

# Effectiveness of Lifestyle Management Educational Program (LMEP) on Stress and Quality of Life among Primary Hypertensive Patients in Selected Outpatient Departments of Hospitals, Mangaluru

Dr. Anitha Joseph<sup>1</sup>, Ms. Renuka Bhajantri<sup>2</sup>, Dr. Renju R V<sup>3</sup>

<sup>1,2</sup>Associate Professor department of Medical surgical Nursing,  
Mangalore College of Nursing, Bangalore, Karnataka, India.

<sup>3</sup>Principal, Little flower of nursing College of Nursing, Bangalore, Karnataka, India.

**Abstract**—Hypertension is a major public health concern and is often associated with increased psychological stress and poor quality of life. Lifestyle modification and health education are essential strategies for effective management of hypertension. The present study aimed to evaluate the effectiveness of a Lifestyle Management Educational Program (LMEP) on stress and quality of life among primary hypertensive patients attending selected outpatient departments of hospitals in Mangaluru. A quasi-experimental pretest–posttest control group design with interrupted time series was adopted. The study included 100 primary hypertensive patients who were selected using purposive sampling technique and divided into an experimental group (n=50) and a control group (n=50). Data were collected using a demographic proforma, Perceived Stress Scale (PSS) to assess stress levels, and the RAND 36-Item Health Survey to measure quality of life. The experimental group received the Lifestyle Management Educational Program consisting of structured teaching sessions on hypertension, its causes, management, and lifestyle modifications, while the control group did not receive the intervention during the study period. Post-test assessments were conducted after one month and three months using the same tools. The findings revealed that most participants had moderate to high levels of stress and low quality of life during the pretest. After implementation of the educational program, the experimental group showed a significant reduction in stress levels and significant improvement in quality of life compared to the control group. Statistical analysis demonstrated significant differences between groups at the 0.05 level of significance. The study concludes that the Lifestyle Management Educational Program is effective in reducing stress and improving the quality of life

among primary hypertensive patients, highlighting the importance of educational interventions and lifestyle modification programs in the management of hypertension.

**Index Terms**—Hypertension, Lifestyle Management Educational Program (LMEP), Stress, Quality of Life, Primary Hypertensive Patients, Health Education, Lifestyle Modification, Outpatient Department.

## I. INTRODUCTION

Hypertension is one of the most common chronic non-communicable diseases worldwide and a major risk factor for cardiovascular diseases, stroke, renal failure, and premature mortality. The prevalence of hypertension is increasing due to unhealthy lifestyle patterns, lack of physical activity, unhealthy diet, obesity, and increasing levels of psychological stress. Individuals diagnosed with hypertension often experience stress, lifestyle restrictions, and fear of complications, which can negatively affect their overall quality of life. Stress is considered an important contributing factor in the development and progression of hypertension, as it may lead to physiological changes and unhealthy behaviors that increase blood pressure. Effective management of hypertension therefore requires not only pharmacological treatment but also lifestyle modification and health education. Lifestyle management strategies such as healthy dietary habits, regular physical activity, stress reduction, weight control, and adherence to treatment can help in

controlling blood pressure and improving the overall well-being of patients. Educational interventions play an important role in enhancing patients' knowledge, promoting positive lifestyle changes, and improving their ability to cope with chronic illness. Nurses and other healthcare professionals have a key role in providing structured education and guidance to patients in clinical settings. Considering the importance of lifestyle modification in hypertension management, the present study was conducted to assess the effectiveness of a Lifestyle Management Educational Program (LMEP) on stress and quality of life among primary hypertensive patients attending selected outpatient departments of hospitals in Mangaluru.

## II. NEED FOR THE STUDY

Hypertension is one of the leading causes of morbidity and mortality worldwide and is a major risk factor for cardiovascular diseases, stroke, and kidney disorders. The increasing prevalence of hypertension is closely related to unhealthy lifestyle habits, lack of physical activity, poor dietary patterns, and rising levels of psychological stress. Individuals living with hypertension often experience stress, anxiety, and limitations in daily activities, which can significantly reduce their quality of life. Although pharmacological treatment plays an important role in controlling blood pressure, lifestyle modification and health education are equally important in preventing complications and improving overall well-being. Many hypertensive patients have inadequate knowledge regarding lifestyle management, stress control, and healthy practices necessary for effective disease management. Educational interventions can help patients understand their condition, adopt healthy behaviors, and improve coping strategies, thereby reducing stress and enhancing quality of life. Nurses, as key members of the healthcare team, are in a unique position to provide structured health education and promote lifestyle changes among patients. However, limited studies have been conducted to evaluate the effectiveness of structured lifestyle educational programs among hypertensive patients in outpatient settings. Therefore, the present study was undertaken to assess the effectiveness of a Lifestyle Management Educational Program (LMEP) on stress and quality of life among

primary hypertensive patients attending selected outpatient departments of hospitals in Mangaluru.

## III. OBJECTIVES OF THE STUDY

- To assess the pre-interventional level of stress and quality of life among primary hypertensive patients in the experimental and control group.
- To assess the effectiveness of the Lifestyle Management Educational Program (LMEP) on stress and quality of life among primary hypertensive patients in selected outpatient departments of hospitals.
- To find the association between stress and selected demographic variables among primary hypertensive patients in selected outpatient departments of hospitals.
- To find the association between quality of life and selected demographic variables among primary hypertensive patients in selected outpatient departments of hospitals.

### Hypotheses

- H1: There will be a significant difference in the level of stress of primary hypertensive patients before and after administration of the Lifestyle Management Educational Program (LMEP) within the experimental and control groups.
- H2: There will be a significant difference in the level of stress of primary hypertensive patients before and after administration of the Lifestyle Management Educational Program (LMEP) between the experimental and control groups.
- H3: There will be a significant difference in the quality of life of primary hypertensive patients before and after administration of the Lifestyle Management Educational Program (LMEP) within the experimental and control groups.
- H4: There will be a significant difference in the quality of life of primary hypertensive patients before and after administration of the Lifestyle Management Educational Program (LMEP) between the experimental and control groups.
- H5: There will be a significant association between stress and selected demographic variables among primary hypertensive patients.
- H6: There will be a significant association between quality of life and selected demographic variables among primary hypertensive patients.

**Assumption**

- Primary hypertensive patients may experience stress and decreased quality of life due to their health condition.
- A Lifestyle Management Educational Program (LMEP) may help in reducing stress and improving the quality of life among primary hypertensive patients.

- The sample size was limited to 100 participants (50 in experimental group and 50 in control group).
- The study included only patients who met the inclusion criteria and were available during the data collection period.
- The study focused only on stress and quality of life variables among hypertensive patients.

**Delimitation**

- The study was limited to primary hypertensive patients attending outpatient departments of selected hospitals in Mangaluru.

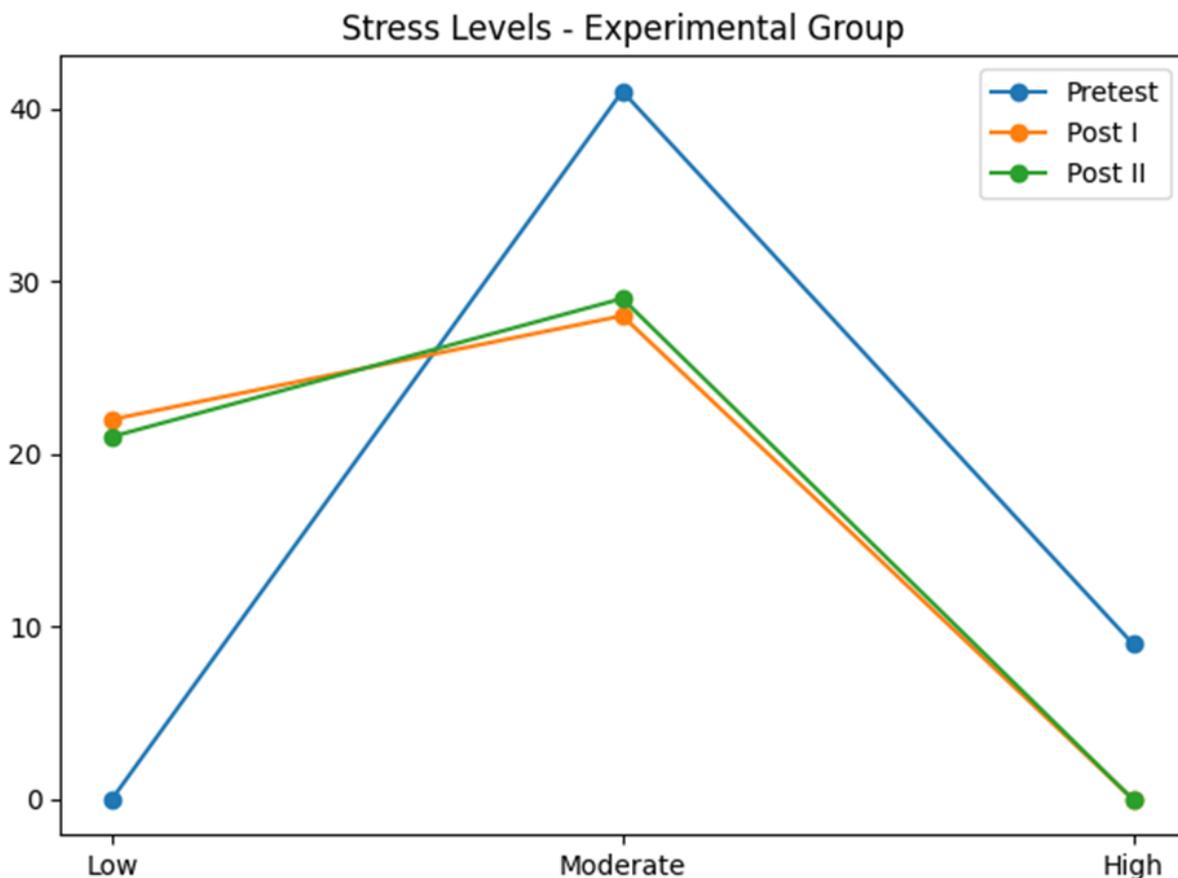
The collected data were analyzed using descriptive and inferential statistics. The results are presented in tables and graphical form for easy interpretation.

**IV. ANALYSIS / INTERPRETATION**

Table: Stress Level Distribution

Level	Exp Pre	Exp Post I	Exp Post II	Ctrl Pre	Ctrl Post I	Ctrl Post II
Low	0	22	21	0	0	0
Moderate	41	28	29	45	46	46
High	9	0	0	5	4	4

Graphical representation of stress levels:



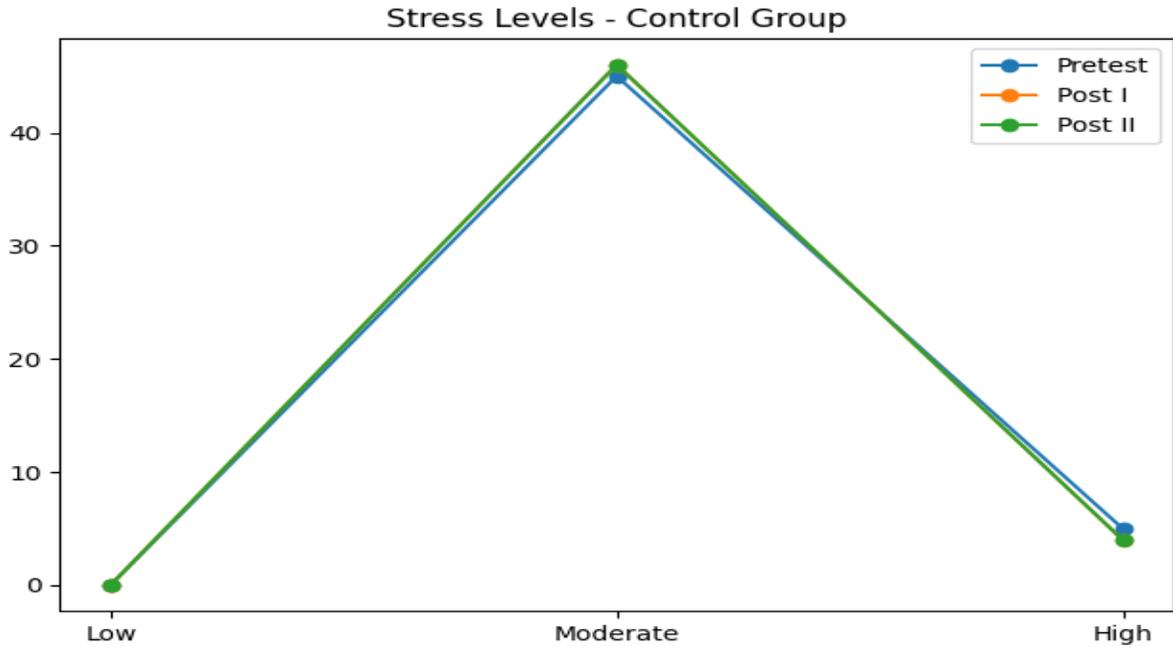
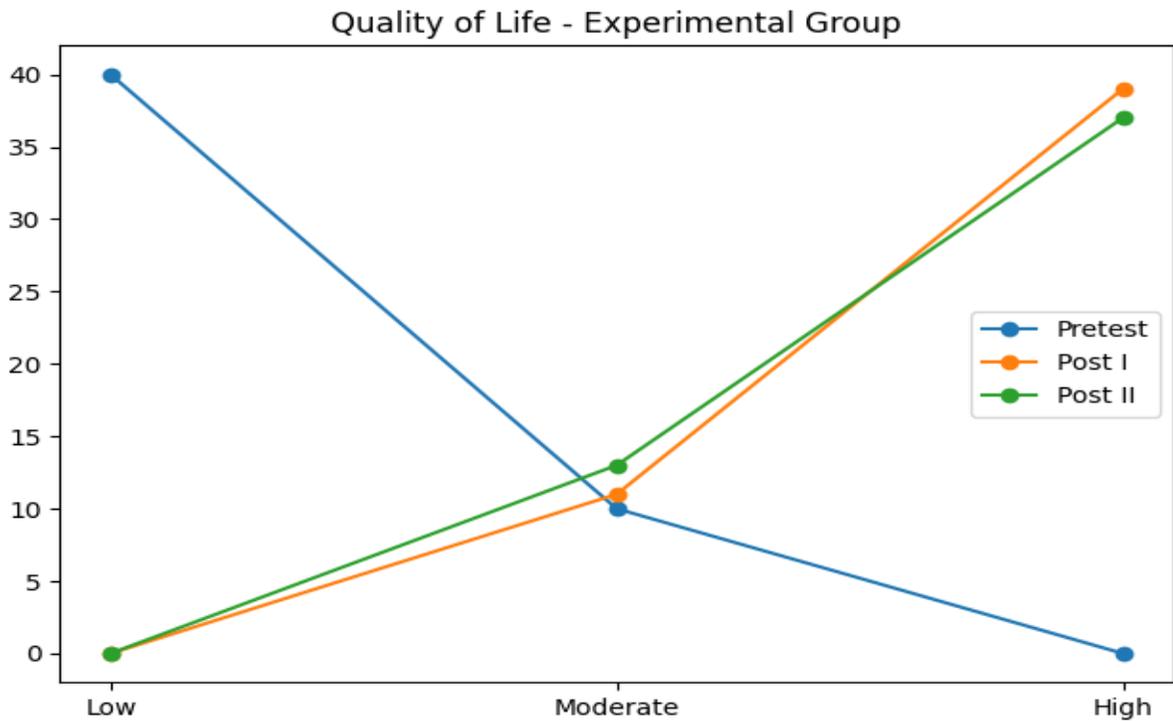
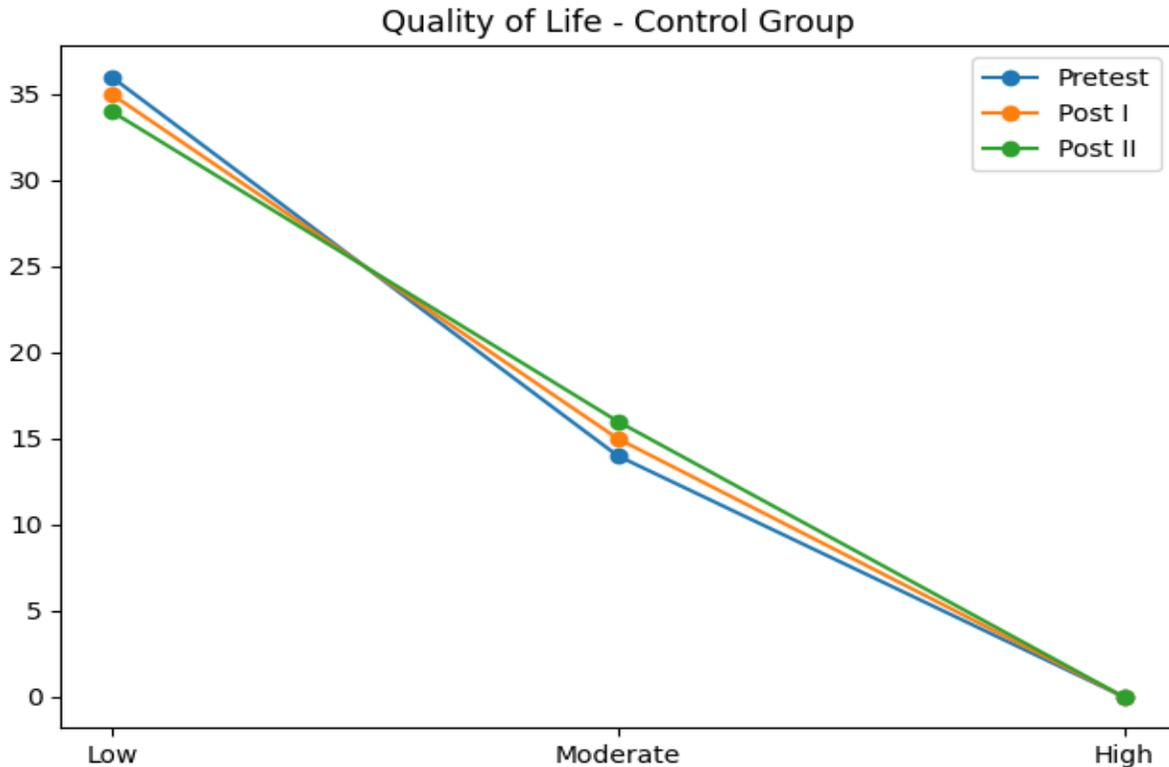


Table: Quality of Life Distribution

Level	Exp Pre	Exp Post I	Exp Post II	Ctrl Pre	Ctrl Post I	Ctrl Post II
Low	40	0	0	36	35	34
Moderate	10	11	13	14	15	16
High	0	39	37	0	0	0

Graphical representation of quality of life:





Interpretation: The experimental group showed a reduction in stress levels and improvement in quality of life after the lifestyle management educational program, whereas the control group showed minimal change.

### V. RESULTS

The data collected from 100 primary hypertensive patients were analyzed using descriptive and inferential statistics to determine the effectiveness of the Lifestyle Management Educational Program (LMEP) on stress and quality of life. The findings revealed that both experimental and control groups were homogeneous with respect to demographic variables. In the experimental group, during the pretest most participants (82%) had moderate stress and 18% had high stress, whereas after the administration of LMEP there was a significant reduction in stress levels, with many participants shifting to low and moderate stress levels in the post-tests. In contrast, the control group showed no significant change in stress levels. Regarding quality of life, the experimental group initially had 80% of participants with low

quality of life and 20% with moderate quality of life; however, after the intervention, the majority showed improvement with a large proportion achieving high quality of life in the post-tests. The control group showed minimal change in quality of life during the same period. Statistical analysis using repeated measures ANOVA indicated a significant difference in stress ( $F=118.147, p<0.05$ ) and quality of life scores ( $F=2006.732, p<0.05$ ) in the experimental group, demonstrating that the Lifestyle Management Educational Program was effective in reducing stress and improving the quality of life among primary hypertensive patients.

### VI. CONCLUSION

The present study concluded that the Lifestyle Management Educational Program (LMEP) was effective in reducing stress and improving the quality of life among primary hypertensive patients attending selected outpatient departments of hospitals in Mangaluru. The findings revealed that after the implementation of the educational program, participants in the experimental group showed a

significant reduction in stress levels and a marked improvement in quality of life compared to the control group, which did not receive the intervention. Statistical analysis also supported that the differences observed were significant, indicating the effectiveness of the program. The study highlights the importance of lifestyle modification and structured health education in the management of hypertension and emphasizes the crucial role of nurses and healthcare professionals in promoting healthy lifestyle practices and improving the overall well-being of hypertensive patients.

#### REFERENCE

- [1] World Health Organization. Hypertension. Geneva: WHO; 2023.
- [2] Whelton PK, Carey RM, Aronow WS, et al. 2017 Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults. *Hypertension*. 2018;71(6): e13–e115.
- [3] Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *Journal of Health and Social Behaviour*. 1983;24(4):385–396.
- [4] Hays RD, Sherbourne CD, Mazel RM. The RAND 36-Item Health Survey 1.0. *Health Economics*. 1993;2(3):217–227.
- [5] Appel LJ, Moore TJ, Obarzanek E, et al. A clinical trial of the effects of dietary patterns on blood pressure. *New England Journal of Medicine*. 1997;336(16):1117–1124.
- [6] Chobanian AV, Bakris GL, Black HR, et al. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. *JAMA*. 2003;289(19):2560–2572.
- [7] Park K. *Park's Textbook of Preventive and Social Medicine*. 26th ed. Jabalpur: Banarsidas Bhanot; 2021.
- [8] Polit DF, Beck CT. *Nursing Research: Generating and Assessing Evidence for Nursing Practice*. 11th ed. Philadelphia: Wolters Kluwer; 2021.