



ORIGINAL RESEARCH PAPER

Nursing Science

EFFECTIVENESS OF ABDOMINAL BREATHING EXERCISE

KEY WORDS:

Beena Borkar

prof. Mrs. Jyotsna M

Dr. Kamlesh Singh

Hypertension, a “psychological classical silent killer,” is the hallmark of various cardiovascular disorders. Hypertension would become a greater global burden in the next 15–20 years. If one believes that “old is gold,” then yoga is quite effective and widely believed to reduce blood pressure (BP). Health and holistic health is closely related, which gives importance to physical, mental, social, spiritual, and sexual health as a whole. Hypertension has a direct relationship with the circulation, respiration, and function of vital organs. Similarly, complementary therapy such as abdominal breathing exercise has a direct effect on mental and physical health. Hence, abdominal breathing exercise emphasizes on the promotive, preventive, and curative measures and helps to maintain normal BP. Alternative therapy in nursing is a valuable aspect of health-care system. It is mainly based on the promotion, maintenance, prevention, and rehabilitation of diseases.

In India, it is reported that there are around 42% people are with pre hypertension, 15% are newly diagnose to have Hypertension and 31% are with known case of hypertension, and it kills nearly 8 million people every year worldwide. The non compliance with treatment, stress and life style are found to be major reason for this doubling of disease within a decade, there “arises need for new therapies and remedies”. Abdominal breathing exercise is one among these. It reduces blood pressure by increasing barore flex sensitivity and reducing sympathetic activity and chemo reflex activation.

Statement of the problem:

“A study to assess the effectiveness of abdominal breathing exercise in reduction of blood pressure among hypertensive patients in selected hospitals at Bhopal”.

OBJECTIVES OF THE STUDY:

1. To assess the blood pressure before abdominal breathing exercise.
2. To assess the blood pressure after abdominal breathing exercise.
3. To assess the effectiveness of abdominal breathing exercise in reducing mean blood pressure among hypertensive patients.
4. To test the association between the mean blood pressure and selected demographic factors of hypertensive patients.

Hypotheses:

At the level of 0.05 significance

- **H1:** There will be a significant difference between in pre assessment of mean blood pressure and post assessment of mean blood pressure among hypertensive patients.
- **H2:** There will be a significant association between mean blood pressure and selected demographic factors of hypertensive patients.

METHODOLOGY

The research approach adopted for the study was evaluative

approach and the research design adopted was pre-experimental one group pre-test – post-test design. Thirty hypertensive patients from male and female medical general ward had been selected. Among them 30 samples Akshay Hospital Bhopal. Tool comprised of Demographic proforma contained 9 items and sphygmomanometer, stethoscope and blood pressure monitoring table contained 3 items to record the readings. The reliability of the tool was tested by inter-rater method and it was found to be $r = 0.82$. Abdominal breathing exercise was administered to the samples after pre-assessment of mean blood pressure for ten minutes and post assessment of mean blood pressure is done at the gap of 5 minutes which is repeated 3 times a day and monitored for minimum of 3 days. Data were analyzed by SPSS version -16, 't' test was used for finding the effectiveness, and Chi square test was used for finding out the association between mean blood pressure and selected demographic variables.

Sl.No.	Demographic factors	Frequency	Percentage	
1	Age	35-45	2	6.7
		46-55	10	33.3
		56-60	9	30.0
		>60	9	30.0
2	Gender	Male	20	66.7
		Female	10	33.3
3	Education	Graduate	10	33.3
		High School	3	10.0
		Primary	9	30.0
		Illiterate	8	26.7
4	Occupation	Heavy worker	2	6.7
		Moderate worker	8	26.7
		Sedentary Worker	20	66.7
5	Physical activity	Sitting	21	70.0
		Walking	9	30.0
6	Anti hypertensive drugs	Yes	26	86.7
		No	4	13.3
7	Exercise	Cycling	0	0.0
		Walking	10	33.3
		Swimming	0	0.0
		Yoga	12	40.0
		Nil	8	26.7
8	Hours of sleep per day	< 5 hrs	18	60.0
		5-6hrs	8	26.7
		6-7hrs	2	6.7
		7-8hrs	2	6.7
		>8hrs	0	0.0
9	Quality of sleep	Sound	11	36.7
		Disturbed	19	63.3

Overall	Pretest	Post test	Mean	Paired 't' test
pretest and			difference	values
post test mean	Mean	SD	Mean	SD
blood pressure	98.25	6.67	93.40	6.31
				't' = 17.28
				p = 0.05
				(S)

RESULTS

The mean differences in pre and post assessment is 4.85 and 't' value was 17.28 which is more than the 't' table value. The findings of the study revealed that the abdominal breathing exercise was found to be effective and proved to be significant at the level of $p < 0.05$ level.

INTERPRETATION AND CONCLUSION

The overall findings of the study revealed that the abdominal breathing exercise is found to be very effective in reducing the mean blood pressure. It also concludes that the regular practice of the abdominal breathing exercise will help the increased blood pressure to regularize to normal

These findings were strongly supported by study on the effect of abdominal breathing exercise on hypertension. There was a significant reduction in post test mean systolic blood pressure ($t=3.45$, $p=0.001$) and diastolic pressure ($t=3.5$, $p=0.001$) after abdominal breathing exercise between experimental group that control group. This study tested that the abdominal breathing exercise can be used as a part of nursing management of hypertensive patients.