

Adherence to Anti-Hypertensive Medication Regimens Among Patients Attending the Saidu Teaching Hospital

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Mini Review

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ABSTRACT

Background: Adherence mean to which extent patient follow healthcare providers' medical advice. It include both dosing regularity and time of intake. Many physicians face the problem of non-adherence among the hypertensive patients due to which patients fail to give proper response to antihypertensive therapy. During the first year of therapy 16 -50% patient stop the antihypertensive drugs. It has been estimated that 30-50% patients precisely adhere to antihypertensive therapy. In short for better treatment adherence is very important.

Objectives: The objective of this study was to find out the extend of non-adherence of patients from the antihypertensive medications. The reasons of non-adherence were also evaluated.

Method: This study was descriptive involving morisky questionnaire pattern and reviewing the PMH and DPR. Morisky questionnaires were asked from the patients and reasons of non-adherence were sought. This study was continue for three months and 120 patients were evaluated.

Result: The study revealed that adherence to antihypertensive regime was 57% and non adherence was 43%.The major reasons for non-adherence were finance, forgetfulness of the patient to take medication on time, miss dose, side effect of medication.

Conclusion: overall prevalence of adherence in the hospital was good and round about 57% and non adherence need counseling of the patients.

INTRODUCTION

The prevalence of hypertension is very high and increasing day by day throughout the world. In 2002 the prevalence rate of HTN was estimated at about 35% of Ghanaians in the age 40-45, and 40% in those having age about 55 years. The prevalence rate was approximately 6% in those having age below 40 years. The prevalence of hypertension in this age was higher in male than female. Hypertension is the most common of heart failure, stroke, chronic renal disease and sudden death in Ghana. The major prevalence reason for HTN in this poor country is poverty, patients can't afford standard hypertension medication. Many physicians face the problem of non-adherence among their Hypertension patient. During the first year of treatment 16%-50% patients stop medication. It has been estimated that only 30%-50% patients adhered to their hypertensive medication regimens. To improve the rate of hypertension control among underrepresented clinic populations, four years study was conducted in large teaching hospitals on the west coast of California. Thirteen thousand and sixty seven African (75%) and Hispanic American (25%) adult were participated in this study. In order to assess patient's medicine taking behavior, a 9-item scale was developed and given to all patients during their medical treatment program. Reliability of the measure, as determined by internal consistency, was found to be 0.89. Individuals scoring high on the self-reported measure were significantly more likely to have their blood pressure under control compared to individuals who scored lower. A total of 74% of individual scoring high on the compliance scale had their blood pressure under control compared to 48% of individuals scoring low ($p < 0.001$). Patient variables which highly correlated with blood pressure control include forgetfulness, lack of understanding, health beliefs, previous history of non-adherence, poor provider/patient communication and lack of social support. Treatment variables included complexity of the regimen and long waiting time ^[1].

LITERATURE REVIEW

Saidu teaching hospital was the site for this study. It is located at Swat of Khyber pukhtunkhwa of swat. Its round about 1500 beds hospital compose of many departments. It is situated at distance of 150 meters far from the saidu medical college. All doctors, house officer, TMOs, pharmacist, Nurses and other health related field people are practicing in it to get skillful knowledge and later on serve the humanity. Both hypertensive adult out patients and inpatients were used for study.

One hundred and twenty patients were selected for this study. It was composed up of 70 males and 50 females and their average age was between 40 to 70 years. All those patients were involved who are willing give interview. Most of them are inpatients and explicitly given the answers of questions In exclusion criteria:

- Those patients were not interviewed who felt inconvenience during interview
- Pregnant women
- Psychotic patients
- Less than six months antihypertensive patients were also excluded.

Tool development

Tool used for data collection was questionnaires consisting of Morisky's self-reporting medication adherence questions regarding to medication use for HTN and major reasons for non-adherence. The Morisky self-reported medication adherence scale/score is a commonly used adherence screening tool. It is comprised of four yes/no questions about past medication. These questions are easy and simple during drug history interviews.

This study was conducted between 2nd October to 2nd December 2016. One hundred and twenty patients were involved in this study. Interview was taken from every person with his/her consent ^[2].

Data analysis

In the Morisky scale, a NO answer was given a score of 1, and a Yes a score of 0. Thus a patient answer NO to all questions had a maximum score of 4 indicating 100% adherence, three NO is indicating 75%; two NO equal to 50% and one NO is 25% adherence. Patients who answered Yes to all the questions score 0% adherence i.e. they are

non-adherent. Patients score of 75% or more were described as adherent and patients with score less than 75% were considered as non-adherent [3].

DISCUSSION

Only 42.5% patients fully adhered to their antihypertensive medication, because they had given no answer to all questions. 15% patients had 75% adherence because they had given no answer to 3 questions. 20.83% patients had given no answer to 2 questions so their adherence are 50%. 18.33% patients had 25% adherence because they had given no answer to 1 question (Table 1) [4].

Table 1. Summary of results of Morisky scores to Hypertensive Patients.

Morisky score	0	1	2	3	4	Total
Male	3	10	17	15	25	70
female	0	15	5	3	27	50
Total no of patients	3	25	22	18	51	120
Total percentage	2.5	20.83	18.33	15	42.5	100

Overall adherence ratio was good, but it need counseling and awareness to rise the adherence ratio. Adherence is very important aspect in treatment of hypertension. An early study has show that for adequate treatment patient should take at least 80% of prescribed regimen. Poor adherence is the main leading cause fo treat failures and chronic heart failure. In this study 51 patients showed 100% adherence and 3 patient showed 2.5% adherence ,but overall adherence to medicines was not good. In short 57%patients show fully adherence while 43% patients showed non adherence toward antihypertensive drugs (Table 2) [5].

Table 2. Reasons for non-adherence to anti-hypertensive medications.

Reasons	Frequency	Percentage
Financial	42	35
forgetfulness	8	6.6
Felling well	15	12.5
Side effect	0	0
Busy and forget	4	3.33
Don't believe in the treatment	0	0
Total	59	49.16

During study some patients showed single reason for non-adherence while some showed multiple reason for non-adherence. The following table has shown different reasons for non-adherence during study.

Conclusion

Excellent adherence rate was not Good that is 42.5% and overall adherence rate was 57%. Financial problems was the major reasons of non adherence. Female HTN patients were more adhered toward antihypertensive drug. Proper counselling was also the leading factor for non-adherence. This study is valuable to health care providers, doctors, pharmacist, ministry of health of khyber pukhtonkhw, administration SGTH and common public. This study will divert concentration of doctors and pharmacist toward the adherence of treatment regimen not only hypertensive patients bull all patients. It will create awareness both in professional candidates and patients population. It will make patients financially stable because adherence reduce the cost of therapy. Importance of pharmacist will be brighten.

As a result of lack of sufficient resources and time constraint this study was limited only to SGTH and not extended to the other hospital of district swat. Morisky's scale method was used in this study because it's inexpensive and

easy but it lead to overestimation. In Morisky score method morisky questionnaire is distributed among patients but there most of the patients were illiterate therefor I asked that questions from the corresponding patients. Moreover study time was only 2 months therefor study was restricted to only 120 patients.

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