



To Assess the Effectiveness of Positive Cognitive Behavioural Therapy(CBT) on Anxiety and Depression Among Cancer Patients in Selected Hospital at Kanyakumari District

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Abstract

Aim of the study: To assess the effectiveness of positive cognitive behavioral therapy on anxiety and depression among cancer patients in selected hospital at Kanyakumari district.

Methods: Quasi experimental with non equivalent control group design was used for this study. 60 cancer patients with anxiety and depression were selected as samples by using purposive sampling technique. Among that, 30 patients were included in control group and 30 patients included in experimental group. The study was conducted in International Cancer Centre, Neyyoor. The tool used for the data collection included demographic variables, clinical variables, and Hospital Anxiety and Depression Scale. Positive cognitive behavior therapy is practiced in the form of self-affirmation technique as an intervention for the study. Pilot study was conducted to find out the feasibility of the study.

Result: Anxiety score in the control group and experimental group the mean difference was high (19.38) and statistically significant. Depression score in the control group and experimental group the mean difference was high (25.39) and statistically significant.

Conclusion: It was statistically evidenced that cognitive behavior therapy was effective in reducing the level of anxiety and depression among cancer patients. It was cost effective complimentary and non-invasive therapy to reduce the level of anxiety and depression among cancer patients.

Keywords: Anxiety, Depression, Positive Cognitive behavior therapy

Introduction

Normally, human cells will grow and multiply to form new cells. When cells grow old it becomes die and new cells will appear. Sometimes this process breaks down and abnormal cells grow and multiply. The body normally eliminate the damaged DNA before it turns into cancer. But when the body is unable to do so, cancer will develop (National Cancer Institute, 2021).

Cancer is the uncontrolled growth of abnormal cell anywhere in a body. These abnormal cells are known

as malignant cells or tumor cells. More than 200 types of cancer is present now-a-days. Most of the causative agents are chemical or toxic compound, radiation, pathogens and genetic (Charles Patrick Davis, 2021).

According to estimates from the International Agency for Research on Cancer (IARC), in 2018 there were 17.0 million new cancer cases and 9.5 million cancer deaths worldwide. By 2040, the global burden is expected to grow to 27.5 million new cancer cases and 16.3 million cancer deaths may occur due to the growth and aging of the population.

Depression can be mild and temporary with sadness. It can also be more severe depression in cancer patients however it can be managed by mindfulness prayer, meditation, deep breathing and relaxation exercise several times a day. Physically anxiety is associated with sleeping problem, fatigue, headache and loss of appetite, psychological restlessness, difficulty in concentration, difficulty in controlling the worry. Therapeutic treatment for coping anxiety was medications, cognitive-behavioural therapy and non-therapeutic tools like physical activity, balanced diet and mindful exercise (JAMA Oncology, 2017).

Cognitive behavioral therapy is a form of psychological treatment that is effective for treating the problems like depression and anxiety disorders (APA, 2021).

Need For Study

GLOBOCAN 2020 estimates worldwide 19.3 million new cancer cases (18.1 million excluding non-melanoma skin cancer) and almost 10.0 million cancer deaths (9.9 million excluding non-melanoma skin cancers) occurred in 2020.

Nikbakhsh N, et al (2014) conducted a systematic analysis on depression and anxiety among cancer patients. One hundred fifty samples were with cancer were assessed. Forty-four (29.3%) patients had mild anxiety, 25 (16.7%) experienced symptomatic anxiety but mild and symptomatic depression were seen in 40 (26.7%) and 32 (21.3%) patients. Result showed that there were significant relationships between anxiety and depression with the type of cancer and type of treatment. Breast and stomach cancer patients had the high prevalence of anxiety and depression.

Depression is a common illness among worldwide. More than 264 million people of all ages suffer from depression. It is worst to say that depression can lead to suicide. Closely 8,00,000 people die due to suicide every year (WHO, 2020).

In India the National mental health survey 2015-2016 reveals that nearly 15% Indian adults need active intervention for one or more mental health issues. One in 20 Indians suffers from depression In Tamil Nadu (2016) 11.8% of people are affected with depression. In Madurai (May 2016) the prevalence of depression among study population was 33.7%.

The Investigator had come across many of the cancer patients with depression and anxiety during the time of clinical exposure, that time the investigator realized that there is the need for an intervention to reduce anxiety and depression. Since positive cognitive behavioral therapy had an impact in reducing depression and anxiety, there were limited literature available in this topic in Kanyakumari district. The investigator decided to administer this intervention to assess its effectiveness in reducing depression and anxiety.

Statement Of The Problem

A Quasi-experimental study to assess the effectiveness of positive cognitive -hospital at Kanyakumari district.

Objectives Of The Study

1. To assess the pre-test and post-test level of anxiety and depression among cancer patients in control group and experimental group.
2. To compare the post-test level of anxiety and depression among cancer patients in control group and experimental group.
3. To find out the association between the pre-test level of anxiety and depression with selected demographic variables among cancer patients in control group and experimental group.

Hypotheses

H₀₁: There is no significant difference between pre-test and post-test level of anxiety and depression among cancer patients in experimental group.

H₀₂: There is no significant difference between post-test level of anxiety and depression among cancer patients in control group and experimental group.

H₀₃: There is no significant association between the pre-test level of anxiety and depression with selected demographic variables among cancer patients in control group and experimental group.

Methodology

The research approach used for the study was quantitative research approach and the research design used was quasi experimental with non equivalent control group design.

The diagrammatic representation is as follows,

GROUP	PRE-TEST	INTERVENTION	POST-TEST
Experimental	O ₁	X	O ₂
Control	O ₁	-	O ₂

O₁= Pre –test level of anxiety and depression among cancer patients in experimental group and control group.

X= positive cognitive behaviour therapy among experimental group.

O₂=Post- test level of anxiety and depression among cancer patients in experimental group and control group.

The study was conducted in International Cancer Centre, Neyyoor. Which is 1/2 kilometres away from Christian College of Nursing Neyyoor. It is a 200 bedded hospital, that cater the needs of all patients in South Tamil Nadu. The International Cancer Centre was started in 1963 by Dr. Jenkins. It is equipped with dual energy Linear Accelerator for giving modern and full fledged treatment to cancer patients. In addition to special and general wards, it has day care, chemotherapy ward, Brachytherapy Unit, X-ray and Ultrasound scan facilities. Various schemes including Chief Minister’s Comprehensive Health Insurance Scheme, PallathakkinLeeli and Charitable Trust provide financial assistance for treatment and medication. The samples are cancer patients admitted in International Cancer Centre Neyyoor who fulfilled the inclusion criteria. Non probability purposive sampling technique was adopted for this study. The sample size consisted of 60 cancer patients with anxiety and depression. Among that, 30 patients were included in control group and 30 patients included in experimental group.

Development Of Research Tool

Section I : Socio demographic variables

Section II : Clinical variables

Section III : Hospital Anxiety and Depression scale

Section- I (Socio demographic variables)

It consisted of demographic variables such as age, sex, religion, area of living, education, occupation,

family income per month, marital status, type of family and habits.

Section-II (Clinical variables)

It consisted of clinical variables such as type of cancer, duration of illness and stage of cancer.

Section-III (Hospital Anxiety and Depression scale)

It consisted of 7 items questionnaire each for depression and anxiety ranging from 0 to 3 which was designed to measure the level of anxiety and depression. Score 3 denotes the abnormal level of depression and anxiety. Score 2 denotes borderline abnormal and Score 1 denotes normal level. The minimum score was 0 and maximum score was 21.

The level of depression and anxiety was graded as follows.

0 - 7 =Normal

8 - 10 =Borderline abnormal

11 - 21 =Abnormal

Data Collection Procedure

Step I:

Permission obtained from the head of the department of International Cancer Centre, Neyyoor, and ward incharge. Data collection was done for 6 weeks from 27.03.2021 to 8.05.2021. The samples are selected by purposive sampling technique based on inclusion and exclusion criteria. The investigator introduced herself to the selected group of subjects and got oral consent from them after explaining the nature and purpose of the study. Then the study was explained and assurance given regarding confidentiality of the answers was provided. The study samples were asked to respond to the demographic data and clinical variables obtained from case sheets. Pre- test conducted among both experimental and control group. The level of anxiety and depression was checked by Hospital Anxiety and Depression Scale.

Step Ii:

Routine treatment was given for control group which was followed in the ward. Positive cognitive-behavioral therapy was given along with routine treatment for experimental group. The positive cognitive-behavioral therapy given as group arranged the samples in outpatient department everyday evening 5.30 pm to 6.00 pm to hear the Self affirmations through video prepared by the researcher

about 30 minutes for the period of 3 weeks. Which included 40 positive thoughts.

Step Iii:

Post-test was conducted after 3 weeks of intervention in both experimental and control group. The level of anxiety and depression was checked by using the Hospital Anxiety and Depression Scale.

Data Analysis And Interpretation

Section I: Assessment of pre-test and post-test level of anxiety and depression among cancer patients in control group and experimental group

Figure 1: Percentage distribution of the Pre-test level of Anxiety among samples in control group and experimental group by cylinder chart

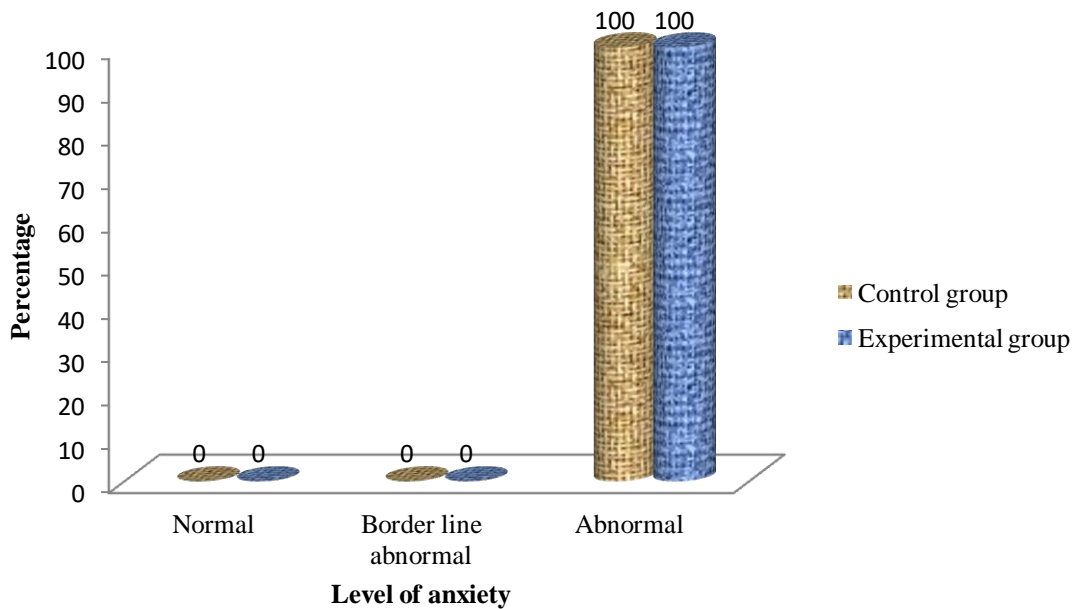


Figure 2: Percentage distribution of the Pre- test level of depression among sample in control group and experimental group by cylinder chart

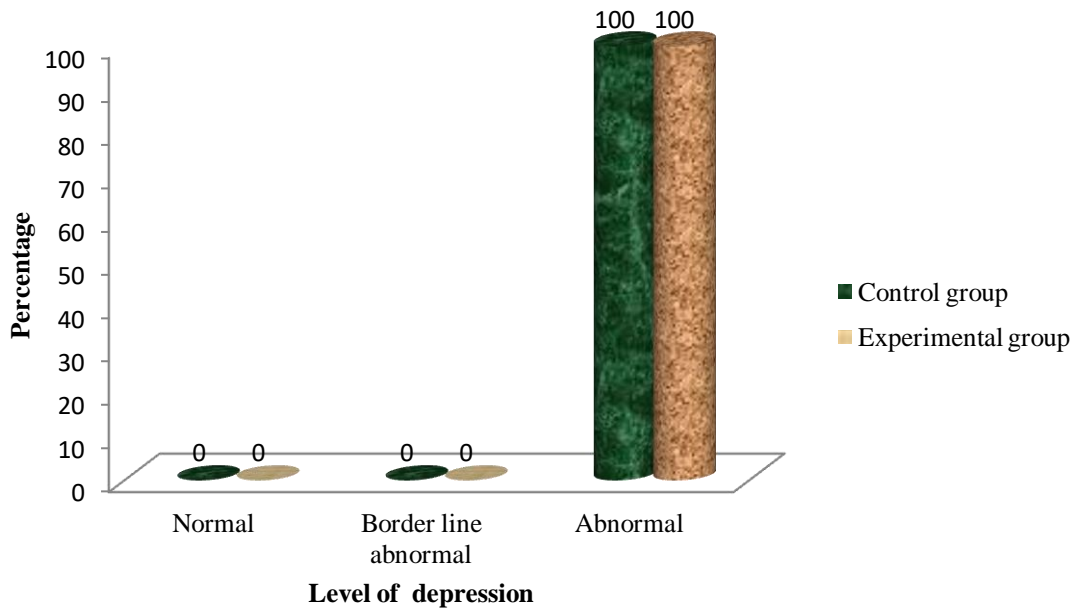


Figure 3: Percentage distribution of the post-test level of anxiety among samples in control group and experimental group by bar chart

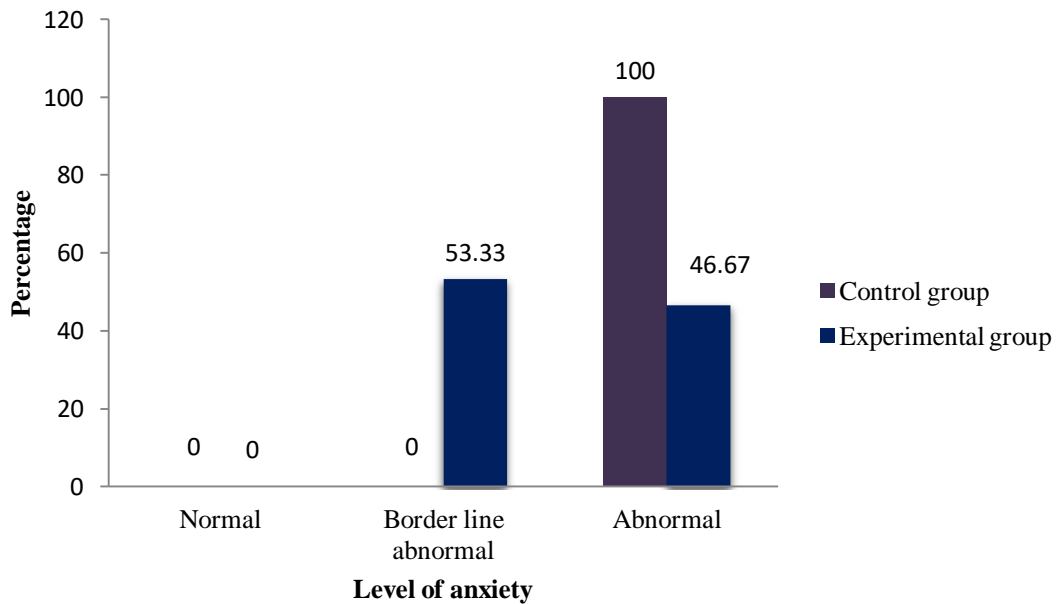
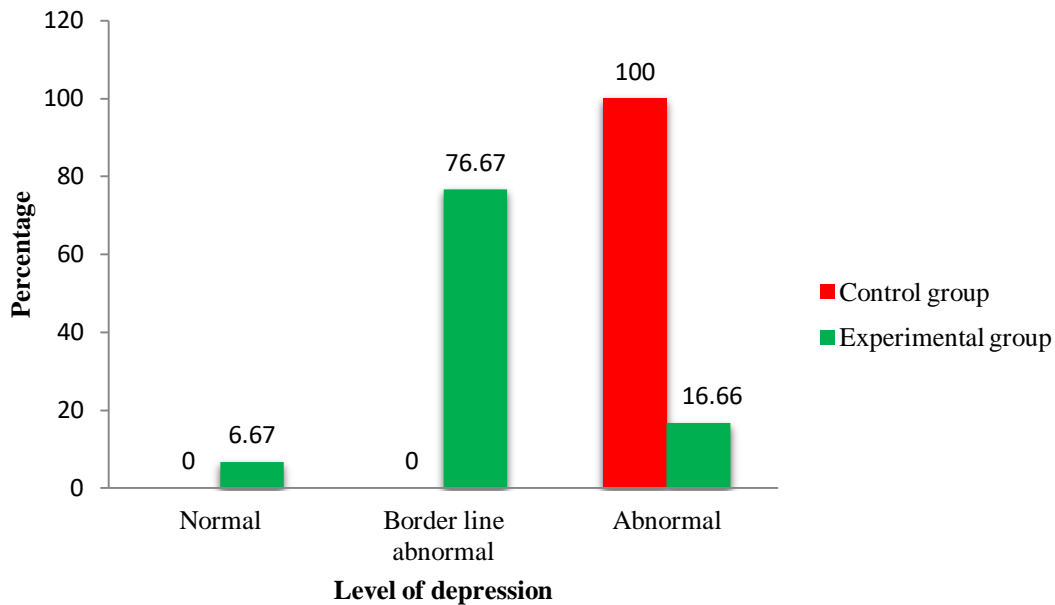


Figure 4: Percentage distribution of the post-test level of depression among sample in control group and experimental group by bar chart



Section-II: Comparison of post-test level of anxiety and depression among samples in control group and experimental group.

Table1: Assessment of the effect of positive cognitive behavioral therapy on anxiety and depression among samples using “t” test

Test	Group	Variable	Mean	SD	Mean difference	“t” value	Level of Significance
Pre test	Control	Anxiety	14.16	1.66	0.27	0.68	0.56 not significant
Pre test	Experimental	Anxiety	14.43	1.35			
Pre test	Control	Depression	14.43	2.17	0.10	0.205	0.839 not significant
Pre test	Experimental	Depression	14.53	2.01			
Post test	Control	Anxiety	14.46	1.85	4.10	10.19	0.00 high significant
Post test	Experimental	Anxiety	10.36	1.42			
Post test	Control	Depression	14.46	2.16	5.26	12.06	0.00 high significant
Post test	Experimental	Depression	9.20	1.39			

Section-III: Association between pre-test level of anxiety and depression among samples and their selected demographic variables in control group and experimental group

There was no significant association between pretest level of anxiety and depression score among cancer patients and their selected demographic variables like

likeage , gender , religion, marital status , education, occupation, type of family monthly income, residence , habits and the clinical variables like type of cancer, duration of illness and stage of cancer in experimental group and control group

Summary

The present study was undertaken with the main purpose of assessing the effectiveness of positive cognitive behavior therapy on level of anxiety and depression among patients with cancer at International Cancer Centre, Neyyoor, Tamilnadu. The conceptual Framework was used on the basis of Callista Roy's Adaptation model. The study was conducted for a period of 6 weeks.

The tool used for the study was Hospital Anxiety and Depression Scale. The collected data was analyzed and interpreted in terms of objectives by using descriptive and inferential statistics.

Major findings of the study

The pre- test mean anxiety score in the control group was 14.16 with SD 1.66 and in the post test mean score was 14.46 with SD 1.85. The mean difference between pre and post test score was low and statistically not significant. In the experimental group the pre- test mean anxiety score was 14.43 with SD 1.35 and in the post test score was 10.36 with SD 1.42. The mean difference was high and statistically significant ($P < 0.05$)

The pre- test mean depression score in the control group was 14.43 with SD 2.17 and in the post test mean score was 14.46 with SD 2.16. The mean difference between pre and post test score was low and statistically not significant. In the experimental group the pre- test mean depression score was 14.53 with SD 2.01 and in the post test score was 9.20 with SD 1.39. The mean difference was high and statistically significant ($P < 0.05$)

There was no significant association between pretest level of anxiety and depression among cancer patients with their selected demographic variables in both control and experimental group like age, gender, religion, marital status, education, occupation, type of family, monthly income, residence, habits and the clinical variables like type of cancer, duration of illness, stage of cancer among cancer patients.

Conclusion

It was statistically evidenced that cognitive behavior therapy was effective in reducing the level of anxiety and depression among cancer patients. It was cost effective complimentary and non-invasive therapy to reduce the level of anxiety and depression among cancer patients.

Implications Of The Study

The findings of the study have implication to nursing practice, nursing education, nursing administration and nursing research. The implications which have been made in the study are vital concern for education planners and nurses.

Nursing Practice

Hospital

1. Cognitive behavior therapy needs to be implemented as a part of the treatment and to be carried out by the nurse in the day today activities while caring for patients with cancer.
2. The psychiatric nurse needs to motivate the patients to practice cognitive behavior therapy in their daily life.
3. Thus, it is the psychiatric nurse's responsibility to identify these problems and to carry out necessary nursing strategies to overcome them.

Community

1. The psychiatric nurse can carry out cognitive behavior therapy for patients with cancer as a part of psychiatric rehabilitation in the community.
2. In the family, the nurse can identify the anxiety and depression among patients with cancer and quality of life preserved by implementing cognitive behavioral therapy.
3. The nurse should encourage the family members to carry out cognitive behavior therapy for patients with cancer as a part of their day today life activities.

Nursing Education

1. Anxiety and depression in patients with cancer affects the treatment process and quality of life. So nurse educators give more chances to implement cognitive behavioral therapy.
2. The nursing students need to be educated regarding the cognitive behavior therapy, so as to reduce the level of anxiety and depression among patients with cancer.

3. The knowledge of the nurse educators should be updated from time to time with the emerging trends.

Nursing Administration

1. The nurse administrator must periodically evaluate the nursing interventions used in the hospitals.
2. Then nurse administrator should organize programs on cognitive behavior therapy and proper resources should be arranged for the nursing staff to implement cognitive behavior therapy for patients to reduce the level of anxiety and depression.
3. The nurse administrator must take essential steps like organizing and encouraging the staff to participate in programs like continuing nursing education and workshops, as these measures will help keep knowledge on the current trends in patient care.

Nursing Research

1. Nursing practice initiates ideas for nursing research. A team response must be generated among nurse to perform the research and to implement it in daily practice.
2. More research should be conducted on anxiety and depression among patients with cancer and measures to overcome this.
3. The finding of the research should be utilized in clinical practice.
4. They should be able to seek, acquire assimilate and apply relevant research findings as a basis for all nursing actions.

Recommendations

1. A similar study can be replicated with a large sample size.
2. The study can be done on a longitudinal basis.
3. This study can be carried out with other neurological and psychiatric disorder.
4. A comparative study can be done to assess the effectiveness of cognitive behavioral therapy with other therapies.

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