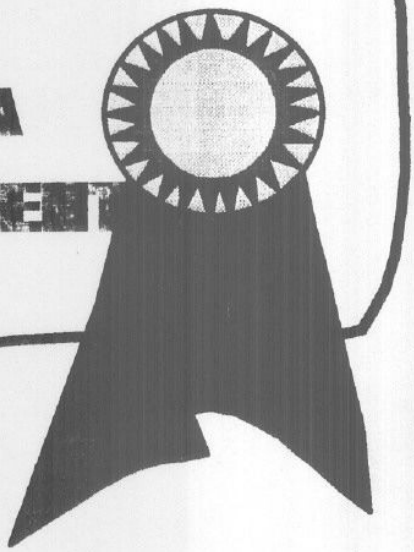
"DO OUT-PATIENTS UNDERSTAND HOW TO TAKE THIER MEDICATION IN A HOSPITAL IN RURAL NEPAL ?"

DR D.B.SHRETHA

MBBS,MD(GP)RESIDENT

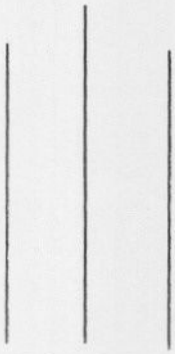


" DO OUT-PATIENTS UNDERSTAND HOW TO TAKE THEIR MEDICATION IN A HOSPITAL IN RURAL NEPAL?"

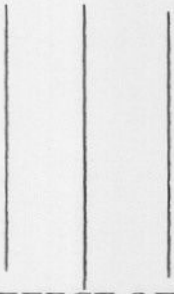
AN OBSERVATINAL PROSPECTIVE COMPARATIVE RANDOMISED STUDY SUBMITTED TO

THE INSTITUTE OF MEDICINE, TRIBHUVAN UNIVERSITY NEPAL

IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF



"MEDICAL DOCTORATE IN GENERAL PRACTICE."



"AN AUDIT OF THE EFFECT OF AN EDUCATION PACKAGE FOR PRESCRIBERS AND DISPENSERS ON PATIENTS KNOWLEDGE OF HOW TO TAKE THEIR MEDICATION IN AMP-PIPAL HOSPITAL "

UNDER THE DEPARTMENT OF GENERAL PRACTICE AND EMERGENCY MEDICINE

T.U. TEACHING HOSPITAL, KATHMANDU NEPAL

From 11Th Jun to 17Th Jun, 1999& 30Th July to 5Th Aug 1999

By

Dr. D.B. SHRESTHA MBBS, TU, IOM, MD (GP) RESIDENT

DECLARATION

I hereby declare that I am the sole responsible author of this observational prospective comparative study.

I authorize TUTH, IOM Maharajgunj to lend this observational prospective comparative study to other institutions or individuals for the purpose of scholarly research.

Dr. D.B. SHRESTHA

January 2000

CERTIFICATE

THIS IS TO CERTIFY THAT THE OBSERVATIONAL PROSPECTIVE COMPARATIVE STUDY TITLED "DO OUT-PATIENTS UNDERSTAND HOW TO TAKE THEIR MEDICATION IN A HOSPIATL IN RURAL NEPAL?" CONDUCTED IN UMN AMP-PPIAL HOSPIATL GORKHA NEPAL, WAS UNDERTAKEN BY Dr. D.B SHRETHA UNDER MY SUPERVISION. THIS WORK WAS SUBMITTED AS REQUIRED FOR THE MD DEGREE IN GENERAL PRACTICE IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE INSTITUTE OF MEDICINE, TRIBHUVAN UNIVERSITY.

4.2.2000

PROF DR. SHATENDRA KUMAR GUPTA

HEAD

DEPARTMENT OF GENERAL PRACTICE

&

EMERGENCY MEDICINE

TRIBHUVAN UNIVERSITY, TEACHING HOSPITAL

KATHMANDU, NEPAL

Patan Hospital United To Mission Nepal

P.O. 152 Kathmandu. Nepal

Phone (HQ){977-1-228118. Fax (977-1-225559.Email: appleby@umn.mos.com.np

Date: 31st Jan 2000

This is certified that the study on " Do Out Patients Understand How to Take their Medication in a Hospital in Rural Nepal ? "

in AMP-PIPAL Gorkha Nepal is the original work of *Dr. D.B. Shrestha*

performed in accordance with the rules and regulations of the Institute of Medicine, Tribhuvan University Kathmandu, Nepal

Dr. Alistair Appleby,

MDGP Co-ordinator and Preceptor Patan Hospital


NEPAL
AMPPIPAL HOSPITAL
FAR WESTERN
MID WESTERN
WESTERN
CENTRAL
EASTERN
CHINA
INDIA
Kilometres 40 20 0 40 80 120 160 Kilometres
Scale 1 : 2,000,000
BOUNDARIES
International, Regional, Zonal, District
HEADQUARTERS
Capital, Regional, Zonal, District
ROADS
Highway, Secondary, Seasonal, Under Construction
River, Lake, Peak, Pass (Bhanyan, Lagna, Lā)
PRONUNCIATION GUIDE
Prepared and Printed by Topographical Survey Branch, Survey Department H. M. G. Nepal in 1999

VIIA


84°30'
85°00'
85°15'
28°30'
28°00'
गोरखा
किलोमिटर
किलोमिटर
मान १:५००,०००
VIIB

A Rural AMP-PIPAL Hospital

AMP-PIPAL

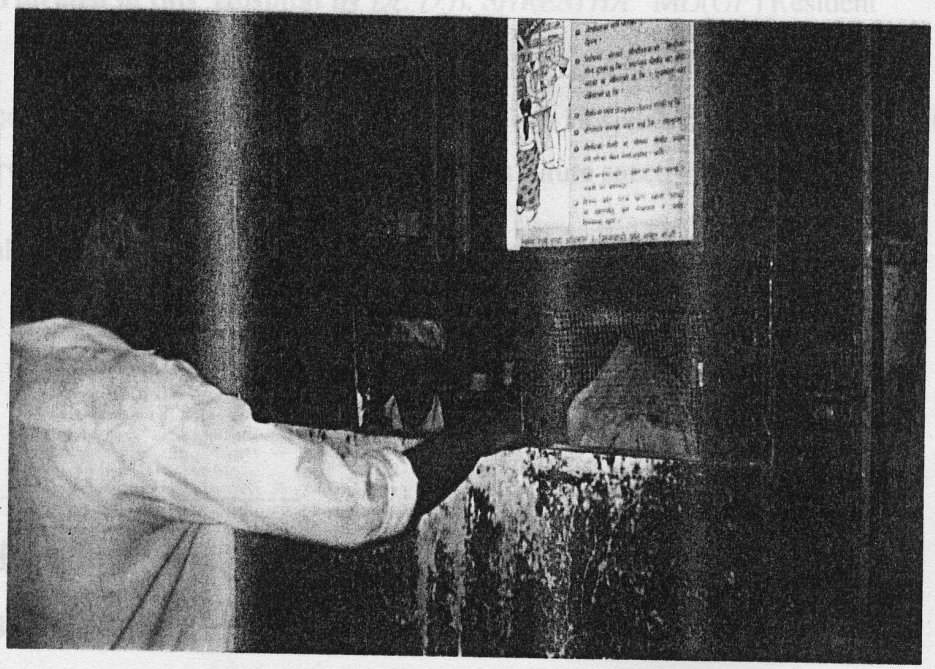
INTRODUCTION OF UMN AMPPIPAL HOSPITAL IN GORKHA DISTRICT OF NEPAL.

Gorkha project was begun in 1957 as an integrated project with education, heath & Agricultural sectors. A dispensary was open at first. After twelve years, in 1969 Amp-pipal hospital was built and was founded by the United Mission to Nepal.

At that time Surgical treatment became and increasingly important part of the services offered and remains the only regular surgery being done in Gorkha, Lamjung and Tanahun district (Population approximately 650000). Since the opening of the hospital the number of patient's admitted each year has more than tripled and out patients consultation have doubled with the only modest expansion of the facilities such as T.B./Leprosy Deras (Room) and widening the main corridor to permit extra corridor beds. There are 52 beds (40 acute beds and 12 chronic or Long stay beds) in the hospital. This hospital is situated 6-7 hrs walk from the nearest motorable road in a rural area of Gorkha district. It is run by Paramedical, General Practitioner and GP Surgeon providing medical surgical, pediatrics, obstetrics, gynecological and orthopedics services with 24 hours emergency care .It has it's own pharmacy inside the Hospital. OPD patients are examined by OPD examiners (C.M.A.+H.A.), simple non-complicated cases were dealt with by them and they prescribe the medicines. Complicated cases were refereed to the doctor. All patients were received their medicines from the hospital, pharmacy. Pharmacy technicians dispense the medicines. There is one pharmacy technician who has got certificate level degree in clinical

pharmacology and three pharmacy technician assistant who have got varying levels of training in pharmacy from UMN hospitals.

Last years 38500 patients were examined and treated on an out patients basis and 2542 patients were admitted in the ward and received treatment.



Hospital Pharmacy Department

AMP PIPAL HOSPITAL

Gorkha District

P.O. 126 Kathmandu Nepal Phone (HQ){977-1-228118,228060}, Gorkha (064) 29388

Fax (977-1-225559 Telex 2315 *UMNNEPA*

Date: 11th Jun 1999

This is certified that the study on " Do Out Patients Understand How to Take their Medication in a Hospital in Rural Nepal? "

is performed in this Hospital by *Dr. D.B. SHRESTHA* MD(*GP*) Resident

in accordance with the rules and regulations of this Hospital under our guidance and Supervision. We wish to him all the best for his future success.

Thank you!

Dr. Bharat Thapa,

MBBS, MDGP

Acting Hospital Director

AMP-PIPAL HOSPITAL

Date 11Th Jun 1999

ACKNOWLEDGEMENT

It is my sincere thanks to Professor Dr. Shatendra Kumar Gupta, MD, and Chief of the Department of General Practice & Emergency medicine T.U. Teaching Hospital who guided me to carryout the research work.

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I would like to extend my thanks to Mr. Macha Bhai in-charge of Patan Hospital Library who helped me to do the medline search, data base studies in Internet to completions of this work & Mr. Rupak Shrestha for his valuable initial Computer works.

I would like to thank Mr. PRAKASH SHARMA PAUDEL (BPKLCOS) for his valuable final Computer Graph Designing and making this document more attractive.

I am deeply grateful to Dr. Bharat Thapa, Dr.Juha Lind, Mr. Madan Rana, Mr. Krishna Gurung and all the AMP-Pipal Hospital Staffs for their kind support & help.

My thanks and gratitude to all the patients in this study my colleagues and seniors who played a crucial role in completing this study.

It would be a matter of great pleasure and satisfaction to me if this project could prove to be useful to the students, medical practitioners, and other related persons.

A final special thanks to my wife Usha Shrestha, & my Sons, without their support this study would not have been possible.

Dr. D.B Shrestha

Abbreviations

CMA-Community Medical Auxillary

GP-General Practioner

HA- Health Assistant

IOM- Institute of medicine

OPD- Out Patients Department

P – P value

TUTH- Tribhuvan University Teaching hospital

UMN- United Mission To Nepal

TABLE OF CONTENT

ABSTRACT

Understanding of medication by patient is a complex process. Writing a prescription and dispensing the medication will not be sufficient for patient understanding. It alone will not cure the disease. There is a vital and equal role of the treating physicians, dispensers, and the patient themselves.

A prospective comparative study was conducted in UMN Amp-Pipal Hospital, Nepal on June and July 1999. An education package were given to prescribers and dispensers. A total of 200 patients and the relatives were interviewed randomly. 100 patients and relatives were interviewed before the education package and 100 patients and relatives were interviewed after the education package.

It was found that an the education package has significantly improved patient understanding. There is statistically significant relationship between literacy and the understanding of how to take medication. If fewer drugs were prescribed (upto 3 drugs) understanding was also better and this was found to be a statistically significant association. Patients themselves understood their medication better than relatives, also highly significant statistically.

An Education package is necessary for prescribers and dispensers from time to time as refreshment of their knowledge in different hospital setting of Nepal. This will help improve patients understanding of their medicines, and therefore compliance.

INTRODUCTION

Effectively treating patients is a challenging task for doctors. There are several factors, which play an important role.

A) CONSIDERATIONS FOR DOCTORS: - Accurate diagnosis of a disease is a key step and following rational prescribing policy is crucial. Not only appropriate drugs to be prescribed but also must be taken in the right dose at correct intervals, for sufficient duration. Appropriate drugs must be effective, be of acceptable quality and safety and be available to the patients at an affordable price.[15,19,25.]

Compliance is not a concept for patients alone, doctors have a duty to refrain from in appropriate prescribing, to tell the patients what they need to know, to warn of side effects and to recognizes the importance of what they are doing. [15,19,25]

In one study in university hospital where standards might be expected to be high, there was an error of drug use (dose /frequency/ route) in 3 % prescriptions and error of prescription writing (in relation to standard hospital instructions) in 30 %. In 79% of patients there was at least one error in prescription writing[19].

In other hospital studies error rates in drug administration of 15-25 % have been found, rates rising rapidly where 4 or more drugs are being given concurrently.[19]

B) CONSIDERATIONS FOR THE DESPENSERS:- Drug dispenser play a vital role in curing disease. After accurate diagnosis and proper treatment plans and prescription should be written. Correct dispensing is a major factor. All the resources required to bring a drug to the patients will be wasted if the dispensing process does not ensure that an effective form of the drugs reaches the right patients in the prescribed dosage and quality. There should be clear instructions on how it is to be taken. During dispensing of drugs communication should include- basic information about the drug prescribed, its correct use in terms of dose, frequency, indication, duration, limitation of treatment, important side effects, special precautions to be taken, instruction on the next appointment· Drugs should be in suitable packing.[15, 19,29]

C) CONSIDERATION FOR PATIENTS:- After accurate diagnosis a proper treatment plan and prescription is written , the patient should fully comply with the effective treatment.[15,19,25] Patients may not take medication as instructed. Several reports show that non compliance is a big problem in drug therapy specially in long term treatment. On an average compliance rate is no more than 50 %.[4,15,24,25,30]

In view of their known facts I want to consider whether patients understand their medication better after an education package given for prescribers and dispensers? I have chosen this topic for my research study.

These are my research Hypothesis.

1. An education package given to prescribers and dispensers about the rational prescribing policy of drugs and correct dispensing of drug will improve the understanding of patients and relatives.
2. Literate patients understand their medication better than illiterate patients.
3. If fewer drugs are prescribed patients will understand better how to take them.
4. Patients themselves understand their medication better than their relatives.

The main aim of this study is

To know the degree to which patients understand how take their medication. A comparison before and after an education package was given to prescribers and dispensers.

The secondary objectives of this study were as follows

To discover whether the understanding of medication varies according to literacy. Whether patients themselves or relative understand better. Whether there is variation according to the how many drugs were prescribed at once.

I have done a thorough medline search and searched the Nepali data base "Health Net, " journals published in Nepal and aboard and the text books. I have found some related studies done previously. Some are relevant to my study.

1. The impact of discharge counseling was measured in a veteran patient population attending a large tertiary care government medical center. Upon each discharge compliance were asked by interviewing each patient after approximately 6 weeks of discharge. They found that counseled patients had more understanding of their medication than uncounselled patients. In all patients medication knowledge an understanding compliance decreased as their number of medication were increased.

   Pharmacist counseling would likely prove beneficial to those patient discharged on multiple medication.[31]

2. Successful drug therapy comprises a great deal more than choosing the right drug .[19]

3. Diagnosis and explanation of the patients role in therapy and repetition of specific points of conversation in order to check patients understanding. Control tests 3 months after special training seminar revealed that important progress was realized.[22]

4. Both physician dependent and patients dependent factors contributed significantly to drug understanding. [28]

5. Visual aids for communicating prescription drug instruction to illiterate patients in rural Cameroon found significantly better understanding of medication due to their use.[26]

6. To promote optimal patient compliance the out patient prescription level should state the number of times a drug is to be taken rather than hourly intervals,[12]

7. Compliance promoting measures include among others, uncomplicated prescriptions (such as one daily dose, drug combinations and written instructions) frequent, well organized controls and the self -involvement of the patients in his treatment. Employment of well-educated assistant attending long-term patients shows positive results. Further more installment of a good patients physician relationship is one of the most pre-requisites for good compliance.[29]

8. It is unlikely that any patient will reliably take more than three drugs without special supervision.[19]

METHODOLOGY

An observational prospective comparative study was performed in the UMN Amp-Pipal hospital in Gorkha district of Nepal. On a simple randomized basis, patients who received their medication from pharmacy after consultation with an OPD examiner from 10:30 a.m. on OPD days were interviewed. 20 patients in each day were interviewed using a standard format, on a simple randomized basis by one person only interviewed patients to total of 100 patients.

The first of study was 11Th June 1999 - 17 June 1999 (BS 056/2/28 to 056/3/13) for one week. In this study neither the OPD examiner nor the pharmacy technician knew the study was going on, to decrease the biases.

Second study was conducted on 30th July to 5th Aug 1999 for one week (B.S 056/4/14-056/4/20) in same manner but OPD examiner and pharmacy technician were taught about the rational prescribing policy of drug and correct dispensing technique (An education package to dispensers and prescribers). OPD examiners and pharmacy staffs were again unaware the study was going on.

Total OPD visit on that time were varies from 80-120 patients per day. The approximate total population was about 1000 patients. Out of them 200 were interviewed. 20 patients in each working day. 100 patients were interviewed before the education package and 100 patients after the education package.

FORMAT

SURVEY OF PATIENTS UNDERSTANING OF THEIR MEDICATION
June 1999

Patients Name ..... Hospital No. Study No .....

Person receiving medications: (Circle correct answers) ADD.....

Patents/Other Literate/ Illiterate Male/ female

Age: 0—15 16—30 31—45 46—60 >60

Number	Drug Name	Frequency	Dose	Indication	Duration

Inclusion Criteria:

All patients above the age of 10,

Not too sick, Not having psychiatric problems,

Patients were receiving their medications from hospital pharmacy.

Exclusion Criteria:

Patients age less than 10 years

Very ill patients

Mentally unstable

Blind and deaf patients

If a relative was in attendance they were interviewed instead of the patient in the above cases.

Ethical Consideration:

Institutional consent was obtained from the hospital director of Amp-Pipal Hospital. The consent of the patient were obtained & all Information confidentiality was maintained.

Budget:

Primary processing of data was done in Amp-Pipal Hospital. The author (approximately Rs 5000 Nepali) spent all Computer costs photocopy stationary & miscellaneous all.

Definitions:

Literate- Patients who can read and write Nepali words and numbers, not necessary to have academic qualifications.

Illiterate- Patients who can't write and read Nepali words and numbers.

Understanding <=> Recall

Drugs <=> Medicines

OPD Examiners <=> CMA /HA /Doctor <=>Prescribers

Pharmacy technicians <=> Dispensers

Understanding of medications:-In this study patients who can tell the interviewer the correct dose, frequency,indications and durarion of prescribed drug counts as full understanding.

Not Understanding of Medications:- In this study patients who could not correctly give the dose ,frequency, indications and duration was counted as "not understanding" .

Patients Interview:- Meaning patients who were received their medications from pharmacy and interviewed .

Others Interview:-Meaning someone other than the patient , (mother of ill child, guardian of very ill or psychiatric patients) who were received their medication from pharmacy and administer them in home.

Compliance:-

a) Cooperative performance in relation to prescribed therapy or medicines.

b) The state , "act of doing what is asked or ordered."

c) The term compliance has been objected to as having over tones of obsolate , arrogent , altitudes implying ,obediance to doctors orders but this seems oversensetive and the suggested alternativly , adherence does not have quite the right meaning.[19]

Audit:-

Medical audit is " the systematic, critical analysis of the quality of medical care ,including the procedures used for diagnosis and treatment, the use of resources and the resulting outcome and quality of life for the patients.". Audit is incresingly being used with in primary care to assess what is actually happening in practice , so that change can occur. Unfortunatly , audit is not popular, one reason for this may be that the initial collection of data may highlight weakness in the work performed by health professionals. However the audit cycle can help in the improvement of quality of care for patients by:-

- Defining Criteria and standards
- Collecting data on performance
- Assessing performance against standards
- Identifying the need for change

The audit cycle can also help all health professionals to develop a self critical attitude to their own performance and their by maintain and improve the quality of care given to patients in clinical practice.Time is of course, at a permium, therefore there is an increasing necessity to justify that procedures undertaken are worth the time spent on them.[8]

Education package – Which means general guide line to OPD exminers about rational prescribing policy and correct dispensing policy to pharmacy technician. It was given to OPD exminers on 25th July 1999 in Amp-Pipal Hospital OPD from 9 Am to 10 Am for an hour duration by lecture and open discussion. Five doctors and four CMA were present. Lecture was especially focused on

- accurate diagnosis of the disease.
- properly explain about treatment and follow-up plan to the patients.
- priorities the treatment plan.
- write simple treatment plan if possible only one or two drugs at a time with less frequency of administration.

- if possible give written information.
- be co-operative & friendly.
- give enough time to the illiterate and old patients.

On 26th July 1999 it was given to pharmacy technician in AMP-Pipal Hospital Pharmacy from 8 Am to 9 Am for1-hour duration by lecture & open discussion. One pharmacy technician and three-pharmacy technician assistant were present. Lecture mainly focused on correct dispensing technique.

- give enough time to explaining the dose, frequency, indication and duration of treatment.
- if patient is old or illiterate asked to repeat the dose, frequency, indication & duration.
- provide adequate labeling with written information of instruction.
- to tell about hazards of incomplete & inproper drug use.
- to tell about common side effect & especial precaution to be taken.
- drugs should be provide in suitable packing.

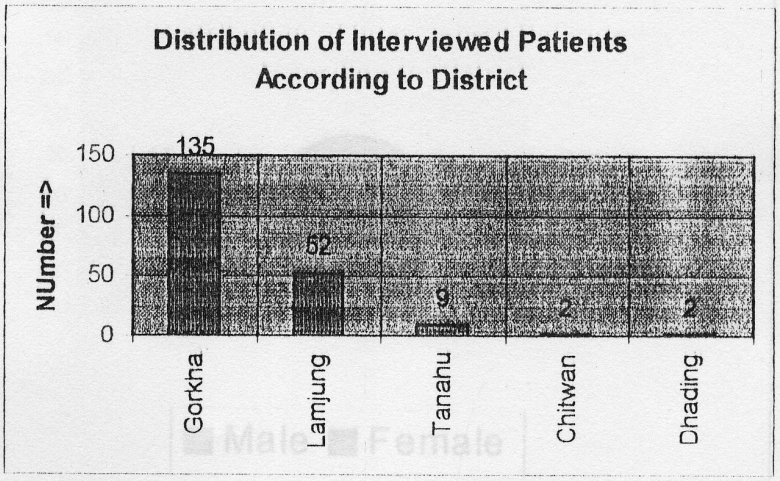
Pharmacy technician assistant is counselling the patients.

Dr. Shrestha is interviewing with the patients & filling the format.

RESULTS

Table 1

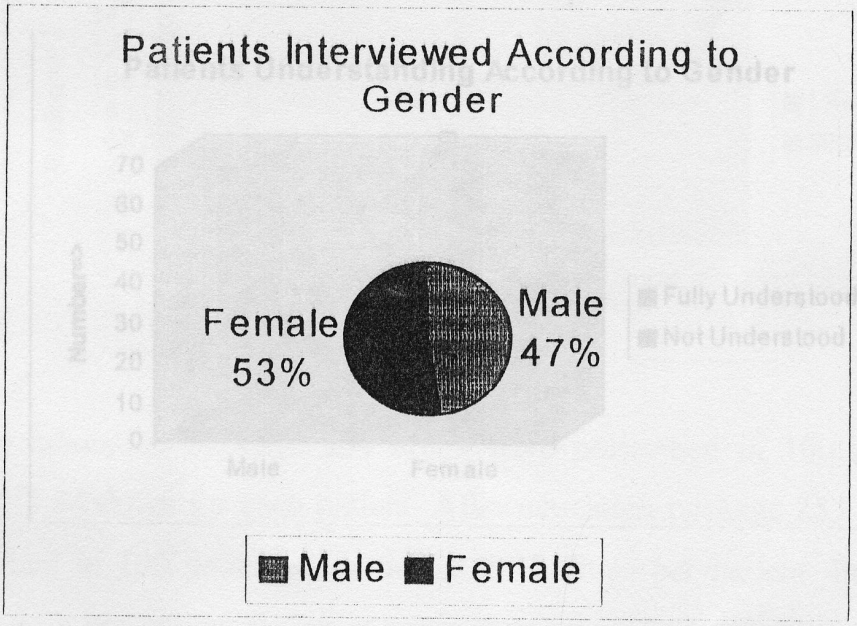
District	Patients	
	Number	Percentage
Gorkha	135	67.5
Lamjung	52	26.0
Tanahu	9	4.5
Chitwan	2	1.0
Dhading	2	1.0
Total	200	100.00



Out of 200 Patients interviewed, most patients belong to Gorkha district.

Table 2

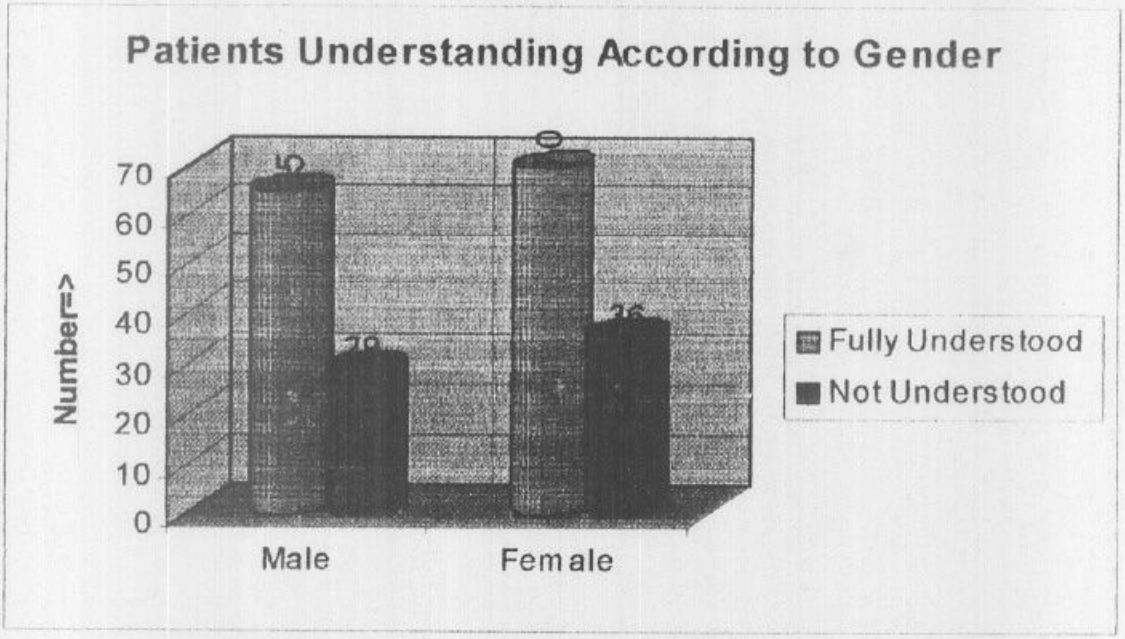
SEX	Patients	
	Number	Percentage
Male	94	47
Female	106	53
Total	200	100



Out of 200 Patients were Interviewed Female were more than Male.

Table 3

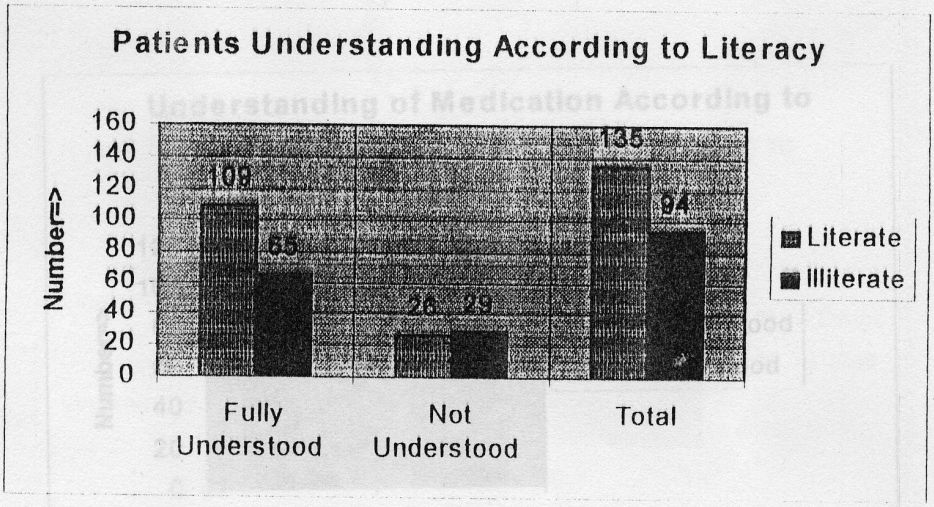
SEX	Fully Understood		Not Understood		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Male	65	32.5	29	14.5	94	47
Female	70	35.0	36	18.0	106	53
Total	135	67.5	65	32.5	200	100



Before education package 66 % of male were able to fully understand the drug. After education package 72 % of male fully understood. Before education package 50 % of female fully understood. After education package 84 % of female fully understood. P value is < 0.001, which is highly significant.

Table 4

Group	Fully Understood		Not Understood		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Literate	109	54.5	26	13.0	135	67.5
Illiterate	32	16.0	33	16.5	65	32.5
Total	141	70.50	59	29.5	200	100

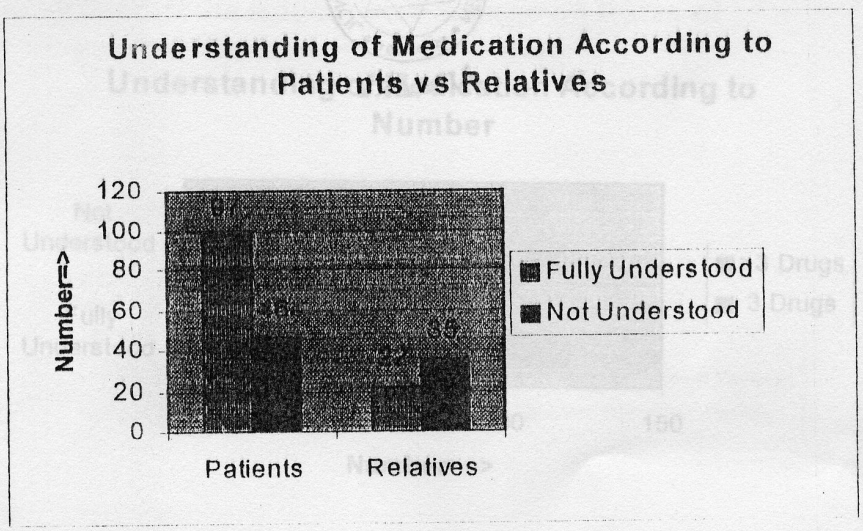


Before education package 284 drugs were prescribed in 100 patients that means 2.84 drugs for each patient. After education package 253 druges were prescribed in 100 patients that means 2.53 drugs per patient. In an average 2.68 drug per patient which is lower than other study which was performed in T.U. Teaching Hospital.[16,17]

Out of 200 patients who were interviewed 135 were literate and 65 were illiterate. In literate group 109 patients understood fully where as only 32 patients did so in illitrate.

Table 5

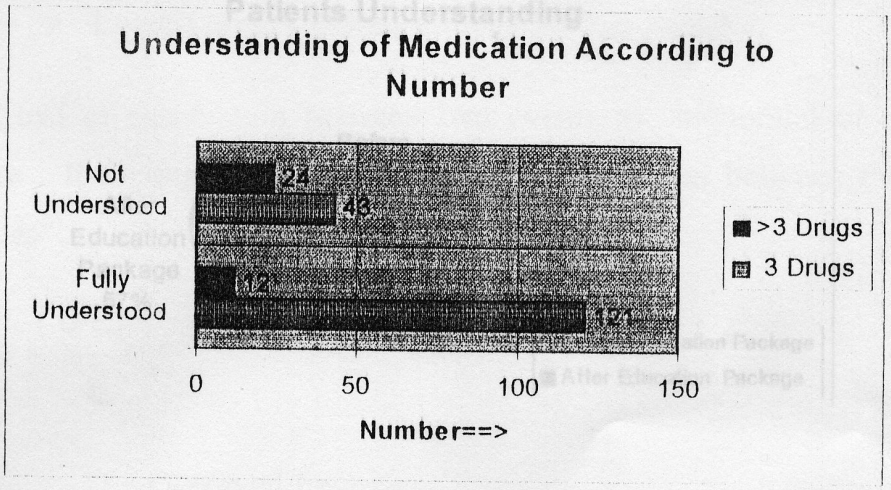
Particulars	Fully Understood		Not Understood		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Patients	97	48.5	46	23.0	143	71.5
Others	22	11.0	35	17.5	57	28.5
Total	119	59.5	81	40.5	200	100



Out of 200 patients and others interviewed 143 were patients themselves & 57 were relatives. Out of 143 patients 97 were understood and out of 57 relatives only 22 understood.

Table 6

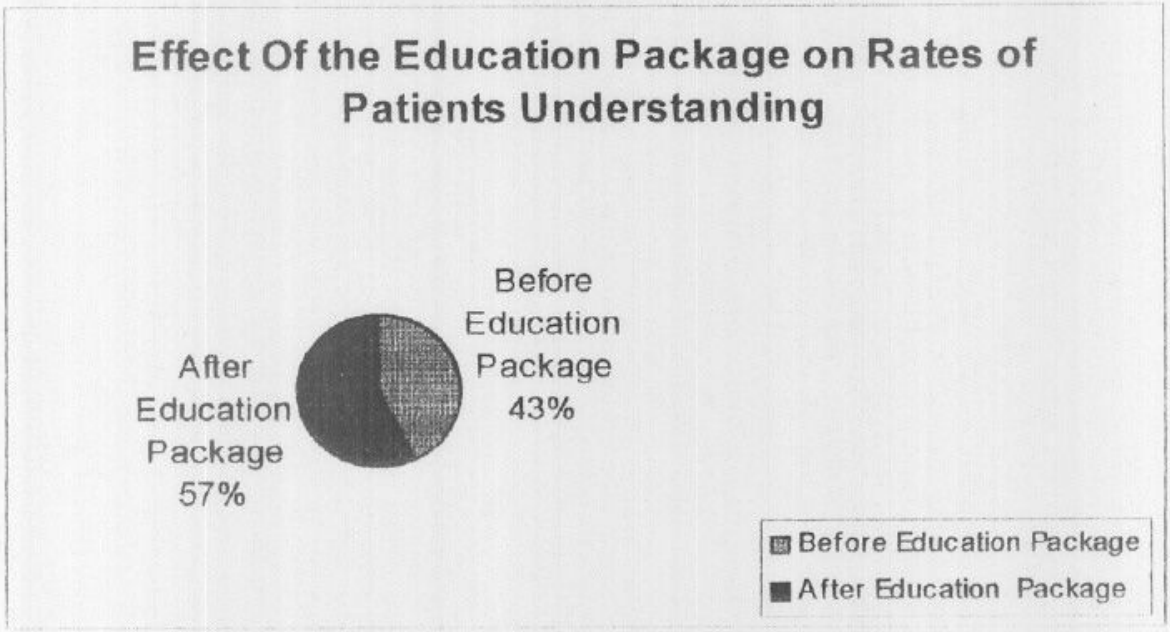
Particulars	Fully Understood		Not Understood		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
3 Drugs	121	60.5	43	21.5	164	82.0
>3 Drugs	12	6.0	24	12.0	36	18.0
Total	133	66.5	67	33.5	200	100



164 patients received 3 drugs. 121 patients understood their drugs. Wheres 36 patients received more than 3 drugs and only 12 patients fully understood.

Table 7

Particulars	Fully Understood		Not Understood		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Before Education Package	58	29.0	42	21.0	100	50
After Education Package	78	39.0	22	11.0	100	50
Total	136	68·0	64	32·0	200	100



Before education package 58 patients showed complete understanding where as after education package 78 patients did.

ANALYSIS

Applying Chi Square (X^2) test is the easiest way to statistically analysis of this raw data because.

- It is a random sample
- It is Qualitative data
- Lowest observed frequency is not less than 5

It is a test of association between two events in bionomial or multinomial samples . It measurwes the probability of association between two destrecte attributes[23].

1. $$X^2 = \frac{(0-E)^2}{E}$$

Where, O = Observed frequincy

E= Expected frequiency

2. Sum up the X^2 Values of all cells to get the total X^2 Value,

$$X^2 \text{ d.f} = \sum \frac{(0-E)^2}{E}$$

Where,

X^2 d.f, indicates the total X^2 value at particular degree of freedom indicate at the root of X^2 such as $X\frac{2}{2}$.

Where, P value is <0.001 is significant[23].

1) The effect of education package on rate of understanding applying X^2 to total number of patients with full understanding of their medication.

Particulars	Fully Understood	Not Understood	Total
Before Education Package	58	42	100
After Education Package	78	22	100
Total	136	64	200

It was found that P value is < 0.001 and therefore, patients who were interviwed after the education package had significantly higher level of understanding than patients who were interviewed before the education package.

2) The effect of Literacy on patients understanding. Applying X^2 test to total number of patients who understood well.

Group	Fully Understood	Not Understood	Total
Literate	109	26	135
Illiterate	32	33	65
Total	141	59	200

Here, P value is <0.001, Therefore, Literacy of patients significantly improved the understanding

3) Understanding of Medication Patients Verses Relatives.

Particulars	Fully Understood	Not Understood	Total
Patients	97	46	143
Relatives	22	35	57
Total	119	81	200

Here, P Value is <0.001, so Patients understood their medication better than relatives.

4) Number of medication and its understanding.

Particulars	Fully Understood	Not Understood	Total
3Drugs	121	43	164
>3Drugs	12	24	36
Total	133	67	200

Here, P Value is <0.001, therefore taking 3 drugs at a time is better understood than more than 3 drugs.

DISCUSSION

There are several known and proven factors which influences the patients understanding of their medication. They can be divided into ,

a) Prescribers factor
b) Dispensers factor
c) Patients factor

In this study 200 patients were interviewed to see the effect of an education package for prescribers & dispensers .100 patients were interviewed prior to an education package & 100 patients were interviewed after an education package . Raw data were tabulated & Analyzed after applying chi-square (X^2) test.

It was found that after an education package, the understanding of medication by patients themselves & their relatives has improved greatly.It was also found that there is statistically significant relationship between the understanding of how to take medication.If fewer drugs were prescribed the understanding was also better and this was found a statistically significant association. Patients themselves understand their medication better than their relations which was also highly significant statistically. Before the education package 2.84 drugs were prescribed per patients. After education package 2.53 drugs were prescribed which was lower than the other study conducted in T.U. Teaching Hospital.[16,17]

LIMITATIONS

*These are the **limitations** in this study.*

1. The sample was not obtained in a true randomised fashion though an atttempt was made, within the limitation of the study.

2. No such comparitive study was done previously so no real comparison of these results.

3. The study examined only the immediate effect of the education package. No follow up study was done, later to see the long term effect of an education package.

4. Patients were different in this two comparative study but had similar backgrounds.

This study can be improved if the sample were taken in a true randomised fashion. Besides dose, frequency, indications & duration other parameters could be included like patients understanding of adverse effects, special precaution to be taken during drug administration. If a further study examined the long term impact of the education package that would be better.

CONCLUSION

In this study it is found that, an education package given to prescribers & dispansers has greatly improved the understanding of medication by the patients themselves and relatives. Literate patients understood more than illiterate patient and Patients themselves understood their medication better than relatives. It was also found that if fewer drugs were prescribed better understanding resulted.

RECOMMENDATION

An Education package is benificial to the prescribers and dispensers on time to time as a short term training for refreshment of their knowledge in different hospital setting of Nepal in order to improve patients understanding of their medications.

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Thanks