

# Role of Occupational Therapy in Enhancing Psychosocial Well-Being among Individuals with Malignant Tumor

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## ABSTRACT

**AIM:** To analyse the effectiveness of occupational therapy behavioural techniques in enhancing psychosocial well-being among individuals with malignant tumors.

## OBJECTIVE:

1. To select the samples with the diagnosis of malignancy irrespective of the site of cancer.
2. To assess their psychosocial well-being using Ryff's psychosocial well-being scale
3. To intervene them with occupational therapy behavioural techniques for a period of 2 months
4. Post intervention score assessing of psychosocial well-being using Ryff's psychosocial well-being scale after 3 months of intervention by occupational therapy behavioural techniques.

**METHOD:** The study consists of 33 samples, who were assigned into a single group. All the samples were assessed for psychosocial well-being using Ryff's psychosocial well-being scale based on the inclusion criteria. All the sample who was selected for the study received behavioural intervention techniques of occupational Therapy. The intervention session was conducted 3 times a week, each session lasting for 30 minutes, over a period of 8 weeks. All the samples were assessed using Ryff's psychosocial well-being scale before and after intervention. The scores obtained were tabulated and analysed statistically.

**RESULT:** A total 33 samples participated in the study, and they were intervened for psychosocial well-being using occupational therapy behavioural intervention techniques. After eight weeks of intervention they were assessed using Ryff's psychosocial well-being scale, the Result revealed a significant improvement in post intervention score shows enhancement in the areas of The Autonomy, Environmental Mastery, The Personal Growth, The Positive Relations with Others, The Purpose in Life, The Self-Acceptance of psychosocial well-being among individual with malignant tumors.

**CONCLUSION:** The study concludes that occupational therapy behavioural techniques intervention enhances psychosocial well-being of individuals with cancer. These areas are given importance as par with other pharmacological and invasive interventions to obtain maximal improvement in all domains of individuals with cancer.

**KEYWORDS:** Cancer, Malignant tumors, Psychosocial well-being, Occupational Therapy and Ryff's psychosocial well-being scale.

## **1. INTRODUCTION**

### **CANCER**

Cancer is a broad group of diseases characterized by the uncontrolled division of abnormal cells, which can invade nearby tissues and/or metastasize to other parts of the body via the blood and lymph systems. The latter process is called Metastasizing and is one of the major causes of death from cancer. Cancer is also called a neoplasm and a malignant tumor. It's the second leading cause of death worldwide, with an estimated 9.6 million deaths.

### **TYPE OF CANCER**

The most common types of cancer include:

1. Head and Neck Cancer (HNC) is a heterogeneous group of malignant tumors that arise in the head and neck region, excluding intracranial (brain) tumors. These cancers can originate from different anatomical sites, including the oral cavity, pharynx, larynx, nasal cavity, paranasal sinuses, salivary glands, and thyroid gland. Tumors arising from different sites exhibit distinct biological behaviors, prognoses, and treatment approaches. The major risk factors for head and neck cancer are tobacco use (smoking and smokeless tobacco) and heavy alcohol consumption, with the combined use of both significantly increasing the risk. Other factors, such as human papillomavirus (HPV) infection (especially for oropharyngeal cancer), hereditary predisposition, occupational exposures, poor oral hygiene, and environmental factors, also contribute to the development of certain head and neck cancers.
2. Lung cancer is one of the most common malignant tumors affecting the internal organs and remains the leading cause of cancer-related mortality worldwide in both men and women. It accounts for nearly one-third of all cancer deaths. Cigarette smoking is the primary risk factor, contributing to approximately 85–90% of all lung cancer cases. Other established risk factors include exposure to asbestos, ionizing radiation, and various occupational and environmental carcinogens.
3. Gastrointestinal (GI) cancers are among the most common malignancies worldwide and represent a major public health concern. In the United States, cancers of the gastrointestinal tract account for approximately 20% of all newly diagnosed visceral cancers and nearly 23% of cancer-related deaths. The incidence and mortality rates of GI cancers vary across different countries, and in many regions, these cancers pose an even greater health burden due to their high prevalence and associated mortality.
4. Breast cancer is the most commonly diagnosed cancer among women worldwide and remains one of the leading causes of cancer-related mortality. It develops due to genetic mutations that affect the normal regulation of cell growth and division. Several genes have been identified as playing important roles in the development of breast cancer, particularly BRCA1 (located on chromosome 17q21), TP53 (p53) (located on chromosome 17p13), and BRCA2 (located on chromosome 13). In addition, mutations in the androgen receptor (AR) gene, located on the X chromosome, have been associated with some cases of male breast cancer, although they are not considered a major cause of breast cancer in females.
5. Gynecologic cancers comprise approximately 20% of all visceral malignancies in women and originate in the female reproductive organs. The major types of gynecologic cancers include cervical, ovarian, uterine (endometrial), vaginal, and vulvar cancers. In addition, fallopian tube cancer is recognized as a rare form of gynecologic malignancy. These cancers differ in their risk factors, clinical presentation, prognosis, and treatment approaches, making early detection and appropriate management essential for improving patient outcomes.

6. Testicular cancer accounts for approximately 1% of all cancers in men, but it is the most common malignancy among men aged 20–40 years. The exact cause is not fully understood; however, cryptorchidism (undescended testis) is the most significant established risk factor. Individuals with testicular dysgenesis or certain disorders of sex development, including androgen insensitivity (testicular feminization) syndrome, also have an increased risk of developing testicular cancer. In contrast, the evidence linking orchitis, testicular trauma, or previous irradiation to testicular cancer remains limited or inconclusive.
7. Neurologic tumors, or brain tumors, are abnormal growths of cells within the brain or surrounding nervous system tissues. Primary brain tumors originate in the brain itself, whereas secondary (metastatic) brain tumors develop when cancer from another part of the body spreads to the brain or spinal cord. Although the exact cause of many brain tumors is unknown, several risk factors have been identified, including exposure to ionizing radiation, certain environmental factors, genetic predisposition, and immune suppression. Hereditary neurocutaneous syndromes associated with an increased risk of brain tumors include Neurofibromatosis, Tuberous Sclerosis Complex, Nevroid Basal Cell Carcinoma Syndrome (Gorlin syndrome), and Neurocutaneous Melanosis.
8. Soft tissue sarcomas (STS) are tumors of mesenchymal cells that do not originate from bones, parenchymal tissue, or hollow organs. STS can also originate from bones, parenchymal tissue, or hollow organs but are not typically included in this definition. A variety of factors can influence the type and location of STS including Lymphangiosarcoma, Angiosarcoma, Osteosarcoma, Fibrosarcoma, Kaposi's Sarcoma, Leiomyosarcoma & Genetic Abnormalities.

Numerous kinds of cancers have looked at the quality of living for those who develop malignant tumors as there are many high comorbidities that go along with this disorder. Examples include mental distress, anxiety, affective disorders (such as major depressive disorder), feelings of hostility, anger, guilt, being dependent and compliant, having an inflated sense of entitlement and psychosis.

## PSYCHOLOGICAL WELL-BEING ISSUES

Psychological well-being refers to a person's overall positive mental and emotional functioning. It includes the ability to build meaningful relationships, experience personal growth, maintain a sense of purpose, and effectively manage everyday life. It also reflects how individuals evaluate their lives and the positive or negative emotions they experience.

A cancer diagnosis often brings significant psychosocial challenges that may begin at the time of diagnosis and continue throughout treatment and survivorship. Although advances in medical care have improved survival rates and cancer is increasingly viewed as a chronic condition, many individuals still associate it with fear, uncertainty, and the possibility of death. As a result, patients frequently experience emotional distress and concerns about how the disease and its treatment will affect their daily lives, work, family responsibilities, and social relationships.

The uncertainty surrounding the illness and its outcomes can increase stress and make it difficult for individuals to cope with everyday activities. Many patients experience changes in their usual roles and routines, reduced participation in social activities, feelings of sadness, loss of independence, decreased motivation, and a poorer quality of life. Another common concern is the impact of cancer on body image and self-esteem. Changes in physical appearance and functional abilities caused by the disease or its treatment may lead to reduced confidence and a negative perception of one's body. Body image involves

not only how a person looks but also how they think, feel, and function in relation to their body and its ability to perform daily activities.

Psychosocial well-being, adjustment (how we adapt to our environment), health, homeostasis (how balanced we feel), competence, and the quality of one's life are examined. The author explains ancient Indian literature regarding these ideas, particularly the concept of sama (to be in equilibrium). The author states that the West believes that well-being results from controlling the environment and using it to provide for one's needs, while Indian philosophy believes that well-being comes from maintaining harmonious relationships with all of creation. When developing measures for evaluating human well-being, cultural differences in how well being is defined should be considered.

### **OCCUPATIONAL THERAPY INTERVENTION**

Occupational therapy intervention for psychosocial issues can include adaptations to the physical and social environment to promote occupations. The focus of intervention can include the following:

- Stress management and coping strategies to increase one's sense of control
- Relaxation techniques, guided imagery, and breathing techniques as part of a personal plan to manage anxiety
- Lifestyle management and redesign
- Cognitive behavioral techniques and adaptive solutions to practical problem
- positive lifestyle modifications and healthy behavioral practices
- Interventions related to disturbance in body image
- Psychosexual therapy focusing on communication training, sensate focus, and body image exposure
- Expressive-supportive therapy focusing on expression of thoughts and emotions, receiving and offering support, coping skills
- Educational interventions including information disseminated in lecture formats to increase knowledge on disease and treatment with the aim of increasing self-efficacy

Many interventions appropriate for cancer survivors fall within the scope of occupational therapy (OT), and occupational therapy practitioners (OTPs) represent an integral part of oncology care during both treatment and survivorship. Evidence suggests that OTPs working in oncology settings broadly utilize remediation, compensation of activities, environmental adaptation, lifestyle management and/or cognitive strategies in order to facilitate activity, independence, and quality of life of cancer survivors. Two systematic reviews recently highlighted the efficacy of OT interventions for a range of physical and psychosocial impairments during cancer survivorship (e.g., pain, anxiety, depression, sexuality, work).

Cognitive behavior therapy is a psychotherapeutic approach that emphasizes the significance of how our thinking affects the way we feel. Cognitive behavior therapy is built on the foundation that it is difficult to change our emotions directly. The aim of CBT is to change emotions by first changing thoughts and behaviors. Offered in 30- to 60-minute increments, CBT is targeted to change the perceptions of how and what patients think based on the basic principle that says how a person thinks has a tremendous effect on his or her emotions and behavior.

Lifestyle modification, a component of Complementary and integrative medicine (CIM) therapy involves mind-body medicine which aims to improve patients' self-efficacy and self-care, mainly relating to exercise, nutrition, relaxation, and self-help strategies. Mind-body interventions focus on relaxation

techniques and structured stress reduction programs as well as on meditative movement therapies such as yoga and qigong. These techniques commonly include the aspect of mindfulness. Mindfulness has been identified as a core construct of meditation. Mindfulness training and various meditation techniques have been investigated in cancer patients by means of randomized controlled clinical trials. Beneficial effects have been found for QOL, pain intensity and pain coping, fatigue, and psychological well-being, eg, depression and anxiety.

Advancements in detection and treatment, an increasing number of cancer patients are surviving long term, heightening the need for psychosocial interventions aimed at decreasing stress among cancer patients. Mindfulness-based stress reduction sessions include training on mindfulness practices that are body scanning, meditation, and techniques from JPMR and Visualization. The body scanning requires paying attention to various body parts and sensations within the body, starting from feet to head. Meditation entails focus on breathing, an awareness of the rising and falling of the abdomen, along with a “nonjudgmental awareness” of the thoughts and diversions that arise in the mind. Mindful movement is based on techniques JPMR and visualization, and involves moving the body using a series of physical postures that help with strength, balance, flexibility, and awareness of the body.

### RYFF'S PSYCHOSOCIAL WELL-BEING SCALE

Ryff's psychosocial well-being scale is one of the most well known measure, which evaluates how individuals function psychologically in response to their life's demands premised on the eudaimonic notion that well-being comes from realizing human potential. The PWBS is conceived as a multidimensional instrument composed of six dimensions: self-acceptance (being aware of and accept one's strength and weaknesses), positive relations (having deep, meaningful relationships with others), personal growth (experiencing progress as a result of developing one's strengths), autonomy (being self-determined and taking independent decisions), environmental mastery (managing one's circumstances to take advantage of opportunities), and purpose in life (establishing and being guide by goals). The conjunction of these dimensions resulted from converging previous models that described mental health, like the theories of Jahoda, Maslow, or Rogers. The main goal was to offer a theory-driven basis to assess indicators of positive functioning.

## 2. REVIEW OF LITERATURE

1. **Kristen W Springer et al., (2006)**, have conducted a study on, "An assessment of the construct validity of Ryff's scales of psychological well-being: Method, mode, and measurement effects". The aim of this study was to assess the measurement properties of Ryff's Scales of Psychological Well-Being (RPWB)—a widely used instrument designed to measure six dimensions of psychological well-being.
2. **Saulo Sirigatti et al., (2009)**, have conducted research on, "Assessment of factor structure of Ryff's Psychological Well-Being Scales in Italian Adolescents ". The aim of the research was to explore the dimensions of psychological well-being of RPWB, within the Italian context. This research result, however, confirmed the multidimensionality of the instrument, in particular the substantial validity of the Ryff model; nevertheless, further analyses are required in order to better clarify its nature and structure.
3. **Erin S Costanzo et al., (2009)**, have conducted a study on, "Psychosocial adjustment among cancer survivors: findings from a national survey of health and well-being". The current study examined



whether cancer survivors showed impairment, resilience, or growth responses relative to a socio demographically matched sample in four domains: mental health and mood, psychological well-being, social well-being, and spirituality. The impact of aging on psychosocial adjustment was also investigated. The study result further the Findings indicated that cancer survivors demonstrated impairment relative to the comparison group in mental health, mood, and some aspects of psychological well-being. Longitudinal analyses spanning pre-and postdiagnosis clarified that while mental health declined after a cancer diagnosis, poorer functioning in other domains existed prior to diagnosis. However, survivors exhibited resilient social well-being, spirituality, and personal growth. Moreover, age appeared to confer resiliency; older survivors were more likely than younger adults to show psychosocial functioning equivalent to their peers.

4. **Mackenzi Pergolotti et al., (2016)**, have conducted a study on, "Occupational Therapy for Adults with Cancer: Why It Matters". The aim of this study was to know that Occupational therapy is an adult patient-centered service whose intervention focuses on improving health, well-being and functional capacity. This method of this research describes several studies highlighting the need for occupational therapy in adults with cancer. This result further revealed that occupational therapy treats each patient holistically and uses creative solutions to improve the overall cognitive and functional capacity of older adults with cancer, making occupational therapists a critical member of the interprofessional cancer care team.
5. **Michael Jeitler et al., (2017)**, have conducted a study on, "Mind-body medicine and lifestyle modification in supportive cancer care: A cohort study on a day care clinic program for cancer patients". The aim of this study was to develop an integrative day care clinic program for cancer patients focusing on mind-body techniques and health-promoting lifestyle modification. This study results further the program can be considered as an effective means to improve quality of life, fatigue, and mental health of cancer patients. Moreover, it appears to have a sustainable effect, which must be proved in randomized trials.
6. **Sarah E Rush et al., (2017)**, have reviewed on, "Mindfulness-Based Stress Reduction conducted a study on, "Mindfulness-Based Stress Reduction as a Stress Management Intervention for Cancer Care: A Systematic Review". The aim of this study was to examine whether mindfulness-based stress reduction can be utilized as a viable method for managing stress among cancer patients. This article involves mindfulness-based stress reduction interventions targeting cancer patients. A total of 13 articles met the inclusion criteria. Of these 13 studies, 9 demonstrated positive changes in either psychological or physiological outcomes related to anxiety and/or stress, with 4 describing mixed results. Despite the limitations, mindfulness-based stress reduction appears to be promising for stress management among cancer patients.
7. **Bonnie A Clough et al., (2017)**, have conducted a review on, "Psychosocial interventions for managing occupational stress and burnout among medical doctors: a systematic review". The aim of this study was to review and evaluate evidence on psychosocial interventions aimed at reducing occupational stress and burnout among medical doctors. This review found that despite increased scientific attention, the quality of research examining the benefits of psychosocial/behavioural interventions for occupational stress and burnout in medical doctors remains low. Despite this, interventions focused on cognitive and behavioural principles appear to show promise in reducing doctor stress and burnout. Limitations of the current review include a lack of risk of bias assessment

or pooling of analyses. Recommendations for improving the quality of research in this area, as well as implications of the current body of evidence are discussed.

9. **Heidi McHugh Pendleton et al., (2018)**, write a book on, "Pedretti's Occupational Therapy: Practice Skills for Physical Dysfunction." 8<sup>th</sup> edition. In 2015, an estimated 1,658,370 new cases of cancer were diagnosed in the United States, and 589,430 people died from the disease. Approximately 39.6% of men and women will be diagnosed with cancer at some point during their lifetime. 23 The most common cancers in men are prostate, lung and bronchus, colon and rectum, urinary and bladder, and melanoma of the skin. The most common cancers in women are breast, lung and bronchus, colon and rectum, uterine corpus, and thyroid. 3 Overall men have a 50% chance of developing some form of cancer in their lifetime, and women have a 33% risk of incidence. The number of cancer survivors in the United States is expected to reach 22 million by 2024. 24 Cancer is typically described according to where the cancer originates with the most common forms being melanoma (skin), carcinoma (skin or tissue lining or gans), sarcoma (connective tissue), leukemia (bone marrow or blood-forming organs), lymphoma (immune system), multiple myeloma (plasma cells and bone marrow), and central nervous system (brain and spine).
10. **Abel Toledano-Gonzalez et al., (2018)**, have established a study on, "Occupational therapy, self-efficacy, well-being in older adults living in residential care facilities: A randomized clinical trial". The aim of this study was to determine whether individual and/or group occupational therapy leads to changes in generalized self-efficacy and psychological well-being, and to identify the type of therapy that has the best effects on older adults. The method of study was conducted using the General Self - Efficacy Scale and Ryff's Well-Being Scale. This study result further the clinical trial shows that older people in residents' centres achieve an increase in emotional well-being and self-efficacy when they receive occupational therapy group, rather than individual treatment not being significant changes.
11. **Majdpour Milad et al., (2018)**, have conducted a study on, "The Effective Ness of Cognitive Group Therapy Based on Mindfulness on Rumination and Psychological Well-Being of Cancer Patients". The aim of this study was to know the effectiveness of group therapy recognition based on mindfulness on rumination and psychological well-being of cancer patients. The method of this research was semi - experienced with two pre test - post test groups and with experimental and control groups. The result revealed that group therapy recognition based on mindfulness on reducing rumination of cancer patients has been effective and also it showed that there is a significant difference between the scores of experimental and control groups. This result further revealed that group therapy recognition based on mindfulness on increasing psychological well-being of cancer patients has been effective.
12. **M. Pilar Matud et al., (2019)**, have conducted a study on, "Gender and Psychological well-being". The aim of this study was to examine the relevance of gender to the psychological well-being of adult individuals. The method of study was assessed with Ryff's Psychological Well-Being Scales and the Bem Sex Role Inventory. This study further the men scored higher than women in self- acceptance and autonomy, and women scored higher than men in personal growth and positive relations with others. The most relevant variable in the psychological well-being of both women and men was high masculinity.
13. **Angela Guarino et al., (2020)**, have established a study on, "The Effectiveness of Psychological Treatment in Women with Breast Cancer: A Systematic Review and Meta-Analysis". This study was aimed to systematically review and compare, by means of a meta-analysis, the efficacy of cognitive behavioural, supportive-expressive or psycho-educational treatments in women with breast cancer,

focusing on anxiety, depression, mood and quality of life as outcomes. The PRISMA statement was adopted. MEDLINE, PsycINFO, PUBMED and PsycArticles databases were used, and reference lists were examined for additional publications. The selection of the articles included studies considering women between 18 and 65 years who were diagnosed with breast cancer at any stage and under any treatment, and who underwent psychological group interventions. At the end of the systematic review, 45 studies met all inclusion criteria and were analysed in the meta-analysis. The overall effect size was medium, especially considering cognitive behavioural therapy and psycho-educational treatments. However, the studies are characterised by high methodological heterogeneity. Despite some limitations, this review and meta-analysis partially confirm the efficiency of cognitive-behavioural and psycho-educational therapies in the improvement of well-being in women with breast cancer.

14. **Amy Wallis et al., (2020)**, conducted a study on, "Cancer care and occupational therapy: A scoping review". The aim of this study was to know the cancer care and occupational therapy. In this scoping review, we identify the breadth of practice and evidence for occupational therapy in cancer care, across all stages of the disease trajectory (diagnosis to palliation/survivorship) throughout the lifespan. The method of this research was following the Arksey and O'Malley (2006; International Journal of Social Research Methodology, 8: 19–32) framework for scoping reviews, the first author screened titles and abstracts, and all three authors reviewed sets of the included articles. Conflicts were discussed until consensus was reached. This result further the occupational therapy roles described were diverse, but largely descriptive in nature, with little evidence of outcomes from treatment and this was particularly evident for adolescents and young adults with cancer.
15. **Blasco-Belled, A et al., (2022)**, conducted a study on, "The architecture of psychological well-being: A network analysis study of the Ryff Psychological Well-Being Scale". The proliferation of mental health research is orienting its efforts towards the exploration of psychological well-being. One of the main burdens is the measurement challenges reported by the widely used Psychological Well-Being Scale (PWBS), which has often been criticized for inconsistencies between the theoretical and the empirical model. The interest in the study of well-being has increased within the field of social sciences over the last decades. This advancement has been characterized by the proliferation of several measures that capture different aspects of well-being. One of the most well-known is the Psychological Well-Being Scale, which evaluates how individuals function psychologically in response to their life's demands premised on the eudaimonic notion that well-being comes from realizing human potential. The PWBS is conceived as a multidimensional instrument composed of six dimensions: self-acceptance (being aware of and accept one's strength and weaknesses), positive relations (having deep, meaningful relationships with others), personal growth (experiencing progress as a result of developing one's strengths), autonomy (being self-determined and taking independent decisions), environmental mastery (managing one's circumstances to take advantage of opportunities), and purpose in life (establishing and being guided by goals). The conjunction of these dimensions resulted from converging previous models that described mental health, like the theories of Jahoda, Maslow, or Rogers. The main goal was to offer a theory-driven basis to assess indicators of positive functioning.
16. According to the **World Health Organization (WHO) (2022)**, the incidence of cancer. Cancer is a leading cause of death worldwide, accounting for nearly 10 million deaths in 2020. The most common in 2020 (in terms of new cases of cancer) were: breast (2.26 million cases), lung (2.21 million cases), colon and rectum (1.93 million cases), prostate (1.41 million cases), skin (non-melanoma) (1.20 million cases), and stomach (1.09 million cases). The most common causes of cancer death in 2020



were: lung (1.80 million deaths); colon and rectum (916 000 deaths); liver (830 000 deaths); stomach (769 000 deaths); and breast (685 000 deaths). Each year, approximately 400 000 children develop cancer. The most common cancers vary between countries. Cervical cancer is the most common in 23 countries.

### **3. AIM & OBJECTIVE OF STUDY**

#### **3.1 AIM OF THE STUDY:**

To analyse the effectiveness of occupational therapy behavioural techniques in enhancing psychosocial well-being among individuals with malignant tumors.

#### **3.2 OBJECTIVE:**

1. To select the samples with the diagnosis of malignancy irrespective of the site of cancer.
2. To assess their psychosocial well-being using Ryff's psychosocial well-being scale
3. To intervene them with occupational therapy behavioural techniques for a period of 2 months
4. Post intervention score assessing of psychosocial well-being using Ryff's psychosocial well-being scale after 3 months of intervention by occupational therapy behavioural techniques.

### **4. METHODOLOGY**

#### **4.1 STUDY TYPE:**

Quasi Experimental type

#### **4.2 STUDY DESIGN:**

Single Group Design

#### **4.3 STUDY SETTING:**

The samples are collected from the Krishna Cancer Institute (Unit Of Krishna Hospital & Research Foundation), Nathapattu, Cuddalore – 607 109

#### **4.4 SAMPLE SIZE:**

33 malignant tumor patients

#### **4.5 SAMPLING METHOD:**

Convenient Purposive Sampling

#### **4.6 STUDY DURATION:**

2 months

#### **4.7 INCLUSION CRITERIA:**

- Gender : male and female
- Age : 18 to 75 years
- Clinically diagnosed with malignant tumors by a medical practiones.

#### **4.8 EXCLUSION CRITERIA:**

- Various medical conditions. (especially Debates and Hypertension)
- Individuals who underwent recent surgeries, neurological and orthopedic conditions.

#### **4.9 OUTCOME MEASURE:**

Ryff's Psychosocial well-being scale (18 items)

#### **4.10 STUDY PROCEDURE:**

This study consists of 33 malignant tumor patients who were randomly assigned in single group. Consent form was issued to samples and collected those participants who were willing to participate were included

in the study. The demographic data were collected. All patients were assessed for psychosocial well being using Ryff's Psychosocial well-being scale. Samples received occupational therapy behavioural intervention. This intervention was conducted 30 minutes per session 3 times per week over a period of 2 months. All patients were tested using Ryff's Psychosocial well-being scale before and after intervention. The obtained values were Tabulated and analysed statistically.

#### 4.11 TREATMENT PROTOCOL:

| Intervention Program                                     | Minutes |
|----------------------------------------------------------|---------|
| Jacobson Progressive Muscle Relaxation Techniques (JPMR) | 5       |
| Cognitive Behaviour Therapy – Psycho Education           | 10      |
| Visualization (Images)                                   | 5       |
| Life Style Modification Education                        | 10      |
| Total minutes                                            | 30      |

#### 5. RESULT & ANALYSIS

**TABLE: 1. PAIRED SAMPLE ‘t’ TEST TABLE SHOWING THE COMPARED SCORES OF PSYCHOSOCIAL WELL-BEING AMONG INDIVIDUAL WITH MALIGNANT TUMORS IN THE AREA OF AUTONOMY (PRE AND POST TEST)**

| Groups    | N  | Mean  | SD   | t-value | P Value        |
|-----------|----|-------|------|---------|----------------|
| Pre test  | 33 | 14.24 | 3.03 | 9.805   | 0.000 (P<0.01) |
| Post test | 33 | 18.52 | 2.17 |         |                |

#### HYPOTHESIS:

H<sub>0</sub>: There is no significant difference in psycho social well being of samples between the pre and post test of samples.

H<sub>0</sub>:  $\mu_1 = \mu_2$

H<sub>1</sub>: There is a significant difference between the pre and post test values of samples in psycho social well being.

H<sub>1</sub>:  $\mu_1 \neq \mu_2$

#### INTERPRETATION:

Table 4 – showing the compared ‘t’ test values of pre & post therapy psychosocial well being scores of patients with malignant tumor in the area of Autonomy, the calculated ‘t’ value (9.805) is greater than the table ‘t’ value. Post test score has higher (18.52) mean value than the pre test score (14.24) which indicates the individual is better in the Autonomy area.

#### INFERENCE:

Pa - value = 0.05

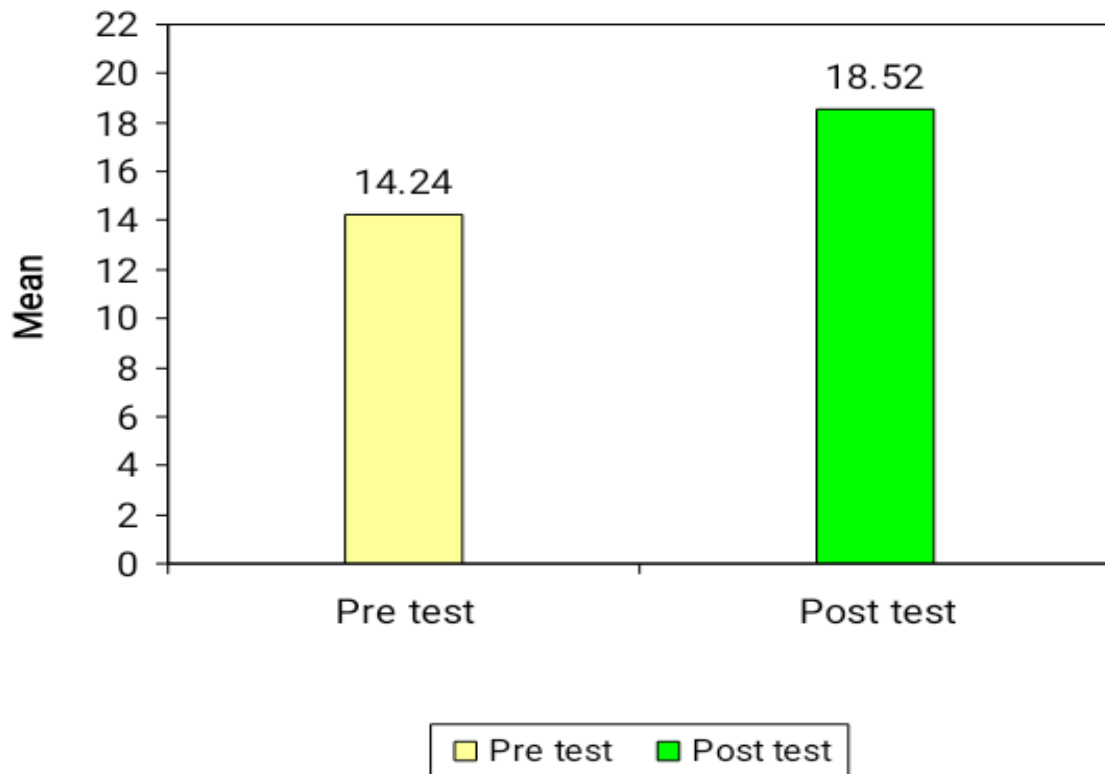
P – value = 0.00

Since, if Pa – value is less than p-value (0.00<0.05) then H<sub>1</sub> is accepted

H<sub>1</sub>:  $\mu_1 \neq \mu_2$

Therefore, there is a significant difference between the pre and post therapy scores of samples in the area of autonomy.

**CHART: 1. BAR DIAGRAM SHOWING COMPARATIVE MEAN VALUE OF PSYCHOSOCIAL WELL-BEING IN THE AREAS OF AUTONOMY INDIVIDUAL WITH MALIGNANT TUMORS (PRE AND POST TEST)**



**TABLE: 2. PAIRED SAMPLE ‘t’ TEST TABLE SHOWING THE COMPARED SCORES OF PSYCHOSOCIAL WELL-BEING AMONG INDIVIDUAL WITH MALIGNANT TUMORS IN THE AREA OF ENVIRONMENTAL MASTERY (PRE AND POST TEST)**

| Groups    | N  | Mean  | SD   | t-value | P Value        |
|-----------|----|-------|------|---------|----------------|
| Pre test  | 33 | 15.52 | 3.08 | 7.837   | 0.000 (P<0.01) |
| Post test | 33 | 18.64 | 1.50 |         |                |

#### **HYPOTHESIS:**

H<sub>0</sub>: There is no significant difference in psycho social well being of samples between the pre and post test of samples.

H<sub>0</sub>:  $\mu_1 = \mu_2$

H<sub>1</sub>: There is a significant difference between the pre and post test values of samples in psycho social well being.

H<sub>1</sub>:  $\mu_1 \neq \mu_2$

#### **INTERPRETATION:**

Table 5 – showing the compared ‘t’ test values of pre & post therapy psychosocial well being scores of patient with malignant tumor in the area of Environmental Mastery, the calculated ‘t’ value (7.837) is greater than the table ‘t’ value. Post test score has higher (18.64) mean value than the pre test score (15.52) which indicates the individual is better in the Environmental Mastery.

### INFERENCE:

$P_a$  - value = 0.05

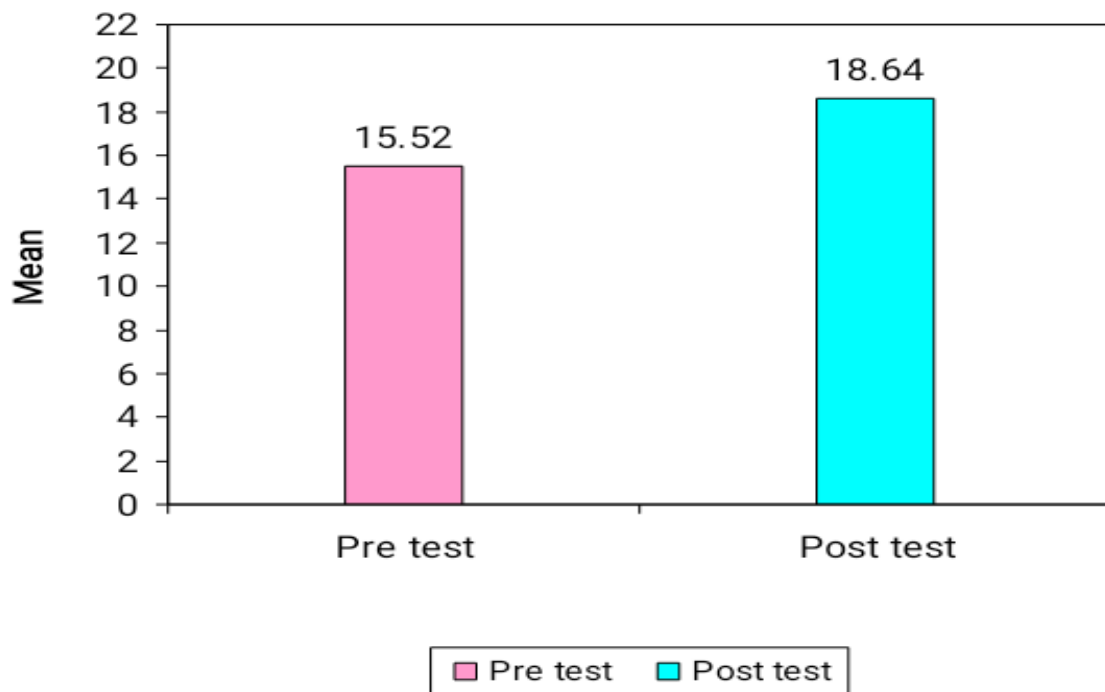
$P$  - value = 0.00

Since, if  $P_a$  - value is less than  $p$ -value ( $0.00 < 0.05$ ) then  $H_1$  is accepted

$H_1: \mu_1 \neq \mu_2$

Therefore, there is a significant difference between the pre and post therapy scores of samples in the area of environmental mastery.

**CHART: 2. BAR DIAGRAM SHOWING COMPARATIVE MEAN VALUE OF PSYCHOSOCIAL WELL-BEING IN THE AREAS OF ENVIRONMENTAL MASTERY WITH MALIGNANT TUMORS (PRE AND POST TEST)**



**TABLE: 3. PAIRED SAMPLE 't' TEST TABLE SHOWING THE COMPARED SCORES OF PSYCHOSOCIAL WELL-BEING AMONG INDIVIDUAL WITH MALIGNANT TUMORS IN THE AREA OF PERSONAL GROWTH (PRE AND POST TEST)**

| Groups    | N  | Mean  | SD   | t-value | P Value              |
|-----------|----|-------|------|---------|----------------------|
| Pre test  | 33 | 14.24 | 3.50 | 8.402   | 0.000 ( $P < 0.01$ ) |
| Post test | 33 | 18.65 | 2.12 |         |                      |

### HYPOTHESIS:

$H_0$ : There is no significant difference in psycho social well being of samples between the pre and post test of samples.

$H_0: \mu_1 = \mu_2$

$H_1$ : There is a significant difference between the pre and post test values of samples in psycho social well being.

$H_1: \mu_1 \neq \mu_2$

## INTERPRETATION:

Table 6 – showing the compared ‘t’ test values of pre & post therapy psychosocial well being scores of patients with malignant tumor in the area of Personal Growth, the calculated ‘t’ value (8.402) is greater than the table ‘t’ value. Post test score has higher (18.65) mean value than the pre test score (14.24) which indicates the individual is better in the Personal Growth.

## INFERENCE:

Pa - value = 0.05

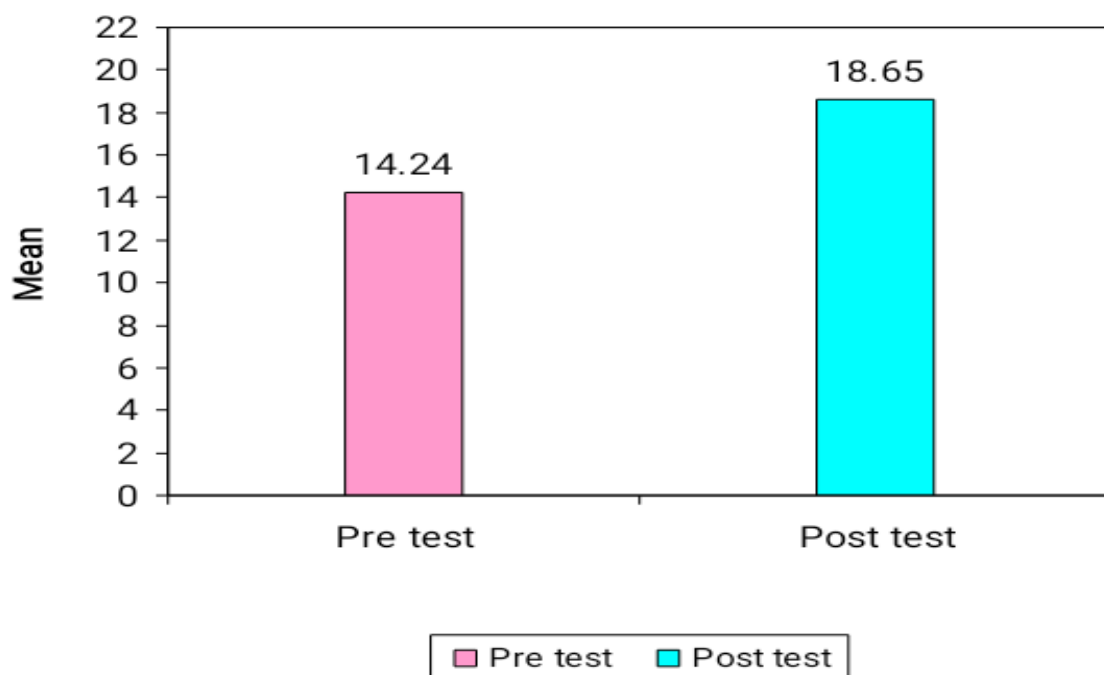
P – value = 0.00

Since, if Pa – value is less than p-value ( $0.00 < 0.05$ ) then  $H_1$  is accepted

$H_1: \mu_1 \neq \mu_2$

Therefore, there is a significant difference between the pre and post therapy scores of samples in the area of personal growth.

**CHART: 3. BAR DIAGRAM SHOWING COMPARATIVE MEAN VALUE OF PSYCHOSOCIAL WELL-BEING IN THE AREAS OF PERSONAL GROWTH WITH MALIGNANT TUMORS (PRE AND POST TEST)**



**TABLE: 4. PAIRED SAMPLE ‘t’ TEST TABLE SHOWING THE COMPARED SCORES OF PSYCHOSOCIAL WELL-BEING AMONG INDIVIDUAL WITH MALIGNANT TUMORS IN THE AREA OF POSITIVE RELATIONS (PRE AND POST TEST)**

| Groups    | N  | Mean  | SD   | t-value | P Value        |
|-----------|----|-------|------|---------|----------------|
| Pre test  | 33 | 12.88 | 3.93 | 9.500   | 0.000 (P<0.01) |
| Post test | 33 | 17.85 | 2.05 |         |                |

## HYPOTHESIS:

$H_0$ : There is no significant difference in psycho social well being of samples between the pre and post test of samples.



$H_0: \mu_1 = \mu_2$

$H_1$ : There is a significant difference between the pre and post test values of samples in psycho social well being.

$H_1: \mu_1 \neq \mu_2$

## INTERPRETATION:

Table 7 – showing the compared ‘t’ test values of pre & post therapy psychosocial well being scores of patient with malignant tumor in the area of Positive Relations, the calculated ‘t’ value (9.500) is greater than the table ‘t’ value. Post test score has higher (17.85) mean value than the pre test score (12.88) which indicates the individual is better in the Positive Relations.

## INFERENCE:

$P_a$  - value = 0.05

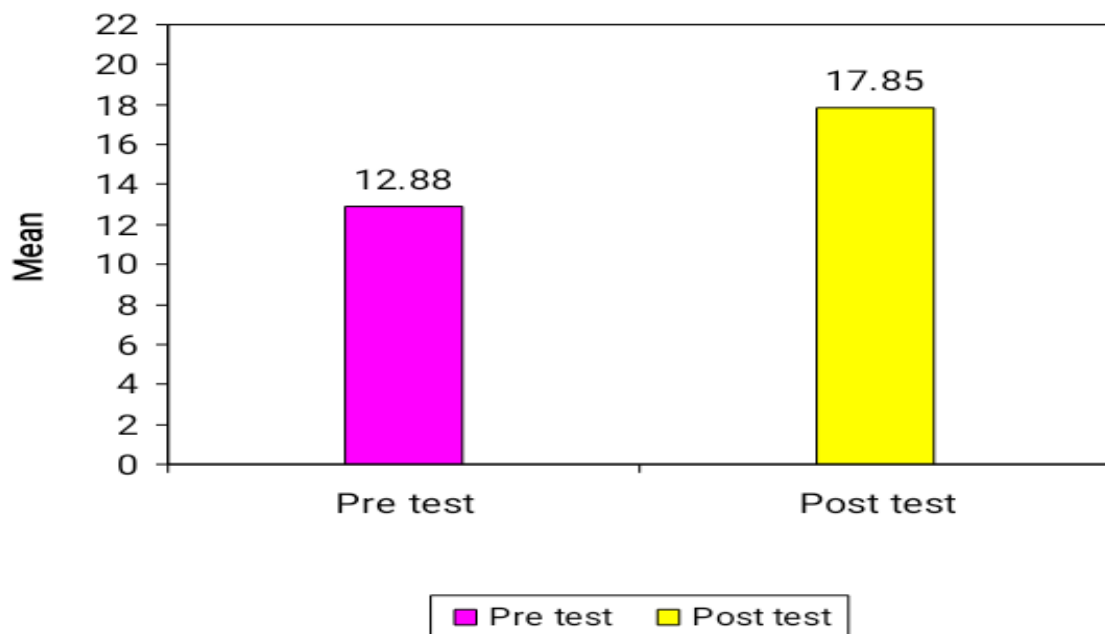
$P$  - value = 0.00

Since, if  $P_a$  - value is less than p-value ( $0.00 < 0.05$ ) then  $H_1$  is accepted

$H_1: \mu_1 \neq \mu_2$

Therefore, there is a significant difference between the pre and post therapy scores of samples in the area of positive relations.

**CHART: 4. BAR DIAGRAM SHOWING COMPARATIVE MEAN VALUE OF PSYCHOSOCIAL WELL-BEING IN THE AREAS OF POSITIVE RELATIONS WITH MALIGNANT TUMORS (PRE AND POST TEST)**



**TABLE: 5. PAIRED SAMPLE ‘t’ TEST TABLE SHOWING THE COMPARED SCORES OF PSYCHOSOCIAL WELL-BEING AMONG INDIVIDUAL WITH MALIGNANT TUMORS IN THE AREA OF PURPOSE IN LIFE (PRE AND POST TEST)**

| Groups    | N  | Mean  | SD   | t-value | P Value              |
|-----------|----|-------|------|---------|----------------------|
| Pre test  | 33 | 13.97 | 2.66 | 10.953  | 0.000 ( $P < 0.01$ ) |
| Post test | 33 | 18.00 | 1.84 |         |                      |

## HYPOTHESIS:

$H_0$ : There is no significant difference in psycho social well being of samples between the pre and post test of samples.

$H_0: \mu_1 = \mu_2$

$H_1$ : There is a significant difference between the pre and post test values of samples in psycho social well being.

$H_1: \mu_1 \neq \mu_2$

## INTERPRETATION:

Table 8 – showing the compared ‘t’ test values of pre & post therapy psychosocial well being scores of patient with malignant tumor in the area of Purpose in Life, the calculated ‘t’ value (10.953) is greater than the table ‘t’ value. Post test score has higher (18.00) mean value than the pre test score (13.97) which indicates the individual is better in the Purpose in Life.

## INFERENCE:

$P_a$  - value = 0.05

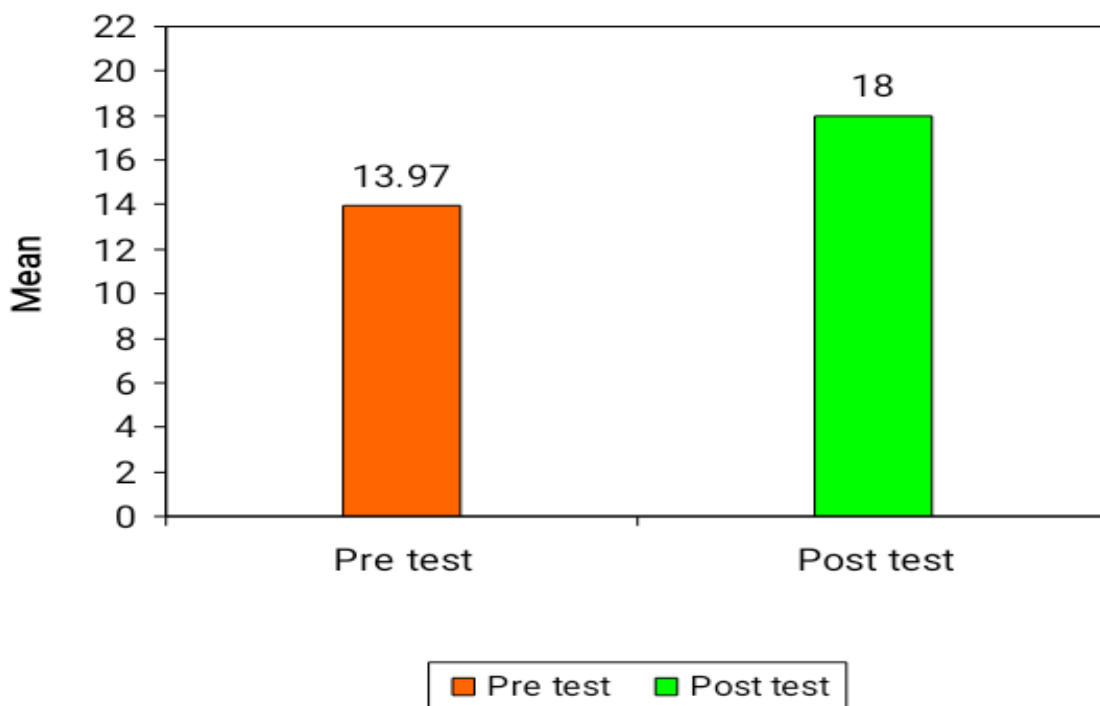
$P$  – value = 0.00

Since, if  $P_a$  – value is less than p-value ( $0.00 < 0.05$ ) then  $H_1$  is accepted

$H_1: \mu_1 \neq \mu_2$

Therefore, there is a significant difference between the pre and post therapy scores of samples in the area of purpose in life.

**CHART: 5. BAR DIAGRAM SHOWING COMPARATIVE MEAN VALUE OF PSYCHOSOCIAL WELL-BEING IN THE AREAS OF PURPOSE IN LIFE WITH MALIGNANT TUMORS (PRE AND POST TEST)**



**TABLE: 6. PAIRED SAMPLE ‘t’ TEST TABLE SHOWING THE COMPARED SCORES OF PSYCHOSOCIAL WELL-BEING AMONG INDIVIDUAL WITH MALIGNANT TUMORS IN THE AREA OF SELF- ACCEPTANCE (PRE AND POST TEST)**

| Groups    | N  | Mean  | SD   | t-value | P Value        |
|-----------|----|-------|------|---------|----------------|
| Pre test  | 33 | 14.36 | 3.52 | 9.508   | 0.000 (P<0.01) |
| Post test | 33 | 18.70 | 1.55 |         |                |

**HYPOTHESIS:**

H<sub>0</sub>: There is no significant difference in psycho social well being of samples between the pre and post test of samples.

H<sub>0</sub>:  $\mu_1 = \mu_2$

H<sub>1</sub>: There is a significant difference between the pre and post test values of samples in psycho social well being.

H<sub>1</sub>:  $\mu_1 \neq \mu_2$

**INTERPRETATION:**

Table 9 – showing the compared ‘t’ test values of pre & post therapy psychosocial well being scores of patients with malignant tumor in the area of Self- Acceptance, the calculated ‘t’ value (9.508) is greater than the table ‘t’ value. Post test score has higher (18.70) mean value than the pre test score (14.36) which indicates the individual is better in the Self- Acceptance.

**INFERENCE:**

Pa - value = 0.05

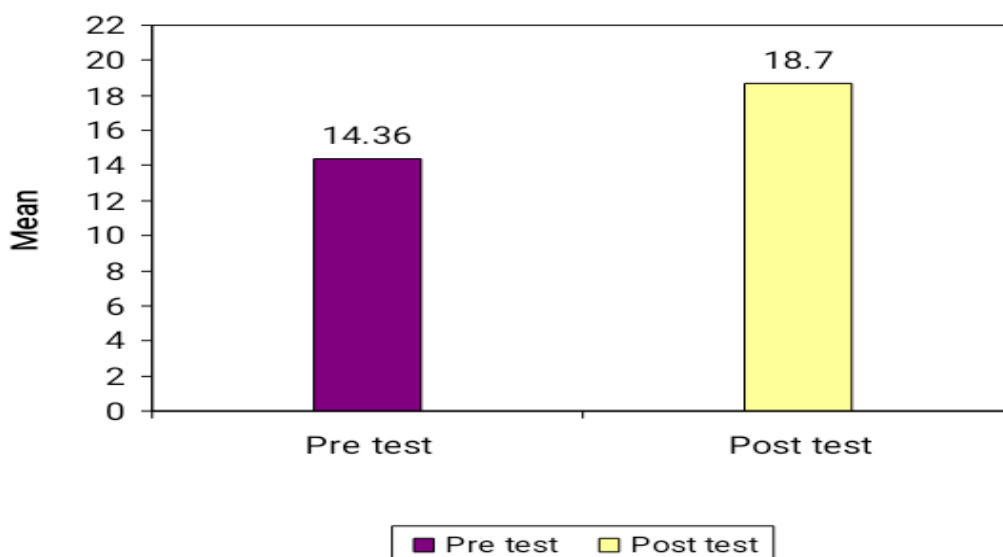
P – value = 0.00

Since, if Pa – value is less than p-value (0.00<0.05) then H<sub>1</sub> is accepted

H<sub>1</sub>:  $\mu_1 \neq \mu_2$

Therefore, there is a significant difference between the pre and post therapy scores of samples in the area of self- acceptance.

**CHART : 6. BAR DIAGRAM SHOWING COMPARATIVE MEAN VALUE OF PSYCHOSOCIAL WELL-BEING IN THE AREAS OF SELF- ACCEPTANCE WITH MALIGNANT TUMORS (PRE AND POST TEST)**



**RESULT:**

A total of 33 samples participated in the study, in the age group between 18 to 75 years. They intervened on psychosocial well being using occupational therapy behavioural intervention techniques. The mean age group was 49.58. There was a significant improvement with a post mean value of 18.52 in the area of autonomy, 18.64 in the area of environmental mastery, 18.65 in the area of Personal Growth, 17.85 in the area of Positive Relations, 18.00 in the area of Purpose in Life and 18.70 in the area of Self-Acceptance among individuals with malignant tumor. The study resulted that there was a significant improvement in psychosocial well being with malignant tumor therapy thereby accepting the alternate hypothesis.

**6. DISCUSSION & CONCLUSION****6.1 Discussion**

The aim of the study is to analyse and interview the psychosocial issues of malignant tumors. For purposes when I analyze availability of cancer patients in the hospital. I found a number of less to carry out my study. When I found that the number of cases wasn't available in Cuddalore Government Medical College. I made a decision taken with the consultation from the HOD to carry out the study in the nearby cancer institute in Cuddalore District. I found out that the Krishna Institute for cancer patients in the hospital carried out the study. There are a logical number of the population who are affected and also cases and going to radiation therapy and chemotherapy which is apt for study conducting the present study which match is my aim.

Permission was obtained from the Head of the Department of Occupational Therapy, Division of PMR, Government Medical College and Hospital, Cuddalore. The Managing Director of Krishna Cancer Hospital, Cuddalore was meet with the permission letter. The need and purpose, procedure, merits, demerits, advantages and disadvantages of the study and explanation to him. An understanding, the managing director confirmed to carry out the study in their hospital with cancer patients.

After obtaining proper permission from the hospital supervisor and head of the cancer institute at Cuddalore to carry out the study. Out of 33 cancer patients selected for the study. 3 persons with Ca hypopharynx, 3 persons with Ca alveolus, 1 person with Ca ovary, 5 persons with Ca breast, 2 persons with Ca tongue, 1 person with Ca rectum, 7 person with Ca cervix and 3 persons with Ca cervical esophagus, 1 person with Ca vagina, 1 person with Ca glottis, 1 person with Astrocytoma, 1 person with Ca nasopharynx, 1 person with recurrent fibromatosis, 1 person with solitary plasmacytoma, 1 person with Renal cell carcinoma and 1 person with Parotid.

All the selected samples were evaluated on psychosocial well being using Ryff's Psychosocial well-being scale found that 23 patients were scored high indicating in severity of the psychosocial well-being, 6 patients were scored high indicating in moderate of psychosocial well-being and 4 patients were scored high indicating in mild for psycho social well-being.

The pre-intervention score was collected using Ryff's Psychosocial well-being scale and it was tabulated. The intervention program was started in a sequence – A) Maintain a normal well being scheduled, B) Therapy to change the negative thoughts which psychosocial well being of cancer patients using occupational therapy intervention including JPMR, visualization, psycho education and lifestyle modification.

The session was conducted between 03:00 pm to 04:30 pm on Monday, Wednesday and Thursday. Since the number of patients with cancer visiting the outpatient department of cancer institute were high in number. Only these samples undergoing radiation therapy and chemotherapy were included for the study.

The intervention session for each sample was conducted in 3 sessions per week each session for 30 minutes for a period of 2 months. At the end of intervention, they were re-assessed on psychosocial well being using Ryff's Psychosocial well-being scale.

## 6.2 CONCLUSION

The study concludes that occupational therapy interventions improve psychosocial well being of individuals with cancer. The suggested this method of behavioural intervention to be incorporated as part of regular treatment schedule for cancer patients. So that their quality of life is perceived.

## 7. LIMITATIONS AND RECOMMENDATIONS

### 7.1 LIMITATIONS

The present study had several limitations. It was conducted with a limited sample size, which may restrict the generalizability of the findings to a broader population. The study was also carried out over a short duration, limiting the assessment of long-term outcomes and sustained intervention effects. In addition, the study included participants with different types of cancer rather than focusing on a specific tumor site, which may have introduced variability in the results and reduced the ability to determine site-specific effects of the intervention.

### 7.2 RECOMMENDATIONS

The present study had certain limitations. It was conducted with a limited sample size, which may affect the generalizability of the findings. The study was carried out over a short duration, preventing the evaluation of long-term outcomes of the intervention. Furthermore, the study was not limited to participants with a specific tumor site, which may have introduced variability in the study findings.

## ACKNOWLEDGMENT

I Sincerely thank almighty god, my family, friends, participants, and everyone who supported and contributed to the successful completion of the dissertation.

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