A Study to Assess the Effectiveness of Garlic Therapy Among Hypertensive Patients - A Quasi Experimental Study

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Abstract: **This paper presents an overview to assess the effectiveness of garlic therapy among hypertensive patients.**

Keywords: **Garlic Therapy, Hypertensive Patients.**

1. Introduction

Hypertension or high blood pressure is one common ailment in adults. It is estimated that more than 10 million people may have high blood pressure but are unaware of their illness. As per research conducted in India, about 25 per cent adults in cities and 10 per cent in rural areas suffer from hypertension. The overall incidence of hypertension in India is estimated to be 66 million. According to a survey conducted by association of physicians of India, urban areas in the country had a significantly higher incidence of hypertension 27-37% as compared to rural area 2-8% (Agarwal-2001). In India about 20% of the adult population suffers from hypertension, making if the country's biggest silent killer. From this almost, 90% of the cases fall into the category of primary as essential hypertension. Dietary modification remains key to the treatment of patients with hypertension and prevention of complications due to hypertension. Through life style modifications and dietary management, the blood pressure can be controlled. It helps to prevent the incidents of hypertension in the world (Association of Physicians in India 2001). Nurses provide a major portion of health care and they have opportunist for finding, assessing, the health needs of these patients. They also render follow – up services to them in order to maintain an effective control of hypertension. It is necessary to assess the life –style of people and identify the risk factors in hypertension before rendering the promotive health services, nurse can help in various setting in identification and modification of risk factors of hypertension.

2. Methodology

The review of literature on related studies helped the investigator to design the methodology, conceptual frame work and to develop the tool. The literature review was done for the present study and presented under the headings such as, studies related to hypertension and management, studies related to garlic and health, studies related to effect of garlic on hypertension. The conceptual framework adopted for the present study was based on CIPP model. This model helped the investigator to assess the blood pressure before and after garlic administration. The research approach adopted for the study was evaluative in nature. The research design selected for the present study was a quasi-experimental design to be specific, repeated measures time series design to evaluate the effect of garlic on blood pressure among hypertensive patients. The tool developed and used for data collection was a structured interview / observation schedule. The tool was reliable and feasible. The pilot study was conducted selected hospitals in Gujarat, among and hypertensive patients, who fulfilled sample selection criteria. The study was found to be feasible.

The main study was conducted in the OPD of selected Hospitals in from month of October 2018. 40 hypertensive patients (20 in experimental group and 20 in control group) were selected using quota sampling method among those who fulfilled the sample selection criteria. Prior permission from the authorities was sought and obtained, individual informed and consent was taken from the study samples after explaining the purpose of the study. Confidentiality was assured. Blood pressure was assessed before and after the garlic administration in experimental group. Pre and post test blood pressure was measured without any intervention in control group. The gap between pre and post test was 21 days. The gathered data were analyzed using SPSS (Version 10) package by using inferential and descriptive statistics.

3. Findings

Majority of hypertensive patients in experimental group were in age group of 51-65 years 9(45%), were females14(70%), had high school education 6(30%), were married 16(80%), were unemployed 13(65%) reported their work as both physically and psychologically demanding 6(30%), belonged to nuclear family 19(95%), had non-vegetarian dietary habits 18 (90%), duration of illness more than five years 12(60%), took medications very regularly 17 (85%), equally had both less than 8 hours of sleep 7(35%) and 8 hours of sleep 7 (35%) equally had afternoon naps, had no exercise 17(85%). Majority of hypertensive patients in control group were in age group of

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more than 65 years 8(40%), females10(50%) and males 10(50%) equally distributed, had high school education 9(45%), were married 17(85%), were unemployed 11(55%) reported their work as both physically and psychologically demanding 7(35%), belonging to nuclear family 19(95%) ,had non - vegetarian dietary habits19(95%), duration of illness less than two years 8(40%), taking medications very regularly13(65%), had sleeping hours less than 8 hours11(55%), not practicing afternoon naps 13(65%), had no exercise 15(75%). To compare blood pressure before and after garlic administration among hypertensive patients in experimental group.

- There was a significant reduction in the mean systolic blood pressure after garlic administration among hypertensive patients in experimental group t = 7.179 P = 0.001).
- There was a significant reduction in the mean diastolic blood pressure after garlic administration among hypertensive patients in experimental group t = 7.11 (P = 0.001). To compare the mean difference in blood pressure among hypertensive patients in experimental and control group.
- The mean difference in systolic blood pressure among hypertensive patients in experimental group was significantly more than control group t = 2.982 (P = 0.005).
- The mean difference in diastolic blood pressure among hypertensive patients in experimental group was significantly more than control group t = 2.867 (P = 0.007).

To test the association between the mean difference in blood pressure and selected factors among hypertensive patients in experimental group.

- There was significant association between sex, t=2.699(p=0.036); nature of work t=2.575 (p=0.042); duration of illness t=5.099 (p=0.002); exercise, t=3.371 (p=0.015) and mean difference in systolic blood pressure among hypertensive patients.
- There was no significant association between age, t=0.533(p=0.613); occupation, t=0.643 (p=0.544); type of family, t=0.913 (p=0.396); regularity of taking medications, t=0.345 (p=0.742); sleeping hours t=1.520

(p=0.179) and mean difference in systolic blood pressure among hypertensive patients.

- There was significant association between occupation t= 2.936 (P=0026) and type of family, t=2.679(p=0.037) and mean difference in diastolic blood pressure among hypertensive patients.
- There was no significant association between age, t= 1.062 (P=0.329); sex, t=1.237 (P=0.262); nature of work, t= 1.207 (P=0.273); duration of illness, t=0.663 (p=0.532); regularity of taking medications, t= 1.133 (P=0.301); sleeping hours, t=0.426 (P=0.685); exercise, t=1.163 (P=0.147) and mean difference in diastolic blood pressure among hypertensive patients.

4. Conclusion

In addition to the pharmacological treatment nurse can teach the importance of including garlic in their diet for reduction of blood pressure among hypertensive patients. Also nature of work demand, duration of illness and exercise are associated with reduction in systolic blood pressure. Client must be encouraged to relax at the same time to do required exercises.

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