

Patient Knowledge and Awareness Regarding Prescribed Medications

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ABSTRACT

Background: Patient's medication knowledge is important for a better outcome, compliance and adherence. Improper information may affect the treatment outcome. Therefore, this work was carried out to evaluate the knowledge in patients regarding their prescribed medications.

Methods: A cross sectional study was carried out in out-patient pharmacy at GCS Hospital, Ahmedabad from January to May 2019. Adult patients (251) were interviewed as per questionnaire and categorised according to their information status regarding disease condition and prescribed medication.

Results: Males and females were 139 (55.4%) and 112 (44.6%) respectively with mean age of 42 years. Patients with no education, primary education, higher education and graduation were 10%, 28%, 45%, 17% respectively. All patients were informed about medication by doctor and pharmacist. Additional source of information were family members and internet. About 45% recalled the appropriate name of drug and 86% graduate patients cross checked their symptoms and/or diagnosis on internet [$p < 0.05$]. Only 24% with higher education discontinued the treatment without guidance. [$p > 0.05$]. Tendency to reuse the old prescription was more in higher education and graduate group [$p < 0.05$]. All knew route, frequency and total duration of treatment. None of them were aware about side effects of drugs. Knowledge about indication(s) differed as per education.

Conclusion: Patient's interest, education, clear instructions from doctors as well as pharmacist are major factors associated with improved awareness regarding use of medicines.

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INTRODUCTION

Good results in disease management are possible if patients know well about their disease and its treatment.^[1] It is also important for better compliance and adherence.^[2] Patient's knowledge about treatment depends on various factors i.e. age, education, economic status and counselling etc. Failing to take medicines as per prescription can cause a decrease in its efficacy or the appearance of other health problems. It may also lead to the development of adverse drug reactions, withdrawal symptoms and failure of treatment. Studies that examine the knowledge of patients with regard to prescribed medications are limited in our country. Therefore, this study was conducted to evaluate status of knowledge in patients about their prescribed medicines and to identify the factors that influence it.

METHODS

STUDY DESIGN

This cross sectional, non-randomized study was carried out in out-patient pharmacy at GCS Medical College, Hospital and Research

Center, Ahmedabad, from January to May 2019. An approval from Institutional Ethics Committee was obtained. A written informed consent from each patient interviewed in this study was also taken. Adult patients prescribed one or more drugs were enrolled in the study. They were interviewed and categorised according to their demographic details, education, disease condition, prescribed medication, information regarding prescribed drugs and its source as per a pre-decided questionnaire.^[3,4,5] Information about medication included name, indication, route, side effects, duration, frequency of administration, consequences of missed or over doses along with time to take in relation to sleep and meal (if relevant), method of administration, self-medication etc. Questions were asked in vernacular language and responses were recorded. Data obtained was analysed in SPSS version 20.

RESULTS

Total 251 patients were interviewed. Of these 139 (55.4%) were males and 112 (44.6%) were females (mean age 42.08 ± 15.5 years).

About 61.3% patients were less than 45 years old. Patients suffering from an acute condition numbered 151 and 100 had a chronic disease. Three or less drugs were prescribed in 66.5%, 4-6 were prescribed in 29.9 % and only 3.6% patients were given more than 6 drugs [Table 1]. Out of 251 patients, 71(28%) had received primary education, 113 (45%) had higher education, 42 (17%) were graduates and only 25 (10%) had no formal education. [Figure 1]. Patient's source of knowledge regarding drugs was also analysed. Different sources were employed, e.g., doctor (prescriber), pharmacist, family member and internet [figure 2]. All patients were informed about prescribed medication by their doctor and pharmacist. Additional sources for some were family members and internet. Among internet users 64.3% were graduates.

Table 2 shows comparison of responses of patients to questions regarding medication knowledge and their educational level. Patients who knew about consequences of missed or over doses were less in all groups. Patients with higher education knew more about this in comparison to other groups ($p<0.05$).

Of all patients, 51.7% with acute illness discontinued treatment on their own, on relief of symptoms as compared to 12% with chronic disease. Patients with higher education were less likely to stop the treatment without guidance (23.8%) ($p>0.05$). None of the patient changed the dose or frequency on their own. Tendency to use the same prescription on reappearance of symptoms was more in better educated patients than others ($p<0.05$). A change of brand was questioned more by those with less or no education than others. All patients were aware about time to take medicine in relation to meal, sleep or other activities (if relevant). Majority of the graduate patients cross checked their symptoms and/or diagnosis on internet ($p<0.05$)

Only 44.6% of the patients knew the appropriate name of the prescribed medicine and others could identify it by shape, colour, size etc. Patients with higher education were better in recalling the name of medication. All patients were aware about non-pharmacological instructions and willing to gather further information about drugs prescribed. The knowledge about drug interactions was absent in all patients.

Patients were asked about indication, route, side effects, duration and frequency of administration. All were knowing route, frequency and total duration of treatment. None of them were aware about side effects of drugs. Patients with chronic diseases knew better about indication irrespective of their education. However, in patients with acute disease the knowledge about indication differed as per their education. In these patients, those with higher education and graduates had better knowledge then the lower education group. All were aware about indication of commonly prescribed drugs (e.g. NSAIDS, antacids etc.).

Table 1: Demographic details

1. Gender	
Male	139 (55.4%)
Female	112 (44.6%)
2. Mean age (years)	42.08 ± 15.5
3. Disease condition:	
Acute	151 (60.2)
Chronic	100 (39.8)
4. No. of drugs	
1-3 drugs	167 (66.5%)
4-6 drugs	75 (29.9%)
>6 drugs	9 (3.6%)

Table 2: Patient knowledge about prescribed medication

Questions	No formal Education n (25)	Primary Education n (71)	Higher Education n (113)	Graduation n (42)
1. Consequences of missed dose *	12	15.5	12.4	28.6
2. Consequences of overdose	4	8.5	8	14.3
3. Stopping treatment on their own	32	32.4	43.4	23.8
4. Changing dose on their own	0	0	0	0
5. Using prescribed medication in future without visiting doctor if same symptoms appear*	0	5.6	22.1	21.4
6. To consult doctor if different brand is dispensed by pharmacist other than prescribed	44	35.2	31.9	21.4
7. Awareness about time to take medicine relative to meal, sleep, and other activities	100	100	100	100
8. Cross check of symptoms or diagnosis on internet*	0	1.4	24.8	85.7
9. Knowledge about instillation of drops or use other topical formulations	8	1.4	9.7	4.8
10. Reading package insert *	0	0	14.2	54.8

*Significant association at $p<0.05$ using chi square test

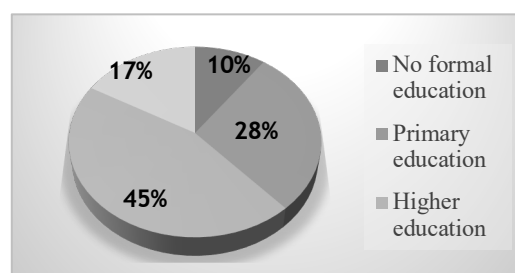


Figure 1: Distribution of patients according to education level

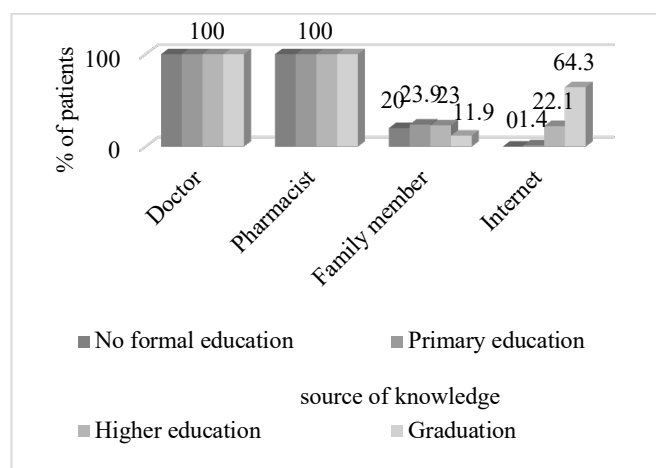


Figure 2: Source of information and education amongst patients

DISCUSSION

Drugs are effective only when patients receive them appropriately in required dose for an optimum duration.^[5] For outdoor patients, administration of drugs as per prescription is largely dependent on them alone. Patient's knowledge about treatment depends on various factors i.e. age, education, economic status and counselling. Among these factors education is the most important factor. Lack of knowledge leading to inappropriate use of drugs may result in ineffective treatment, increased morbidity and a higher economic burden.^[6] This study inquired about a correlation between education and knowledge about prescribed medication in patients.

The main source of information amongst patients was doctors and pharmacists. For some, family members also played an important role. The trend towards the use of internet for health information is rising^[7], as it is easily accessible and free. The quality of this information should be assessed. Internet users are mainly from higher education group ($p < 0.05$). We inquired about basic information regarding prescribed drugs i.e. name, indication, route, frequency of administration, total duration of treatment and side effects. Only 45% of the patients knew the appropriate name and others could identify it by shape, colour, size etc. This may be because of educational level as well as interest to know about drugs. Same results were found in a study done by Carvalho et al.^[4]

Education of patients had an impact on knowledge about indication in acute conditions ($p < 0.05$) while that was not in the case of chronic diseases ($p > 0.05$). This may be because of longer duration of treatment. These results are consistent with a similar study done by Akici A et al.^[3]

None of the patient was aware about side effects. In contrast, in a study conducted by Singh J et al., 31% were aware about side effects.^[8] The reason for this may be insufficient communication between doctor and patient.

Besides doctors, Pharmacist also have a responsibility to explain about proper use of prescribed medications.^[5] Patients were aware about route, frequency & total duration of therapy. Carvalho et al. have also stated about a significant association between education and proper use of drugs.^[4] Use of same prescription without advice of practitioner can lead to side effects and other complications. Patients were inquired about this self-medication on reappearance of symptoms. Patients with higher education and/or with acute disease gave positive response ($p < 0.05$). It is possible that educated patients thought that they can manage relapse of illness without visiting a doctor repeatedly, once the diagnosis has been made^[9].

Strengths and limitations: These study helps to determine lacunae in knowledge of patient about medicines and implementation of different approaches to overcome that.

Our study was carried out in a tertiary care teaching hospital, which may not reflect the scenario at other health care facilities. Secondly, knowledge of patients for prescribed medication was highly subjective and based upon their ability to retain and recall.

Further studies using better communication and patient knowledge scores may be required to assess knowledge of patients about prescribed medication more precisely. Better knowledge is likely to improve treatment compliance and adherence.

CONCLUSION

In conclusion the majority of the patients are aware about the indications and proper use of dispensed medicines but they have no knowledge regarding side effects. Personal interests, education, clear instructions from doctors as well as pharmacist are major factors to improve the awareness about the use of prescribed drugs.

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