



Impact Of Educational Program On Knowledge Related To Clinical Pathway Of Hypertension Among Rural Population

¹Manjulata Mahesh, ²Dr Shikha Shrivastav

¹Ph.D. Scholar, ²Research Supervisor

¹Department of Nursing, ²Department of Nursing,

¹Mansarover Global University, Sehore, Madhya Pradesh, India, ²Mansarover Global University, Sehore, Madhya Pradesh, India

Abstract

The current study has been undertaken to assess knowledge score regarding Clinical pathway of hypertension among rural population by educational program in Gram Dham kheda sarvdharm kolar road, Bhopal, Madhya Pradesh. The research design used for study was pre- experimental in nature. The tool for study was self-structured knowledge questionnaire which consists of 2 parts-PART- I consisted questions related to Socio-demographic data; PART-II consisted of self -structured knowledge questionnaire to assess knowledge score regarding Clinical pathway of hypertension among rural population. The data was analyzed by using descriptive & inferential statistical methods. The most significant finding was that 20.5% of rural population were having average knowledge regarding Clinical pathway of hypertension whereas 79.5% had fair knowledge after post-test. It was suggested that nurses must educate rural population regarding Clinical pathway of hypertension.

Keyword- Impact, educational program, knowledge & Clinical pathway of hypertension.

1. INTRODUCTION

Hypertension (high blood pressure) is when the pressure in your blood vessels is too high (140/90 mmHg or higher). It is common but can be serious if not treated. Lifestyle changes like eating a healthier diet, quitting tobacco and being more active can help lower blood pressure. Some people may still need to take medicines. Blood pressure is written as two numbers. The first (systolic) number represents the pressure in blood vessels when the heart contracts or beats. The second (diastolic) number represents the pressure in the vessels when the heart rests between beats. Hypertension is diagnosed if, when it is measured on two different days, the systolic blood pressure readings on both days is ≥ 140 mmHg and/or the diastolic blood pressure readings on both days is ≥ 90 mmHg. The Clinical Pathway (in its complete definition Diagnostic, Clinical and Therapeutic Pathway - Percorso Diagnostico Terapeutico Assistenziale - PDTA), originally started to deal with the newly diagnosed hypertensive patient.

2. NEED FOR STUDY

Hazarika C R and Babu B V (2024) Prevalence of hypertension in Indian tribal population: a systematic review and meta-analysis. This paper reports the systematic review and meta-analysis of the literature on the prevalence of hypertension among Indian tribes by following the PRISMA guidelines. Three databases, viz. PubMed/Medline, Google Scholar and Scopus, were included. The gender-wise pooled prevalences were calculated, and forest plots were depicted. Other analyses were performed, including heterogeneity test, meta-regression and sub-group analysis. Of the 1010 studies obtained, 42 were included in this review. These studies covered tribal populations in different regions of India. The pooled prevalence of

hypertension among men, women and combined were 23.66% (95% confidence interval (CI): 23.25 to 24.07%), 23.37% (95% CI: 22.99 to 23.75%) and 16.68% (95% CI: 16.10 to 17.28%) respectively.

3.OBJECTIVE OF THE STUDY

1. To assess the pre-test & post-test Knowledge score regarding Clinical pathway of hypertension among rural population.
2. To assess impact of educational program on knowledge regarding Clinical pathway of hypertension among rural population.
3. To find out association between pre-test knowledge score regarding Clinical pathway of hypertension among rural population with their selected demographic variables.

4. HYPOTHESES:

RH₀: There will be no significant difference between pretest & post-test knowledge score on Clinical pathway of hypertension among rural population.

RH₁: There will be significant difference between pretest & post-test knowledge score on Clinical pathway of hypertension among rural population.

RH₂: There will be significant association between pre-test score on Clinical pathway of hypertension among rural population with their selected demographic variables.

5. ASSUMPTION

1. Rural population may have deficit knowledge regarding Clinical pathway of hypertension.
2. Educational program will enhance knowledge of rural population regarding Clinical pathway of hypertension.

6. METHODOLOGY:

An evaluative approach was used and research design pre-experimental one group pre-test post-test research design was used for the study. The samples consisted of 44 rural population selected by Non probability purposive sampling technique. The setting for the study was Gram Dham kheda sarvdharm kolar road, Bhopal, Madhya Pradesh. Data was gathered with help of demographic variables & administering a self-structured knowledge questionnaire by analyst prior & after educational program. Post-test was done after seven days of pre-test. Data were analysis using descriptive & inferential statistics.

7.ANALYSIS AND INTERPRETATION

SECTION-I Table -1 Frequency & percentage distribution of samples according to their demographic variables.

n = 44

S. No	Demographic Variables	Frequency	Percentage
1	Age in Years		
a.	22-28	6	13.6
b.	29-35	23	52.3
c.	≥36	15	34.1
2	Types of family		
a.	Extended	1	2.3
b.	Nuclear	19	43.2
c.	Joint	24	54.5
4	Educational Status		
a.	No formal education	16	36.4
b.	Primary	15	34.1
c.	Secondary	13	29.5
d.	Higher secondary	0	0.0
e.	Graduate and above	0	0.0
5	Previous knowledge related to clinical pathway of hypertension		
a.	Yes	5	11.4
b.	No	39	88.6

SECTION-II- Table- 2.1.1- Frequency and percentage distribution of Pre-test scores of studied subjects:

Category and test Score	Frequency (N=44)	Frequency Percentage (%)
POOR (1-10)	39	88.6
AVERAGE (11-20)	5	11.4
GOOD (21-30)	0	0.0
TOTAL	44	100.0

The present table 2.1.1 concerned with the existing knowledge regarding Clinical pathway of hypertension among rural population were shown by pre-test score and it is observed that most of the rural population 39 (88.6%) were poor (01-10) knowledge & some rural population have 5 (11.4%) were from average category.

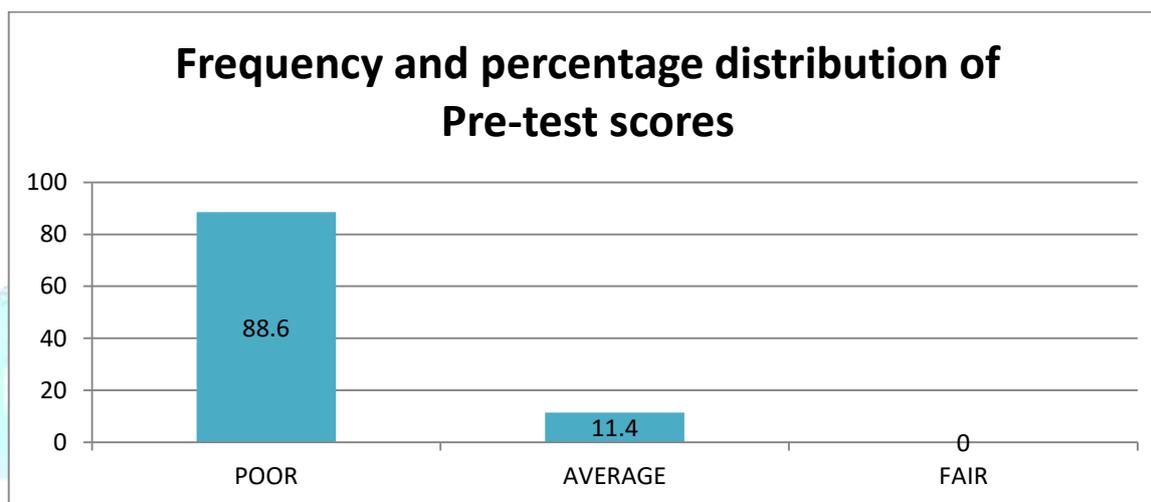


FIG.-2.1.1- Frequency and percentage distribution of Pre-test scores of studied subjects

Table-2.1.2. - Mean (\bar{X}) and standard Deviation (s) of knowledge scores:

Knowledge Pre-test	Mean (\bar{X})	Std Dev (S)
Pre-test score	1.11	0.32

The information regarding mean, percentage of mean and standard deviation of test scores is shown in table 2.1.2 knowledge in mean pre-test score was 1.11 ± 0.32 while in knowledge regarding Clinical pathway of hypertension among rural population in Gram Dham kheda sarvdharm kolar road, Bhopal, Madhya Pradesh.

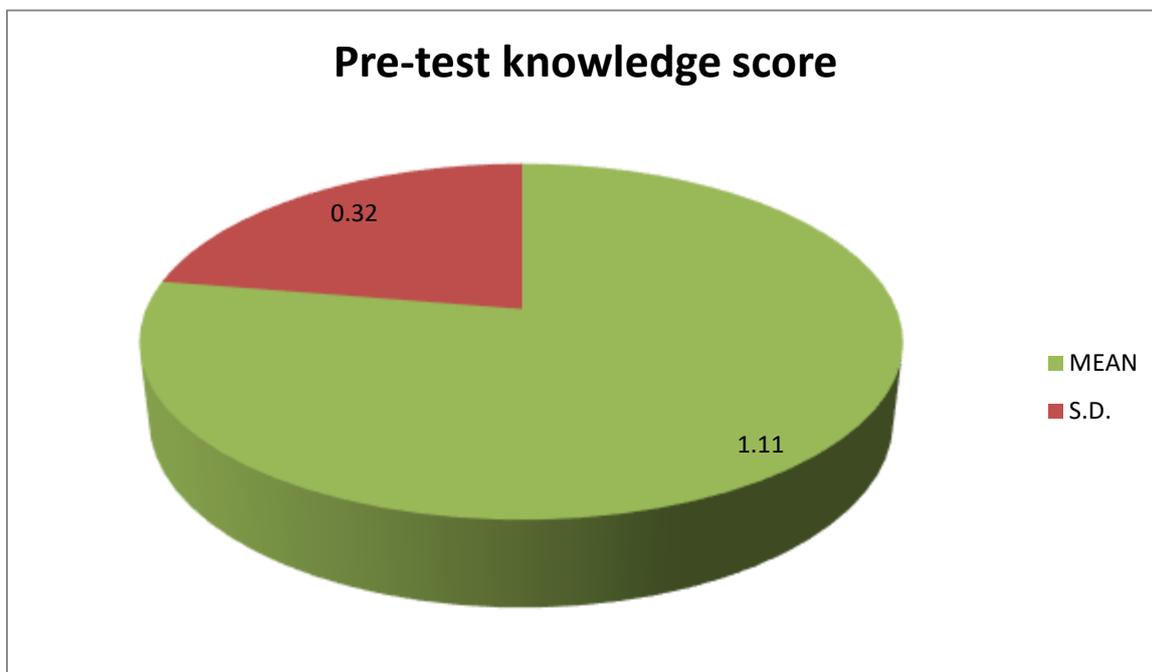


FIG.-2.1.1. - Mean (\bar{X}) and standard Deviation (s) of knowledge scores

Table-2.2.1- Frequency and percentage distribution of Post test scores of studied subjects:

Category and post-test Score	Frequency (N=44)	Frequency Percentage (%)
POOR (01-10)	0	0.0
AVERAGE (11-20)	9	20.5
GOOD (21-30)	35	79.5
TOTAL	44	100%

The present table 2.2.1 concerned with the existing knowledge regarding Clinical pathway of hypertension among rural population was shown by post test score and it is observed that most of the rural population 35 (79.5%) were **FAIR** (21-30) knowledge & other rural population have 9 (20.5%) category which are **AVERAGE** (11-20) posttest knowledge score in present study.

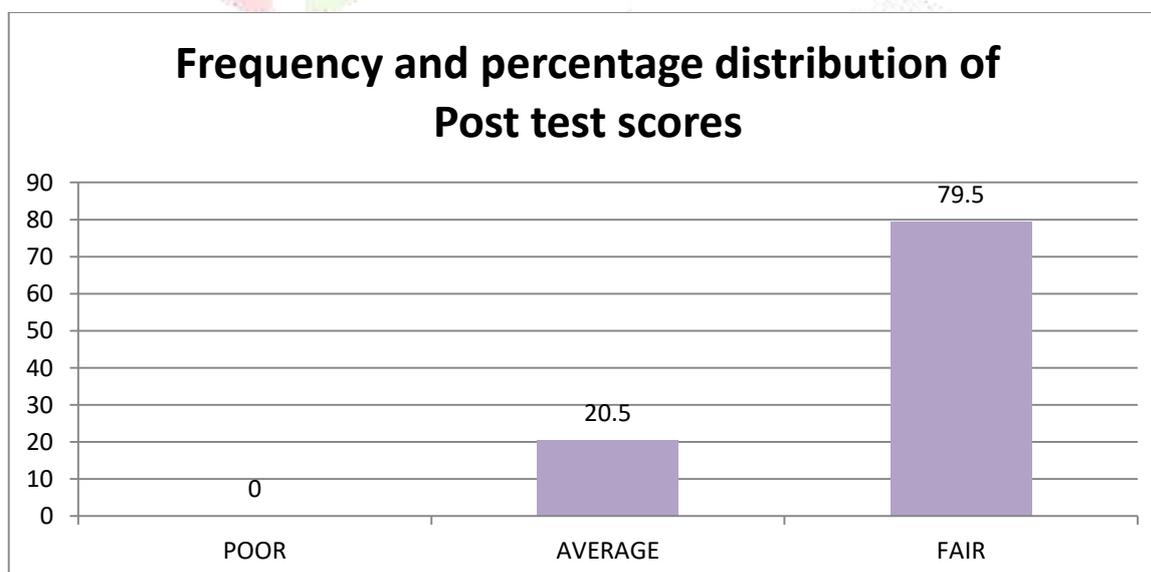
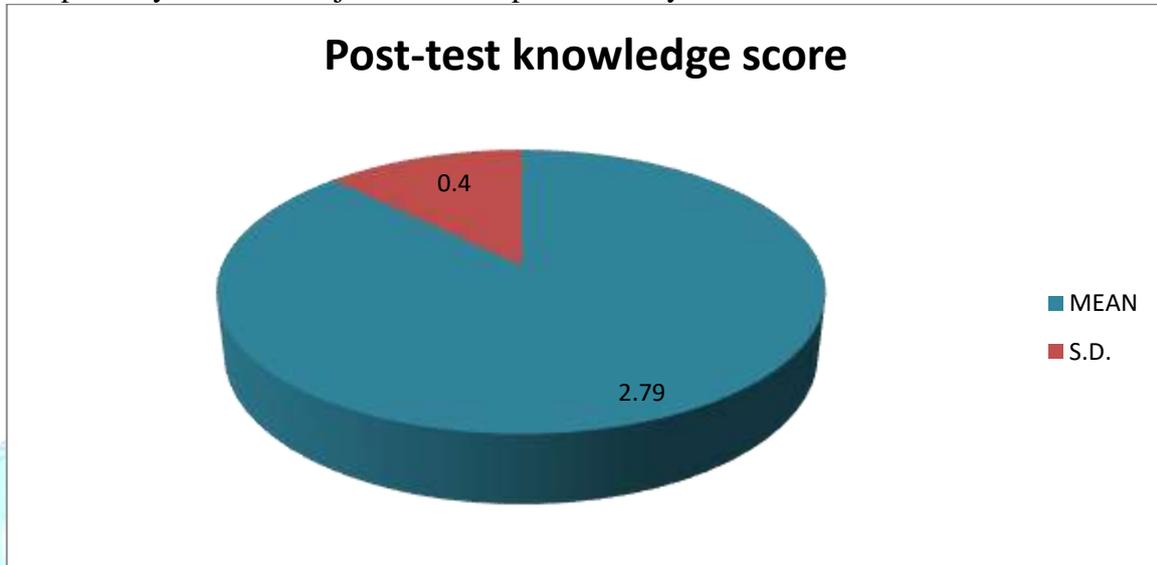


FIG.-2.2.1- Frequency and percentage distribution of Post test scores of studied subjects

Table-2.2.2. - Mean (\bar{X}) and standard Deviation (s) of knowledge scores:

Knowledge Test	Mean (\bar{X})	Std Dev (S)
Post-test score	2.79	0.40

The information regarding mean, percentage of mean and SD of post test scores is shown in table 2.2.2 knowledge in mean post test score was 2.79 ± 0.40 while in knowledge regarding Clinical pathway of hypertension among rural population in Gram Dham kheda sarvdharm kolar road, Bhopal, Madhya Pradesh. Hence, it is confirmed from the tables of section-II that there is a significant difference in mean of test scores which partially fulfill 2nd objective of the present study.

**FIG.-2.2.2. - Mean (\bar{X}) and standard Deviation (s) of knowledge scores:****TABLE 2.2.3: Impact of educational program by calculating Mean, SD, Mean Difference and 't' Value of Pre-test and Post-test knowledge.**

Knowledge Score of Rural population	Mean (\bar{X})	S. D. (s)	Std. Error of Mean	D. F.	t-value	Significance
Pre-test	1.11	0.32	0.07812	43	-21.53	P<0.0001*
Post-test	2.79	0.40				

When the mean and SD of pre-test & post-test were compared & 't' test was applied. It can be clearly seen that the 't' value was -21.53 and p value was 0.0001 which clearly show that educational program was very effective in enhancing the knowledge of rural population.

SECTION-III Association of knowledge scores between test and selected demographic variables:**Table- 3.1 Association of age of rural population with pre-test scores:**

Age (in years)	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
22-28	4	2	0	6
29-35	20	3	0	23
≥36	15	0	0	15
Total	39	5	0	44
$X^2=4.86$ $p>0.05$ (Insignificant)				

The association of age test scores is shown in present table 3.1. The probability value for Chi-Square test is 4.86 for 2 DF which indicated insignificant value ($p>0.05$). Hence, it is identified that there is a insignificant association between age & test scores. Moreover, it is reflected that age isn't influenced with current problem.

Table- 3.2 Association of types of family with pre-test scores:

Types of family	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
Extended	1	0	0	1
Nuclear	15	4	0	19
Joint	23	1	0	24
Total	39	5	0	44
$X^2=3.13$ $p>0.05$ (Insignificant)				

The association of types of family & test scores is shown in present table 3.2. The probability value for Chi-Square test is 3.13 for 2 degrees of freedom which indicated a insignificant value ($p>0.05$). Hence, it is identified that there is a insignificant association between types of family & test scores.

Table- 3.3 Association of educational status with pre-test scores:

Educationa l Status	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
No formal	16	0	0	16
Primary	11	4	0	15
Secondary	12	1	0	13
Higher sec.	0	0	0	0
Graduate	0	0	0	0
& above				
Total	39	5	0	44
$X^2= 5.71$ $p>0.05$ (Insignificant)				

The association of educational status & test scores is shown in present table 3.3. The probability value for Chi-Square test is 5.71 for 2 degrees of freedom which indicated educational & test scores. Moreover, it is reflected that educational status isn't influenced with present problem.

Table- 3.4 Association of previous knowledge related to cervical cancer with pre-test scores:

Previous Knowledge	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
Yes	4	1	0	5
No	35	4	0	39
Total	39	5	0	44
$X^2=0.41$ $p>0.05$ (Insignificant)				

The association of previous knowledge related to cervical cancer test scores is shown in present table 3.4. The probability value for Chi-Square test is 0.41 for 1 degrees of freedom which indicated previous knowledge related to cervical cancer & test scores. Moreover, it is reflected that previous knowledge Covid-19 and its prevention isn't influenced with current problem.

8.RESULTS

The result of this study indicates that there was a significant increase in post-test knowledge scores compared to pre-test scores of Clinical pathways of hypertension. The mean percentage knowledge score was observed 1.11 ± 0.32 in pre-test & after implementation of educational program post-test mean percentage was observed with 2.79 ± 0.40 .

9.CONCLUSION

Thus after the analysis and interpretation of data we can conclude that the hypothesis RH1 that, there will be significance difference between pre-test knowledge score with post-test knowledge score at ($P<0.001$) is being accepted.

Furthermore, educational program related to Clinical pathway of hypertension among rural population may consider as an effective tool when there is a need in bridging & modifying knowledge.

10.LIMITATIONS-

- This was limited to Gram Dham kheda sarvdharm kolar road, Bhopal, Madhya Pradesh.
- This was limited to 44 rural population.

11.REFERENCE-

1. Abariga, S. A., Khachan, H., & Al Kibria, G. M. (2020). Prevalence and determinants of hypertension in India based on the 2017 ACC/AHA guideline: evidence from the India national family health survey. *American Journal of hypertension*, 33(3), 252-260.
2. Anchala, R., Kannuri, N. K., Pant, H., Khan, H., Franco, O. H., Di Angelantonio, E., & Prabhakaran, D. (2014). Hypertension in India: a systematic review and meta-analysis of prevalence, awareness, and control of hypertension. *Journal of hypertension*, 32(6), 1170-1177.
3. Assiri, A. M., Al-Khaldi, Y. M., Kaabi, A. A., Alshehri, I. A., Al-Shahrani, M. A., & Almalki, A. A. (2024). Hypertension clinical pathway: Experience of Aseer region, Saudi Arabia. *Journal of Family and Community Medicine*, 31(2), 116-123.
4. Bhadoria, A. S., Kasar, P. K., Toppo, N. A., Bhadoria, P., Pradhan, S., & Kabirpanthi, V. (2014). Prevalence of hypertension and associated cardiovascular risk factors in Central India. *Journal of Family and Community Medicine*, 21(1), 29-38.
5. Bansal, S. K., Goel, D., Saxena, V., Kandpal, S. D., Gray, W. K., & Walker, R. W. (2012). The prevalence of hypertension and hypertension risk factors in a rural Indian community: A prospective door-to-door study. *Journal of cardiovascular disease research*, 3(2), 117-123.
6. Bhansali, A., Dhandania, V. K., Deepa, M., Anjana, R. M., Joshi, S. R., Joshi, P. P., ... & Pradeepa, R. (2015). Prevalence of and risk factors for hypertension in urban and rural India: the ICMR-INDIAB study. *Journal of human hypertension*, 29(3), 204-209.