

A study to evaluate the effectiveness of Computer Assisted Instruction on knowledge regarding selected herbal therapies in the management of blood pressure among a group of hypertensive clients at selected hospitals at Dehradun.

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Abstract: Hypertension has been termed the “silent killer” a chronic illness with a long asymptomatic phase that, if undetected an untreated silently damage the heart, brain and kidney. The prevalence of hypertension is rapidly increasing in developing countries and is one of the leading causes of death and disability. There are some herbal plants having antihypertensive properties like garlic, coriander, cardamom, basil, carrot, green tea etc. which are very helpful in maintaining normal blood pressure in hypertensive people. The nature of the study was pre-experimental. This was conducted in selected hospital at Dehradun. The research design used for this study is one group pre-test post-test design. Non probability sampling technique was done and 40 samples were selected for the study. A structured questionnaire was developed as a tool for data collection .the content validity was done by expert. In pre-test no one have the adequate knowledge, (37.5%) respondents had moderate knowledge between (11-20) and (62.5) respondents had inadequate knowledge score between (0-10)

In post-test (75%) of respondents having adequate knowledge, (25%) respondents having moderate knowledge and no one had inadequate knowledge. A major finding shows that the mean pretest knowledge score was 10.32 and mean posttest knowledge score was 22.7. The difference between pretest and post test score was statistically significant. Hence it was inferred that there was an increase in the level of knowledge after computer assisted instruction programme regarding selected herbal therapy in the management of hypertension

Key Words: effectiveness, computer assisted instruction, hypertensive clients, herbal therapies

1. INTRODUCTION:

Hypertension is high blood pressure. Blood pressure is the force of blood pressing against walls of arteries as it flows through them. Arteries are the blood vessels that carry oxygenated blood from the heart to the body tissues. Arterial hypertension, simply put, is high blood pressure. It is defined as a persistent elevation of the systolic blood pressure at the level of 140 mm of hg or higher and diastolic blood pressure at a level of 90 mm of hg or higher. Hypertension place stress on several organs (called target organ) including the kidney, eyes and heart causing them to deteriorate over time. High blood pressure contributes to 75% of all stroke and heart attacks. Plants have been used for health and medical purpose for several thousands of years. A majority of world population in developing countries still relies on herbal medicine to meet its health needs. There are many ways to treat high blood pressure including lifestyle changes and medication. Herbal therapy is one way to treat without any side effect .about 75 %-80% of world population use herbal medicine mainly in developing countries for primary health care because of their better acceptability with human body and lesser side effect. There are various herbal plant having antihypertensive properties i.e. garlic, coriander, cardamom, basil, carrot, green tea etc.

Above information shows that herbal therapy can be effective in reducing high blood pressure and people should aware of herbal therapy so investigator selected this topic for research.

2. OBJECTIVE :

- ▶ To assess the level of Knowledge regarding selected herbal therapies in the management of blood pressure among hypertensive client before Computer Assisted Instruction.
- ▶ To correlate the pre-test and post-test level of Knowledge of Computer Assisted Instruction regarding selected herbal therapies in the management of blood pressure among hypertensive client.
- ▶ To associate the pre-test and post-test level of knowledge regarding selected herbal therapies in the management of blood pressure among hypertensive client with their selected demographic variables.

3. HYPOTHESIS:

H₁: There was a significant difference between pretest and posttest level of knowledge regardingselected herbal therapies in the management of blood pressure among hypertensive client.

H₂: Mean post-test knowledge score was higher than mean pre-test knowledge score regarding selected herbal therapies in the management of blood pressure among hypertensive client.

H₃: There was a significant association between posttest Knowledge and selected demographic variables at P< 0.05 level of significance.

4. ASSUMPTION:

- ▶ Hypertensive person may have inadequate Knowledge regarding management of hypertension with herbal therapies.
- ▶ Computer Assisted Instruction may improve the knowledge on management of hypertension with herbal therapies among hypertensive client.
- ▶ Transmission of health information may improve the knowledge regarding management of hypertension with herbal therapies among hypertensive client

5. DELIMITATION:

- ▶ This study is limited to hypertensive person only.
- ▶ The study is limited to age above 26
- ▶ Data collection period is limited to 6 weeks only

6. RESEARCH METHODOLOGY:

Research Approach- A quantitative research approach is used for this study

Research Design-The research design used in this study is pre-experimental one group pretest posttest design.

Study setting-This study was conducted at selected hospitals SMI, CMI, Kanishk and synergy hospital of Dehradun

Population-The population targeted for the study was hypertensive person admitted in selected hospital of Dehradun.

Sample size: The total sample size was 40 hypertensive person admitted in selected hospitals at Dehradun.

Sampling technique: Non-probability Convenient Sampling Technique is used for this study

Description of the tool

The Instrument used for data collection consists of two sections as follows:

Section A: Demographic variables

Section B: structured knowledge questionnaire to assess the level of knowledge

Score interpretation: There were a total of 30 structured knowledge questionnaires in section B. Each correct response carried one score and each wrong response carried zero score. The total score on knowledge was 30. The score is converted into percentage and interpreted as follows

Hypertension and herbal therapies knowledge observed score/total score*30

Adequate knowledge	21 and above
Moderate adequate knowledge	11-20
Inadequate knowledge	10 and below

Data collection procedure-

The present study is conducted among hypertensive client admitted at different hospital of Dehradun. Pre-experimental one group pre-test post-test design is used for this study. Firstly permission was obtained from the principle of SGRR college of nursing, patelnager Dehradun. Data collection done over the period of 6 weeks (16 March-30 April 2015). The investigator had selected 40 hypertensive patients by using non-probability convenience sampling technique. Written consent is obtained from the subject. Pre-test was done on first day to assess the level of knowledge through structured knowledge questionnaire. Then computer assisted instruction administered for the 25 minutes on the same day. Then the post-test level of knowledge is assessed after one week

7. ANALYSIS AND FINDINGS:

SECTION – A

Table 1: Distribution of subjects according to their demographic variables

(N=40)

S. No	Demographic variables	f	(%)
1.	Age (in years)		
	1. 26-35 years	14	35%
	2. 36-45 years	9	22.5%
	3. 46-55 years	13	32.5%
2.	Gender		
	1. Male	24	60%
	2. Female	16	40%

3.	Education 1. Primary 2. Secondary 3. Graduation 4. Post-Graduation	4 12 17 7	10% 30% 42.5% 17.5
4.	Religion 1. Hindu 2. Muslim 3. Sikh 4. Christian	21 6 8 5	52.5% 15% 20% 12.5%
5.	Occupation 1. Professional 2. Non-professional 3. Other	17 9 14	42.5% 22.5% 40 %
6.	Diet pattern 1. Vegetarian 2. Non-vegetarian 3. Both	10 0 30	25% 0% 75%
7.	Any source of information 1. News papers 2. Television/ media 3. Health workers 4. Any other	7 19 9 5	17.5% 47.5% 22.5% 12.5
8.	Any treatment taking 1. Yes 2. No	9 31	22.5% 77.5%

The table 1 shows that the demographic data details according to their age group depict that highest percentage of the patient (35 %) were in the age group of 26-35 years. In the age group of 36-45 years of students was (22.5%), in the age group of 45-55 years it was (32.5%), and in the age group of above 56 years it was (4%).

Percentage wise distribution of subject in relation to their gender shows that (60%) subjects are male. And (40%) subjects are female, participated in this study.

Percentage wise distribution of subject in relation to their education shows that (10%) person having primary education (30%) people having secondary education, (42.5) person having graduation and (17.5) have done post-graduation

Percentage distribution of subject in relation to their religion, shows that highest percentage (52.5%) of subjects were Hindu, (15%) subjects are Muslim , (20%) of subjects were Muslim , and (12.5%) of subjects were Christian religion

Percentage wise distribution of subject in relation to their occupation , shows that highest percentage (42.5) were from professional job, (22.5%) were from non-professional job and (40%) are from some other jobs.

Percentage wise distribution of subject in relation to their diet pattern shows that (75%) subjects are in both categories i.e. vegetarian and non-vegetarian and (10%) subjects are belongs to vegetarian

Percentage wise distribution of subjects in relation to source of information shows that (7%) of information they got from newspaper,. (47.5%) information they got from Mass/ media/television. (22.5%) information they got from health workers. (12.5%) information they got from some other source.

Percentage wise distribution of subject in relation to their taking any treatment for hypertension, shows that only (22.5%) patient are taking antihypertensive medication and (77.5%) are not taking any treatment for hypertension

SECTION B

Table 2:- mean and S.D. of pre test and post knowledge regarding selected herbal therapy in the management of hypertension

N=40						
Level of knowledge	Mean	Standard deviation	Degree of freedom	Calculated "t" value	Table value	Level of significance
Pre test	10.32	2.79	39	20.66	2.02	Highly significance
Post test	22.7	2.59				

(p<0.05 significance)

Table 2 and fig11 shows that the mean pretest knowledge score was 10.32 and mean posttest knowledge score was 22.7. The difference between pretest and post test score was statistically significant. Hence it was inferred that there was an increase in the level of knowledge after computer assisted instruction programme regarding selected herbal therapy in the management of hypertension
So, the research hypothesis is accepted.

Table 3:- effectiveness of computer assisted instruction by comparing pre-test and post- test level of knowledge regarding selected herbal therapy in the management of hypertension

N=40

Level of knowledge	Score	Pre-test score		Post-test score	
		Frequency	Percentage	Frequency	Percentage
Adequate	21-30	0	0%	30	75%
Moderate	11-20	15	37.5%	10	25%
Inadequate	0-10	25	62.5%	0	0%

Table 3 shows the frequency and percentage distribution of respondents according to the level of pre-test and post-test knowledge score related selected herbal therapy in the management of hypertension

In pre-test no one have the adequate knowledge, (37.5%) respondents had moderate knowledge between (11-20) and (62.5) respondents had inadequate knowledge score between (0-10)

In post-test (75%) of respondents having adequate knowledge, (25%) respondents having moderate knowledge and no one had inadequate knowledge

Hence, it is inferred that the majority of respondent had inadequate knowledge in pre test knowledge scores. after computer assisted instruction programme there was an increase in knowledge of respondent who were exposed to computer assisted instruction

8. RECOMMENDATION:

Recommendation for further research include

- ▶ A similar study can be replicated with large sample size and in various other setting for better generalizations
- ▶ A similar study can be conducted to compare the effect of computer assisted instruction and structured teaching programme regarding use and significance of herbal therapy in the management of hypertension
- ▶ A similar study can be conducted with community people
- ▶ A similar study can be done for longer duration
- ▶ A similar quasi experimental study can be conducted for better outcome

9. CONCLUSION:

Based on the finding of the study following conclusion were drawn

- The need of knowledge regarding use of herbal therapy in the management of hypertension among hypertensive patient is high and it needs an intervention
- Computer assisted instruction significantly increase knowledge regarding use of herbal therapy in the management of hypertension among hypertensive client.
- The study revealed that there was a significant relationship between pretest knowledge and posttest knowledge. It indicate positive correlation between knowledge and attitude
- The findings of the study revealed that there was no association between post score knowledge level of the hypertensive patient and selected demographic variables such as age, gender, education, religion, occupation, diet pattern, source of knowledge and taking any treatment
- This study results showed that the samples in Pre-experimental group were having significant difference in the pre-test knowledge score and post-test knowledge score, which revealed the effectiveness computer assisted instruction program.

Thus the investigator conclude that the computer assisted instruction was helpful in increasing the knowledge regarding the use of herbal therapy in the management of hypertension

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