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EFFECTIVENESS OF ABDOMINAL BREATHING EXERCISE IN REDUCTION OF BLOOD PRESSURE AMONG HYPERTENSIVE PATIENTS

Nursing

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ABSTRACT

An experimental study is conducted to assess the effectiveness of abdominal breathing exercise in reduction of blood pressure among hypertensive patients admitted in Railway Hospital at Khurda Road Division, Odisha. Pre-test post-test control group design is undertaken. Convenient sampling technique is used to select the 40 hypertensive (20 Experimental & 20 control group) patients. By using the Blood pressure monitoring table the Pre & Post assessment of MAP of both experimental and control group is recorded. Experimental group is only performed abdominal breathing exercise and BP measured after one hour of pre & post assessment. The findings of study reveals that the Post-test MAP of experimental group is (104.17 & SD is 2.61) has been significantly reduced in comparison to control group (MAP is 113.25 & SD is 2.62). There is no significant association found. The study reveals that abdominal breathing exercise is effective complementary therapy in reducing blood pressure.

KEYWORDS

Abdominal Breathing Exercise, Blood Pressure, Hypertensive Patients

INTRODUCTION:

Health is the fundamental human right and a worldwide social goal is essential to the satisfaction of basic human needs and to improved quality of life and that is to be attained by all people. The most common heredity diseases, which are prevailing in India population, are Diabetic Mellitus, Hypertension, Cardiac diseases, and Bronchial asthma. Among these diseases Hypertension is most commonly seen. There are two types of blood pressure according to medical diagnosis; the primary or essential hypertension, whose cause is in fog and the secondary, which has some underlying causes among 95% people are suffering from primary hypertension. Complementary therapy is proved one of the effective treatment for most of the disease conditions. Abdominal breathing exercise is considered the most beneficial effect in reducing the blood pressure among hypertensive patients. Breathing deeply can help to lower the blood pressure. It relaxes the body and lowers the heart rate by reducing the chronic stress and tension.

OBJECTIVE:

1. To assess and compare the pretest and post test level of mean blood pressure among hypertensive patients in experimental and control group.
2. To evaluate the effectiveness of abdominal breathing exercise in reducing mean blood pressure among hypertensive patients in experimental group.

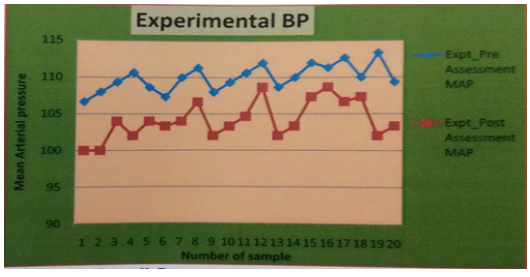
METHODOLOGY:

Pretest Posttest control group design is adapted.The study is conducted in Railway Hospital, Khurda Road Division, Odisha after obtaining the permission from Chief Medical Superintendent. 40 Hypertensive patients (20 experimental & 20 control) is selected by using the convenient sampling technique in medical ward. Blood pressure monitoring table with Sphygmomanometer and stethoscope is used to measure the blood pressure and observe accurately. The experimental group is performed abdominal breathing exercise for 15 minutes and the control group is not performed the exercise. Two observations are done each day dividing in the morning and evening before the meal. The study takes six weeks to collect the data.

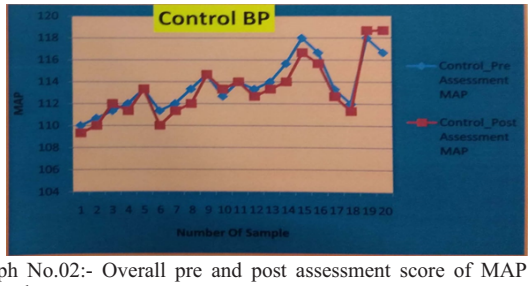
RESULT:

Pre and posttest level of Mean arterial pressure among hypertension patients

In experimental group pretest minimum score is 106.67 and maximum score is 113.33, mean is 109.96 and SD is 1.80. posttest minimum score is 100 and maximum score is 108.67, mean is 104.16 and SD is 2.6. In control group pretest minimum score is 110 and maximum score is 118, mean is 113.64 and SD is 2.33. posttest minimum score is 109.33 and maximum score is 118.67, mean is 113.24 and SD is 2.62.



Graph No.01:- Overall pre and post assessment score of MAP of Experimental group.



Graph No.02:- Overall pre and post assessment score of MAP of Control group.

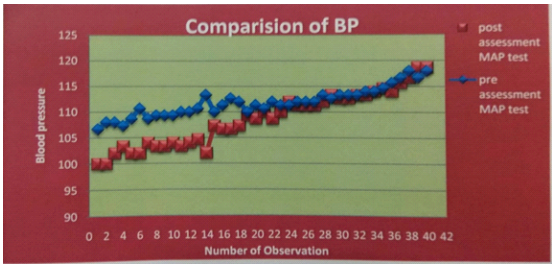
Effeteness of abdominal breathing exercise in reduction of mean blood pressure

In paired t test MAP difference between pretest and posttest in experimental group is 5.80, SD is 2.04 and t value is 12.70 which is higher than the table t value (2.09) with 19 degree of freedom. It has been inferred that abdominal breathing exercise is effective in reduction of blood pressure. Control group is 0.40, SD is 0.88 and t value is 2.02, which is lower than the table t value (2.09).

Paired Samples Test

group		Paired Differences					Paired t	df	Sig. (2-tailed)
		Mean Difference	S.D.	S.E. Mean	95% Confidence Interval of the Difference Lower	Upper			
experimental	pre_asst - post_asst	5.80	2.04	.46	4.84	6.75	12.70	19	.001
control	pre_asst - post_asst	.40	.88	.20	-.013	.81	2.02	19	.057

Table No.01:- Paired sample test of Experimental and control group.



Graph No.03:- Pre and post assessment comparison of MAP of Experimental group.

Association between MAP with selected demographic variable

There is no significant association found with Mean difference of blood pressure with selected demographic variables

CONCLUSION

The finding of the study reveals that abdominal breathing exercise is an effective complementary therapy in reducing blood pressure. Since the abdominal breathing exercise is easy to perform and cost effective, the nurses who provide secondary care to the hypertensive patients should implement it to provide the comprehensive nursing care.

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