

## A Study to Assess The Effectiveness of Innovative Teaching Programme (ITP) Regarding Hypertension and lifestyle modification in Terms of Knowledge and practice of Selected hypertensive patients at Rajah Muthiah Medical College, Chidambaram

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### Abstract

**Aim & Objectives:** 1. To improve knowledge of selected rural population regarding prevention of hypertension. 2. To identify risk factors and provide structured teaching program on prevention of hypertension. **Material & methods:** evaluative study was conducted on hypertensive subjects from Annamalai Nagar, Chidambaram by using interview schedule method. The research approach used for this study was Quantitative and evaluative approach and the research design was Quasi experimental - Non equalent control group before-after design. 100 patients who are recently diagnosed with hypertension were selected for this study by using purposive sampling technique. The 100 subjects were divided in to control and experimental group, each group consists of 50 samples. Data were collected with the help of self structured questionnaire for assessing knowledge and practice. Descriptive statistics ( frequency , percentage, mean and standard deviation ) and inferential statistics ( chi-square, paired 't' test, unpaired 't' test and correlation coefficient) were used to analyze the data and to test hypothesis.

Institutional ethics Committee approval and informed consent from the subjects were taken before the study. First pretest was conducted to subject then innovative teaching on Hypertension was given then pamphlets were distributed and after seven days post test was conducted. **Results:** assessing the knowledge in pretest out of 100 samples no one 0(0%) having good knowledge. 24 (24.%) having average knowledge. Remaining subjects 76(76%) are having poor knowledge regarding prevention of hypertension. **conclusion:** knowledge and practice of population related to prevention of risk factors of hypertension is poor so there is need to give more information to aware people is necessary

**Key words:** Hypertenion, Innovative teaching programme

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### I. Introduction

Hypertension is a medical condition characterized by a continuous increase in the numbers of blood pressure above 135/85 mmHg and considered one of the problems of public health in

developed countries, affecting about one billion people.(1,2,3) The Hypertension is an asymptomatic disease and easy to detect, however, presents with severe and lethal complications if not treated early.(4)

Hypertension is a major chronic lifestyle disease and is an important public health problem. A recent report indicates that nearly one billion adults had hypertension in 2000 which is predicted to increase to 1.56 billion by 2025. This leads to numerous micro/macro vascular complications. Subjects with hypertension are known to have a two-fold higher risk of developing coronary artery disease, four times higher risk of congestive heart failure and seven times higher risk of cerebrovascular disease compared to normotensive subjects.(5,6,7)

According to the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, in individuals older than 50 years, SBP of greater than 140 mm Hg is a more important cardiovascular disease risk factor than DBP. The World Hypertension League (WHL), an umbrella organization of 85 national hypertension societies and leagues, recognized that more than 50% of the hypertensive populations worldwide are unaware of their condition.(8,9) The first line of treatment for hypertension is identical to the recommended preventive lifestyle changes and includes dietary changes, physical exercise, and

weight loss. These have all been shown to significantly reduce blood pressure in people with hypertension their potential effectiveness is similar to using a single medication.(10) If hypertension is high enough to justify immediate use of medications, lifestyle changes are still recommended in conjunction with medication. Dietary change such as a low sodium diet is beneficial. A long term (more than 4 weeks) low sodium diet is effective in reducing blood pressure, both in people with hypertension and in people with normal blood pressure. Also, the diet, a diet rich in nuts, whole grains, fish, poultry, fruits and vegetables lowers blood pressure. 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-ons to other treatment to reduce hypertension. Lifestyle changes are recommended to lower blood pressure, before starting drug therapy. (11,12)The investigator intended to assess the needs of the hypertensive, and planned to deliver need based education for the hypertensive adults at the community setup

### **Need for the study**

The incidence of hypertension is rising throughout the world. Adequate knowledge of hypertension is a key component for taking care of patients with hypertension. Studies has show that increasing patients knowledge regarding hypertension and its complications has significant benefits with regard to patients compliance to treatment and to decreasing complications associated disease. Many patients were not aware of hypertension and its effects on health

### **Statement of the problem**

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### **Objectives**

- ❖ To assess the level of knowledge and practice regarding life style modification among hypertensive patients before and after the innovative teaching programme(ITP)
- ❖ To implement and evaluate the effectiveness of innovative teaching programme(ITP) on the knowledge and practice regarding lifestyle modification among hypertensive patients
- ❖ To find out the relationship between knowledge and practice regarding life style modification among hypertensive patients
- ❖ To find out the association between knowledge and practice among hypertensive patients with selected demographic variables such as age, gender, marital status etc.,

### **Assumptions**

- ❖ Patients may have inadequate knowledge about Hypertension and its complications before innovative teaching programme
- ❖ There will be a significant change in knowledge and they will practice lifestyle modification after administration of innovative teaching programme

### **Hypothesis**

- ❖ **H1** There is a significant difference in the level of knowledge and practice regarding lifestyle modification among hypertensive patients who underwent the intervention and those who did not undergo
- ❖ **H2** There will be significant association between the level of knowledge and practice regarding lifestyle modification with selected demographic variables like age, gender, religion, marital status, education status, type of occupation, monthly income, type of family, dietary pattern, personal habits, residential area, and family history of hypertension.

## **II. Materials And Methods**

Investigator selected the research approach was Quantitative and evaluative approach and the research design was Quasi experimental - Non equalent control group before-after design. The hypertensive patients who are attending outpatient department of RMMCH were selected as sample. The subjects consisted of 100 patients diagnosed with hypertension. The sampling technique used in the study was non-probability Convenience sampling. The tool consisted of a semi structured questionnaire which includes 30 questions which was used to assess the effectiveness of innovative teaching programme on knowledge and practice regarding hypertension among patients with hypertension. The Pilot study was conducted on 10 subjects who were selected by using Convenience sampling who were available for the study. The data gathering process for the main study was done. Informed consent was obtained. Research was conducted properly on the subjects. The pre-test was

conducted using semi structured questionnaire to assess the knowledge and practice regarding hypertension among hypertensive patients. Following the pretest subjects only from experimental group were given innovative teaching on hypertension. Post test score was obtained after 6 days from pre test to evaluate the effectiveness of innovative teaching Programme on knowledge and practice regarding hypertension.

### **III. Result And Interpretation**

- As per the demographic characteristics **in control group** 67% were in the age group between 46 -60 years, 57% were female, majority of 83% were Hindus, nearly 93% were married, 60% had no formal education, 53% were unemployed, 47% were receiving the family income between 2,500 – 5,000 rupees, majority of 74% were residing in urban area, 73% had no family history of hypertension, 87% were non-vegetarian, 50% were not having any bad habit, majority of 84% has no associated illness, 67% were diagnosed as hypertensive after appearance of signs and symptoms and 57% were having normal B.M.I.
- **In experimental group** 60% of clients were between the age group of 46 – 60 years, both male and female contributes 50%, majority of 80% were Hindus, 90% were married, 74% were educated up to primary level, 67% were moderately heavy workers, 40% receives a family income between 2,500 – 5,000 rupees majority of 93% lives in urban area, 50% of clients had the family history of hypertension and other 50% had no history of hypertension, majority of 86% were non-vegetarian, 60% had no bad habits, 94% doesn't had any associated illness, 67% were diagnosed with hypertension after appearance of signs and symptoms, and 73% had normal B.M.I.
- **The frequency and percentage of pre-test and post-test level of knowledge regarding lifestyle modification for hypertension in experimental group.** In pre – test majority of 84% of clients had inadequate knowledge and 10% moderately adequate knowledge, 6% of clients had adequate knowledge, whereas in post – test majority of 90% of clients had adequate knowledge and 10% had moderately adequate knowledge.
- **The frequency and percentage of pre-test and post-test level of practice regarding lifestyle modification for hypertension in experimental group.** In pre – test 64% of clients had poor practice, 30% had moderate practice and 6% had good practice. In post – test 34% had moderate practice and 66% had good practice.
- **The comparison of pre – test and post – test scores of knowledge in experimental group.** The mean pre – test score is 9.33 and mean post – test score is 19.5. the Paired “t” test value was 18.09 when compared to table value (1.69) is high. It seems that structured teaching programme makes significant difference between pre – test and post – test scores of knowledge in experimental group.
- **That the comparison of pre – test and post – test scores of practice in experimental group.** The mean pre – test score is 18.73 and mean post – test score is 29.43. the Paired “t” test value was 12.47 when compared to table value (1.69) is high. It seems that Innovative teaching programme makes significant difference between pre – test and post – test scores of practice in experimental group.
- **Analysis of the difference between the mean post-test score of knowledge in control and experimental group.** The mean post-test value of control group was 10.7 which is lesser than the post-test value 19.5 of experimental group. The Unpaired t value was \*7.27 when compared to table value (2) is high.
- The finding shows there is significant increase in the level of knowledge in experimental group than control group. It indicates the effectiveness of innovative teaching programme in increasing knowledge level regarding life style modification
- **Analysis of the difference between the mean post-test score of practice in control and experimental group.** The mean post-test value of control group was 18.6 which is lesser than the post-test value 29.43 of experimental group. The Unpaired t value was \*3.35 when compared to table value (2) is high. The finding shows there is significant increase in the level of practice in experimental group than control group. It indicates the effectiveness of innovative teaching programme in increasing practice level regarding life style modification.
- **The relationship between the mean post-test knowledge score and mean post- test practice score of experimental group,** the correlation co-efficient was obtained. The post-test mean knowledge value 19.5 was higher than the pre-test mean value 10.7 and the post-test mean practice value 29.43 was higher than the pre-test mean value 9.33. The obtained r value 0.45 was significant at 0.05 level. The findings shows when the post-test knowledge score was increased along with that the post-test practice score. It indicates there was a positive relationship between post-test score of knowledge and practice in experimental group.
- There was a significant association between the post-test score of knowledge in experimental group and B.M.I. ( $P < 0.05$ )

#### **IV. Conclusion**

The knowledge and practice on hypertension and life style modification has increased after innovative teaching programme among hypertensive subjects. The innovative teaching programme was found to be effective in improving the knowledge and practice of hypertensive subjects and in life style modifications of hypertension.(13)

#### **Nursing implications**

##### **Implications for practice of Nursing**

- Nurse should equip with updated knowledge regarding hypertension to teach patients in various measures to prevent hypertension. To teach students and they would able to impart appropriate knowledge to the community to prevent morbidity and mortality due to hypertension
- Community health nurses need to take responsibility to create awareness among the public regarding life style modification and prevention of hypertension

#### **Nursing Education**

- The Nurse educator should emphasize health education on prevention of hypertension and life style modification as a part of learning experience for the students
- Students should be encouraged to learn the signs and symptoms of hypertension and assessment of patient with hypertension
- The nurse educators shall arrange for the in-service education programme for nurses regarding regular updating of knowledge regarding hypertension and life style modification

#### **Nursing Research**

- More research can be conducted by the researchers using experimental study
- This study will be motivation for budding researchers to conduct similar studies on a large scale

#### **Nursing Administration**

- The nursing administrator shall conduct in-service education and health education campaign regarding prevention of hypertension

#### **Recommendations**

- The study can be replicated using a large sample to validate the findings and make generalization
- A similar study can be conducted to assess the practice of pupils towards utilization of health camp
- A comparative study can be conducted between various age groups of subjects to know the effect of disease
- Health education campaign can be conducted in villages to improve the knowledge through demonstration, education, and communication materials among urban people to bring awareness among non-educated people

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