



AN EMPIRICAL STUDY TO EVALUATE THE EFFECTIVENESS OF GUIDED IMAGERY TECHNIQUE ON REDUCTION OF STRESS AMONG CANCER PATIENTS RECEIVING CHEMOTHERAPY, ADMITTED IN SELECTED HOSPITAL OF JALNA, MAHARASHTRA

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ABSTRACT: A quasi-experimental study was conducted to assess the effectiveness of guided imagery technique to reduce stress among cancer patients receiving chemotherapy in selected hospital of Jalna Maharashtra, India. Data was collected from oncology ward of selected hospital, Jalna, Maharashtra. The study design used for the study non-randomized control group design. 60 cancer patient was selected by convenient sampling technique. In pre-test done by using stress rating scale after pre-test intervention was given as guided 15 minutes up to 3 days, Then finally the post-test assessment was done to assess the effectiveness of guided imagery technique on stress among cancer patient receiving chemotherapy. By using stress rating checklist score. Chi square and paired 't' test were used for the data collection. The study was conclude, the the guided imagery technique is effective to reduce the level stress, to improve health and stress free hospital environment.

INTRODUCTION: In modern world which is said to be a world of achievement, is also world of stress every human experience everywhere right from the time of birth till the last breath. The psychosomatic disorders that arise from prolonged exposure to stressful condition are long term psychological consequence such as tension, pain depression, sleep disturbance, irritability and anxiety (pestonjee 2005) Stress can exacerbate or be the result of pain and fatigue and be the two most prevalent symptoms in cancer patient. Stress not only interference with the patient daily activities but also with the healing process.

Guided imagery technique is an important alternative to pharmacotherapy, which has greater safety to control stress. Guided imagery techniques is based on the idea that the mind can influence the function of the body. Proponents suggest that imagery can have a direct effect on both the endocrine and nervous system, which can lead to changes in immune system function. Guided imagery is used to promote relaxation, reduce stress and help mine influence the body in positive way.

Guided imagery is a convenient and simple relaxation technique that can help you quickly and easily manage stress tension in your body. Its virtually as easy an including in a vivid daydream and with practice the technique can help you to better assess your inner wisdom.

NEED FOR STUDY: cancer and its treatment can be stressful for people with cancer and their caregiver relaxation techniques and other mind / body practices can help calm your mind and sharpen your ability to focus. These techniques offer creative ways to reduce stress caused by cancer and maintain inner peace. For example, some people use this technique such as breathing exercises, meditation and guided imagery. It is very important to reduce stress among cancer patients. Therefore the guided imagery technique is essential for to reduce the stress among cancer patient those who have in stress full condition.

STATEMENT OF PROBLEM:

An empirical study to evaluate the effectiveness of guided imagery technique on reduction of stress among cancer patients receiving chemotherapy, admitted in selected hospital of Jalna, Maharashtra.

OBJECTIVES:

- To assess the pre-test level of stress among cancer patients receiving chemotherapy in both experimental and control group.
- To determine the effectiveness of guided imagery technique on the level of stress among cancer patient receiving chemotherapy in experimental group.
- To compare the pre-test and post-test level of stress among cancer patients receiving chemotherapy in both experimental and control group.
- To find out the association between the pre-test level of stress among cancer patients receiving chemotherapy with their selected demographic variables like age, gender, marital status, educational status.

HYPOTHESIS:

H1: There will be significant difference between pre-test and post-test level of stress among cancer patients

H2: There will be significant difference between post-test level of stress in experimental and control group.

H3: There will be significant association between stress among cancer patient receiving chemotherapy with their selected demographic variables.

METHODOLOGY:

The methodology is the blueprint of the study. In other words, it outline how the study will be conducted.

Research Approach: It is defined the approach as the general set of orderly discipline procedure used to acquire information. The quantitative approach was used in this study.

Research Design: The research design selected was quasi experimental one group pre- test, post -test.

O1	Pre test	Intervention	Post test
Experimental group	O1	X	O2
Control group	O3	-	O4

POPULATION:

Target population: it refers to the total number of stress among cancer patient receiving chemotherapy in selected hospital in Jalna, Maharashtra.

Description of the study:

The study was conducted in Deepak Hospital at Jalna. It is located 1km away from Vasantao Naik College of Nursing.

SAMPLING:

- **Sample:** cancer patient in selected hospital and those who fulfilled inclusion and exclusion criteria.
- **Sampling technique and sample size:** The investigator selected 60 cancer patients through convenience sampling technique.
- **Criteria for sample selection:**

Inclusion Criteria

- Cancer patient with stress
- cancer patient receiving chemotherapy only
- patient speaking and understanding Hindi, Marathi and English.
- Age group above 25

Exclusion criteria

- patient who are receiving any other form of relaxation technique
- patient who had cognitive impairment and are critically ill
- Age group below
- Variables under study

VARIABLES:

Independent variables: Guided Imagery Technique.

Dependent variables: Stress in cancer patient receiving chemotherapy.

Description of the tool: The tool consists of two sections

- **Section- A:**
 - **Demographic variables:** The demographic variables to comprise 5 items such as age, sex, education status, occupation and habits.
 - **Clinical variables:** The clinical variables to comprise 5 items such as stages of cancer, duration of disease, no.of chemotherapy session underwent, type of cancer and pre-existing illness.
- **Section-B: Checklist.**
 - It comprised of 21 items each item had 4 responses, The score was interpreted as 0,1,2,3 respectively. The minimum and maximum score.
 - **Scoring scale:**

Score	Level
0-6	Low
7-11	Moderate
12-15	High
16-21	Very high

TECHNIQUES OF DATA COLLECTION : Data collection is the process of acquiring and collection information needed for the practicing guided imagery technique. Their is collection of data as control population and accessible population. Sample were selected for experimental group by convenience sampling technique.

INTERVENTION:

Guided imagery technique was practiced for 15 minutes for 3 days to the experimental group.

➤ Procedure:

- 1.The therapy was given in a calm and quite environment
2. Patients were asked to lie in their supine position
- 3.The therapy was started with deep breathing 5 minutes.
- 4.Visualized the aids and asked to imagining
- 5.Pleasant imagery was given through verbal instruction by imagining a calm place.
- 6.The therapy ended with deep breathing exercise for 2 minutes.
7. The patients were asked to open their eyes slowly.

METHODS OF DATA ANALYSIS:

- 1) **paired ‘t’ test:** Analysis of “T” test is applied to test the effectiveness of guided imagery technique among the patients got admitted in Deepak hospital, Jalna Maharashtra.
- 2)**Chi-square test:** chi-square test was use to find out association between effectiveness of guided imagery technique with selected demographic variables in pre –test among patents gotadmitted in Deepak hospital, Jalna Maharashtra.

RELIABILITY AND VALIDITY OF TOOL:

Reliability : Reliability has to do with the quality of measurement. In its everyday since, reliability is the “consistency” or “repeatability” of measures. Reliability is the consistency of a set of measurement or measuring instrument. Reliability does not imply validity.

PILOT STUDY: Pilot study was conducted in Deepak hospital Jalna.10 sample were selected for pilot study through convenience sampling technique. The pre-test was conducted and the samples were taught about Guided imagery technique in a clam and quite environment. Each day samples were made to practice Guided imagery technique for about 15 minutes in the presence of researcher. The researcher conducted post-test on 3rd day of intervention. The data analysis was done with statistics. The tool was found feasible and practicable.

METHODS OF DATA COLLECTION : Structured Interview Schedule was used to collect the data based on study objectives.

DATA COLLECTION PROCEDURE: The study was conducted at selected hospital ,Jalna .In the beginning data collection was done from was from which samples were selected by convenience sampling technique based on sampling criteria. Introduction about investigator was given to samples. Written consent was obtained and confidentiality was assured.

The pre-test was conducted. Researcher selected 60 samples through convenience sampling technique. Total samples were divided into 2 groups for the convenience implementing Guided Imagery Technique. Structured interview schedule was used to assess the stress among the cancer patient receiving chemotherapy. Time taken by researcher to complete the tool for each sample was into 10-15 minutes. The samples were made to practice the technique daily in front of researcher. Each day the samples were made to practice Guided Imagery Technique in front of researcher. Post-test was done on the 3rd day of intervention.

Plan for Data Analysis:

- 1)**Paired’t test:** Analysis of “T” test is applied to test the effectiveness of guided imagery technique among the patients got admitted in Deepak hospital, Jalna Maharashtra.
- 2)**Chi-square test:** chi-square test was use to find out association between effectiveness of guided imagery technique with selected demographic variables in pre –test among patents got admitted in Deepak hospital, Jalna Maharashtra.

RESULT:

- Most of the cancer patients in experimental group 14(46.7%) and in control group 16 (53.3%) were belongs to 51 to 60 years of age.
- Most of the cancer patients in experimental group 19(63.3%) are female and control group 17(56.7%) are males.
- Most of the cancer patients in experimental group 13(43.3%) are illiterate and control group 14(46.7%) are up to the school level.
- Most of the cancer patients in experimental group 12(40%) and control group 15(50%) are daily wager.
- Most of the cancer patients in experimental group 14(46.7%) and control group 16(53.3%) are none of the above options.
- Most of the cancer patients in experimental group 11(36.7%) are stage-1 and control group 17(56.7%) are stage-2.
- Most of the cancer patients in experimental group 18(60%) and control group 17(56.7%) are less than 1 year duration of disease.
- Most of the cancer patients in experimental group 11(36.7%) are 4-6 cycle and control group 15(50%) are 1- 3 cycle chemotherapy session.
- Most of the cancer patients in experimental group 7(23.3%) are cervix and control group 10(33.3%) are stomach cancer.
- Most of the cancer patients in experimental group 8(26.7%) are cardiovascular problem and control group 12(40%) are none of the above options.
- The calculated t value was 14.846* at the level of P 0.05. Since P value is less than 0.05 (P value = 0.0001) difference in scores is statistically significant. Researcher conclude at 5% level of significance and 29 degrees of freedom that the above data gives sufficient evidence to conclude that cancer patients after receiving guided imagery therapy is effective in reducing stress level among cancer patients in experimental group. **Hence reject null hypothesis and accept research hypothesis.**
- The calculated unpaired t value was 11.66 and p<0.0001. It conclude at 5% level of significance and 58 degrees of freedom that the above data gives sufficient evidence that after receiving guided imagery therapy in experimental group, stress level was reduced among patients with cancer and it was statistically significant at 0.05 level.**Hence,H2 is accepted.**

- The association between pretest level of stress in experimental group with selected demographic variables. In order to compute the association between the level of stress and demographic variables chi-square was applied and the value was observed with 5% significance level. There were no demographic variables found association with level of stress with selected demographic variable Hence, **H3 is rejected.**

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TOOLS:

Section-A: The Demographic profile

Sr.	Demographic Variable	Category	Experimental group		No Control group	
			Frequency	Percentage	Frequency	Percentage
1	Age in years	41-50 years	4	13.3	4	13.3
		51-60 years	14	46.7	16	53.3
		61-70 years	3	10.0	1	3.3
2	Gender	Male	11	36.7	17	56.7
		Female	19	63.3	13	43.3
		Transgender	0	0.0	0	0.0
3	Education status	Illiterate	13	43.3	11	36.7
		Up-to school level	13	43.3	14	46.7
		Undergraduate	4	13.3	3	10.0
		Post graduate	0	0.0	2	6.7
4	Occupation	Unemployed	5	16.7	3	10.0
		Daily wager	12	40.0	15	50.0
		Professionals	7	23.3	2	6.7
		Other	6	20.0	10	33.3
5	habits	Smoking	6	20.0	5	16.7
		Alcohol consumption	3	10.0	5	16.7
		Tobacco chewing	7	23.3	4	13.3
		None of the above	14	46.7	16	53.3

6	Stages of cancer	Stage I	11	36.7	10	33.3
		Stage II	10	33.3	17	56.7
		Stage III	9	30.0	3	10.0
7	Duration of disease	Less than one year	18	60.0	17	56.7
		1-3 year	6	20.0	11	36.7
		> 3 years	6	20.0	2	6.7
8	Number of chemotherapy sessions underwent	1-3 cycle	10	33.3	15	50.0
		4-6 cycle	11	36.7	8	26.7
		>6 cycle	9	30.0	7	23.3
9	Type of cancer	Breast cancer	5	16.7	5	16.7
		Ovary cancer	6	20.0	3	10.0
		Cervix cancer	7	23.3	2	6.7
		Lung cancer	2	6.7	6	20.0
		Stomach cancer	7	23.3	10	33.3
		Intestine cancer	3	10.0	4	13.3
		Other cancer	0	0.0	0	0.0
10	Pre-existing illness	Respiratory illness	5	16.7	7	23.3
		Cardiovascular problem	8	26.7	3	10.0
		Gastrointestinal problems	6	20.0	5	16.7
		Ortho problems	2	6.7	3	10.0
		Endocrine disorder	1	3.3	0	0.0
		None of the above	8	26.7	12	40.0

Section-B: Stress Checklist

DASS21	Name	Date
Please read each statement and circle a number 0,1,2 or 3 which indicate how much the statement applied to you thepast week. There are no right or wrong answer. Do not spend too much time on any statement.		
The rating scale is as follows: 0 did not apply to me at all 1 applied to me to some degree, or some of the time 2 applied to me to a considerable degree, or a good part of time 3 applied to me to very much, or most of the time		
1. I found I hard to wind down.		0 1 2 3
2. I was aware of dryness of my mouth.		0 1 2 3
3. I couldn't seem to experience any positive feeling at all.		0 1 2 3
4. I experienced breathing difficulty (ex. Excessively		0 1 2 3
5. I found it difficult to work up the initiative to do things.		0 1 2 3
6. I tender to over-react to situations.		0 1 2 3
7. I experienced trembling (eg, in the hands)		0 1 2 3
8. I felt that I was using a lot of nervous energy.		0 1 2 3
9. I was worried about situations in which I might panic and make		0 1 2 3
10. I had nothing to look forward to.		0 1 2 3
11. I found myself getting agitated.		0 1 2 3
12. I found it difficult to relax.		0 1 2 3
13. I felt down-hearted and blue.		0 1 2 3
14. I was intolerant of anything that kept me from getting on with what I was doing.		0 1 2 3
15. I felt I was close to panic.		0 1 2 3
16. I was unable to become enthusiastic about anything.		0 1 2 3
17. I felt I wasn't worth much as a person.		0 1 2 3
18. I felt that I was rather touchy.		0 1 2 3
19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)		0 1 2 3
20. I felt scared without any good reason.		0 1 2 3
21. I felt that life was meaningless.		0 1 2 3

Scoring scale:

Score	Level
0-6	Low
7-11	Moderate
12-15	High
16-21	Very high