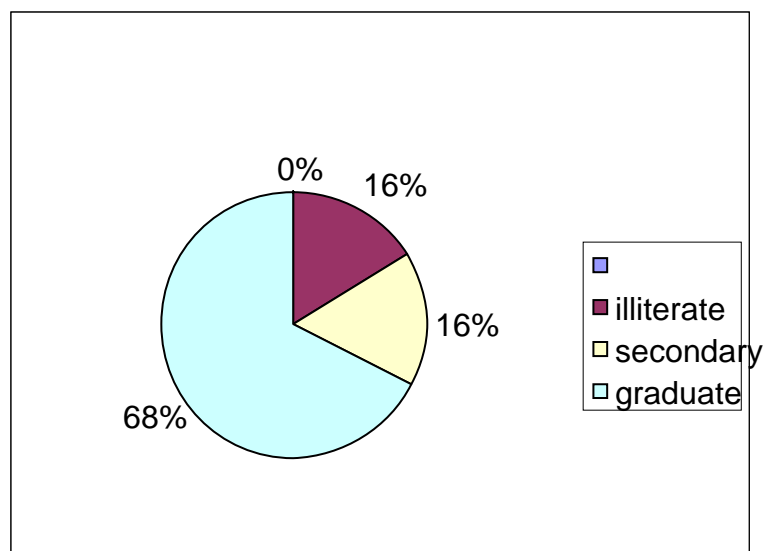
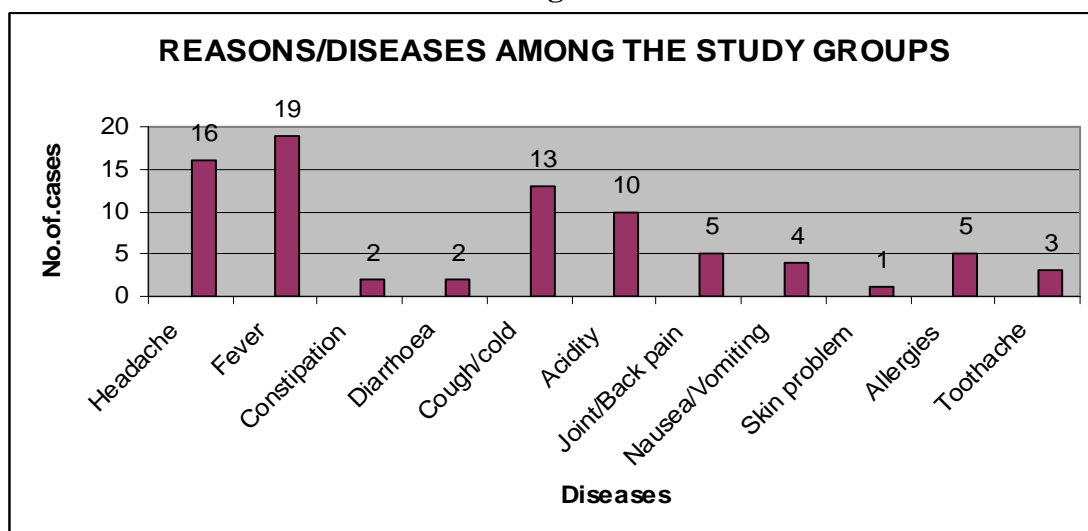
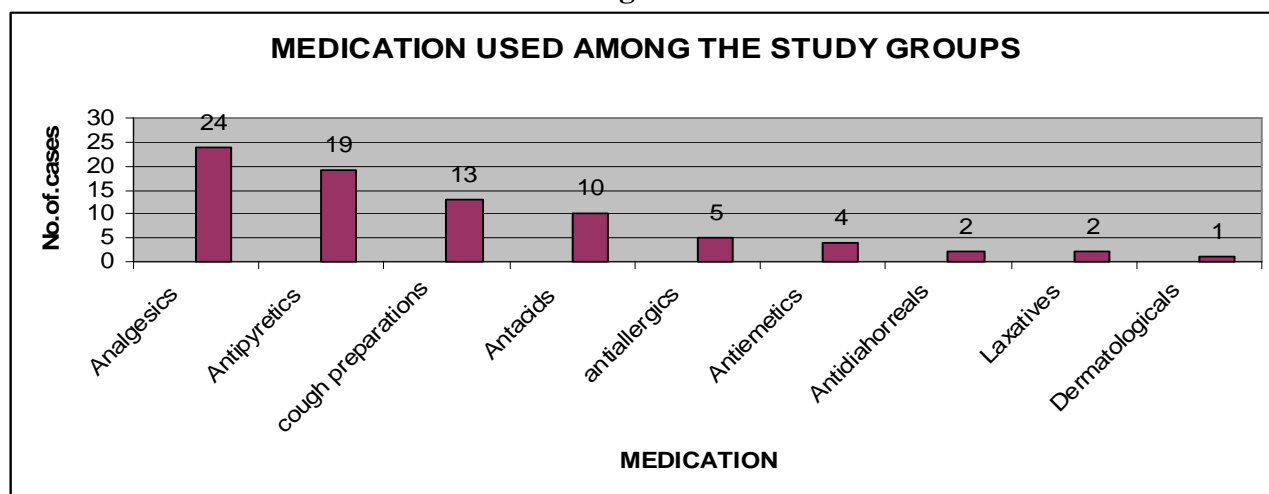
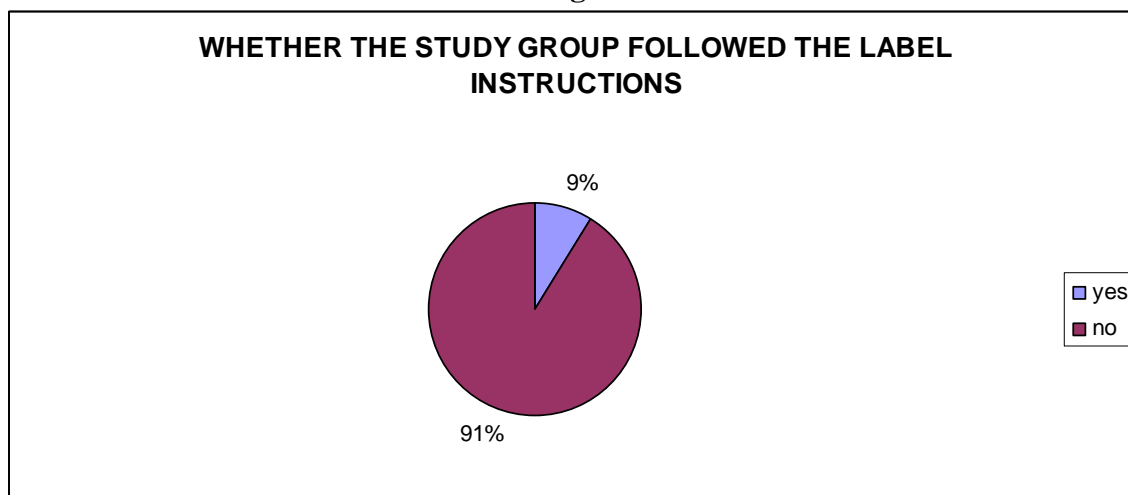
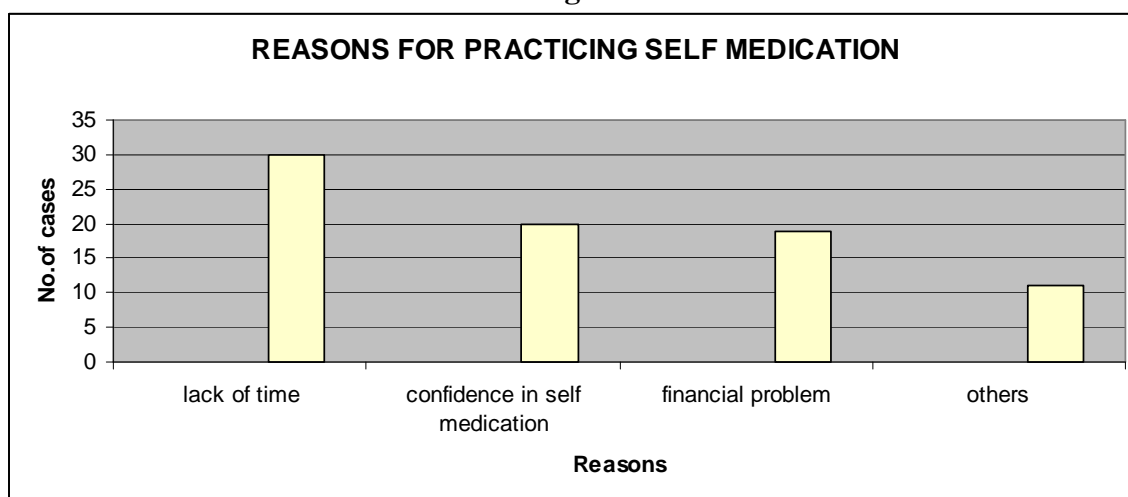


Fig- 3 Educational level of patients among the study groups

**Fig-4****Fig 5**

**Fig 6****Fig- 7**

## DISCUSSION

Self medication can be defined as obtaining and consuming drugs without the advice of a physician or pharmacist either for diagnosis, prescription or surveillance of treatment. Self treatment include patient satisfaction with the health care provider, cost of the drugs, educational level, socioeconomic factors, age and gender. The increase in self care is due to a number of factors viz. socioeconomic factor, life style, ready access to drugs, the increased potential to manage certain illness through self care, public health and environmental factors, greater availability of medicinal products and demographic and epidemiological factors.. Pharmaceutical advices have helped the community and patients with respect to disease prevention and management. However without exception, most pharmaceutical products have the potential to cause adverse consequences of varying severity and frequency. In the last 10 years many medicines that were originally ‘prescription only’ have now become available prescription either from pharmacies or other general retail outlets. The volume and value of these medicines sales have increased accordingly. Patients require access to accurate and understandable information with regard to the potential benefits and risk associated with used drugs including self medication. Implementation of pharmaceutical care in community pharmacies could help alleviate this problem. Community pharmacists can play an active role in the provision of

primary health care by attending minor ailments and refer patients to physicians where patients require further investigation. Pharmacist must improve their clinical knowledge and skills and demonstrate their willingness to be responsible for the patient's drug therapy and must develop dose working relationship with other health care professionals. Our study showed that self medication was more in men than women, especially those in the third and fourth decades of life. We noticed that most of the medication was for self use and not for family members, such fact reduces the risk of crossed contamination of relatives by shared use of medication (such as nasal drop). As for the problem that led the patients to self medicate, most of them were self limited disease and this does not justify the use of antibiotics. To reduce the risk of potential adverse effects from analgesic drug in elderly, the improvement in labels of drug and better education or counseling for patient is required. Improved labeling of analgesics may help consumers to distinguish common analgesics ingredients in a wide variety of preparations and facilitate informed discussions concerning the use of drugs. Though self medication is promoted by WHO, because of affordability and inaccessibility of health services in developing world, benefit must be weighed against adverse effects.

### SUMMARY AND CONCLUSION

The prevalence of self medication with over the counter drugs in Perinthalmanna, Kerala is high. This could reflect the trends in whole of the Kerala state. Self medication tends to be higher in people with a higher education, those on intermediate incomes, males and those below the age of 40. Paracetamol and other NSAIDS were the drugs most commonly used for self medication. Self medication was more likely to be used than prescribed medication to treat headache, sore throat and teeth problems; and tonics were more frequently taken without prescription. This study reveals the need to carry out educational companion to alert the population about the use of many medicines available in the market. For that it is paramount to have an active participation of health care professionals, specially physicians and pharmacist, besides the help from the pharmaceutical industry, government regulations and continuous inspection by the competent authorities. Although self medication is difficult to eliminate, interventions can be made to discourage this practice and ensure safer usage of drugs. The intervention will require better patient education of public and health professionals to avoid the irrational use of drugs.

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