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Original Research Article

Assess the effectiveness of autogenic training exercise on stress among cancer patients

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ABSTRACT

Background: Autogenic training has shown promise in helping cancer patient to reduce stress. Autogenic training can help to bring greater attention to the present, while avoiding the stress of future and past.
Methods: A quasi-experimental study was conducted in New Heritage hospital Awagarh district Etah, Uttar Pradesh, India. Informed consent was obtained from cancer patients after brief explanation of the study and intervention. In this study one group pre-test-post-test design was adopted. Pre-test was done among 60 cancer patients by using perceived stress scale (PSS). By using convening sampling technique 60 cancer patients were selected for the study.
Results: The results shows that pre-test level of stress was that 13 (22%) stress, and post-test stress level was 26 (43%) of patients had low stress, 21 (35%) had moderate stress and 13 (22%) had high stress. The mean score of pre-test and post-test was 64.6 and 51.4 with SD of 17.56 and 15.34 with respectively.
Conclusions: The findings of study proved that autogenic training was effective in reducing stress of cancer patients.

Keywords: Autogenic training, Stress, Cancer patients

INTRODUCTION

The autogenic training is a relaxation technique which refers self-regulation or self-generation. Our mind can influence body to balance the activity of sympathetic and para sympathetic branches of autonomic nervous system.[3] Autogenic training involves six mental exercises which includes heaviness, warmth, breathing, calm heart, stomach and forehead.[1] Relaxation techniques boost self-esteem, coping ability, sleep quality and reduce the stress of the individuals.[3] Many research studies show positive effects on relaxation techniques. Autogenic training includes measures like progressive muscle relaxation therapy, breathing exercise, yoga and meditation.[2] Autogenic training stimulates change in the body functions such as heart rate, blood pressure, blood flow as well as the balance mental functions.[6]

Problem statement

A study to assess the effectiveness of autogenic training exercise on stress among cancer patients in a selected hospital at district Etah, Uttar Pradesh, India.

Objectives

The objectives of the study were to assess the level of stress among cancer patients, to determine effectiveness of autogenic training exercise on stress among cancer patients and to associated the pre-test level of stress of cancer patients with selected demographic variables.

Hypothesis

Ho-The mean post-test level of the stress score will be significantly lower than the mean pre-test level of stress score at 0.05 level of significance.

Ha-There will be significantly association between pre-test stress score and selected demographic variables such as age, sex.

METHODS

Research approach

A quantitative research approach is selected for the study to assess the level of stress among cancer patients.

Research design

Quasi-experimental one group pre-test post-test design was adopted to evaluate the effect of autogenic training exercise on stress among cancer patient.

$$E — O_1 — X — O_2$$

Setting of the study

The study was conducted in New Heritage hospital Awagarh district Etah, Uttar Pradesh, India.

Study period

The study was conducted from February 2022 to May 2022.

Variables

Independent: Autogenic training exercise.

Dependent: Cancer patient level of stress.

Population

The target population of the present study was cancer patients which are under treatment at New Heritage hospital Awagarh district Etah, Uttar Pradesh, India.

Sample

In this study sample is cancer patients at New Heritage hospital Awagarh district Etah, Uttar Pradesh, India.

Sample size

The sample size consists of 60 for present study.

Selection criteria of patients

Convenience sampling technique is selected for the present study to select the sample from target population.

Ethical approval

Ethical approval with reference: NHH/IEC/2022/654/1143 was obtained from the institutional ethical committees. A written informed consents was obtained from each of the study participants after detailed explanation of the study purpose, procedures, and voluntariness of participation.

Data for statistical analysis

Inferential statistics Frequency and percentage distribution, Chi-square test was used to analyse the demographic variables of patients with stress among cancer patients. Mean and standard deviation was used to assess the effectiveness of autogenic training exercise on stress among cancer patients.

RESULTS

This chapter deals with the analysis and interpretation of data obtained from 60 cancer patients.

Findings of the study

Table 1: Socio-demographic profile of cancer patients, (n=60).

Variables	Classification	Frequency	%
Age (Year)	20-30	05	08
	31-40	12	20
	41-50	15	25
	>50	28	47
Sex	Male	28	47
	Female	32	53
Educational status	Illiterate	10	17
	Primary	15	25
	Secondary	08	13
	Higher secondary	12	20
	UG	09	15
	PG	06	10
Residency	Rural	38	63
	Urban	22	37
Monthly income (Rs.)	<5000	05	8
	5001-10000	18	30
	10001-15000	22	37
	>15000	15	25
Marital status	Married	50	83
	Unmarried	10	17
Duration of illness (Years)	<1	22	37
	1-3	21	35
	3-5	11	18
	>5	06	10

The Table 1 denotes the percentage distribution of demographic information. In the age distribution highest 28 (41%) cancer patients belong to >50 years of age group and 05 (8%) lowest belongs to 20-30 years age group. In this study majority 32 (53%) of patient were female. The educational status of patient indicates that majority 10 (17%) were illiterate. The residence of patient indicates that 38 (63%) resided in rural and 22 (37%)

patients resided in urban community area. The distribution on monthly income of cancer patients reflects that majority 22 (37%) of their family earn between 10001-15000 Rs. most of participants 50 (83%) were married, and duration of illness of the patient 22 (37%) were less than one year.

Assessment on level of stress among cancer patient

The level of stress of the cancer patient was assessed by PSS. The scale consists of 10 items, and the level of stress was categorized as low stress, moderate stress and high stress.

Table 2 shows the distribution of level of stress before and after autogenic training exercise among cancer patients. Before intervention the level of stress was found that 13 (22%) of patients had low stress, 29 (48%) had moderate stress and 18(30%) had high stress. After intervention 26 (43%) of patients had low stress 21 (35%) had moderate stress and 13 (22%) had high stress. This shows that there was reduction in stress level after autogenic training exercise.

Table 2: Level of stress before and after intervention (ATE).

Level of stress	Before-intervention (Pre-test)		After-intervention (Post-test)	
	N	%	N	%
Low stress	13	22	26	43
Moderate stress	29	48	21	35
High stress	18	30	13	22

Table 3: Comparison on level of stress among cancer patients with respect to mean, standard deviation and 't' value of stress before and after intervention.

Test	Mean	S. D.	Mean (%)	Mean difference	'T' value
Before intervention	64.6	17.56	64.62	13.18	3.0436*
After intervention	51.4	15.34	51.44		

*Significance at 0.05 level

The Table 3 depicted that the mean score of stress of cancer patient before and after intervention was 64.6 and 51.4 with standard deviation of 17.56 and 15.34 respectively. The calculated 't' value, 3.0436 was found to see significant at 0.05 level. Hence the hypothesis 'the mean post-test level of stress score will be significantly lower than the mean pre-test level of stress score at 0.05 level of significance' is accepted. It is proved that Autogenic training exercise implemented to cancer patient for reducing level of stress significantly effective.

DISCUSSION

Our study revealed that majority of the cancer patients results shows that pre-test level of stress was that 13 (22%) stress, and post-test stress level was 26 (43%) of patients had low stress, 21 (35%) had moderate stress and 13 (22%) had high stress. The mean score of pre-test and post-test was 64.6 and 51.4 with SD of 17.56 and 15.34 with respectively. Seo et al study showed that autogenic training decreased anxiety and depression and increased the high frequency of heart rate variability.[5]

Limitations

The pre-test of this study was conducted in one-week, autogenic training exercise was given for 3 months and post-test was done in one week after interventions.

CONCLUSION

The study was conducted to assess the effect of autogenic training exercise on stress among cancer patients. The mean percentage of level of stress has been decreased from 64.6% to 51.4%. This proves that the autogenic training exercise of effective in reducing stress among cancer patients.

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