

“A study to evaluate the effectiveness of behaviour change communication on knowledge and practice Regarding prevention of stroke among early detected hypertensive patients attending OPD’s at Tertiary care hospital, Dharwad”

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Abstract

Background of the study: Stroke is the second major leading cause of mortality worldwide. It is one of the public health concerns. The incidence of stroke in general population is 154 per 1,00,000 in India. 12% of strokes occur in above 40 years. 34% of strokes occur in people younger than 65years old. The most effective way to reduce the morbidity and mortality in stroke is prevention by teaching.

OBJECTIVES: 1. To assess the existing knowledge and practice of early detected hypertensive patients regarding prevention of stroke.2. To evaluate the effectiveness of BCC regarding prevention of stroke.3. To find the association between pre-test knowledge and practice scores with selected socio-demographic variables.

Methods: Conceptual framework of the study , an Integrative Model of Behaviour Prediction Fishbein. M. & Yzer. MC. (2003) was applied to Pre-experimental one group pre-test and post-test research design using Non probability purposive sampling technique 40 early detected hypertension patients were selected. Pre-test was conducted using structured knowledge questionnaire and practice checklist followed by intervention (BCC) session on maintenance of positive health. On 7th day post-test was conducted using the same tool. Results were analysed using descriptive and inferential statistics. RESULTS: In the post-test majority 35(87.5%) had adequate knowledge and 2(5%) moderate knowledge while in the pre-test 25(62.5%) had inadequate knowledge and 10 (25%) had moderate knowledge. Depicted that majority 20(50%) had poor practice in pre-test where as in post-test 31(77.5%) had practice towards maintenance of positive health. Therefore these results proved the effectiveness of BCC on improving knowledge and practice in prevention of stroke. INTERPRETATION & CONCLUSION: The study concludes that, there was significant increase in Knowledge and practice in maintenance of positive health. Hence, BCC is proved to be effective in bringing the change.

Keywords: BCC – Behaviour Change Communication, HTN – Hypertension, OPD’s - Out patient department.

INTRODUCTION

Hypertension is a most leading cause of death among adult population, the reasons are either these adults are unaware of their condition or negligence / non-compliance with the treatment regimen. Assuming one day missing the medication does not impact much on health. Not recognizing it brings many complications and sometimes leading to mortality too. Where in, Hypertension is the most important modifiable risk factor to prevent complications such as coronary heart disease (the leading cause of death), stroke (the second leading cause), congestive heart failure, end-stage renal disease, and peripheral vascular disease.¹

Indian Council of Medical Research (2015) mentions that among all complications related to Hypertension Stroke is a major cause for loss of life, limbs and speech in India, claiming 9.3lakh cases of stroke and 6.4laks deaths due to stroke among less than 45 years of age. Annually deaths as well as disability are counted together, then India have lost 63 lakhs of disability-

adjusted life in 2004. Estimate reports that 1.6million cases of stroke occurred in India annually, at least one-third of them become disabled.²

Health communication attempts to persuade the affected group to engage in certain behaviour through accessing information. Intervention measures to change behaviours in the affected group in an area of concern and must be fully supported by both the government and nongovernmental organizations.³

Need for the study

Stroke is one of the major leading causes of death and disability worldwide. About 70% of strokes are occurring in low-middle class countries, and high blood pressure is the main risk factor of stroke that happens due to its poor recognition of stroke prevention methods. ⁴

Health risks are influenced by human behaviour thus affecting other aspects of life.⁵

Behaviour Change Communication is a process of working with individual through different communication channels to promote positive health behaviours and support them to maintain positive health behaviours taken on. Behaviour change is a complex process motivated by many factors including, a person's awareness of the need to change, understanding of the benefits of such change, belief and confidence in his ability to change.⁶

Hence, the investigator felt the need to conduct a study to evaluate the effectiveness of behaviour change communication on knowledge and practice regarding prevention of stroke among early detected hypertensive patients.

Statement of the problem

“A study to evaluate the effectiveness of behaviour change communication on knowledge and practice Regarding prevention of stroke among early detected hypertensive patients attending OPD's at Tertiary care hospital, Dharwad”.

Objectives

- To assess the existing knowledge and practice of early detected hypertensive patients regarding prevention of stroke.
- To evaluate the effectiveness of Behaviour change communication regarding prevention of stroke.
- To find the association between pre-test knowledge, practice scores and selected socio-demographic variables.

HYPOTHESES

- H1: The mean post-test knowledge scores of patients with hypertension attending OPD's will be significantly higher than the mean pre-test knowledge scores at 0.05 level of significance.
- H2: There will be significant association between pre-test knowledge scores and selected social-demographic variables.
- H3: The mean post-test practice scores of patients with hypertension attending OPD's will be significantly higher than the mean pre-test practice scores at 0.05 level of significance.
- H4: There will be significant association between pre-test practice scores and selected social-demographic variables.

METHODOLOGY

RESEARCH APPROACH: Quantitative Evaluate Research Approach

RESEARCH DESIGN: Pre experimental one group Pre-test Post-test research design

SAMPLE: 40

SAMPLING TECHNIQUE: Non-probability purposive sampling technique

POPULATION: Hypertensive patients.

TOOL: Data were collected with the help of structured knowledge questionnaires and practice checklist.

RELIABILITY:

The reliability of the tool was established by using test-retest (Karl Pearson's correlation co-efficient) which measures the coefficient of internal consistency.

The reliability co-efficient of correlation of knowledge tool $r = 0.90$, practice tool $r = 0.87$

Plan for data analysis

Descriptive statistics (frequency, percentage, mean, median and standard deviation) and inferential statistics were used for analysis and interpretation of data.

Setting of the study : Early detected hypertensive patients attending OPD's at tertiary care hospital Dharwad.

INCLUSION CRITERIA:

1. Male patients
2. Patients who are in the age group of 35-55 years.
3. Patients who are willing to participate in this study.
4. Early detected hypertensive patients attending OPD's. [Who are diagnosed with in a span of 1 year].
5. Patients Who can read and write either English or Kannada language.

EXCLUSION CRITERIA:

1. Patients who had history of stroke.
2. Patients who have complication (Coronary artery Disease, Renal Disease, Peripheral vascular Disease).

RESULTS

The findings are represented under descriptive, frequency and percentage, inferential statistics following under the sections:

SECTION-I: Deals with description of the subjects according to the socio- demographic characteristics of hypertensive people.

Sl. no	Demographic variables	Frequency(f)	(Percentage)%
1	Age groups		
	35-40yrs	9	22.5%
	41-45yrs	9	22.5%
	46-50yrs	14	35%
	51-55yrs	8	20%
2	Educations		
	SSLC	15	37.5%
	PUC	9	22.5%
	Degree	16	40%
3	Occupations		
	Employee	21	52.5%
	Business	6	15%
	Skilled worker	13	32.5%
4	Monthly income		
	Rs. 8000-Rs. 10000	13	32.5%
	Rs. 10001-Rs.15000	14	35%
	Rs.15001-Rs. 20000	7	17.5%
	Rs.20001-Rs.25000	6	15%
5	Types of family		
	Nuclear	28	70%
	Joint	12	30%
6	Diet		
	Vegetarian	20	50%
	Mixed	20	50%
7	Any family history		
	Yes	14	35%
	No	26	65%

SECTION-II

Analysis is applied to depict effectiveness of Behavior change Communication (BCC) on maintenance of positive health.

Table 2: Mean, Standard deviation and Mean percentage of Pre and Post–test Knowledge scores of patients on maintenance of positive health

	Mean	Median	Standard deviation	%	Min score	Max score
Pre-Test	5.23	4.5	3.47	13.07	2	13
Post-Test	10.7	11	2.43	26.75	5	14

Table 3: Mean, Standard Deviation and Mean percentage of pre and post-test practice scores of the patients on maintenance of positive health.

	Mean	Median	Standard deviation	%	Min score	Max score
Pre-Test	7.38	7.5	2.87	18.45	1	5
Post-Test	13.4	13	2.81	33.5	12	18

Table 4. Levels of Knowledge scores

	Pre-test		Post-test	
	Frequency (F)	Percentage (%)	Frequency (F)	Percentage (%)
Inadequate	25	62.5	3	7.5
Moderate	10	25	2	5
Adequate	5	12.5	35	87.5

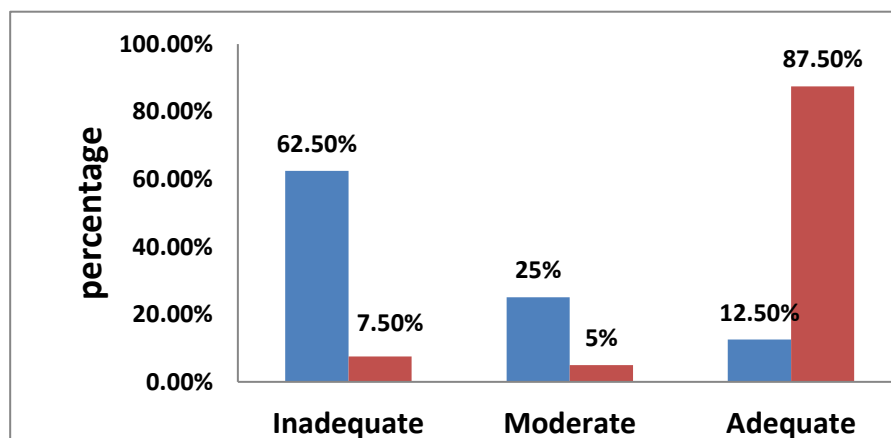


Table 5. Levels of Practice scores.

	Pre-test		Post-test	
	Frequency	Percentage	Frequency	Percentage
	(F)	(%)	(F)	(%)
Poor	20	50	4	10
Average	15	37.5	3	7.5
Good	5	12.5	31	77.5

Table 6: Comparison of pretest and posttest knowledge scores by dependent “t” test

	Mean	SD	Mean Diff.	SD Diff.	t-value	P-value
Pre-test	5.23	3.47				
Post-test	10.7	2.43	5.48	3.8	9.1058	<0.001, HS

Table 7: Comparison of pretest and post-test practice scores by Dependent “t” test

	Mean	SD	Mean Diff.	SD Diff.	t-value	P-value
Pre-test	7.38	2.87				
Post-test	13.4	2.81	6.03	4.3	8.8626	<0.001,HS

FINDINGS RELATED TO SOCIO DEMOGRAPHIC DATA OF THE PATIENTS (TABLE 1)

For the proposed study, a sample size comprising of forty Early detected

Hypertensive patients attending Medicine OPD’s at Tertiary care hospital Dharwad.

The findings (table 1) of the study suggested that all the (40) subjects were between the age group of 35-55years of age of whom 15 (37.5%) have completed SSLC, 16 (40%) degree and 9 (22.5%) have done PUC.

Majority of the subjects 21 (52.2%) were Employees, 13 (32.5%) were skilled workers and 6 (15%) were doing Business. Maximum 14 (35%) monthly income of the subjects was between Rs.10001-Rs.15000 per month. 13 (32.5%) Rs.8000-Rs. 10000, 7 (17.5%) Rs.15001-Rs. 20000, 6 (15%) Rs.20001- Rs.25000. Types of family Nuclear 28 (70%), Joint 12 (30%). Diet Vegetarian 20 (50%), Mixed 20 (50%). Any family history Yes 14 (35%), No 26 (65%).

FINDINGS RELATED TO EFFECTIVENESS OF BEHAVIOR CHANGE COMMUNICATION ON MAINTENANCE OF POSITIVE HEALTH.

In the pre-test out of 40 Hypertensive subjects 25 (62.5%) had inadequate, 10 (25%) had moderate and 5 (12.5%) had adequate level of knowledge. While majority 20 (50%) had poor practice, 15 (37.5%) had average and only 5 (12.5%) had good level of practice scores in pre-test. Where as in the post-test 35 (87.5%) has adequate knowledge and 2 (5%) had moderate knowledge and 31 (77.5%) had good practice, 3 (7.5%) had average practice towards maintenance of positive health.

Further the computed “t” value on knowledge (9.10) and practice (8.8626) found to be greater than table values at 0.05 level significance confirms that BCC has made true difference in enhancing the knowledge and changing the practice of the Hypertensive patients in the maintenance of positive health . Hence H1 is accepted.

FINDINGS RELATED TO ASSOCIATION BETWEEN THE EXISTING PRE- TEST KNOWLEDGE AND PRACTICE OF THE HYPERTENSIVE PATIENTS WITH SELECTED SOCIO DEMOGRAPHIC VARIABLES.

To achieve the objective 3 the collected pre-test data was further subjected to analysis to find an association with socio-demographic variable. The computed χ^2 results ($\chi^2_{cal} > \chi^2_{Tab}$) revealed that there was statistical significant association at 0.05 level of significance association in the Education, Type of family and Family History with pre-test knowledge scores of Hypertensive patients, Hence H2 was accepted and in rest of the case H2 is rejected.

In case of practice, the calculated χ^2 results ($\chi^2_{cal} > \chi^2_{Tab}$) revealed that there was statistical significant association at 0.05 level of significance association. In all the socio-demographic data H2 was rejected.

The above findings proved that students were not aware and lack of knowledge and practice on maintenance of positive health the investigator reasonably concludes that enhancement in knowledge and practice towards positive change was occurred only after BCC session on maintenance of positive health.

IMPLICATIONS OF THE STUDY

- Nursing practice: As individuals are considered to be the change in the society they need to be provided with appropriate Information Education Communication (IEC) which will further improve their health seeking behaviour.
- Nursing administration: The nurse administrators can equip the health personnel in delivering appropriate health message according to situations, level of understanding of the consumers through proper planning and implementation.
- Nursing education: Along with the care provider’s, as leaders and managers of health care team plays a role of educator and counsellor. Hence these advance methods of IEC should be incorporated in the hospital settings.
- Nursing research: This present study conducted by the investigator can be a source to make the health education methods refined in order to the people in the community and it can be used for critique or for comparison.

RECOMMENDATIONS

- a similar study on larger sample for a longer period of time with precise sampling technique would be more pertinent.
- An experimental study can be undertaken with a control group for comparison of the results to be more precise in the following subjects at the place of their residence.

- An comparative study may be conducted between rural and urban people.

CONCLUSION

On the basis of the study following conclusion were made their implication on different aspects of nursing such as nursing practice, administration, education, research.

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