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RESEARCH ARTICLE **OPEN ACCESS**

A STUDY TO ASSESS THE EFFECTIVENESS OF GUIDED IMAGERY ON HYPERTENSIVE PATIENTS IN SELECTED AREAS OF AHMEDABAD, CITY GUJARAT

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ABSTRACT

"A Study to Assess the Effectiveness of Guided Imagery on Hypertensive patients in selected areas of Ahmedabad, city Gujarat." A Quasi experimental study was conducted to effectiveness of guided imagery on hypertensive patients on selected areas of Ahmedabad. The 'general system model' was used as conceptual framework. A quantitative approach with experimental study design was used to achieve the objectives of the study. The sample consisted of 60 from selected areas of Ahmedabad. The Quasi sampling technique was used to collect the sample. In the experimental group the mean of pretest hypertension was 149 with standard deviation 6.31 and post test mean was 133 with standard deviation 11.38. The control group mean of pretest was 149 with standard deviation 6.00 and post test mean was 146 with standard deviation 6.34. The calculated 'f' value was 51.0326 where as table value is 4.00 in 0.05 level which shows highly significant. So, the guided imagery was effective on hypertensive patients.

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INTRODUCTION

Hypertension is a long-term condition where blood pressure is increased. It is the leading cause of death worldwide, affecting more than 1.4 billion people and accounting for more than 28,000 deaths each day. Initially, it does not cause any symptoms but if left untreated it can lead to stroke, heart attack, kidney disease, vision loss, and dementia. Control of high blood pressure can help protect against these conditions and there are many steps that can be taken to help lower blood pressure.[2] Hypertension is a complex condition with many causes including lifestyle factors, such as physical inactivity, a salt-rich diet with high processed and fatty foods, and alcohol and tobacco use. Unfortunately, the incidence of hypertension is increasing at an alarming rate from developed countries to emerging economies, such as India, African countries[2] Adequate treatment of high blood pressure lowers this cardiovascular risk towards normal levels. However, the biggest problem for controlling hypertension is compliance with treatment. Despite very effective and cost-effective treatments, target blood pressure levels are not always reached, even in countries where cost of medication is not an issue. Guided imagery therapy is the conscious use of the imagination and the mind to create positive images or a setting in order to bring about the healthful changes in both mind and the body. The belief that the power of imagination can help people to heal has ancient roots.[2] Aging is the normal process of the related change, which begins with birth and continues throughout the life.

Old age is the final phase of the life span. Ageing is an inevitable developmental phenomenon bringing along a number of changes in the physical, hormonal and the social condition. Ayurveda termed old age as "Vardhakya" 3 which begins from the age sixty. In old age, the need for economic, health and emotional wellbeing assume special significance because of gradual reduction in abilities[3] In the year 2014 old age population was 236/10,000 in the world. In 2016, almost 500 million people worldwide will be 65 and older. By 2030 it is estimated that total is projected to increase by one billion, accounting 13% of the total population. In India old age population contributes 1/20 in the total population. In the year 2002 there were more than 81million elderly in India and this figure is expected to go up over 324 million in the year 2050.[4] According to parliament discussion India's population of senior citizen above 60 would reaches 173 million by 2026. In India, non-communicable diseases were responsible for 53% of deaths and 44% of disability. Hypertension is one of the most important treatable causes of mortality and morbidity in the elderly population. Further, high blood pressure (BP) is a modifiable risk factor for cardiovascular disease. Majority of older persons with hypertension are not detected or are not adequately treated for hypertension. Measures should be taken to diagnose hypertension and prevent or postpone its complications in this age group as the burden of hypertension is bound to increase due to increasing life expectancy rates. Health seeking behaviour of the elderly is influenced by their economic instability, reduced physical endurance, social isolation, reduced cognitive ability, dependency,

and loneliness. This makes them more vulnerable to suffer or succumb to illnesses, which may be treatable, or whose disabling effects could be postponed.[5]

Need for the Study: The connection between the mind and physical health has been well documented and extensively studied. Positive mental imagery can promote relaxation and reduce stress, improve mood, control high blood pressure, alleviate pain, boost the immune system, and lower cholesterol and blood sugar levels. Through guided imagery techniques, patients can learn to control functions normally controlled by the autonomic nervous system, such as heart rate, blood pressure, respiratory rate, and body temperature. One of the biggest benefits of using guided imagery as a therapeutic tool is its availability. Imagery can be used virtually anywhere, anytime. It is also an equal opportunity therapy. Although some initial training in the technique may be required, guided imagery is accessible to virtually everyone regardless of economic status, education, or geographical location. Guided imagery also gives individuals a sense of empowerment, or control. The technique is induced by a therapist who guides the patient. The resulting mental imagery used is solely a product of the individual's imagination.[6] The increase in blood pressure with age is mostly associated with structural changes in the arteries and especially with large artery stiffness. It is known from various studies that rising blood pressure is associated with increased cardiovascular risk. In the elderly, the most powerful predictor of risk has increased pulse pressure due to decreased diastolic and increased systolic blood pressure. All evidence indicates that treating the elderly hypertensive patient will reduce the risk of cardiovascular events. However, there is no evidence yet for the very elderly.[7] Gujarat has the highest burden of hypertension with 159,150 cases reported as on march this year out of a total number of 715,382 working out to about 22% Worldwide, raised blood pressure is estimated to cause 7.5 million deaths, about 12.8% of the total of all deaths. This accounts for 57 million disability adjusted life years or 3.7% of total disability adjusted life years. Raised blood pressure is a major risk factor for coronary heart disease and ischemic as well as haemorrhagic stroke.[8]

Problem Statement: "A study to assess the effectiveness of guided imagery on hypertensive patients in selected areas ofahemdabad, city gujarat."

Objectives

1. To assess the blood pressure among hypertensive patients.
2. To assess the Effectiveness of guided imagery among hypertensive patients in Experimental Group.

Hypothesis

H0: There will be no significant difference in the level of blood pressure with guided 5 imagery among patients at 0.05 level of significance.

H1: There will be significant difference in the level of blood pressure with guided imagery among patients at 0.05 level of significance.

Operational Definition

Assess*:* Means to evaluate the effectiveness of guided imagery to reduce Hypertension in population.

Effectiveness: The result of guided imagery on blood pressure level.

Guided Imagery: A client is guided in imagining a relaxing scene or series of experiences is given in duration of 20 minutes for the study period of 30 days.

Hypertenison: A condition in which the force of the blood against the artery walls is too high.

Area: Selected urban area of Ahmedabad, Gujarat.

METHODOLOGY

Research methodology indicates the general pattern of organizing the procedure for gathering valid and reliable data for an investigation. The content of this chapter includes research approach and its rational, description of setting and population, description of sample, tool selection, construction, description and rational of the tool, procedure of data collection, data analysis and statistically methods used.

Table 1.

Sr.no	Demographic variables	Experimental group		Control group	
		Frequency	Percentage	Frequency	Percentage
1	Age				
	45-50 Years	4	13.33%	5	16.67%
	51-55 Years	10	33.33%	10	33.33%
	56-60 Years	16	53.34%	15	50%
2	Gender				
	Male	10	33.33%	13	43.33%
	Female	20	66.67%	17	56.67%
	Transgender	00	00	00	00
3	Education				
	Primary education	8	26.67%	7	23.33%
	Secondary education	3	10%	4	13.33%
	Higher secondary education	6	20%	6	20%
	Graduate and above	4	13.33%	3	10%
	Illiterate	9	30%	10	33.34%
4	Occupation				
	Unemployment	16	53.33%	18	60%
	Service	12	40%	10	33.33%
	Business	2	6.67%	2	6.67%
5	Family income				
	<10000	10	33.33%	15	50%
	10000-20000	6	20%	5	16.67%
	20001-30000	10	33.33%	8	26.67%
	>30000	4	13.34%	2	6.66%
6	Knowledge of people regarding hypertension				
	Yes	20	66.67%	19	63.33%
	No	4	13.33%	3	10%
	May be	6	20%	8	26.67%
7	If any family member suffering from hypertension				
	Yes	20	66.67%	20	66.67%
	No	10	33.33%	10	33.33%

The above table depicts the distribution in number and percentage of study subjects according to their demographicvariables. Out of 60 samples between age group 45-50 years 13.33% were in experimental group and 16.67% were in control group, between 51-55 years 33.33% were in experimental group 33.33% were in control group, between 56-60 years 53.34% were in experimental group 50% were in control group. In relation to gender 33.33% of male in experimental group and 43.33% male in control group, 66.67% of female in experimental group and 56.67% of female in control group. Regarding education of people 26.67% of people in experimental group and 23.33% of people in control group have primary education, 10% of people in experimental group and 13.33% of people in control group have secondary education , 20% of people in experimental group and 20% of people in control group have higher education , 13.33% of people in experimental group and 10% of people in control group were graduated , 30% of people in experimental group and 33.34% of people in control group were illiterate.

16.67% of people in control group family income between 10000-20000Rs per month, 33.33% people in experimental group and 26.67% of people in control group family income between 20001-30000Rs per month, 13.34% of people in experimental group and 6.66% of people in control group family income >30000Rs per month. Regarding knowledge of people 66.67% of people in experimental group and 63.33% of people in control group were having knowledge regarding Hypertension, 13.33% of people in experimental group and 10% of people in control group were having no knowledge regarding Hypertension, 20% of people in experimental group and 26.67% of people in control group were not sure regarding knowledge of hypertension. In experimental group 66.67% of people, in control group 66.67% of people in control group suffering from hypertension and 33.33% of people in experimental group, 33.33% of people in control group were not having hypertension. The graph showing the comparison of Mean score of pretest and posttest Effectiveness of g Guided Imagery on Hypertension.

Table 2. Finding related to Mean of Pretest and Posttest on Effectiveness of Guided Imagery to reduce hypertension

Group	Test	Mean	Mean difference
Experimental	Pretest	149	16
	Posttest	133	
Control	Pretest	149	3
	Posttest	146	

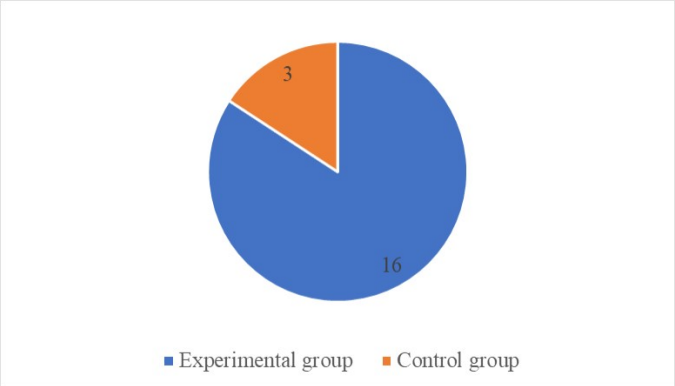
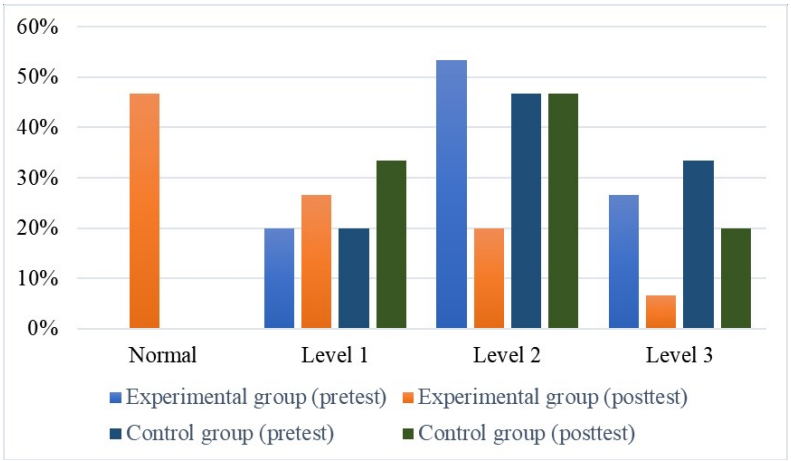


Table 3. Frequency and percentage distribution of the level of hypertension before and after administration of Guided Imagery

Level blood pressure	Experimental group		Control group	
	Pre test	Post test	Pre test	Post test
Normal (120/80 to 130/85)	0	14(46.66%)	0	0
Level 1 (131/86 to 140/90)	6(20%)	8(26.66%)	6(20%)	10(33.33%)
Level 2 (141/91 to 150/95)	16(53.33%)	6(20%)	14(46.66%)	14(46.66%)
Level 3 (151/96 to 160/100)	8(26.66%)	2(6.66%)	10(33.33%)	6(20%)



Regarding occupation of people 53.33% of people in experimental group and 60 % of people in control group were unemployed, 40% of people in experimental group and 33.33% of people in control group were doing service, 6.67% of people in experimental group and 6.67% of people in control group were doing business. 33.33% in experimental group and 50% of people in control group family income were <100000Rs per month, 20% of people in experimental group and

The above mentioned charts shows that , in pre-test 0 of samples 0 in experimental group and 0 samples in control group were having normal blood pressure , 20% of samples (6) in experimental group and 20% of samples (6) were having level 1 blood pressure , 53.33% of samples (16) in experimental group and 46.66% of samples (14) in control group having level 2 blood pressure , 26.67% of samples (8) in experimental group and 33.34% of samples (10) in control group

Table 4. Mean difference, standard deviation and calculated 'f' value

Groups		Mean	Mean Difference	SD	Calculated 'f' Value	Table Value	df	Level of significance
Experimental	Pre	149	16	6.31	51.0326	4.00	1,58	0.05
	Post	133		11.38				
Control	Pre	149	3	6.00				
	Post	146		6.34				

were having level 3 blood pressure. In post-test 46.66% of samples (14) in experimental group and 0 of samples (0) in control group were having normal blood pressure, 26.67% of samples (8) in experimental group and 33.34% of samples (10) in control group were having level 1 blood pressure, 20% 0f samples (6) in experimental group and 46.66% of samples (14) in control group were having level 2 blood pressure, 6.67% of samples (2) in experimental group and 20% of samples (6) in control group were having level 3 blood pressure.

Summary

The main of the study was to Assess the Effectiveness of Guided Imagery on reducing hypertensive patients among selected areas of Ahmedabad city, Gujarat.

CONCLUSION

Hypertension has emerging major health problem in India and developingcountries. Modern anti-hypertensive drug therapy is available and used to reduce high 41blood pressure but there are certain drawbacks like increased side effects of drugs andirregular treatment and improper follow up. So guided imagery is one among thecomplementary alternative therapies is much effective in reducing blood pressure bynatural healing process. Guided imagery in consideration with beneficial effects, absence of side effects and complications will prove the effectiveness in various conditions especially reducing pain, lowering stress and reducing the side effects of chemotherapy. It is cost effective, provides secondary beneficial effects to other systems of the body and optimizes the holistic health care to hypertensive clients. The research findings have proved that the administrating guided imagery among hypertensive clients has reduced the level of blood pressure. The result shows that guided imagery given to the hypertensive patients in experimental group, the blood pressure level improved which was assessed by checking blood pressure after providing guided imagery therapy. In the experimental group, the pre-test mean is 149 and post-test is 133, the mean difference was 16, standard deviation of pre-test was 6.31 and of post-test was 11.38 which showing that level of blood pressure was improved. In control group, the pre-test mean is 149 and the post-test is146, the mean difference is 3, standard deviation of pre-test is 6.00 and of post-test is 6.34. Calculated 'f' value is 51.0326 which is more than table value 4.00 at level of 0.05 level of significance which showing effectiveness of guided imagery. This study therefore, offers an encouraging solution towards improvement of blood pressure after providing guided imagery therapy.

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