



MEDICATION ADHERANCE OF HYPERTENSION AMONG ADULTS IN KAMASHI NAGAR, NELLORE.



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Abstract: Introduction: Hypertension is one of the most common disorders in the world. It is sometimes called as “Silent Killer”. Hypertension is preventable and controllable epidemic in world wide. Medication adherence refers to the degree or extend of conformity to the recommendations about day-to-day treatment by providing with respect to the timing, dosage and frequency. It may be defined as the extent to which a patient acts in accordance with prescribed interval and dose of a drug intake. **Methods:** A quantitative research approach and cross - sectional descriptive design was adopted for this study. The study was conducted in Kamakshi Nagar, Nellore. The sample for the present study was 50 adults. Non probability convenience sampling technique was adopted for this study. The Modified Morisky green scale was used to assess Medication Adherence of hypertension and it was analyzed by using descriptive and inferential statistics. **Results:** It was observed that medication adherence of hypertension was 5(10%) with a high level adherence, 41(82%) with a medium level adherence, 4(8%) with low level adherence. The mean value of medication adherence of hypertension among adults were 30.44 and the standard deviation was 8.12. There was a significance association between the medication adherence and selected socio demographic variables like duration of illness and no significant association between the selected demographic variables like age, gender, educational status, occupation, income, type of family, residence, family history of hypertension, frequency of medication, number of medications at $p= 0.05$. **Conclusion:** Among the 50 samples 41(82%) had medium level of medication adherence in Kamakshi Nagar, Nellore. Research suggests that, as a health professional, nurses need to educate the community people. So, it is important to create an awareness among adults by conducting awareness programme on medication adherence of hypertension. **Keywords: Medication Adherence, Hypertension, Adult.**

Introduction: Hypertension is one of the most common disorders in the world. It is sometimes called a “Silent Killer”. Hypertension has become a significant problem in many developing countries experiencing an epidemiological transition from communicable to non-communicable disease. Every individual put in an effort to make the living

comfortable. But does not realize how much anxiety exists in the body in the process. Hypertension is a preventable and controllable epidemic worldwide.

Systolic blood pressure greater than 140 mm Hg and diastolic pressure greater than 90 mm Hg based on the average of two or more contacts with health care providers called hypertensive.



The main risk factor of hypertension is classified into modifiable and non-modifiable. Modifiable factors are smoking, alcoholism, lack of physical exercise, obesity, stress, diet, lifestyle, etc. Non-modifiable factors are age, sex, genetic factors, diabetic Mellitus, race, etc., the major other causes for hypertension are sleep, apnea, drug-induced causes, renal system disease, chronic steroid therapy, chronic kidney disease, pregnancy, etc. Hypertension has become a common cause of death in industrial countries. It is one of the common reasons for developing the complications like multi-organ failure, heart failure, ventricular hypertrophy, widening of arteries stroke, and other complications like hypertensive retinopathy, hypertensive nephropathy, etc.

Medication adherence refers to the degree or extent of conformity to the recommendations about day-to-day treatment by providing with respect to the timing, dosage, and, frequency. It may be defined as the extent to which a patient acts in accordance with the prescribed interval, and dose of a drug intake.

Poor adherence to prescribed regimens can result in serious health consequences. For instance, a recent study found that the risk of hospitalization was more than double in patients with hypertension, diabetes mellitus, or congestive heart failure who were non-adherent to prescribed therapies compared with the general population.

Sadly, multiple medication use creates and contributes to adherence challenges in the aging population. Approximately one-half of adults who take at least 1 medication find adherence challenges.

Need and Significance for the study: WHO (2016) reported that only 1 or 2 out of 10 patients with drug therapies, many remain above recommended BP targets. Global statistics showed that developed countries had slightly higher BP control rates in all hypertensive patients.

National Health and Nutrition Examination Survey (2017) reported that from 2011 to 2014 that defined hypertension as 130/80 mmHg found that about 55 percent of hypertensive patients in the United States were being treated, and approximately 47 percent of those being treated had their blood pressure controlled to below 130/80 mmHg. Using a hypertension threshold of 140/90 rather than Janardhan et al (2017) mentioned, overall, the prevalence of hypertension (as per JNC-7 classification) from hypertension in India and the prevalence rates were projected to for successful medication adherence and disease self-management state of Andhra Pradesh; covered under “Total Health”, a Corporate.

Dr. Indira Arumugam et al (2016) reported that in Nellore medication can prevent severe complications of this disease. Materials and had compliance on lifestyle modifications for hypertension. Recent reports show in India, a steady increase in hypertension prevalence last 50 years.

Yu Ting Li et al (2017) conducted a cross-sectional design with multistage sampling was adopted to recruit Chinese hypertensive patients attending general out-patient clinics from 3 geographic regions in Hong Kong. poor BP control was defined as having systolic BP/diastolic BP \geq 130/80 mm Hg for those with diabetes or chronic kidney disease; and \geq 140/



90 mm Hg for others. Medication adherence was assessed by a validated Chinese version of the Morisky Medication Adherence Scale. A simple unweighted enumeration was adopted to measure the combinations of coexisting long-term conditions. Binary logistic regression analysis was conducted with medication adherence and multimorbidity as outcome variables, respectively, after controlling for the effects of patient-level covariates.

The prevalence of multimorbidity was 47.4% (95% confidence interval [CI] 45.4% - 49.4%) among a total of 2445 hypertensive patients. The proportion of subjects having 0, 1, and ≥ 2 additional long-term conditions was 52.6%, 29.1%, and 18.3%, respectively. The overall rate of poor adherence to medication was 46.6%, whereas the rate of suboptimal BP control was 48.7%.

During the clinical and community posting period, the researcher came across many cases of medication adherence of hypertension, this invoked interest to join-depth with the prevention aspect of this condition. Hence the researcher felt an utmost need to conduct a study on medication adherence of hypertension.

Problem Statement: "Medication adherence of hypertension among the adults in Kamakshi Nagar, Nellore."

Objectives

- To assess the level of medication adherence of hypertension among adults.
- Find out the association between medication adherence of hypertension adults with their selected socio - demographic variables.

Operational definitions

Medication Adherence: In this study, it refers to the

degree as about day-to-day treatment with respect to the timing, dosage, and frequency.

Hypertension: In this study, it refers to the force exerted by the blood against, the walls of the blood vessels.

Adult: In this study, it refers that the age at which at a personal an adult age group of 20-60 years.

Material and Methods: A cross sectional descriptive research design was used for the study. 50 adults were selected by using nonprobability convenience sampling technique. The study was conducted in Kamakshinagar, Nellore district, A.P. after getting formal permission from the concerned authorities. The purpose of the study was explained to the participants and obtained informed consent. 12 points modified Morisky Green scale were used the study to assess medication adherence of hypertension among adults.

Inclusion criteria:

Adult who were:

- ❖ Willing to participate in the study
- ❖ At the age group of 21 - 60 years
- ❖ Available at the time of data collection

Exclusion criteria:

Adults who were: Not willing to participate in the study, Not available at the time of data collection period.

Variables:

Research variables: Includes medication adherence of hypertension among adults.

Demographic variables: The demographic variables of the adult such as age, gender, educational qualification, type of family, occupational status, religion.

Description of the tool: The tool for data collection consists of 2 parts:



Section - I: It deals with demographic variables age, sex, religion, marital status, education, occupation, monthly family income, type of work, type of the family, diet, habit and family history.

Section - II: It deals with 12 points modified Morisky Green scale were used the study to assess medication adherence of hypertension among adults.

Scoring key: 12 points modified Morisky Greenscale to assess the adherence of hypertension among adults.

SCORE INTERPRETATION:

Medication adherence	Frequency
High adherence	0-20
Medication adherence	21-40
Low adherence	41-60

Data Collection Procedure: After obtaining formal permission from the principal Narayana College of Nursing, medical officer of the primary health center, T.P, Gudur, Kamakshi Nagar, Nellore. The study was conducted from 23-3-18 to 29-3-18. 50 adults were selected by using the non-probability convenience sampling technique. The nature and purpose of the study were explained. Confidentiality of information was assessed by taking informed consent from the adults. Minimum of 10 samples per day from 9-12 pm, the duration of data collection was 1 week, it took 10 minutes to complete to the checklist for each sample. The checklist was administered to assess the medication adherence of hypertension among adults. The collected data was organized analyzed based on the objectives of the study. The analyzed data was presented in the form of tables and figures.

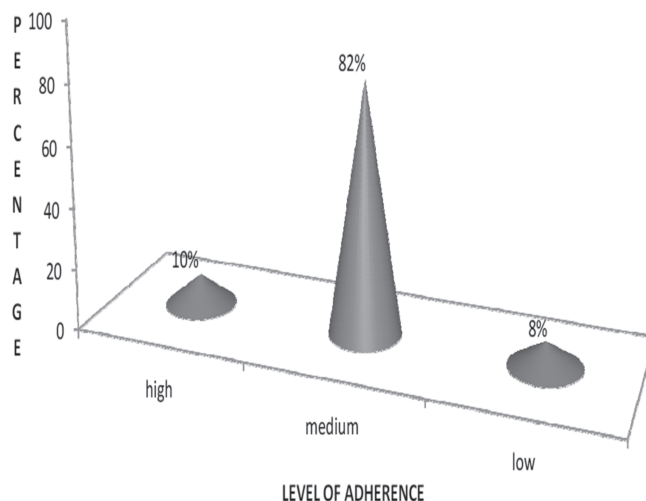
Plan for Data Analysis: The data is analyzed in terms of the objectives of the study using descriptive and inferential.

Results: The findings were presented as follows:

Table. 1: Frequency and percentage distribution of level of medication adherence of hypertension among adults (n=50)

Level of Adherence	Fre (F)	Per (%)
High	5	10%
Medium	41	82%
Low	4	8%
Total	50	100%

The result reveals that 5(10%) had a high level of adherence, 41(82%) had a medium level of adherence and 4 (8%) had a low level of adherence.



Percentage distribution of level of adherence among adults.

Table.2: Mean and standard deviation of medication adherence of hypertension among adults (n = 50)

Category	Mean	SD
Level of knowledge	30.44	8.12

The mean value of medication adherence of hypertension among adults were 30.44 and the standard deviation was 8.12



Table. 3: Association between medication adherence of hypertension among the adults and selected socio-demographic variables (n=50)

Demographic variables	High		Medium		Low		Chi - square
	f	%	f	%	f	%	X2
Age in years	C= 6.689						
a) 21-30 years	3	6	21	42	-	-	T=12.59
b) 31-40 years	2	4	7	14	1	2	df=6
c) 41-50 years	-	-	7	14	2	4	P=0.05
d) 51-60 years	-	-	6	12	1	2	NS
Gender	C=1.269						
a) Male	4	8	22	44	2	4	T=5.99
b) Female	1	2	19	38	2	4	df=2
	P=0.05						
	NS						
Educational status	C=6.04						
a) Illiterate	1	2	2	4	-	-	T=18.3
b) Primary School	1	2	6	12	-	-	df=10
c) High School	-	-	7	14	-	-	P=0.05
d) Intermediate	2	4	11	22	2	4	NS
e) Graduate	1	2	11	22	-	-	
f) Post Graduate	-	-	4	8	2	4	
Occupation	C=18.656						
a) Un employed	-	-	10	20	1	2	T=15.51
b) Coolie	-	-	13	26	-	-	df=8
c) Business	1	2	12	24	2	4	P=0.05
d) Private Employee	3	6	4	8	1	2	NS
e) Govt.Employee	1	2	2	4	-	-	
Income	C=5.718						
a) 5001-7000	3	6	12	24	-	-	T=12.59
b) 7001-9000	-	-	12	24	1	2	df=6
c) 9001-11000	2	4	14	28	2	4	p=0.05
d) >11000	-	-	3	6	1	2	NS
Type of family	C=1.496						
a) Nuclear	1	2	11	22	2	4	T=9.49
b) Joint	3	6	18	36	1	2	df=4
c) Extended	1	2	12	24	1	2	P=0.05
	NS						
Residence	C=0						
a) Urban	-	-	-	-	-	-	T=5.99
b) Rural	3	6	22	44	2	4	df=2
	P=0.05						
	NS						
Family history of hypertension	C=1.06						
a) Yes	2	4	19	38	1	1	T=5.99
b) No	3	6	22	44	3	6	df=2
	P=0.05						
	NS						

If yes from whom							C=8.177
a) Father	3	6	19	38	-	-	T=9.49
b) Mother	-	-	19	38	2	4	df=4
c) Grand parents	2	4	3	6	2	4	P=0.05
	NS						

Duration of illness							C=9.52
a) 1-4 years	-	-	5	10	-	-	T=9.49
b) 5-8years	4	8	10	20	1	2	df=4
c) 9-12years	-	-	18	36	2	4	P=0.05
d) More than 12 Yr	1	2	8	16	1	2	

Requirement of medication							C=5.42
a) Once a day	-	-	5	10	1	2	T=12.51
b) Twice a day	2	4	20	40	3	6	df=4
c) Thrice a day	3	6	16	32	-	-	P=0.05
	NS						

Number of medication							C=5.42
a) 2 Tab	1	2	8	16	-	-	T=12.51
b) 3 Tab	1	2	13	26	2	4	df=6
c) 4 Tab	2	4	11	22	-	-	P=0.05
d) >4 Tab	1	2	-	18	2	4	NS

(NS - Non Significant, S- Significant, T - Table value, Df=Degree of freedom, C-Calculated value, Df= (r-1) (c-1))

There was a significant association between medication adherence and selected sociodemographic variables like duration of illness at p=0.05.

There was no significant association between the selected demographic variables like age, gender, educational status, occupation, income, type of family, residence, family history of hypertension, frequency of medication, number of medications at p= 0.05.

Discussion: It was observed that medication adherence of hypertension was 5(10%) with a high-level adherence, 41(82%) with a medium level adherence, 4(8%) with low-level adherence. The mean value of medication adherence of hypertension among adults was 30.44 and the standard deviation was 8.12. Among socio-demographic variables, only duration of illness is showing association and the rest of the variables were not showing any association at P=0.05.

Conclusion: The study findings concluded that



among the 50 samples 41(82%) had a medium level of medication adherence in Kamakshi Nagar, Nellore. Research suggests that as health professional nurses need to educate the community people. So it is important to create awareness among adults by conducting awareness programmes on medication adherence to hypertension.

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