

A Hospital outpatients understanding of their medication instructions

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Accepted (revised) Sept. 2004

The understanding by outpatients of the medication instructions they received in a hospital in Nsukka was studied using a sample size of 291 randomly selected outpatients. Eighty nine percent of the respondents claimed that they were not told the names of their medication. Ninety one percent claimed they were uninformed about the expected side effects of their medications, while only 4% said they were told how best to store their medications to retain their potencies. 83% claimed to have been instructed on when to take their medications and 78% of the respondents did not know how long they were to take their medications. 43% of the patients said they were not told if they were to take their drugs concurrently or separately.

Keywords: outpatients, medication instructions, hospital.

INTRODUCTION

Drug therapy is an important part of many patients' medical management. The therapeutic efficacy of these drugs depends on their proper administration to the patients at specific intervals and in definite quantities (1). But in the ambulatory patients, the effectiveness of the therapeutic agents depends on their compliance to the therapy.

Patient compliance occurs when there is patients' behavioural acceptance of medical advice and instructions in the administration, frequency and duration of the therapy (2). The level of compliance of the patients to the prescribed drug therapy determines the effectiveness of the therapeutic agent. Good compliance of the patient to therapy is only achieved through adequate motivation by ensuring that the patient understands the name and indication of the medication, route, frequency and duration of drug administration, and significant side effects and possible adverse reactions of the medication so as not to cause the patient to discontinue the therapy before the desired result. The level of information a patient has about his medication(s), to a great extent, affects compliance. Most patients do not always receive adequate information to allow for safe and effective use of prescribed drugs (3) hence they end up not utilizing

their medication(s): this often results in therapeutic failure or exacerbation of the pathological condition.

One of the patient care indicators in the assessment of drug use in health facilities by World Health Organization (WHO) (4) is "patients' knowledge of correct drug dosage". This survey was designed to assess the outpatients understanding of medication instructions given to them in a hospital pharmacy in Nsukka, Eastern Nigeria.

METHODOLOGY
STUDY DESIGN

The study was a prospective survey done within a three month duration in a hospital in Nsukka, Enugu State on outpatients understanding of their medication instructions. The hospital has an outpatient capacity of about 200 patients per day and Health personnel strength of ten general practitioners (GPs), two consultants, fifty nurses, three laboratory technicians and a pharmacist. The patients' status are majorly the low-income societal group and the outpatients were randomly sampled on a two times weekly basis for the 3 months. The study instruments were in-depth oral interview as well as filling of the questionnaires that were carefully worded and interpreted to the randomly sampled patients, when need be, so as to elicit good

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and accurate responses. The patients were 15 years and above in age and no illness type was excluded. The contents of the questionnaire were sectioned into demographic information such as age, sex, marital status, educational status and employment and drug usage instruction section. The drug usage instruction section includes these.

1. Were you given oral instructions as to who the medications are for?
2. Were you told the names of the drugs you were given?
3. Were you told the expected side effects of your medications?
4. Were you instructed on how to store your medications?
5. Do you know how long you are to use the drugs?
6. Were you instructed on how long you can take the drugs concurrently or separately?
7. Were you told to avoid some other drugs, food or alcohol while you take your medications?

ANALYSIS OF DATA

Analysis of the data was done by simple percentages.

RESULTS

291 patients at the end of the oral interview to authenticate the information supplied filled out questionnaires. Of the respondents, 125 (43.3%) were male patients while 166 (56.7%) were females; patients with primary six leaving certificate as maximal educational qualification were 131 (45%), those with secondary school education were 87 (30%) while those with tertiary educational qualifications were 73 (25%). Of the respondents, 288 (99%) agreed to the fact that they were given oral instructions as to who the medications were for but 3 (1%) said they were not told.

A significant number of patients 204 (70%) stated that they were not told the names of their medications, 55 (19%) said they were told but forgot what they were told by the dispenser/pharmacist, and 32 (11%) agreed that they were told and remembered the names of their medications.

On their knowledge of the side effects of their medications, 186 (64%) of the respondents claimed uninformed, 79 (27%) said they did not understand what they were told while 26 (9%) agreed to knowing the expected side effects of their medications. 146 (50%) of the patients could not state how best to store their medication in order to retain the expected potency. 133 (46%) claimed not to have been instructed on how best to store their medications.

On whether mediations would be taken before or after meals, 242 (83%) agreed to have been properly informed when to take their drugs, however 49 (17%) of the patients claimed not to have been properly informed, hence they did not understand the instructions when to take their drugs. Duration of therapy is very important but 227 (78%) of the patients interviewed did not know how long they were to use their medications while 49 (17%) said they were not told at all.

125 (43%) of the patients said that they were not told whether or not to use their medications concurrently or separately, and if to avoid alcohol while medication lasts, while 166 (57%) said they were instructed on how to take their medications.

DISCUSSION

In this study, the analysis of the data from the questionnaire/interview gave a good insight into the understanding of medication instructions by outpatients in a hospital. Poor understanding of medication instructions could result to paucity of information; and could lead to poor compliance or non-compliance, therapy failure or medication toxicity. Oral instructions alone, in a polypharmacy situation are not enough (2,5) because most patients may be unable to recount instructions immediately on leaving the consulting room or dispensing desk. In a hospital like this where most of its patients are below the secondary school qualification status, their medication instructions should not only be oral but also written so as to facilitate remembering and compliance to those therapies, as drug defaulting has been directly linked to low educational status and illiteracy (6, 7).

A significant number of the patients agreed to the fact that they were given instructions on whom the medications were for but most of them claimed that the names of their medications were not given to them nor written on their medication envelopes. Considering the fact that most patients that come to the community hospital even on outpatient basis are very sick, they often require the assistance of a second party to collect their medications. If such a second party does not know the drug names, the patient invariably will be misinformed and could lead to drug misuse and adverse drug reaction.

A patient's good understanding of the side effects of the drugs he/she is being exposed to will encourage a good compliance attitude to the therapy. Most drugs have side effects that if not properly understood by a patient could lead to discontinuation of therapy or endanger the patient's life especially

such drugs that affect alertness of the patient. From the study, a significant number of the outpatients (265; 91%) claimed not to have either been told or did not understand the instructions on the expected side effects of their medications. This could lead to enormous non-compliance or therapeutic failure because of abandonment of therapy when the patients experience such side effects.

The retention of drug potency is known to be dependent on the proper storage of that drug. If a drug is not properly stored, it could undergo degradation due to heat, moisture or other factors. These facts about storage of drugs must be well understood by the patients so as to reduce drug poisoning, wastage and other deleterious consequences of degraded drug administration. Since most of the patients could not state how best to store their drugs, therapeutic failures and drug toxicities due to drug degradation may not be a surprising occurrence among them.

Most of the patients, on their interview, were found to have received medications that need to be taken before or after meals. Some were on non-steroidal anti-inflammatory drugs that need to be taken with or after meals. But a good number of patients claimed they were not informed when to take their medications. If these patients who are meant to take the non-steroidal anti-inflammatory drugs should take them before meals, their absorption will be enhanced although, but their gastrointestinal disturbances of the patient's could cause them to discontinue the therapy. The food-drug interactions are numerous and could lead to inestimable consequences. Patients should explicitly be told or instructed when to take their medication with respect to meals.

Medications have been found to be abandoned by patients as soon as their ailments seemed to have subsided or 'gone'. Most of the patients in this study seemed not to have been told about the duration of their therapy and the need to continue their therapies to completion even after their symptoms had waned or ceased. This education need to be given to the patient so as to reduce development of resistance especially in antibiotic therapy.

Polypharmacy is the bedrock of clinically significant drug interactions in patients. Patients often, are given drugs that may also interact with their social habits such as alcohol (8) cigarette smoking, cola chewing and others. A good number of patients said they were neither instructed to separately take their medication to avoid interactions, which could be disastrous to their health or to the efficacy of the drugs,

nor were they reminded to reduce or abstain from their social habits while their therapies lasted. Such practices could make the patients susceptible to enormous injurious drug interactions, even therapy failures, which has serious economic implications.

It is not just enough to orally instruct the patient on how to use their medications, they must also be educated by writing legible labels and directions on how to use the drugs on containers with the names of the drugs/patients. This is necessary because 'what you hear you could forget but what you see you cannot easily forget'. The written instruction therefore reinforces the spoken one.

ACKNOWLEDGEMENT

The authors are grateful to Mr. Chugbo and Miss Otti for their assistance with the data collection from the hospital.

REFERENCES

1. James, M.C., Henry W.W. (1974). The pharmacist's role in preventing medication errors made by cardiac and hyperlipoproteinemic out patients. *Drug Intel. Clin. Pharm.* **8**: 430 – 436.
2. Laurence, D.R., Bennet, P.N., Brown, M.J. (1997). Compliance In: Clinical Pharmacology (8th ed) Churchill Livingstone NY p. 19.
3. Andrea, S., Anderson, J., Lyle-Boatman, J. (1980). Influence of patient package insert content on intended drug-taking behavior. *Pharm. Management* **152 (5)**: 219 – 222.
4. Adenika, F.B., (1999). Healthcare and industrial pharmacy operations research and drug use studies. *West Afr. J. Pharm.* **13(1)**: 67 – 73.
5. Anonymous (2003). Understanding the non-compliance chain reaction, The Upjohn Company, Kalamazoo, MI.
6. Richard, P.S., Carl, E.T. (1979). Effect of audio-visual and written instruction on drug knowledge and compliance. *Pharm. Management* **15 (3)**: 134 –
7. American Society of Health-System Pharmacists (1983). Basic skills in clinical Pharmacy practice Bethesda MD ASHSP.
8. Frank, J.A. (1978). Caution: These drugs interact with alcohol. *Pharm. Times* Jan 79 – 82.