# OUT PATIENT COMPLIANCE WITH PRESCRIBED DRUGS AT KWARA STATE CIVIL SERVICE CLINIC, ILORIN, NIGERIA.

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**ABSTRACT**

Out patient compliance with their prescribed drugs at Kwara State Civil Service Clinic has been studied. Among the various factors found to affect compliance, religious fasting played a significant role. Out of the total cases studied, 40.4% of the patients was found to be compliant. Methods to enhance compliance are suggested.

## INTRODUCTION

Patient compliance with prescribed drugs may be defined as the strict adherence to their prescribed and dispensed drugs and drug products in terms of dosage quantity, dosage interval, route of administration and time of administration (Owueleka, 1987). For the optimum therapeutic effects of a drug to be obtained, it is essential that the patient complies with prescribed and dispensed drugs. Factors that may make patients not to comply with their prescribed drugs in one locality may not prevail among other patients in a different locality. A detailed study of patient compliance in a civil service clinic is presented in this paper.

## SUBJECTS AND METHODS

**Subjects:**

Only out patients were involved in the study. The subjects were patients who attended the clinic often with presentation of the same illness as shown by physicians' medical record. Those who have chronic illnesses and attended the clinic regularly were included in the study group.

**Methodology:**

The direct questioning method was adopted. Each patient, after due explanation, was told to come with any drug left on the day he was scheduled to see the doctor the next time. Tablet count or quantity of syrup left helped to assess compliance with prescribed drugs.

The patients were studied in two groups:

1. Those who were between the ages of one month to ten years.
2. Those who were 11 years and above.

In the first study group the parent or guardian of the patient who brought the child to the clinic were interviewed for compliance. The second group consisted of those who were questioned directly for compliance. Thus the patients were evaluated on an interpersonal level. The name of the patient and card number were written.

The following questions were then put to the patients as necessary:-

(I) Were you able to get all the drugs from the clinic's pharmacy?
(II) Did you purchase the drug(s) that were not available in the clinic's pharmacy?
(III) Why did you not purchase the drug(s) that were not available in the clinic's pharmacy?
(v) Did you miss taking your drug(s) at any time?
(v) Why did you miss taking your drug(s)?
(vi) At what time of the day did you miss taking your drug(s) (morning, afternoon, evening or midnight)?
(vii) How many tablets (or capsules or teaspoonfuls/ tablespoonfuls) did you take at each time?
(viii) Did you experience any undesirable effects of the drugs such as dizziness, laziness, nausea, vomiting, headache etc.?
(ix) Did that make you to stop taking the drug(s)?
(x) Did you you take the prescribed injection(s)?
(xi) Why did you not take the injection(s)?
(xii) Did you have difficulty in administering any of the drug(s) to child/children?
(xiii) Did that make you to stop further administration of the drug(s) to the child/ children?

The total number of patients attending the clinic each day during the study period were also recorded.

**Results:**

Table 1 shows the age analysis of the patient groups.

Table 1. Age analysis of patient groups.

| | No. of patients | % of total |
|---|---|---|
| 1 month - 10 yrs. | 168 | 42.42 |
| 11 years and above | 228 | 57.58 |
| Total | 396 | 100.00 |

168 of the patients fell into the group where their patents or guardians were interviewed. The rest 228 patients were directly interviewed by the pharmacists involved in the study.
The total number of patients that were compliant and those not-compliant are shown in Table2.

Table 2.Number of patients that were compliant and those not compliant.

| | No. of patients | % of total |
|---|---|---|
| Compliant | 160 | 40.40 |
| Not compliant | 236 | 59.60 |
| Total | 396 | 100.00 |

40.40% of the total patients studied were found to be faithful to their drug regimen. The rest 59.60% were found to have deviated in one form or the other. Table 3 shows the various reasons given by the patients for not been compliant.

Table 3. Reasons leading to non-compliance

| | No of persons giving reason | % of total |
|---|---|---|
| Forgot time of use | 38 | 9.60 |
| Was asleep at time of use | 41 | 10.35 |
| Fear of Injections | 6 | 1.52 |
| Lack of money to buy the drugs | 74 | 18.69 |
| Stopped taking drugs due to side effects | 13 | 3.28 |
| Does not like swallowing tablets | 5 | 1.26 |
| Was not able to find drug in pharmacy stores | 51 | 12.88 |
| Inadequate instruction on use by pharmacy staff | 82 | 20.71 |
| Forgot instructions given by pharmacy staff | 20 | 5.05 |
| Stopped taking drugs because thought that illness has finished | 34 | 8.59 |
| Stopped giving drug to child/children because of difficulty in administration | 11 | 2.78 |
| Did not take drugs due to religious fasting | 21 | 5.30 |

The table below (Table 4) shows the various types of non-compliance identified among the patients.

Table 4. Types of non-compliance identified.

| | No. of persons | % of total |
|---|---|---|
| Underdosage | 128 | 32.32 |
| Overdosage | 55 | 13.89 |
| Wrong route of administration | 1 | 0.25 |
| Wrong interval of administration | 202 | 51.01 |
| Wrong period of administration | 10 | 2.53 |

**DISCUSSION:**

According to Hussar (1980) the following reasons can be adduced why patients may fail to comply with their prescribed drugs.

1. The patient feels better or is asymptomatic before, during, or after diagnosis.
2. The patient does not understand the doctors orders or the nature of the illness.
3. The physician is too busy to offer much more instruction than a quickly written prescription.
4. The patient views long term medication as a restriction or a threat to his way of life or fears side effects of a medication.
5. The patient tries to deny the existence of the illness or he disagrees with the physician's diagnosis.
6. The medication may be expensive.
7. Receiving treatment may sometimes present an inconvenience.
8. In some instances there may be poor communication between the patient and the physician.

It was also stated that 35% of patients are non-compliant. This study sought to evaluate both the above factors and others such as availability of drugs, patient counselling by pharmacy personnel, religious influence and dosage form. The population studied was far from being being homogenous in economic, social, religious and age terms.

Patients who were in the study group of ages one month - ten years were found to be more compliant to their prescribed drugs. Only 39.43% non-compliance was recorded in this age group. This is because someone else had to administer the drugs to them. Common reasons given for non-compliance in this age group include:-

- continued use of medication (usually syrups) for longer periods than prescribed;
- use of tablespoonful instead of teaspoonful (overdosage);
- the stoppage of medication before the period prescribed especially where the purchased drug is less then the required quantity (underdosage). For example, some antibiotic syrups are usually prescribed to a total of 100 mls. While those packaged by manufacturers are in 50 or 60 ml. capacity
- and the stoopage of administering medications to children due to difficulty in administration.

This type of non-compliance can be reduced if the correct quantity of the drug product is dispensed to the patient and proper counselling.

The other age group accounted for 60.57 of total number of patients that were non-compliant. This age group comprises schooling and working classes and were found to take their drugs at wrong intervals and periods of time. In this age group are also those capable of religious fasting and were found to be faithful only to the injectable forms during the hours of fasting. Only proper counselling of such patients can ensure compliance.

One patient (0.25%) administered pessaries (meant for vaginal insertion) orally. Proper explanation is essential for patients to administer their drugs via the correct route.

Another reason given for non-compliance is unavailability of some drugs in both the clinic and community pharmacies. This leads to a non-compliance rate of 12.88% which is a relatively large figure when compared to others. Suitable alternative prescriptions of drugs that can readily be purchased can help reduce this type of non-compliance.

Fear of tablets and injections accounted for 2.78% of the total non-compliance cases recorded. Drugs commonly feared were Aspirin and Novalgin. Patients complained they had read from newspapers that the drugs had been banned. However, it is only children's Aspirin and products contain-

ing it that has been banned (Aspirin is known to cause Reye's syndrome in children less that 12 years of age.). To avoid such fears in patients, correct trade channels should be used in withdrawing violative drugs and not public newspapers unless the product in question is known to be seriously life threatening.

Fig. 1 shows the graph of number of out patient attending clinic plotted against the number of weeks in a month. The graph shows a general depression between the second and third weeks. This shows that less patients attended the clinic during this period of each month. However, during the last and first week of each month, a higher attendance was recorded. This can be extrapolated to the ability of civil servants to pay for drugs at these periods of the month.

Inability of patients to purchase drugs accounted for 18.69% of the total non-compliance recorded. To enhance compliance it is necessary to provide credit facilities for patients and such money deducted from their salaries at convenient periods.

## SUMMARY AND CONCLUSIONS

A total of 396 patients were studied for complaince with their prescribed drugs in a civil service clinic. The direct interview method was adopted.

Only 40.40 percent of the patients were found to be compliant with their prescribed drugs. The rest 59-60 percent of the patients committed medication errors in one form or the other. Reasons given for non-compliance include economic, religious, improper patient counselling on the part of pharmacy personnel and unavailability of the drugs.

**References:**


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