



Original Article

# Assess the Impact of Pharmacist Intervention on Dietary Intake of Salt

Sivasakthi R <sup>1,\*</sup>, Santhi Mahima R <sup>1</sup>, Stintu V Joy <sup>1</sup>, Aiswarya Pavithran <sup>1</sup>,  
Ilangovan Veerappan <sup>2</sup>

<sup>1</sup> RVS College of Pharmaceutical Sciences, Coimbatore- 641 402, India.

<sup>2</sup> KG Hospital and Post graduate research Institute, Coimbatore- 641 018, India.

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ABSTRACT

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**Introduction:** The health effects of the salt are the conditions associated with the consumption of either too much or too little salt. Salt is a mineral composed primarily of Sodium and Chloride Ions and is used in food for both preservation and electrolyte balance in our body. Sodium ions are needed for regulating the fluid content of the body, muscle conduction and electrical signaling in the nervous system. Excess intake of salt increase the electrical conduction which leads to blood pressure and cardiac risks. Hence, the study aimed to assess the optimisation of salt intake by pharmacist Intervention. **Methodology:** A Prospective, observational, randomised control study was conducted with 50 chronic kidney disease patients for the period of 6 months at Nephrology department of KG hospital, Coimbatore. **Result:** The study found that, Male patients were more prone to kidney disease than female in 64%. (n=16). The Lower socioeconomic patients were highly affected with Chronic Kidney Disease (CKD) in 48% (n=12). Most of the study populations were found with comorbidities of hypertension in 56% followed by Diabetes in 20%. Age wise distribution indicates that, 50-55 years of age patients are more prone to CKD in 61%. The result indicates that, the blood pressure bring to controlled by effective counseling and Intervention. **Conclusion:** The study concludes that, there was a significant change in quality of life of the patient by the Pharmacist Intervention.

**Key Words:** Hypertension, Intervention, Comorbidity, Salt restriction.

## 1. INTRODUCTION

Dietary salt restriction has been considered as an important non-pharmacological treatment in hypertension patient. Only 69 to 460 mg/day salt is required for physiological process <sup>1</sup>. If urinary salt excretion exceeded more than 8 gm/day, the physician explained the importance of salt restriction to the subjects. So, the patients should reduce their salt intake <sup>2</sup>. The Center for disease control and Prevention states that, excess sodium intake can increase the blood pressure and the risk of heart disease and stroke. Patients with CKD indicate with the symptoms of high

Corresponding author \*  
Sivasakthi R  
RVS College of Pharmaceutical Sciences, Coimbatore- 641  
402, India.  
E mail: sivasakthimpharm@gmail.com

intake of salt such as hypertension, oedema, dry tongue and flushing<sup>3</sup>. Hence, the study aimed to restrict the salt intake by means of effective counseling and Pharmacist Intervention<sup>4,5</sup>.

**2. METHODOLOGY**

A Prospective, randomised, observational study was conducted with 50 CKD patients in duration of 6 months at KG Hospital, Coimbatore. Data collection form was administered and the data were analyzed by using SPSS software.

**3. RESULT AND DISCUSSION**

A total of 50 patients were included in this study. The result shows that, Male patients were more prone to Chronic kidney disease than female in 62%. Majority of the patients were under the age group of 50-55 years and was given in figure-1.

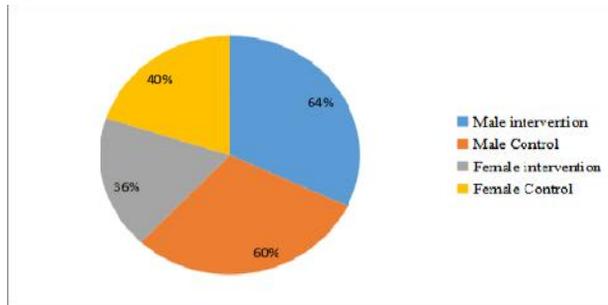


Fig 1: Gender distribution.

The socio economic status was analyzed and found that 76% (n=19) were lower socio economic status and 40% (n=10) were upper socio economic status .and was given in Table-1.

Table:1 Distribution based on socio-economic status

Socio –economic status	Intervention group	Control group
Upper	5 (20%)	5 (20%)
Upper middle	4 (16%)	1 (4%)
Lower middle	4 (16%)	12 (48%)
Upper lower	12 (48%)	7 (28%)

Comorbidities of the study populations were assessed and found that, 56% were with Hypertension and 20% were more than two comorbidities, which was shown in Figure-2.

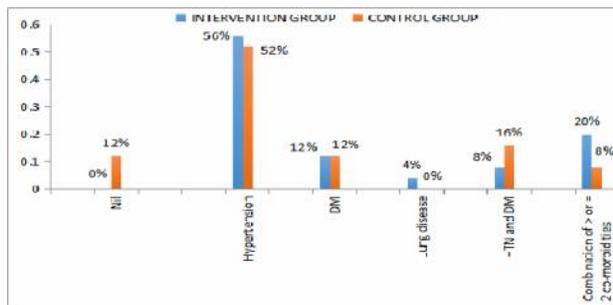


Fig 2: Distribution based on co- morbidities.

Literacy of the study patients was found that 40% were graduates, 48% were High school and 12% were Illiterate. and given in Figure-3.

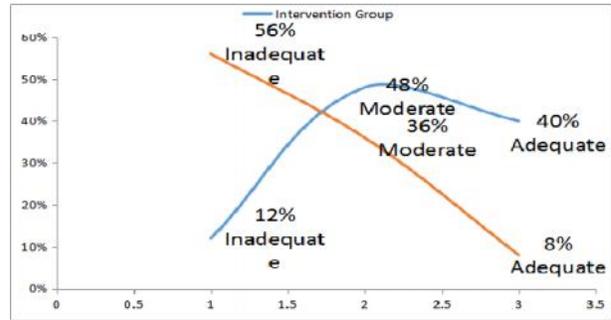


Fig 3: Literacy of the study patients

The body weight of the study population was significantly reduced from 72.5 kg to 69.8 kg by effective counseling and Pharmacist intervention. The reduction in Blood Pressure with mean difference of systolic blood pressure 17.04 mmHg and diastolic blood pressure 10.52 mmHg and was significant at 0.05 level.

Table 2: Comparison of blood pressure before and after Counseling

Observation	Mean difference	Standard error	Significance
Before review 1 - Systolic - Diastolic	10.16 7.40	4.762 2.916	0.130 0.054
Before review 2 - Systolic - Diastolic	17.04** 10.520*	4.413 3.611	0.002 0.023
- Review 1 and review 2 - Systolic - Diastolic	6.88 3.120	3.678 2.590	0.221 0.720

Mean difference significant at 0.05 level

**4. CONCLUSION**

The study concludes that, the pharmacist Intervention for restriction of salt intake leads to reduction in blood pressure and improved the quality of life (QOL) of the patients. Hence, the study recommends that, the clinical pharmacist Intervention will be a value addition in a clinical setting as a helping hand to Physicians.

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