



“Knowledge of Self-Monitoring of Blood Pressure Among Adult Hypertensive Patients on Selected Community Areas at Vadodara, Gujarat”

Mr. Shashank Ranjan^{1*}, Mrs. Jesica Prashant Malap², Ms. Ruby Singh³, Ms. Manisha Shrivastava⁴, Mrs. Neelofur Ibran Ali⁵, Mrs. Priyanka Dey⁶

^{1*}Assistant Professor, Avadh Hospital Group of Institution, U.P.

²Lecturer, Wanless Hospital College of Nursing, Miraj, Maharashtra.

³Associate Professor, Parul Institute of Nursing, Parul University, Vadodara, Gujarat.

⁴Tutor, Rajarshi Dashrath Autonomous State Medical College, Ayodhya.

⁵Associate Professor, Pragyan College of Nursing, Bhopal (M.P)

⁶Assistant Professor at Krishna School of Nursing, KPGU, Vadodara, Gujarat.

***Corresponding Author:** - Mr. Shashank Ranjan

*Assistant Professor, Avadh Hospital Group of Institution, U.P.

ABSTRACT

BACKGROUND: - Self-monitoring of blood pressure (BP) in hypertensive individuals is an important part of hypertension therapy and prevention of complications. However, self-monitoring of blood pressure among hypertension patients on planned follow-up in Ethiopian hospitals remains unknown. The study's goal was to analyze adult hypertension patients' knowledge and attitudes about BP self-monitoring.

METHODS: - A cross-sectional study of 60 adult hypertension patients was undertaken in chosen areas. The data were obtained from patients via face-to-face interviews in February 2023 using a pretested questionnaire, and the data were analyzed using SPSS version 25.0 software.

RESULT: Majority 25 (42%) of the study subjects had Poor knowledge and 15(25%) of study subjects had Average knowledge and 20 (33%) of them had good knowledge regarding selfcare management of hypertension. Educational status of adult's significant association between selfcare management of hypertension.

CONCLUSION: In this study, knowledge of self-monitoring of blood pressure and the practice of self-monitoring of BP among hypertensive patients were low. Adult hypertension patients required proper education about self-monitoring about blood pressure.

Introduction:

Over 1.1 billion individuals worldwide suffer with hypertension, which is a major risk factor for cardiovascular disease and mortality. The number of persons with hypertension has more than doubled in the last two decades, and the majority of patients have uncontrolled hypertension.¹ Although guidelines urge that patients with hypertension check their blood pressure on a regular basis, barely 60% do so. Although guidelines suggest that blood pressure self-monitoring can enhance blood pressure management, there is limited information on the direct consequences on long-term results. Low rates of blood pressure monitoring may be linked to a lower likelihood of recognizing

hypertensive patients with unsatisfactory blood pressure control.²

Patient self-monitoring of blood pressure is an important method for controlling hypertension, but it can be difficult for patients. Concerns have also been raised about low adherence to blood pressure self-monitoring, inadequate accuracy in recording readings, a lack of assistance for vulnerable patients, and financial hurdles. Patients have expressed concerns regarding the accuracy of blood pressure readings, the complexities of use, and their inability to interpret findings.³

The research on patient perceptions on blood pressure self-monitoring is scarce. The combination of several qualitative investigations can yield thorough insights



into patient opinions on self-monitoring of blood pressure in hypertensive individuals. We wanted to explain patient perceptions and experiences with blood pressure self-monitoring in order to identify methods for improving the acceptability of blood pressure self-monitoring.⁴

Material and Methods:

Research area and duration:

Research was conducted in the selected community areas.

Research design: Community-based cross-sectional study was conducted among community area at Vadodara.

Population

Study population: All rural area hypertension adult currently available during data collection were the population source.

All rural area hypertension adult currently available during data collection period made up the study population.

Inclusion Criteria: Available during data collection

Exclusion Criteria: Not interested for the study were excluded from the study.

Sample Size

60 adult hypertension patients were selected.

Sampling technique: Convenience sampling technique were selected

Results

SECTION -I

Table 1: Frequency and percentage distribution of the demographic variables of patients
N=60

Demographic variables		Frequency	Percentage (%)
Age in years	31-40	11	18.3
	41-50	17	28.3
	51-60	21	35.0
	Above 61	11	18.3
Gender	Male	37	61.7
	Female	23	38.3
Marital Status	Married	37	61.7
	Unmarried	23	38.3
Type of family	Joint	24	40.0
	Nuclear	24	40.0
	Single	12	20.0
Monthly Income(In Rs.)	< 5000	23	38.3
	6000-10,000	16	26.7
	11, 000	21	35.0
Educational status	No formal education	11	18.3
	Primary education	17	28.3
	Secondary Education	23	38.3
	Higher secondary	5	8.3
	Graduation and above	4	6.7

Table -1. Reveals frequency and Percentage distribution of patients according their socio- demographic data. Result shows that majority of patients 21(35%) were between 51-60 years and 17(28.3%) of patients were found between the age group 41-50, and others

11(18.3%) between 31-40years and 11(18.3%) were age group above 61 years. With references to gender majority of the patients 37(61.7%) were male and 23(38.3%) were female. In relation to marital status maximum numbers of patients 37(61.7%) were married,



23(38.3%) unmarried. Regarding type of family maximum numbers of patients 24(40%) were joint family and nuclear family, and only 12(20%) of patients were single.

Regarding monthly income maximum numbers of patients 23(38.3%) were <5000, 16(26.7%) were 6000 to

10,000, and only 21(35%) of patients were 11,000. With regards majority of patients 23(38.3%) were secondary education, 17(28.3%) were primary education 11(18.3%) were no formal education and 5(8.3%) were graduation and higher secondary education.

Table II: Knowledge regarding adult hypertension patient

Level of practice	No of study subjects	Percentage
Poor knowledge	25	42
Average knowledge	15	25
Good knowledge	20	33

Table 2 shows that the majority 20 (33%) of study subjects had good knowledge and 15(25%) of study

subjects had average knowledge and 25(42%) had poor knowledge

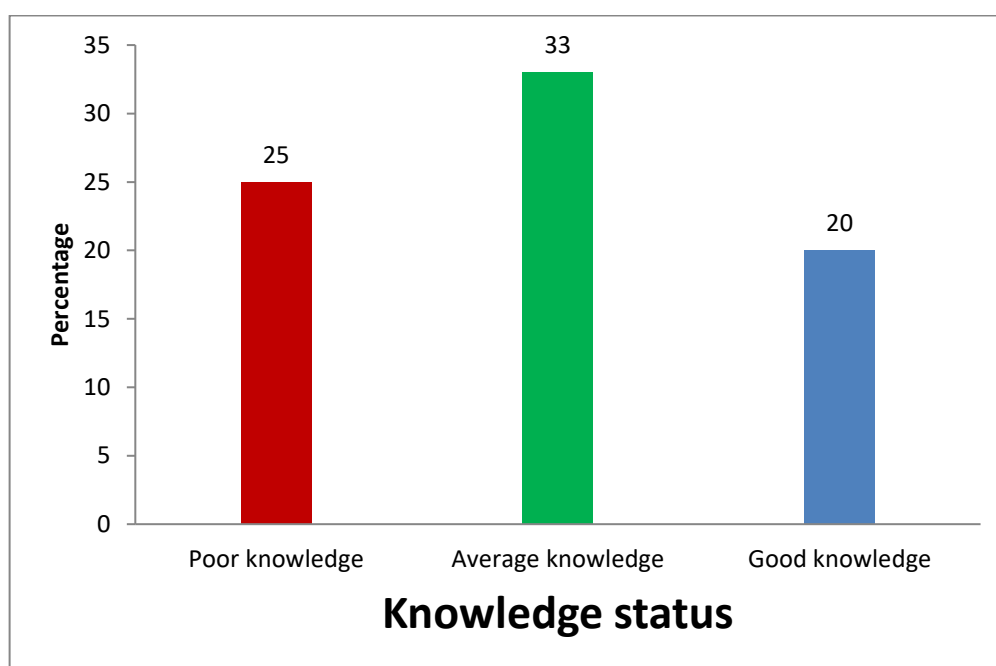


Fig: 1: Knowledge level

Table III: Association between pretest levels of practice towards health care delivery system
n=60

variables		Practice level				Chi square df	P value
		Poor	Average	Good	Total		
Age (In Year)	31-40	5	5	3	13	6.2332	0.199 NS
	41-50	7	4	5	16		
	51-60	8	2	6	16		
	>61	5	4	6	15		
Gender	Male	15	8	10	37	0.71514	0.699



	Female	10	7	10	27		NS
Marital status	Married	20	10	18	48	2.8912	0.236 NS
	Unmarried	5	5	2	12		
Type of family	Single	8	5	3	16	3.7022	0.448 NS
	Joint	7	5	7	19		
	Nuclear	10	5	10	25		
Family monthly income	< 5000	7	3	7	17	2.1244	0.713 NS
	6000-10,000	10	8	8	26		
	11, 000	8	4	5	17		
Education al status	No formal education	4	2	2	8	5.6288	0.002*S
	Primary education	5	4	4	13		
	Secondary Education	4	3	3	10		
	Higher secondary	2	2	2	6		
	Graduation and above	2	1	2	5		
	Private job	3	0	1	4		
	Agriculture	2	2	2	6		
	Government job	1	1	1	3		
	Business	2	2	3	7		

* P<0.05.*indicates significant S-Significant NS-non significant

The table 5 showed that demographic variable educational status of adults had statistically significant association with the pre-test levels of knowledge regarding self-monitoring of hypertension. Age, Gender, marital status, occupation, type of family, family monthly income, diet and occupation had shown no statistically significant association with the pretest levels of knowledge regarding hypertension.

Discussion:

Conducted study was to assess knowledge and attitude of self-monitoring of BP among adult hypertensive patients. A total of 400 patients were enrolled into the study with the response rate of 97.6%. The median age of the participants was 49 years (range 23–90 years). More than half (225 [56.3%]) were male. The majority (160 [40%]) were married and more than two-thirds (282 [70.5%]) were Oromo by ethnic background. About 206 (51.5%) had attended primary education. The proportion of patient's knowledge toward self-monitoring of BP and

the practice of self-monitoring of BP among hypertensive patients was 31.5% (n=126 [95% CI; 26.5, 36.5]) and 7.75% (n=31 [95% CI; 5.3, 10.5]) respectively. The multivariable logistic regression analysis revealed; higher education (AOR=2.73, 95% CI [1.33, 13.88]), governmental employed (AOR=1.52, 95% CI [1.06, 6.48]), having an income of >3500 Ethiopian Birr (AOR=2.16, 95% CI [1.56, 7.39]), duration of hypertension >6 years (AOR=1.87, 95% CI [1.21, 6.37]), having health insurance (AOR=3.56, 95% CI [1.39, 10.53]), having co-morbidities (AOR=3.93, 95% CI [1.35, 10.32]), receiving a health professional recommendation toward self-monitoring of BP (AOR=6.08, 95% CI [2.45, 15.06]), and having an awareness of hypertension-related complication (AOR=3.94, 95% CI [1.34, 11.44]) were factors significantly associated with self-monitoring of BP. Study concluded that the proportion of knowledge of self-monitoring of BP and the practice of self-



monitoring of BP among hypertensive patients on follow-up were low.⁵

This study also showed that the odds of self-monitoring of BP among participants who had a duration of hypertension of >6 years were nearly twice as likely (AOR=1.87, 95% CI [1.21, 6.37]) than participants who have a duration of hypertension ≤6 years. The possible justification is that the patient could be mindful about the hypertension-related complications during the course of the disease and the patient might use self-monitoring of BP to control those complications.⁶

Conclusions

In this study shows of knowledge of self-monitoring BP and the practice of self-monitoring BP among hypertensive patients on follow-up were low. Adults required proper education about self-monitoring of blood pressure.

Data Availability

The corresponding author may give the data analyzed and utilized in this study upon request.

Competing Interests

There is no conflict of interest related to the publishing of this research report.

The authors' contributions

All authors contributed to the work described, whether it was in the conception, study design, execution, data collection, analysis, and interpretation, or all of these areas; contributed to the article's drafting, revision, or critical review; approved the final version to be published; agreed upon the journal to which the article was submitted; and acknowledge that you will be held responsible for all facets of the work.

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