

# Effectiveness of Pursed Lip Breathing Over Deep Diaphragmatic Breathing among Subjects with Grade I Hypertension – An Experimental Study

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## Abstract

**Introduction:** Hypertension, commonly called high blood pressure, is a pervasive and silent health condition affecting millions worldwide. It is a chronic medical condition characterized by elevated blood pressure levels in the arteries, which can lead to serious health complications if left untreated. Understanding hypertension is paramount, as it is a leading contributor to heart disease, stroke, and other life-threatening conditions, making it imperative for individuals to take proactive measures to monitor and control their blood pressure.

**Methods:** This study was experimental, and we recruited 58 participants with a confirmed diagnosis of Grade-1 hypertension by a physician. They were randomly allocated into 2 Groups, namely Group A and Group B respectively. Group A consisted of 29 subjects who were made to do pursed-lip breathing exercises. Group B consisted of another 29 subjects who performed diaphragmatic breathing exercises. The outcome measures included Blood pressure measurement using a sphygmomanometer and resting heart rate using radial artery pulsation. The duration of the study was 8 weeks. After 8 weeks, they were reassessed using a sphygmomanometer and radial artery pulsation & the results were compared and analyzed statistically.

**Results:** Statistical analysis revealed a significant difference in the Post-test values of the A group than the B group, with t values 3.998 at  $p \leq 0.05$  in SP & DP and with t values 4.794 at  $p \leq 0.05$  in RHR.

**Conclusion:** Pursed lip breathing is more effective in reducing blood pressure and resting heart rate among subjects with grade 1 hypertension.