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ASSESSMENT OF HEALTHCARE PRACTICES AND EFFECT OF AWARENESS PROGRAMME ON KNOWLEDGE REGARDING COMPLICATIONS OF HYPERTENSION AMONG HYPERTENSIVE PATIENTS IN A SELECTED RURAL AREA IN MALDA (WEST BENGAL) INDIA

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ABSTRACT

Background: In India, hypertension causes the leading risk factor for morbidity and mortality. It causes several complications which may lead to death for individual. **Objective:** The objective of the study was to assess healthcare practices and effect of awareness programme on knowledge regarding complications of hypertension among hypertensive patients. **Method:** A pre experimental study was undertaken at rural area of Malda district to assess stated healthcare practices among hypertensive patients and along with it, an awareness programme was arranged regarding complications of hypertension and its effectiveness was also assessed. Total 100 (one hundred) known hypertensive patients were selected through non probability purposive sampling technique and one group pretest posttest research design was adopted. Data was collected through structured questionnaire by interview technique. **Result:** It was seen that, in term of healthcare practice; mean score was 16.12 ± 2.3 and median 16. Along with it, minimum practice deficit was found in drug compliance area and maximum deficit was found in exercise area. In case of awareness programme, pretest Mean score was 9.83 ± 2.29 and post test mean Score was 13.83±1.06. The calculated "*t*" value was 19.60 ($p<0.05$) which suggested that awareness programme was effective. There was also presence of weak positive relationship between healthcare practices and knowledge on complications of hypertension among hypertensive patients which was found significant ($p<0.01$). Association was only present between religions of hypertension patients with healthcare practices. Otherwise no association was found between healthcare practices and demographic variable of hypertensive patients and for pretest knowledge score with demographic variables too. **Conclusion:** The finding of this data suggested that awareness programme improved the healthcare practices & knowledge of rural people regarding complications of hypertension which could reduce morbidity rate further. The study has implications in the field of nursing education, practice, administration and research. So the researcher recommended that more awareness programme could be conducted in future among hypertensive patients in order to prevent complications of hypertension.

Keywords: Healthcare Practices, Hypertensive Patients, Awareness Programme, Complications of Hypertension

INTRODUCTION

Background of the study

Hypertension is the leading risk factor for morbidity and mortality in India now a days. It is attributing 10.8% of all deaths in India and affects about 40% adults worldwide. It also causes some unavoidable conditions like increased risk for cerebro-vascular accident, cardiac failure, and renal failure or may develop peripheral vascular disease. Some unhealthy habits like excessive intake of saturated fatty acids or trans fatty acids along with consumption of salt and sugar increases its risk of development along with its related complications. Lifestyle modification is one of the most important tool in prevention of hypertension. (National institute of Health and Care Excellence, NICE 2011).

Hypertension prevalence rate report of West Bengal according to District Level Household and Survey -4 (2012-2013) was 27.3% and 20.5% among urban and rural adults. In other hand report of National Family Health Survey-4 (2015-2016), the prevalence was 15.5% and 12% respectively among urban men and women and 12% and 9.6% respectively among rural

men and women. So it was seen that in India majority of the rural people had inadequate access to healthcare facilities.

Good healthcare practices can promote the health status of hypertensive patients and can reduce the chances of developing complications and also can reduce hospital admission with its complication based symptoms. (Dasgupta, A., Sembia, S., Paul, B., Ghosh, A., Biswas, B. and Mallick, N., 2018).

It was seen through several studies throughout the world that lifestyle, such as physical activity, nutrition might play vital role in controlling hypertension and might prevent its long-term complications. Positive behaviour along with healthy lifestyle might reduce complications and might improve health as a whole. Adequate adherence to antihypertensive drugs and maintaining healthy lifestyle improve patients' quality of life and might improve in maintaining normal blood pressure level.

METHODOLOGY

Study Design

One group pretest-post test research design was adopted.

Setting of the study

This study was conducted in Chanchal –I block, in Malda district.

Study Duration

Study duration was 2 years (April, 2017-May,2019).

Study Population, Sample & Sampling Technique:

Population: All Hypertensive patients present at rural areas of Malda district.

Sample: Diagnosed hypertensive patients of Chanchal-1 block in Malda district, both male and female who fulfill inclusion criteria

Sample size: 100 hypertensive patients.

Sampling Technique: The sampling technique was Non probability purposive sampling.

Study Tools & Technique

Semi Structured questionnaire was used to collect Socio-demographic variables. Structured questionnaire was used to assess health care practices among hypertensive patients and Structured knowledge questionnaire was again used to check knowledge regarding complications of hypertension. Only Interviewing technique was used to collect data.

Data Analysis

The collected data was edited, complied, and analyzed by both descriptive and inferential statistics and MS Excel was used to do statistical analysis.

Ethical Consideration

This study was approved by the ethical committee and Scientific Committee of N.R.S Medical College & Hospital, Kolkata. Informed consent was also secured from the participants prior to the data collection and participants' information obtained was kept anonymous.

RESULT

Finding related to demographic characteristics and general informations of hypertensive patients are shown in Table 1 and Table 2.

Table 1: Demographic Characteristics of hypertensive patients. [n=100(nm+nf=40+60)]

Serial no.	Variables	Frequency		Percentage		Total
		Male	Female	Male	Female	
1.	**Age(Years)**					
	30-39	1	11	2.50	18.33	12
	40-49	2	4	5.00	6.66	6
	50-59	5	13	12.50	21.66	18
	60-69	20	27	50.00	45.00	47
	70-80	12	5	30.00	8.33	17
2.	**Literacy**					
	Illiterate	11	40	27.50	66.66	51
	Upto primary	22	9	55.00	15.00	31
	Upto HS	3	9	7.50	15.00	12
	Above HS	4	2	10.00	3.33	06
3.	**Occupation**					
	Cultivation	31	11	77.50	18.33	42
	Housewife	0	42	00	70.00	42
	Other	9	7	22.50	11.65	16
4.	**Religion**					
	Hindu	16	26	40.00	43.33	42
	Muslim	24	34	60.00	56.67	58
5.	**Family History Of Hypertension**					
	Yes	14	25	35.00	41.67	39
	No	26	35	65.00	58.33	61
6.	**Duration of Hypertension**					
	<6 Years	30	46	75.00	76.67	76
	≥6years	10	14	25.00	23.33	24

Note: nm =Male Sample, nf = Female Sample

Table 2: Demographic Characteristics of hypertensive patients. (n=100)

Serial no.	Variables	Frequency & Percentage
7.	**Gender**	
	Male	40
	Female	60
8.	**Marital Status**	
	Married	80
	Other	20
9.	**Family Income**	
	2000-2999	24
	3000-3999	22
	4000-4999	00
	5000-5999	20
	6000-6999	18
	7000-7999	05
	8000-8999	10
	9000-10000	01

Among 100 hypertensive respondents, majority (47%) of hypertensive patients belonged to 60-69 years age group and most of (51%) them were illiterate. Maximum (42%) of hypertensive patients were farmer and most of (58 %) them were Muslim. Majority (60%) hypertensive patients were female and maximum (80%) of them were married. Majority of their (24%) income was between 2000-2999 Rs per month. Maximum of them, 26 among 40 (65%) male hypertensive patients had no history of hypertension. Majority of them 46 among 60 (76.67%) female hypertensive patients had duration of hypertension for less than 6 years.

In case of Healthcare Practices, the score obtained by hypertensive patients ranged from 10-21, and mean practice score was 16.12 with SD 2.34

Maximum mean percentage score gained by hypertensive patients in the Drug compliance (72.5%) area which indicated that there was minimum practice deficit. The lowest mean percentage was in exercise area (60%), indicated that maximum deficit in that area. It is shown in Table 3..

Table 3: Area wise maximum possible score, mean, SD and mean percentage of healthcare practice score obtained by hypertensive patients. (n=100)

Areas	Maximum possible score	Mean score	SD	Mean percentage (%)
Drug compliance	2	1.45	0.49	72.50
Diet	8	5.31	1.24	66.38
Exercise	2	1.2	0.45	60.00
Life style	6	4.29	0.90	71.50
Healthy practices	6	3.87	1.22	64.50

In case of findings Related To Knowledge Scores of Pretest and Posttest among hypertensive patients and effect of awareness programme, mean posttest knowledge score which was 13.83 with Standard deviation of 1.06, was higher compared to pretest knowledge score of 9.83 with standard deviation of 2.29 and mean difference was 4 and this was suggested that there was significant improvement of knowledge due to awareness programme. "*t*"-value was significant at 0.05 level of significance with 99 degree of freedom. So it indicated that awareness programme was effective. Maximum gain of knowledge score was there in the area of meaning of hypertension (24% to 77%) which is shown through Rader diagram (fig 1).

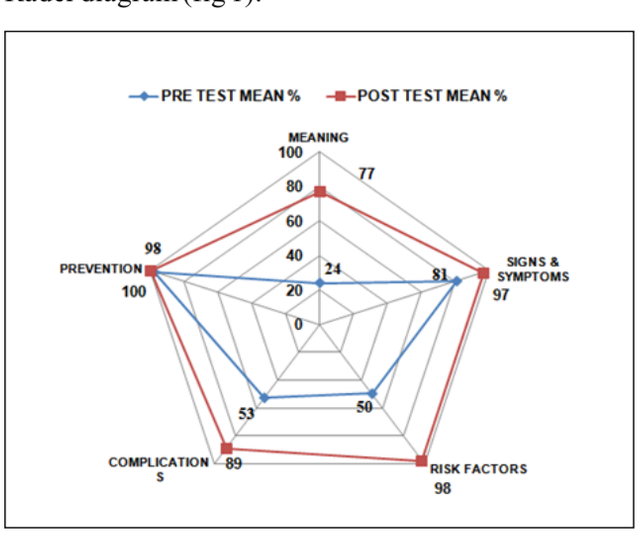

Figure 1: Rader diagram shows area wise effect of awareness programme.

There was weak positive relationship between healthcare practices and pretest knowledge score (r=.30) which was significant at 0.01 level of significance with 98 degree of freedom.

Association between Religion and healthcare practices was only significant at 0.05 level of significance with one degree of freedom. There was no significant association between selected demographic variables with healthcare practices except it and also between selected demographic variables with pretest knowledge score. The whole chi square results are shown in Table 4 & Table 5.

Table 4: Association between healthcare practices (<median and ≥ median) with selected demographic variables (n=100)

Variables	Healthcare Practice Score			
	Below median	Above median	Chi Square	Significant at 0.05 level
Age (in years):				
≤61	18	36	2.18	Not significant
>61	22	24		
Gender:				
Male	19	21	1.57	Not significant
Female	21	39		
Literacy:				
Below primary	20	31	0.04	Not significant
Above primary	20	29		
Occupation:				
Cultivation	18	22	0.70	Not significant
Other	22	38		
Religion:				
Hindu	12	30	3.94*	**Significant**
Muslim	28	30		
Marital status:				
Married	35	45	2.35	Not significant
Others	5	15		
Family history:				
Yes	11	28	0.58	Not significant
No	29	32		
Duration of having hypertension:				
<6 year	31	35	0.09	Not significant
≥6 year	9	15		

Tabulated value, x^2 (0.05, 1) = 3.84

Table 5: Association between knowledge of hypertensive patients regarding complications of hypertension (<median and ≥ median) with selected demographic variables (n=100)

Variables	Pretest Knowledge Score			
	Below median	Above median	Chi Square	Significant at 0.05 level
Age (years):				
≤61	17	37	0.71	Not Significant
>61	11	35		
Gender:				
Male	10	30	0.30	Not Significant
Female	18	42		
Literacy:				
Below primary	18	33	2.75	Not Significant
Above primary	10	39		
Occupation:				
Cultivation	12	28	0.14	Not Significant
Others	16	44		
Income(Per month)in In rupee				
<6000	21	45	1.4	Not Significant
≥6000	7	27		
Family history:				
Yes	07	32	3.20	Not Significant
No	21	40		
Duration of having hypertension:				
<6 years	22	54	0.15	Not Significant
≥6 years	06	18		

Tabulated value, x^2 (0.05, 1) = 3.84

DISCUSSION

On the basis of the finding related to healthcare practices of hypertensive patients and effect of awareness programme regarding complications of hypertension, the same of other related studies were

mentioned in the below-

Similar healthcare practices among hypertensive patients related study was done at Singur, West Bengal by (Dasgupta, A. et al, 2018) with 124 sample which was a clinic based study. Non probability convenient sampling technique was used and it was seen that in terms of self-care practice, 58% had unfavorable medication adherence which supported the present study. Around 29.1% and 28.2% never tried to avoid high salt and high-fat foods respectively. 48% and 19.4% always tried to avoid adding extra salt in food and to take boiled food.

Some studies were also there which supported the findings of present study that is awareness programme might improve knowledge level of hypertensive clients.

(Omotoye & Sanusi, 2018) conducted a study on Nigerian adults to assess awareness of hypertension and factors associated with uncontrolled hypertension. It was also a Community-based study and random sampling was used and 1590 participants were there. It was seen that awareness was higher in females 163 (31.1%) than males 51 (9.7%), increased with age and decreased with higher educational status and awareness programme also increased the knowledge level. So it **supported the present study.**

CONCLUSION

The aim of the study was to assess study to assess heath care practices and to develop knowledge regarding complications of hypertension among hypertensive patients.

Hypertension is a type of iceberg disease and it follows "rule of halves" which is being silent in the incipient stage and it causes so many undiagnosed cases to be happened. Though some of them are diagnosed either there is lack of access to treat or lack of control over it. Late detection may cause significant economic and social impact at individual, family or community and it also has an effect on national level due to premature death or disability or loss of income, and healthcare expenditure (Dasgupta, A., Sembiah, S., Paul, B., Ghosh, A., Biswas, B. & Mallick, N., 2018)

The finding of this data suggested that awareness programme improved the healthcare practices & knowledge of rural people regarding complications of hypertension which could reduce morbidity rate further. Further health care practices of hypertensive patients in other aspects can be detected as well as awareness programme can be arranged in other aspect of hypertension. Similar study can be done for urban population and for high risk hypertension group people.

Conflict of Interest

The authors declare that they have no conflict of interest.

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