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# EFFECTIVENESS OF STRUCTURED EDUCATIONAL PROGRAMME ON KNOWLEDGE REGARDING PREVENTION OF HYPERTENSIVE COMPLICATIONS AMONG HYPERTENSIVE PATIENTS RESIDING INSELECTED AREA AT SIKAR

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## ABSTRACT

**Abstract:** A study knowledge regarding prevention of hypertensive complications among hypertensive patients residing in selected area at Sikar. **Material & Method**: The quantitative research approach and pre- experimental one group pre test post test design was adopted for this study. Non probability convenience sampling technique was used for sample selection. The data were observed from 300hypertensive patients. The study was conducted at Radhakrishnan Pura, Kishan Colony, Veer Teja Colony, Jaldhari Nagar, Sikar. Structured question tool was used to gather the data. Through SPSS, both descriptive and inferential statistics were used for data analysis. **Results:** Result showed that during pre-test majority 175(58.3%) had average knowledge and 118(39.3%) had poor knowledge&6(2%) had good knowledge where as in post-test maximum 208(69.3%) had good knowledge and 84(28%) had average knowledge& 8(2.7%) had poor knowledge regarding prevention of hypertensive complications among hypertensive patients. Result on knowledge showed that post-test mean knowledge score 17.70±2.62 was higher than mean pre-test knowledge score 9.42±2.42 with mean difference of 8.28 with calculated value (t=41.93 at df=299, p=0.001) was found significant.



## INTRODUCTION

Hypertension, simply put, is high blood pressure. It is defined as a persistent elevation of the systolic blood pressure at a level of 140 mmHg and of diastolic blood pressure of 90 mmHg or higher.[1]

Hypertension is the leading cause of cardiovascular disease. Worldwide prior to 1990, population data suggest that hypertension prevalence was decreasing; however, recent data suggest that it is research. Hypertension prevalence has also been increasing in other countries and an estimate 972 million patients in are suffering from this problem. Incidence rates of hypertension range between 3-18 depending age, gender, ethnicity, body size of population studied. Despite advances in hypertension treatment control rates continue to be suboptimal.[2]

Half of the patients diagnosed with hypertension have borderline to mildly high BP for the cause, diet and lifestyle changes, including regular exercise, stress management and self monitoring with a home BP device, can be used to control and bring down the BP with no side effects. However, if you have elevated BP, you have to take medication to bring down and then implement lifestyle changes to make sure that the BP stags low.[3]

High blood pressure is a silent killer. It usually shows no symptoms and many patients do not realize they have it. High blood pressure, also known as raised blood pressure or hypertension increases the risk of heart attacks, strokes and kidney failure. Even moderate elevation of arterial blood

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pressure is associated with a shortened life expectancy. If left uncontrolled, high blood pressure can also cause blindness, irregularities of the heart beat and heart failure.[4]

The first line of treatment for hypertension is identical to the recommended preventive lifestyle changes and includes dietary changes, physical exercise, and weight loss. Dietary change such as a low sodium diet is beneficial. Also, the diet, a diet rich in nuts, whole grains, fish, poultry, fruits and vegetables, lower blood pressure.[5]

A major feature of the plan is limiting intake of sodium, although the diet is also rich in potassium, magnesium, calcium, as well as protein. Some programs aimed to reduce psychological stress such as biofeedback or transcendental meditation may be reasonable add- one to other treatment to reduce hypertension. However, several techniques such as yoga, relaxation and other forms of meditation do not appear to reduce blood pressure.[6]

**PROBLEM STATEMENT** Effectiveness of structured educational programme on knowledge regarding prevention of hypertensive complications among hypertensive patients residing inselected area at Sikar.

**OBJECTIVES**

1. 1To assess pre-test knowledge score regarding prevention of hypertensive complications among hypertensive patient.
2. To develop structured educational programme regarding prevention of hypertensive complications to increase the knowledge level of hypertensive patient.
3. To assess post-test knowledge score regarding prevention of hypertensive complications among hypertensive patients.
4. To evaluate the effectiveness of structured educational programme on prevention of hypertensive complications among hypertensive patients.
5. To find out the association between the pre-test knowledge score with their selected demographic variables.

## MATERIALS AND METHOD

**Research Approach**

The research approach adopted for present study was quantitative research approach

**Research Design**

In this study pre-experimental one group pre-test post-test design. was adopted to assess the knowledge.

**Population**

Population is the entire aggregation of cases that meets a designated set of criteria for research. The target population of the present study was hypertensive patients residing in selected area at Sikar.

**Research setting:**

The study was conducted at Radhakrishnan Pura, Kishan Colony, Veer Teja Colony, Jaldhari Nagar, Sikar.

**Sample Size**

A total sample for this study was 300hypertensive patients residing in selected area at Sikar.

**Sampling Technique**

Non probability convenience sampling technique was used to select the sample for this study.

**Sampling criteria**

**Inclusion criteria**

- Hypertensive patients who have 30 to above 60 years of age.
- Patient present at the time of data collection.
- Patient who can read and understand English, Hindi.

**Exclusion criteria:**

- The patient who are not willing to participate in the study.
- Hypertensive patients are critically ill.
- Those who are belong to medical profession.

**ETHICAL CONSIDERATIONS**

- The permission was obtained from ethical committee of Nirwan University, Jaipur.
- Permission was obtained from concerned area authority for conducting the research study.
- The consent was taken from the subjects attendees. To gain their confidence, they were ensured that research data will be kept confidential and will be used for only research purpose.
- The purpose of the study will be explained to the subjects attendees. They were also informed about their right to refuse from participation in the study.

**Plan for data analysis:**The data analyses were done according to the study objectives by using descriptive and inferential statistics. The plans of data analysis were as follows:

- Frequency, percentage, mean, and standard deviation was calculated.
- The chi-square test was used for association with demographic variables.

## RESULTS AND DISCUSSION

**SECTION. I**

**Table 1.** Frequency and percentage distribution of the Socio-demographic variables

**N=300**

| S. No | Demographic Variables | Frequency | Percentage |
|---|---|---|---|
| 1 | Age in years | | |
| | a. 30-40 years | 23 | 7.7 |
| | b. 40-50 years | 60 | 20 |
| | c. 50-60 years | 99 | 33 |
| | d. Above 60 years | 118 | 39.3 |
| 2 | Gender | | |
| | a. Male | 188 | 62.7 |
| | b. Female | 112 | 37.3 |

| | | | |
|---|---|---|---|
| 3 | Religion<br>a. Hindu<br>b. Muslim<br>c. Christian | <br>208<br>79<br>13 | <br>69.4<br>26.3<br>4.3 |
| 4 | Type of family<br>a. Nuclear<br>b. Joint<br>c. Extended | <br>194<br>88<br>18 | <br>64.7<br>29.3<br>6 |
| 5 | Marital status<br>a. Married<br>b. Unmarried<br>c. Divorcee<br>d. Widower | <br>223<br>67<br>7<br>3 | <br>74.4<br>22.3<br>2.3<br>1 |
| 6 | Educational status<br>a. Primary<br>b. Secondary<br>c. Higher secondary<br>d. Graduate and above | <br>41<br>71<br>88<br>100 | <br>13.7<br>23.7<br>29.3<br>33.3 |
| 7 | Occupational status<br>a. Self employed<br>b. Private job<br>c. Government job<br>d. Others | <br>79<br>173<br>33<br>15 | <br>26.3<br>57.7<br>11<br>5 |
| 8 | Monthly income (Rs)<br>a. Below Rs.10000/-<br>b. Rs. 10001-20,000/-<br>c. Rs. 20,001-30,000/-<br>d. Above Rs. 30,000/ | <br>53<br>72<br>88<br>87 | <br>17.7<br>24<br>29.3<br>29 |
| 9 | Dietary pattern<br>a. Vegetarian<br>b. Non-vegetarian | <br>260<br>40 | <br>86.7<br>13.3 |
| 10 | Family history of hypertension<br>a. Yes<br>b. No | <br>73<br>227 | <br>24.3<br>75.7 |
| 11 | Take medication on regular basis<br>a. Yes<br>b. No | <br>267<br>33 | <br>89<br>11 |

**SECTION. II**

**Table 2.** Distribution of pre-test and post-test level of knowledge regarding prevention of hypertensive complications among hypertensive patients

**N=300**

| Level of knowledge | Pre-test | | Post-test | |
|---|---|---|---|---|
| | f | % | f | % |
| **Poor knowledge** | 118 | 39.3 | 8 | 2.7 |
| **Average knowledge** | 175 | 58.3 | 84 | 28 |
| **Good knowledge** | 6 | 2 | 208 | 69.3 |

Result showed that during pre-test majority 175(58.3%) had average knowledge, 118(39.3%) had poor knowledge and 6(2%) had good knowledge where as in post-test maximum 208(69.3%) had good knowledge, 84(28%) had average knowledge and 8(2.7%) had poor knowledge regarding prevention of hypertensive complications among hypertensive patients.

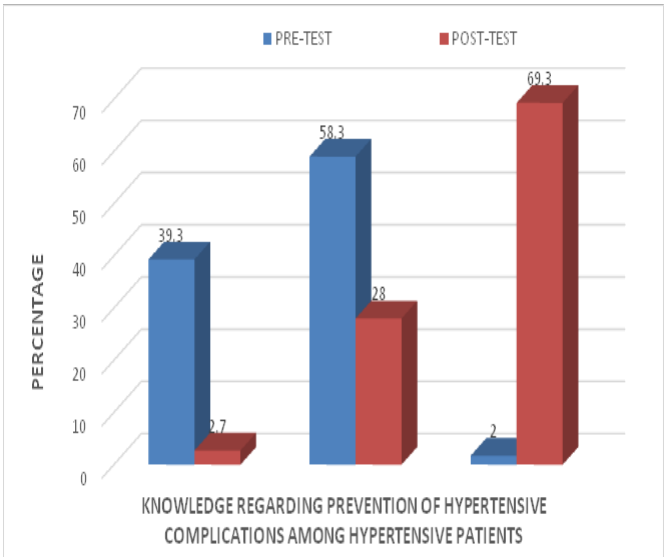


**Fig. 1.** Distribution of pre-test and post-test level of knowledge regarding prevention of hypertensive complications among hypertensive patients

**SECTION III**

**Table 3.** Descriptive statistics of pre-test and post-test scores of knowledge regarding prevention of hypertensive complications among hypertensive patients

**N=300**

| Descriptive statistics | Pre-test | Post-test |
|---|---|---|
| Minimum | 4 | 9 |
| Maximum | 16 | 23 |
| Range | 12 | 14 |
| Mean | 9.42 | 17.70 |
| Median | 9 | 18 |
| Mode | 8 | 17 |
| Std. Deviation | 2.42 | 2.62 |
| | | |

**SECTION . IV**

**Table 4.** Effectiveness of structured educational programme on knowledge regarding prevention of hypertensive complications among hypertensive patients

**N=300**

| Effectiveness | Mean | SD | Mean D | t value | df | p value |
|---|---|---|---|---|---|---|
| Pre-test | 9.42 | 2.42 | 8.28 | 41.93 | 299 | 0.001* |
| Post-test | 17.70 | 2.62 | | | | |

***P<0.05 level of significance** **NS-Not significant**

Result on knowledge showed that post-test mean knowledge score 17.70±2.62 was higher than mean pre-test knowledge

**Table 5.** Association between the pre-test level of knowledge regarding prevention of hypertensive complications among hypertensive patients with selected demographic variables

**N=300**

| Demographic variables | Pre-test knowledge | | | χ2value | df | p value |
|---|---|---|---|---|---|---|
| | Poor | Average | Good | | | |
| Age in years | | | | | | |
| 30-40 years | 8 | 12 | 1 | | | |
| 40-50 years | 23 | 36 | 1 | 3.753 | 6 | 0.710$^{NS}$ |
| 50-60 years | 35 | 61 | 3 | | | |
| Above 60 years | 52 | 65 | 1 | | | |
| Gender | | | | | | |
| Male | 72 | 114 | 2 | 1.464 | 2 | 0.481$^{NS}$ |
| Female | 46 | 63 | 3 | | | |
| Religion | | | | | | |
| Hindu | 86 | 118 | 4 | | | |
| Muslim | 25 | 53 | 1 | 3.893 | 4 | 0.421$^{NS}$ |
| Christian | 7 | 5 | 1 | | | |
| Type of family | | | | | | |
| Nuclear | 70 | 120 | 4 | | | |
| Joint | 42 | 45 | 1 | 4.262 | 4 | 0.372$^{NS}$ |
| Extended | 6 | 11 | 1 | | | |
| Marital status | | | | | | |
| Married | 96 | 125 | 2 | | | |
| Unmarried | 16 | 49 | 2 | 8.254 | 6 | 0.245$^{NS}$ |
| Divorce | 4 | 2 | 1 | | | |
| Widower | 1 | 1 | 1 | | | |
| Educational status | | | | | | |
| Primary | 17 | 23 | 1 | | | |
| Secondary | 26 | 43 | 2 | 17.50 | 6 | 0.007* |
| Higher secondar | 48 | 39 | 1 | | | |
| Graduate and above | 27 | 70 | 3 | | | |
| Occupational status | | | | | | |
| Self employed | 33 | 43 | 3 | | | |
| Private job | 70 | 101 | 2 | 7.457 | 6 | 0.281$^{NS}$ |
| Government job | 8 | 24 | 1 | | | |
| Others | 7 | 7 | 1 | | | |
| Monthly income (Rs) | | | | | | |
| Below Rs.10000/- | 19 | 33 | 1 | | | |
| Rs. 10001- 20,000/- | 28 | 42 | 2 | 3.126 | 6 | 0.793$^{NS}$ |
| Rs. 20,001- 30,000/- | 33 | 54 | 1 | | | |
| Above Rs. 30,000/ | 38 | 47 | 2 | | | |
| Dietary pattern | | | | | | |
| Vegetarian | 110 | 145 | 5 | 8.605 | 2 | 0.014* |
| Non-vegetarian | 8 | 31 | 1 | | | |
| Family history of hypertension | | | | | | |
| Yes | 31 | 41 | 1 | 0.423 | 2 | 0.809$^{NS}$ |
| No | 87 | 136 | 4 | | | |
| Do you know about hypertension | | | | | | |
| complication | 107 | 155 | 5 | 1.327 | 2 | 0.515$^{NS}$ |
| No | 11 | 21 | 1 | | | |
| Yes | | | | | | |

***P<0.05 level of significance** **NS-Not significant**

score 9.42±2.42 with mean difference of 8.28 with calculated value (t=41.93 at df=299, p=0.001) was found significant.

**SECTION . V**

Table 5 depicts the association between the pre-test level of knowledge regarding prevention of hypertensive complications among hypertensive patients with selected demographic variables which was tested by using chi square test. Result showed that educational status and dietary pattern were found significant association at p<-0.05 level but other demographic variables such as age, gender, religion, type of family, marital status, occupational status, family income, Family

history of hypertension and Do you know about hypertension complication were found to be not significant at $p<0.05$ level with pre-test level of knowledge regarding prevention of hypertensive complications among hypertensive patients.

## CONCLUSION

Result on knowledge showed that post-test mean knowledge score 17.70±2.62 was higher than mean pre-test knowledge score 9.42±2.42 with mean difference of 8.28 with calculated value (t=41.93 at df=299, p=0.001) was found significant.

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