Prescription status of Respiratory tract infection – a survey report

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SUMMARY

Objective: The present study was carried out to investigate the Self-medication and non-doctor prescribing of drugs used for respiratory tract infection in developing countries. Problems and factors responsible for this practice in SouthIndia.

Methods: The survey was based on the questionnaire method; it was carried out from 1000 respondents at different pharmacies.

Results: Literate persons (56%), monthly income between INR.3000- INR.10000 (39%) and also age group between 21-40years (66%) are more prone to self medication. The reason for deviation in self-medication is due to economical condition (57%), lack of time (22%), mild illness (12%), less treatment awareness (9%). Apart from this, some deviations are commonly seen among the prescription following respondents. Most probable respondents are due to financial condition (65%), others are brand name, dosage form, etc.

Conclusion: The present study was concluded that pharmacists are one of the key person for prevention of communicable and non-communicable diseases and also improving patient compliance. These types of problems can be prevented by patient education should be strengthened.

Keywords: Respiratory tract infection, prescription, self-medication, patient counseling, role of pharmacist.

Introduction

Self-medication and improper prescription status is a major era in developing countries in the world health, because most of the people are economically deprived. Self-medication is an individual treat their ailments and conditions with medicines which are approved and available without prescription [1]. It causes too many complications. Apart from this another major problem is improper prescription status. These changes lead to failure of therapy and microbe resistant for the different diseases. Respiratory infection is also one of the major problems in the world [2]. The already studied survey prove that most of the persons used self-medication mainly for the treatment of respiratory tract infection illness such as common cold, cough, fever, etc[3]. Several different viruses can infect the respiratory tract and causes the common cold, cough, etc. colds usually resolve themselves in 1to2 weeks whether treated or not. It caused by many factors like environmental condition, pollution, microbial infection, sharing drinks, poor nutrition, lack of rest, alcohol use, smoking, inhaling saliva from infected persons, shaking hands, etc[4]. Health care members take steps to eradicate these types of problems. Especially pharmacists take special effort for solving these problems because they are last health care member to communicate with the patient. The present study to evaluate the self medication and

prescription status of respiratory tract problems are taken from sub-urban area near Chennai in the state of Tamilnadu, India.

Methods

The respiratory tract infection survey report was based on the questionnaire method of both prescription pattern and self-medication. It was carried out in the sub-urban area named perungudi located within 4 kms distance from a cosmopolitan city Chennai in the state of Tamilnadu, India in the year of 2007 for 3 months. The population is approximately 12,000 as per government records; this place has a cross section from all backgrounds-laborers, professionals, educationalists, children's, housewife, etc. There are 8-pharmacies, 7-hospitals and a multi-speciality

hospital spreaded over the area. The reason for selecting the place to get accurate result. The study was based on a questionnaire method prepared for personal interviews with patients or closely relatives of patient.

In the questionnaire-name, age, sex, addresses were noted. The economical statuses of respondents were classified as 4 groups. Information regarding the type of medication and diagnostic of illness were included. Differences in the proportion of patients taking self-medication and prescription pattern between the literate and illiterate and also depending on the age group of the respondent were analyzed. In self-medication, the patient mention the drug name or asking the drugs for symptoms also noted. The reason of deviation for both prescription pattern and self-medication followed patients were enquired at different pharmacies

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Questionnaire

1. Name: Age: Gender:

2. Address:

3. Literacy Status: Literate / Illiterate

4. Economical Status:

   (a) 0-3000 PM,   (b) 3000-10,000 PM,   (c) 10,000-30,000PM,   (d) 30,000 and above

5. Diagnostic of Illness:

6. Patient prescription status: Prescription / Self medication

        If in question 6 prescription then

    1. Is the patient buying medicine with a prescription – Yes / No

    2. If yes, are the patients buying all units indicated in a prescription – Yes / No

    3. If in question number 2 is No, what type of deviation

    4. Reason for deviation

If in question 6 self medication then

1. Whether the patient ask any specific name of the drug for treatment of respiratory problems - Yes / No

2. Whether patient ask drug for specific symptoms – Yes / No

3. Number of times the same patient visit the pharmacy with same symptoms

   (A) 1   (B) 2   (C) 3   (D) More than 3

4. Reason for self medication -

   All the above said details are true to best of my knowledge.

   Date :
   Place :   Patient's Signature

Results

This study was done with 1000 patients. The demographic details of the patients were questioned in vernacular language for illiterate people. Recorded answers were cross checked with the patients. The study was interviewed with 74%males and 26%females. Among males, 65%literates and 35%illiterates. Among females 48% literates and 52% illiterates.

The literary status of respondents is shown in table 1. In this study shows that literate persons are more prone to self-medication compared with the illiterates. Females are very small in the following of self-medication, when compared to that of males. Only 44%of patients are buying medicines with prescription, the rest others 56%are following self-medication.

Table -1 Literary status of respondent

Literary status	Male		Female	
	Prescription	Self-medication	Prescription	Self-medication
Literates	160(16%)	316(31.6%)	92(9.2%)	32(3.2%)
Illiterates	100(10%)	164(16.4%)	88(8.8%)	48(4.8%)

Table: 2 shows that the age distribution of the respondent among prescription (P) and self-medication(S) followers. The age groups between 0-20 (P-66%, S-14%) most of them following prescription. >60 (P-2%,S-2%) of age patients shows most probably equal ratio. 41-60 higher ratio of self-medication (P-8%,S-18%) follower. The too high frequency of persons prone to self-medication in the age group of 21-40 (P-24%,S-66%).

Table-2 Age distribution of respondent

Age	Total	Prescription	Self-medication
0-20	368	292(66%)	76(14%)
21-40	480	108(24%)	372(66%)
41-60	136	32(8%)	104(18%)
61& above	16	8(2%)	8(2%)
Total	**1000**	**440**	**560**

Table: 3 shows that the economical status of respondent and their following patterns. The persons were divided in to 4 units based on their income. In this study, shows the persons who earning below INR.3000 (34%) and more than INR.10,000 (26%) were prone to self-medication. The range between INR.3000 to INR.10,000 earning persons were in equal ratio for both the prescription and self-medication patient.

Table-3 Economical status of respondent

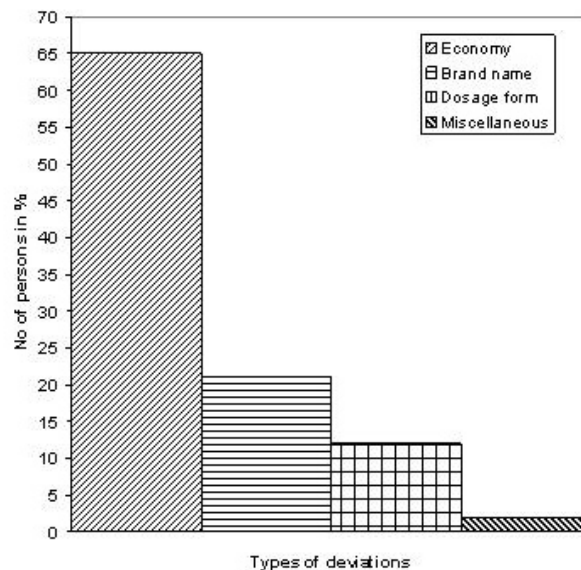| Salary	Total	Prescription	Self-medication
<Rs.3000	312	120(27%)	192(34%)
Rs.3000-Rs.10000	436	220(50%)	216(39%)
Rs10000-Rs30000	224	80(19%)	144(26%)
>Rs30000	28	20(4%)	8(1%)
TOTAL	**1000**	**440**	**560**

Out of 1000 patients, 560 patients followed self-medication in different manner. Some patients mention the specific name of the drug and others bought for their specific symptoms. 316 respondents (32%) of the respondents asked the drug for specific symptoms while the rest of 244 respondents(24%) mention the specific name of the drugs. Apart from this 4% of the patients visiting the pharmacy more than 3 times for same illness.

There are different reasons of deviation for the following self-medication. The reasons for this type of self-medication were also analyzed. 320 respondents(57%) were followed self-medication due to economically deprived, these type of problems present in the developing countries. 124 respondents(22%) were followed self-medication due to lack of time these type faced by the office workers, professionals, labourers, etc. 68 respondents(12%) felt that they the illness was too mild and did not require the service of a doctor. 48 respondents(9%) felt that they had previous experience of treating a similar illness and even if they go to a doctor, they will be prescribed similar medication.

The deviations not only in self medication but also in the prescription pattern. Some deviation find out among the prescription followed persons such as economy brand name, dosage form, etc. This type of deviation were commonly seen among 52% of persons those who followed prescription pattern. Most probable reason was economic condition, 65% of them were not buying all the units prescribed in the prescription due to economically deprived. Apart from this, 21% of them due to brand name and 12% of them due to dosage form. This results is a reflection of the area selected for study and may or may not be true in other areas if such a survey is conducted deviation from prescribed instruction and also prone to self medication. Financial condition is one of the most probable problem for self medication.
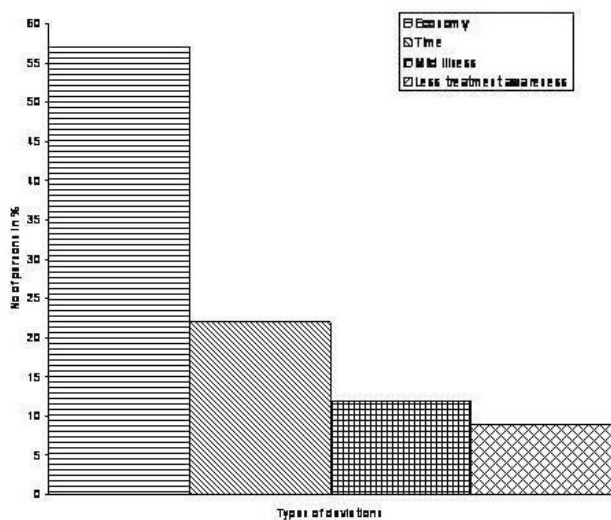
Figure-1 Deviations in self-medication status for RTI

Figure-2 Deviations in prescription status for RTI

Discussion

Analysis of this survey brings to fore two major criteria's self-medication and patient non-compliance for the treatment of respiratory tract infections. Both the problems must be addressed and efforts must be made to overcome these. The root cause for both these must be analyzed. Analysis of this data showed that the financial constrain as the major cause.

In this study shows that apart from physician, nurses, health care workers, especially pharmacist can attempt to overcome these problems. Development and evaluation of a pharmacist managed asthma education also proved[6] Pharmacist is in an excellent position to detect non-compliance pertain to drugs used in the management of diseased condition. Pharmacist can counsel the patient in the vernacular language because they are health care workers to contact patients, before consuming any medicines.

A greater proportion 60% of literate respondents and the 66% respondents aged between 20-40 take self-medications during the proceeding three month period. More male patients used self-medication compared to females, contrary to this survey report6. Patients undergoing self-medication for respiratory tract infection like some other diseases if not threaten in acute conditions it leads to chronic. The greater prevalence of self-medication among younger generation could be due to better educational level. Quality of life assessment after patient education in a randomized controlled study on asthma and respiratory

tract infection also proved [7]. Patient comes to know about the severity conditions and side effects of the drugs. Pharmacists have a particular valuable opportunity to prevent self-medication and encourage compliances.

The reason given by the majority of patients (57%) who are self-medication and deviation in prescription, they concern as financial constraint. Some patients taken less frequency than intended or prematurely discontinue taking the drug as soon as symptoms subside and save the balance of medication for similar problems them or family members may in future [8]. Some people undergo self-medication to save the money for some symptoms like cold, cough, fever, etc. These can be prevented by pharmacist advice the patient to consult doctor in government run hospital and hospital run by charitable trust. To conduct free medical camp and medications are provided free of cost by the different charitable organizations.

22% respondents prone to self-medication because of lack of time, these are faced by Office workers, professionals, laborers, etc. Long waiting time in hospital has been given as a reason for why some patients are following self medication. Excessive patients leads to waiting undermines, such delay leads to patients dissatisfaction [9]. In developing countries, peoples are facing these types of problems to manage financial condition.

The problem for respiratory tract infection treatment of self-medication and deviations in prescription may be minimized by patient counseling. The pharmacist must provide object information about medicines.

The pharmacist must provide information regarding continue to take prescribed medicines, not yet stopped symptoms disappear. The pharmacist must be able to use and interpret additional sources of information to satisfy the needs of patient. It shows, three P's, with the professional partnership of physician, patient and the pharmacist can play a very important role in health care system and improve the quality of life, through which he can realize the dream of WHO "to increase healthy life expectancy for all".

Conclusion

Based on the survey report was concluded that, pharmacists are one of the key person for prevention of respiratory tract infection. Self-medication and deviations in prescription for respiratory tract infection problem may not be completely eradicated; the extent of damage can be reduced through patient counseling given by pharmacist.

Acknowledgments

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