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Assessment of Patients' Awareness towards Pharmacotherapy and their Sources of Drug information in different areas of Hyderabad, Pakistan

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Abstract

Drug Information is very important for safe and effective use of medication as well as to avoid from medication errors. This study was conducted to evaluate the knowledge of patient regarding his prescribed medication. In this questionnaire based study data was collected by face to face interview of the patients including both male and females of age between18-60 years. Total 467 patients were interviewed of which 317 (67.9%) patients received drug related information verbally, 110 (23.6%) in written form and remaining 5.1% in both verbal as well as in written. Furthermore 90.8% drug information is given by physician, only 2.6% by pharmacist, and remaining 6.6% by family and friends.It was also observed that only 66.8% patients read the medication leaflets, but most of them have some difficulty in understanding language, technical terms, and font size of medication leaflets. So it is concluded in this study that patients were not well aware of their prescribed medications use and they were also unable to comprehend medicine leaflets due to complex terminology and also font size. Further results of our study showed that there is lack of pharmacist is health care system.

Keywords: Patient, awareness, pharmacotherapy, drug information, medication leaflets.

Introduction

For the Success of therapy there is utmost need of patient counseling, because Patient counseling is the important part of pharmaceutical care plan[1]. The main objective of patient counseling in pharmacotherapy is to avoid medication errors and to improve patient's health status. Unlike ADRs, medication errors are avoidable[2]. The National Coordinating Council for Medication Error Reporting and Prevention (NCCMERP) defines medication error as "A medication error is any preventable event that may lead to inappropriate use of medication or patient harm[3]. Mostly deleterious medication errors comes under the umbrella of medication administration error[4]. Any scarcity in the provision of information regarding pharmacotherapy may push the patient's therapy towards failure, increase the risk of disease relapse, cause drug related adverse reaction and increase in cost of therapy[5].

Many survey studies found that patients often know a little about the medicine they are taking. Several studies examining, patient counseling, and education will help to improve patients' knowledge of their treatment[6,7]. The Improvement in patient knowledge will improve patient adherence to treatment[6,8]. Improved adherence to treatment will lead to improved outcomes[6-9].

The therapy related information given to the patient, is generally provided in verbal mode. In case of verbal medication information insufficient information may be conveyed to the patient. Variation either occurs at the level of sender or the receiver. Moreover information provided by verbal means only, is not retained longer[10]. According to one study very little portion of the provided verbal information is recalled by the patient. A significant amount i-e 40-80% of the therapy related information is disremembered instantly[11] and nearly 50% is reminisced inaccurately[12]. Furthermore in our country with few exceptions most of the pharmacies are run by non-pharmacists. In addition the people operating these drug stores have insufficient training in the relevant field[13]. So accordingly, patients must be provided with written medication information. The importance and benefits of providing patients with written information about medications is well documented in the literature[14].

The most easily accessible form of written information about drug is the package insert, the effectiveness of the medication package insert depends on two factors: Population's predilection towards reading package inserts. The amount of information intelligible for the patient.

The leaflet should be unambiguous and comprehensible to the reader[15].

Methodology

This is a descriptive questionnaire-based survey study conducted in different regions of Hyderabad city. Hyderabad is the second largest city of Sindh province in Pakistan.

Study design: In this Study about patient awareness and sources of drug information, data was collected in between the months of January-2015 to April-2015.

Data collection: A total of 467 questionnaires were filled by using random sampling technique. Both male and female patients ranging from the age groups of 18 to 60 years were selected for this study. Subjects who are hospitalized, bed ridden, mentally retarded and those whose medicines are administered by others like pediatrics and geriatric were excluded from the study. The questionnaire comprised of two parts. The first part contained questions inquiring about demographic data and patient's knowledge about the method of administration of medicine. In the second part respondents were questioned about their sources of drug related information, furthermore their attitude and understanding level towards medication package inserts were also explored.

Data analysis: Collected data was analyzed further by using SPSS version 21 (Statistical package for social sciences version 21), to represent the data in the forms of graph and tables.

Results and Discussion

In this study total 467 questionnaires were filled by interview of the patients. In this 228 (53.1%) of total patients were males and remaining 219(46.9%) were female patients. Most of the interviewed persons were in a productive age of 18-30years. The qualification level of study population was found to be about 7.7%, 9.2%, 21%, and 51.2% were middle, matric, Intermediate, and graduation respectively a specified in table-1. Table-2 shows that 67.9% patients had received drug related information verbally and 23.6% in written form, remaining 5.1% in both verbal as well as written. Furthermore 90.8% drug information is given by physician, only 2.6% by pharmacist, and 6.6% by family and friends, as specified in table-3. Table-4 shows that only 312 out of 467 patients read the medication leaflets. Furthermore It is also resulted in our study that only 12.2% patients has no any difficulty in reading medication leaflet, but remaining has some difficulty in understanding of language, technical terms and font size of leaflets. As specified in table-5.

Discussions: This is first study of its type in Hyderabad Sindh. In this study three main findings were observed. First, it was resulted in this study that three hundred seventeen (67.9%) of patients has received drug related information verbally instead to provision of it in written form. As earlier studies showed that verbal information is ok but do not forget written information [16], because verbal information can forgotten[17], and misunderstood[18]. Second, There was only twelve (2.6%) patients received drug related information from the pharmacist, this is because in our country with few exceptions most of the pharmacies run by non-pharmacist having insufficient training in the relevant field. In another study it is mentioned that there unavailability of pharmacist in health care system[19]. Third, it was also resulted that three hundred twelve (66.8%) of patients were reading medication leaflets these result is matching with a study conducted in Sudan [16], Higher than a study conducted in Israel[20]. Lower than a study[21] due to difference in education levels in different countries. Furthermore it is resulted that Eighty one (17.3%) patients could not understand properly due to language and technical terms and one hundred twenty six (27%) patients has got problem in reading due to font size, therefore some earlier studies recommend font size of 10-11 points as optimal for medication leaflets legibility[22].

Table-1
Respondent's demographic characteristics

Background of patients.	Number and %age n (%)
Gender Males	228 (53.1)
Females	219 (46.9)
Age 18-30 years	325(69.6)
31-40 years	36(7.7)
41-50 years	37(7.9)
51-60 years	69(14.8)
Educational level Middle.	36(7.7)
Matric.	43(9.2)
Intermediate.	98(21.0)
Graduate.	239(51.2)
Missing .	08(1.7)

Table-2
Mode of Information

Mode of Information	Frequency	Percent	Valid Percent	Cumulative Percent
verbal	317	67.9	67.9	67.9
written	110	23.6	23.6	91.4
practical	16	3.4	3.4	94.9
verbal and written	24	5.1	5.1	100.0
Total	467	100.0	100.0	

Table-3
Source of Drug Information

	Frequency	Percent	Valid Percent	Cumulative Percent
Doctor	424	90.8	90.8	90.8
Pharmacist	12	2.6	2.6	93.4
Friends and family	31	6.6	6.6	100.0
Total	467	100.0	100.0	

Table-4
Respondents Who Read Medication Leaflets

Read MLs.	Frequency	Percent	Valid Percent	Cumulative Percent
No	155	33.2	33.2	33.2
Yes	312	66.8	66.8	100.0
Total	467	100.0	100.0	

Table-5
Difficulties experienced by respondents in reading medication leaflets

Type of difficulty	Frequency	Percent	Valid Percent	Cumulative Percent
No difficulty	57	12.2	12.2	12.2
Technical terms	81	17.3	17.3	29.6
Language	81	17.3	17.3	46.9
Font size	126	27.0	27.0	73.9
Lang. and tech. terms	27	5.8	5.8	79.7
Tech. Terms and f.size	21	4.5	4.5	84.2
Lang. And f. Size	38	8.1	8.1	92.3
Lang, tech. Terms and f. Size	36	7.7	7.7	100.0
Total	467	100.0	100.0	

Conclusion

This study revealed that mostly patients were receiving drug information verbally instead to receive it in written form. Further patients read medication leaflets have some difficulty in language, technical terminology, and font size of the leaflets. So our study suggests physician and pharmacist must provide drug related information in written form instead to provide it verbally. Second the medication leaflets should be in legible format and simple to understand for an average patient/consumer.

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