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Effect of Clinical Pharmacist Mediated Counselllig in Hypertensive Patients on Health Related Quality of Life

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ABSTRACT

Background: Hypertension has become a significant problem in developing countries. The management of hypertension involves long term treatment & life style modification which will have greater impact on HRQoL. Aim and objectives: To assess the effect of clinical pharmacist mediated counselling in hypertensive patients on health related quality of life. Specific objectives: To assess the disease related knowledge of hypertensive patients. Methodology: Prospective observational study. The study was conducted in Jayabharath hospital, Nellore. which was conducted for a period of 6 months from June 2019- November-2019. Hypertensive patients, of either sex, above 18 years of age, with or without co-morbidities and Patient willing to give there informed consent to participate. Results and Discussion: At baseline there was no significant difference between the blood pressures, QoL score, adherence score, and KAP of the test and control groups. As patient in both group continued to see there physician regularly, both showed in improvement in blood pressure control at final follow up. Conclusion: The study concludes that hypertension affects the quality of life of patients and the education has a major role in improving the healthcare outcomes.

Key words:

Health Related Quality of Life, Hypertension Seventh report of the Joint national committee, Knowledge, attitude, practice. Article History:

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INTRODUCTION

Hypertension is not only a disease but also an important risk factor for many cardiovascular complications. It is defined as a condition where blood pressure is elevated to an extent where clinical benefit is obtained from lowering blood pressure lowering Hypertension has Became asignificant problem in developing countries. Hypertension is associated with aging of the population, urbanization, socio economic changes favoring sedentary habits, obesity, alcohol consumption, and salt intake etc.

2.3million deaths in India and this number is projected to double by year 2020. It is estimated that 20% of adult population of most countries is affected by chronic illness. Although 69% of the people with hypertension are aware of that they have disease and 54% are receiving treatment, only 27.4% achieve adequate blood pressure control. In India hypertension is emerging as major health problem and is more prevalent in urban than in rural subjects. It is directly responsible for 57% of all stroke deaths and 24% of all coronary diseases deaths in India.

TYPES OF HYPERTENSION

Essential hypertention Secondary hypertention

ETIOLOGY OF HYPERTENTION

Essentially, Blood pressure is the outcome of cardiac output and peripheral vascular resistance(Blood pressure=cardiac output × peripheral vascular resistance). Therefore, maintenance of a normal blood pressure is dependent on the balance between the cardiac output and peripheral vascular resistance. The factors which will increase the COP & peripheral resistance will increases the BP and causes hypertension.

COMPLICATIONS OF HYPERTENSION

Major complications of hypertension are Stroke

Transient ischemic attack and Heart failure Angina pectoris Myocardial infarction and Renal diseases Peripheral vascular diseases etc.

QUALITY OF LIFE(QOL)

- Quality of life is widely perceived to be an important end point in therapeutic assessment.
- Quality of life is recognized as multifactorial variable, hypertension can be divided in to six domains: well being, emotional, physical, work-social, cognitive and life satisfaction.(SF36V2).

 The concept of health-related quality of life (HRQOL) and its determinants have evolved since 1980s to encompass those aspects of overall quality of life that can be clearly shown to affect health—either physical or mental.

MEASURING OF QUALITY OF LIFE IN HYPERTENSION

Assuring quality of life in hypertension has special significance. Hypertension treatment is a long term orientation and is directed towards reduction of end organ damage and associated risk of mortality. In case of hypertension a definite cure cannot be provided by the medicine but can used to decrease symptoms and can limit disease progression , improvement of these functions became the main goal of therapeutic strategies.

HEALTH-RELATED QUALITY OF LIFE

On the individual level, this includes physical and mental health perceptions and their correlates—including health risks and conditions, functional status, social support, and socioeconomic status. On the community level, HRQOL includes resources, conditions, policies, and practices that influence a population's health perceptions and functional status. The construct of HRQOL enables health agencies to legitimately address broader areas of healthy public policy around a common theme in collaboration with a wider circle of health partners, including social service agencies, community planners, and business groups.

HRQOL questions about perceived physical and mental health and function have become an important component of health surveillance and are generally considered valid indicators of service needs and intervention outcomes. Self-assessed health status also proved to be more powerful predictor of mortality and morbidity than many objective measures of health. HRQOL measures make it possible to demonstrate scientifically the impact of health on quality of life, going well beyond the old paradigm that was limited to what can be seen under a microscope.

METHODOLOGY SOURCE OF DATA

Collection of information from patients and giving patient counseling about QOL in Hypertension.

STUDY DESIGN

A prospective observational study design.

PLACE OF STUDY

Jayabharath hospital, Nellore.

DURATION OF STUDY

The study was conducted for the period of 6months from June 2019 to December 2019.

SAMPLE SIZE

200 Patients

STUDYCRITERIA

 Patients are included in the study by taking prior permission from the patient by using patient informed consent form.

INCLUSION CRITERIA

- Hypertensive patients of either sex, above 18 years of age, with /with out co-morbidities.
- Patient willing to give there informed consent to participate in the study.

EXCLUSION CRITERIA

• Pregnant hypertensive patients.

STUDY PROCEDURE

A. PATIENT CONSENT

Study details should be explained to the patients and written informed consent form was obtained .Giving patient counseling about QOL of Hypertension.

B. DEVELOPMENT OF PATIENT DATA COLLECTION FORM

The patient data collection form should contain the patients details which includes patient name, age, sex, height, weight, past medical and medication history and laboratory investigations and also includes present complaints of the patient, diagnosis and treatment.

RESULT

DEMOGRAPHIC DETAILS

A total 130 patients were enrolled in to studt.15 patients were lost to follow up. There was no significance difference—seen between the baseline values of the two groups with respect to Gender, Age, Social history, Family history, Co-morbidities and number of medicines being taken.. The demographic details of the 115 patients who have completed the study is presented in the following figures

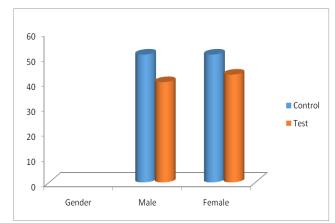


Figure 01:Comparison of Gender in Test & Control group.

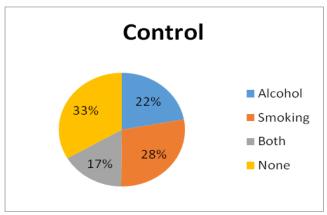


Figure 02: Comparison of social history in Control and Test group

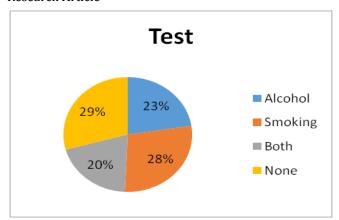


Figure 03: Comparison of Family history in Control and Test group

CO-MORBIDITIES

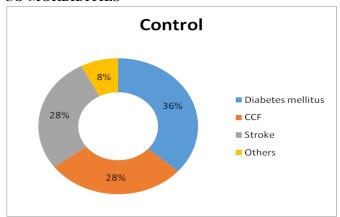


Figure 03:Co Morbidities of Controol Group

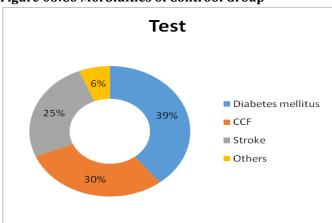
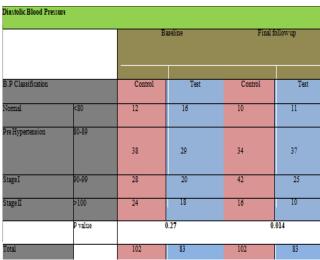


Figure 04:Co Morbidities of Test Group

SYSTOLIC

Systolic Blood Pressure					
		Base		Final follow up	
B.P Classification		control	Test	Control	Test
Normal	<120	•	-		
Pre Hypertension	120-139				
		36	26	34	31
Stage I	140-159	38	33	51	38
Stage II	>160	28	24	17	14
	P value		0.60		0.046
Total		102	83	102	83

DIASTOLIC



Mean total QoL score seen at different follow ups: control verses test group

Comparison of Quality of life scores with respect to the individual sub scales of the SF-36v2 Health survey

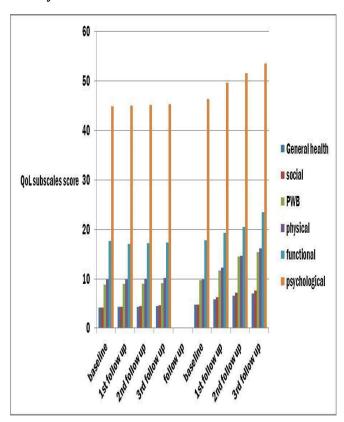


Figure 05: Knowledge, Attitude, and Practice of the study patients

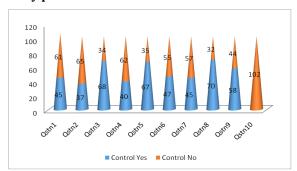


Figure 06: KAP measurement at Base line level in control patients

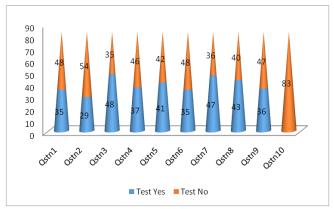


Figure 07: KAP measurement at Base line level in Test Patients

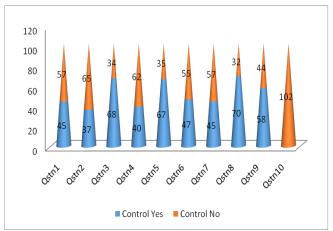
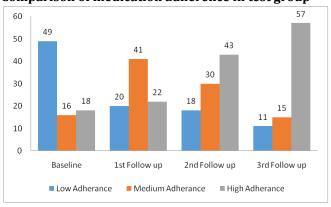


Figure 08: KAP measurement at Final Follow up in control patients

MEDICATION ADHERENCE

Comparison of medication adherence in test group



DISCUSSION

A total 200 patients were enrolled in to study.15 patients were lost to follow up. The demographic details of both groups compared with respect to Gender, Age, Social history, Family history, Co-morbidities and number of medicines being taken. The demographic details of the 185 patients have completed the study.

Blood pressure changes seen in the study patients. One of the main objective of our study was to measure the impact of education on the blood pressure of hypertensive patients who visited the study sites. At base line there was no significant difference (p >0.05) between the systolic and diastolic blood pressure of the two group. At final follow up, a significantly (p<0.05) some large number of patients in the test group had achieved better blood pressure control compared to the base line. Reduction in systolic and diastolic blood pressure were seen at almost all the three follow up in the both control and test group. However, the decrease in blood pressure in the test group was statistically significant.

Regarding quality of life we are going to measure the SF-36v2 survey has six subscales like general, functional, psychological, social/family, positive wellbeing, physical. In the test group , at second and third follow up, there was a significant increase in the scores of all the subscales of SF-36v2TM health survey when compared to base line. In the control group there was no significant change observed in the scores of individual subscales.

Patient knowledge, attitude, and beliefs have been shown to affect their medication taking behavior. The KAP questionnaire showed a significant improve from baseline to final follow up in test groups but not in control group. Patient adherence therapy was evaluated by using the Morisky 8 medication adherence questionnaire. The questionnaire contains 8 questions. Each Question having individual score. Based upon the score the adherence was classified as, if the score is 0 for all questions the Patient is having high adherence, if the score is between 1-2 the patient is medium adherent, if the score is >2 the patient is low adherent. In test group at Baseline 34 patients are having low adherence,6 are having medium adherence and 8 are having high adherence, and at Final follow up 6 are having low adherence,10 are having medium adherence and 32 are having high adherence towards the medication.

CONCLUSION

The study concludes that hypertension affects the quality of life of patients and the education has a major role in improving the healthcare outcomes. The treatment of hypertension is usually long term, and its success will depend on the effects of the drug regimen on the patient's quality of life. The use of health related quality of life assessment in antihypertensive studies and in routine clinical practice provides another opportunity to optimize a patient's regimen for short- and long-term hypertension control in a cost-effective manner. At the end of the study the patients in the test group had better blood pressure values and better scores in all six subscales of the SF-36v2 health survey questionnaire. These patients also showed improved adherence and KAP score at the final follow up. A clinical pharmacist can play a major role in management of chronic disorders by providing pharmaceutical care services.

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