

# Effectiveness of Need-Based Health Counselling Regarding Life-Style modifications on Self-Care Practices among Hypertensive Patients

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**Abstract:** *Introduction:* Hypertension is an emerging problem in present scenario, leads to many health issues like MI, CHF, kidney failure, stroke. It complicates the human life and if ones this goes out of control then it is very difficult to manage as it can directly have impact on blood-vessels. Due to its prevalence rate Hypertension is the top fourth disease in ranking. It affects approximately one billion peoples worldwide and also a contributing factor for illness and death **Objectives:** 1. To assess the effectiveness of need-based health counselling regarding life-style modifications among hypertensive patients. **Methodology:** Quasi experimental one group pre-test post-test time series design was used with 130 samples, selected by purposive sampling technique. Data was collected with standardized H-SCALE (hypertension self-care activity level effects). **Results:** Result showed that the mean post test score was higher in the area of medication, diet, weight management in comparison to mean post-test score, at  $p < 0.05$  level of significance. There was a significant reduction in mean post-test scores of systolic and diastolic Blood Pressure compared to mean pre-test at  $p < 0.05$  level. **Conclusion:** It is concluded that the need-based health counselling regarding life-style modifications was effective in improving self-care practices and reduction and maintenance of normal blood-pressure.

**Keywords:** Hypertensive patients, life-style modifications, H-SCALE and self-care practices

## 1. Introduction

In Today's world every person is tiring in their own life. There are many factors that hampers the daily life activities of the people like their busy schedule, excessive load where they are working, some are busy in their personal problems like marriage problems, divorce, breakups. Because of their busy schedule they are not focusing on their health, they start skipping meals, start eating fast food and taking stress, and to reduce the stress they adopt unhealthy life-style like alcohol consumption and smoking. Due to all the reasons the person will suffer from various problems like obesity, diabetes mellitus and heart problems.

Due to its prevalence rate Hypertension is the top fourth disease in ranking. It affects approximately one billion peoples worldwide. High-blood-pressure is a contributing factor for illness and death. In India unawareness, negligence towards health services are the main reason of mortality.

High-blood-pressure is a major health issue, that exists worldwide. High blood-pressure can be controlled through lifestyle modifications like regular exercise, diet modifications, reduce salt intake in diet and using stress management techniques. These are the preventive measures that helps in prevention of the hypertension. If a person can modify their living pattern and practice, then the hypertension can be prevented.

## 2. Literature Survey

World Hypertension day is conducted on 17th May 2013 and the main purpose is to create awareness, how to control, prevent and teach the society about the hypertension. The national health profile (NHP) states, the highest cases are reported in Tamil Nadu 962,991, Rajasthan 345,770 and UP 310,256 in 2017. More than twenty years of age people are more prone for the hypertension. It is a major health problem in 21<sup>st</sup> century. According to world health 2012 data, In India the hypertension is 23.10% in men and 22.60% in women and the age is beyond 25 years suffering with the hypertension which is less as compared to other countries.

### Problem statement

A study to assess the effectiveness of need-based health counseling regarding life-style modifications on self-care practices among hypertensive patients in primary health center, Dehradun, Uttarakhand.

### Objectives

- To assess the self-care practices among Hypertensive patients regarding life-style modifications.
- To assess the effectiveness of need-based health counseling regarding life-style modifications on self-care practices among hypertensive patients.
- To assess the pre and post-test blood-pressure of hypertensive patients.
- To find association between self-care practices score and their selected demographic variables among hypertensive patients.

### 3. Materials and Methods

In the present study Quantitative approach with quasi experimental one group pre-test post-test time series design was used, Purposive sampling technique was used to select 130 hypertensive patients in primary health center, kudkawala, Dehradun, Uttarakhand. Pre-test was done to assess the self-care practices through standardized H-SCALE (hypertension self-care activity level effects) questionnaire and demographic details were obtained using baseline data. One to one need-based health counselling was administered after pre-test of the hypertensive patients. self-care practices were assessed and after that post-test was done on 7<sup>th</sup> day, 15<sup>th</sup> day and 30<sup>th</sup> day using same questionnaire.

### 4. Analysis and Interpretation

#### Section – A

**Table 1:** Frequency and percentage distribution of demographic variables, N=130

S.no	Demographic variables	Frequency	Percentage
1	Age		
	• 25-45	24	18.3%
	• 46-65	69	52.7%
	• 65-85	37	28.2%
2	Gender		
	• Male	55	42.3%
	• Female	75	57.7%
3	Education		
	• No formal education	54	41.5%
	• Primary	40	30.8%
	• Secondary	23	17.7%
	• Graduate and above	13	10%
4	Occupation		
	• Farmer	16	12.3%
	• Private job	9	6.9%

	• Government job	5	3.8%
	• Retired	2	1.5%
	• Labour	31	23.8%
	• House-wife	67	51.5%
5	Family income per month in rupees	81	62.3%
	• Less than 10,000	34	26.2%
	• 11,000-20,000	8	6.2%
	• 21,000-30,000	7	5.4%
	• Above 30,000		
6	Marital status		
	• Married	82	63.1%
	• Single	48	36.9%
7	Family		
	• Joint	16	12.3%
	• Nuclear	114	87.7%
8	Dietary pattern		
	• Vegetarian	67	51.5%
	• Non-vegetarian	63	48.4%
9	Other medical condition		
	• Yes (Diabetes mellitus)	46	35.6%
	• No	84	64.1%
10	Medication taken for hypertension	100	100%
11	Regularly follow-up	130	100%

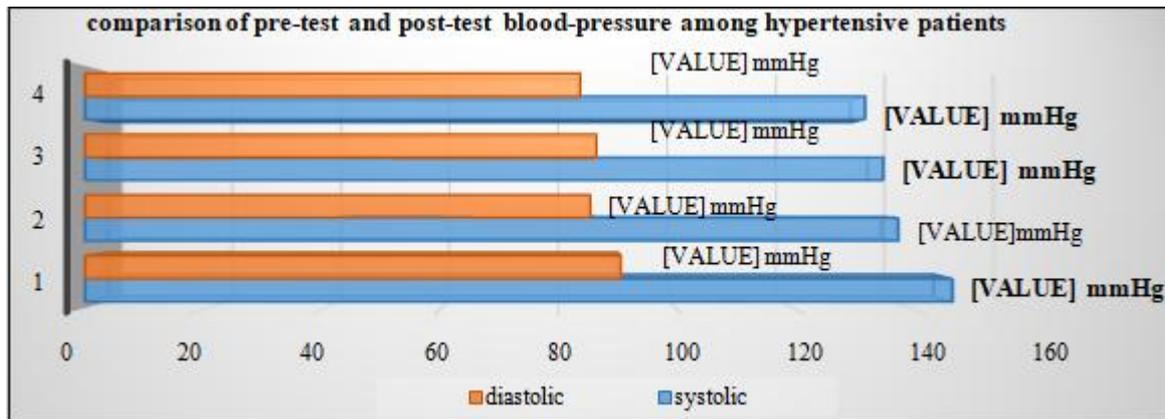
**Table no.1** depicts that (52.7%) participants were in between the age group of 46-65 years, (57.7%) participants were females, (41.5%) of the participants had no formal education. (51.5%) participants were house-wife. (62.3%) were having less than 10,000 family income per month According to their marital (63.1%) participants were married, (87.7%) fit to nuclear family, (51.5%) participants were vegetarian and (64.1%) participants were not having any other medical condition. (64.1 %) participants were not having any other medical condition, all (100%) participants were on medication for hypertension and all the participants were (100%) regular for follow-up.

**Table 2:** To assess the effectiveness of need-based health counseling regarding life-style modifications on self-care practices among hypertensive patients, N=130

Variables	Pre-observation data	Observation -1 (7 <sup>th</sup> day)	Observation-2 (15 <sup>th</sup> day)	Observation-3 (30 <sup>th</sup> day)	F	p-value
	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD		
Medication	19.87±3.833	21.00±0.000	21.00±0.000	21.00±0.000	11.317	.001
Diet	41.31±8.299	44.04±5.187	48.02±3.271	50.47±2.434	93.504	.000
Weight management	24.68±4.561	27.15±3.818	29.47±2.642	31.98±2.265	180.625	.000
Smoking (44)	1.66±4.751	1.66±4.75	1.67±4.72	1.67±4.72	.991	.008
Physical activity	8.02±4.025	8.10±3.546	7.97±3.045	8.13±2.878	1.802	.150
Alcohol (36)	1.73±4.445	1.74±4.441	1.71±4.457	1.72±4.449	.826	.006

**Table no.2** depicts that the effectiveness of need-based health counseling regarding life-style modifications on self-care practices among hypertensive patients. The result revealed that there was a significant day-wise improvement seen from pre-test score to post-test in the area of **medication** pre (19.87±3.833) post 30<sup>th</sup> day (21.00±0.000),)

**diet** pre (41.31±8.299), post (50.47±2.434), **weight management** pre (24.68±4.561) post (31.98±2.265), at 0.05 level of significance. Whereas there was no improvement seen in the area of physical activity, smoking and alcohol score



**Table 3:** Comparison of Pre-test and Post-test blood-pressure among hypertensive patient, N=130

This graph depicts that there was gradual decrease in systolic and diastolic blood pressure from pre-intervention to post 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> assessment. The pre-assessment **systolic blood-pressure** was (146.62±18.742) and **diastolic blood-pressure** (90.62±10.547) were reduced in post-assessment 7<sup>th</sup> day (137.46±8.474) (85.45±9.453), 15<sup>th</sup> day (134.92±9.171) (86.46±6.572) and 30<sup>th</sup> day (131.85±7.884) (83.69±5.588). which showed that there was marked reduction in systolic as well as diastolic blood-pressure with health counseling. It was found highly significant (p<0.05).

**Table 4 (a):** Association between pre-intervention practice score and selected socio-demographic characteristics (age, gender, education and occupation), N=130

S. no	Demographic Variables	Median <95 Below	Median >95 above	x <sup>2</sup>
1	Age • <50 • >50	23 44	23 40	.067
2	Gender • Male • Female	42 25	33 30	1.413
3	Education • No formal education • Primary • Secondary • Graduation and above	28 21 13 5	26 19 10 8	1.136
4	Occupation • Unemployed • Employed	36 23	52 19	2.201
5	Family income in rupees • Less than 20,000 • More than 20,000	54 5	61 10	2.201
6	Marital status • Married • Single	27 40	21 42	.656
7	Family • Joint • Nuclear	5 62	11 52	3.007
8	Dietary • Non-vegetarian • Vegetarian	27 40	36 27	3.689

**Table no-4** depicts that there was no significant association found between the pre-intervention score with their selected demographic variables marital status, type of family and the dietary pattern. Hence the research hypothesis was rejected and null hypothesis was accepted.

## 5. Discussion

The study findings illustrated that the selected variables showed significant day-wise improvement seen from pre-test score **medication** (19.87+3.833), **diet** (41.31+8.299), **weight management** (24.68+4.561) to post-test 30<sup>th</sup> day **medication** (21.00+0.000), **diet** (50.47+2.434), **weight management** (31.98+2.265). whereas there was no improvement found in the expanse of physical activity, smoking and alcohol. The pre-assessment **systolic blood-pressure** was (146.62±18.742) and **diastolic blood-pressure** (90.62±10.547) were reduced in post-assessment 7<sup>th</sup> day (137.46±8.474) (85.45±9.453), 15<sup>th</sup> day (134.92±9.171) (86.46±6.572), 30<sup>th</sup> day (131.85±7.884) (83.69±5.588) and it was found significant both systolic and diastolic blood-pressure (p<0.000) which showed that there was marked reduction in systolic as well as blood-pressure. The findings showed that there was no significant association between pre-test score with their selected socio-demographic variables at the level of P <0.05 level of significance.

## 6. Conclusion

Based on findings of the study, it was concluded that if patients follow self-care practices as per the health counseling it may lead to improved self-care practices that will help in conservation of standard blood-pressure.

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