Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

Mental Boost up: Is It Life-Changing for Cancer?

Bhaskar Chakraborty[1]*, Anasuya Dhar[2]

[1]Consultant, Radiation and Clinical Oncology, Ahsania Mission Hospital, Uttara, Dhaka, Bangladesh.
Email: bchakraborty383@gmail.com
Orcid ID: 0000-0001-8649-3261,
[2]Consultant Sonologist, Chattogram Cosmopolitan Hospital, Chattogram, Bangladesh.
Email: bchakraborty383@gmail.com
Orcid ID: 0000-0001-8649-3261,

*Corresponding author

Received: 23 February 2022
Revised: 25 April 2022
Accepted: 02 May 2022
Published: 23 June 2022

Abstract

Background: Though human civilization has reached its 21st-century cancer is still considered as the name of a fatal alarm all over the world. More or less, all cancer patients start being haunted by the horror of death from the day of diagnosis. This fear not only weakens their physical and psychological stature; it also has a bad impact on their normal lifestyles. Even this apprehension also affects their treatment as well. However, it is believed that the mind is the driving force of a man, that is, nothing intimidating can happen to a man who possesses a strong mind. Aim of the study: the purpose of this study is to see whether boosting, increasing, or instilling mental strength in cancer patients can bring any further improvement in their treatment and lives. **Material & Methods:** This prospective study was conducted in a tertiary care hospital where 40 cancer patients were included on the basis of some criteria (isolated, silent, mentally shocked, paralyzed, poor PS, patient with severe pain, end-stage disease). They were taken to a silent room and were asked to follow some interesting instructions for 15 minutes with utmost belief in their GOD for successive three days. Data were collected by using a performed questionnaire from both patients and attendants after 14 days. **Results:** The result was appreciable. Out of 40 patients, females were more than males. Most of them were educated with a mean age of about 45 years. Patients with advanced disease were more (60%). Among them behavioral changes were observed in almost 80% of patients, improvement in mobility was found in almost 75 % of all paralyzed patients, narcotics dependency was reduced in almost 90 % of patients with severe bone pain, and positive attitudes were built in 80% patients. Therapeutic responses were also increased in some patients. Moreover, among most of the patients some interesting findings like improved healing power, decreased CT-induced toxicities, improvement in a familial relationship, improvement in appetite, and improvement in sleep disturbance were observed. **Conclusion:** Patients with cancer in spite of craving for life, begin counting/her days after being aware of this disease. As a result, this terror of death creates a sense of hopelessness and this psychological breakdown affects the treatment in such a way that even the best medical care does not work as expected. This study has successfully found that if the mental spirit of a patient can be brought to work with all the medical procedures, a certain success is possible. They just have to be made confident enough to believe that "a man", as Ernest Hemmingway says, "can be destroyed, but not defeated".

Keywords:- Mental health condition, Rick Factors, Implications, Sufferings.

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

INTRODUCTION

Cancer is a life-threatening and dreaded diagnosis that causes people significant anguish. Cancer is more distressing than non-neoplastic disorders with bad prognoses.[1] Anxiety, sadness, or both may develop as a result of prolonged emotional suffering in cancer patients.[2] Two-thirds of cancer patients with depression also have clinically significant levels of anxiety, indicating that this combined symptomatology is highly prevalent.[3] Depression impairs patient outcomes and lowers the quality of life (QOL), with greater odds of death in cancer patients.[4,5] According to a meta-analysis, slight or significant depression raises death rates by up to 39%, while individuals with only a few depressive symptoms have a 25% higher chance of dying.[6] Doctors and patients both believe that mood and mental health have an influence on cancer development, with more than 70% of oncologists and 85% of patients feeling that mood has an impact on cancer advancement.[7] Cancer patients are estimated to have a three-fold greater prevalence of depression than the overall population.[2] Studies utilizing the Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria 8 for major depressive disorder (MDD) have shown prevalence rates ranging from 2.0 to 43.5 %,[8,9,10,11] with rates as high as 49.0% in palliative care units.[11] Differences in assessment techniques, diversity in the kinds of patients questioned, varied age groups, variable gender proportions, inpatient status, and other factors might explain the broad range of reported prevalence. Linden et al,[2] and Ng et al,[12] determined the prevalence of depression to be 10.8% and 12.9 %, respectively, in over 9,000 individuals in a range of contexts and ages. Furthermore, 16 % of patients are said to have subclinical depression that is nonetheless harmful.2,5 Mental Health or depression rates vary depending on the original cancer location, with pancreatic and lung malignancies having the highest rates and invasive skin cancer having the lowest.[2] Evidence shows that children and adolescents with cancer are no more depressed than healthy controls,[13,14] although age was shown to be negatively linked with depression in several adult malignancies.[2] Gender, has a role as well: female cancer patients have been reported to be two to three times more likely than men to develop depression.[2] Psychological stress and depression levels fluctuate throughout the course of the illness, peaking around the time of diagnosis.[2] However, depression rates among cancer survivors five years after diagnosis were found to be equivalent to the general population, at 4%.[15] Cancer pain and metastases have also been linked to greater levels of depression.[11] Depression is significantly more common in patients with high levels of pain compared to patients with low levels of pain; one study found that depression occurred in 33% of those in high amounts of pain compared to 13% of those in low amounts of pain, suggesting that pain may be a causative factor in depression.16 This research attempted to depict the mental health state of cancer patients throughout their treatments. Because cancer is a life-altering illness, mental health may be influenced throughout the course of therapy, therefore this study concentrated only on mental health and the thoughts of cancer patients.

Cancer sufferers are left to deal with mental health issues on their own:

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

Lee Knifton, Head of Mental Health Foundation Scotland said: Cancer is not just a medical condition; it may also have a significant psychological effect, and patients expect to get both physical and emotional assistance when they need it. "Our study demonstrates that too many individuals are unaware of the effect of cancer on mental health." People with cancer would have more control over their mental wellness if they were provided the correct assistance at the right time. "The post-treatment phase of cancer is a very difficult period for people's mental health, but they get the least care." People have described a "fake summit" as a result of a lack of support and debate regarding mental health. "People should not be left alone to deal with mental suffering." That is why, today, we are advocating for individualized, person-centered assistance at every step of a cancer experience.

Acceptance: People adapt and go ahead in little steps.

It's hard to be diagnosed with cancer and go through intense treatment. As a result, after therapy is completed, family and friends are quick to rejoice. According to Suzanne Danhauer, Ph.D., a clinical psychologist at Wake Forest School of Medicine, "it may be unsettling to transition from seeing physicians and a medical team on a daily basis to not being seen as regularly." As a consequence, according to Dr. Danhauer, survivors' distress levels sometimes rise suddenly. Many survivors are also concerned about the possibility of cancer returning or recurring. When it's time for a scan or another follow-up medical appointment, people frequently experience "scanxiety," as some cancer survivors have coined the term. In a June 2011 Time magazine story, cancer survivor Bruce Feiler stated, "Scans are like revolving doors, emotional roulette wheels that spin us around for a few days and spit us out the other side." "If we land on red, we'll be heading back to Cancerland; if we land on black, we'll have a few more months of freedom." "The most prevalent emotional challenge that individuals tell us they have after they've finished treatment is fear of recurrence," said Karen Syrjala, Ph.D., a clinical psychologist at Seattle's Fred Hutchinson Cancer Research Center. While some anxiety is natural, it may become severe for certain survivors, she said.

Risk Factor for poorer mental health:

Physical health has a direct impact on mental health and general quality of life for cancer survivors, just as it does for those without a history of cancer. Because the mental health and social repercussions of sickness are less well understood, health care practitioners are more likely to diagnose and treat physical symptoms. However, in the United States, poor mental health is the main cause of disability; over half of all individuals will experience mental illness at some time in their life, and the economic cost

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

of mental disease in the United States was $300 billion in 200210 People with chronic diseases are more likely to have poor mental health.[11] In the 2010 National Health Interview Survey, 10.1 percent of cancer survivors reported poor mental-health-related quality of life, compared to just 5.9% of non-cancer persons.[12] According to population-based data, cancer survivors are more than twice as likely as adults without cancer to have disabling psychological problems, and individuals who have both cancer and other chronic illnesses have a risk of psychological disability nearly six times higher than adults without cancer.[8] Younger age, less education, a higher number of noncancer medical disorders, lower income, and not being paired or married are all risk factors for worse mental-health-related quality of life among cancer survivors.[12,13,14,15] It's unknown if there are racial or ethnic disparities in cancer survivors' mental-health-related quality of life. Several studies have found no racial/ethnic differences.[12,13] while others have found that African Americans report better emotional well-being than whites 16 and a few studies have found the lower mental-health-related quality of life among Hispanics, Asian Americans, or African Americans.[13,14] In the general population, poor mental health has been linked to risk factors and poor outcomes, with links discovered between depression and nonadherence to medical treatment,[17] and depression and increased use of medical services similar links have been discovered among cancer survivors,[18] with depression linked to maladaptive health behaviors and poorer overall survival.[19] Financial pressures, as well as anxiety and depression symptoms. The first 1-3 years following therapy are crucial for monitoring cancer survivors' mental health. Fear of recurrence, resumption or alteration of life roles, late and long-term effects of treatment, perceived loss of support from providers and diminished instrumental and emotional support from family and friends are all challenges during the early post-treatment period.[20] Long-term survivors may have psychological difficulties as a result of cancer recurrence or second malignancies, as well as the persistence of mental health issues that began during diagnosis and treatment. The majority of longitudinal research on cancer survivors' mental health trajectories has concentrated on the first year following diagnosis,[21] however many studies have looked at mental health trajectories after treatment.[22,23] Some groups of women see major decreases or increases in mental health in the years after diagnosis, according to studies. Older age, being married or paired, higher optimism, stronger self-efficacy, better social support, less intensive chemotherapy, less pain, and less intrusion of sickness into everyday life have all been linked to better adjustment.[21,22,23]

Diagnostic age:

When compared to people who are diagnosed with cancer at a later age, young and middle-aged persons encounter greater pressures and obstacles.[24,25] Younger age is associated with worse mental health outcomes across all cancer types. A cancer diagnosis before the age of 50 is less frequent and more surprising for many people, despite the fact that it is never pleasant. Younger breast cancer survivors have been researched more than other groups of younger survivors, and we know more about their quality of life throughout time than other cancer patients diagnosed as adults.[26,27,28] Chemotherapy-induced ovarian dysfunction,

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

which can cause vasomotor symptoms, vaginal dryness, impaired sexual functioning, and sleep problems, as well as treatment-related symptoms like peripheral neuropathy, fatigue, cognitive symptoms, and pain, can all have an impact on premenopausal breast cancer survivors' quality of life. Greater social support, the adoption of coping methods, and symptom management have all been linked to better psychological adjustment in younger patients,[29] and many survivors' physical and mental health improves as time passes after treatment.

Residence in the country or city:

Rural living has been linked to differences in cancer diagnosis, treatment, and death in the United States.[30,31,32] In 2013, 22.4% of North Carolinians lived in rural areas, mostly in the state's western and southern regions.[33] Following a cancer diagnosis, rural areas may lack access to the health care and other services needed to maintain or enhance the quality of life. Due to a lack of available services, cancer survivors may be forced to travel long distances to receive care, resulting in higher transportation and associated costs, as well as time away from work for patients and/or caregivers. Individuals without family or other social support are more vulnerable. Residents with poor educational attainment, lower salaries, and/or no health insurance may be more prevalent in rural places.[34] Many studies, although not all, have revealed that rural cancer survivors had much worse mental health than urban cancer survivors. In the biggest research to date, 18.8% of rural survivors reported clinically severe psychological suffering in a US population-based sample, compared to 12.8 percent of urban survivors.[25]

Experience with patients:

In this study, the research was carried out at a tertiary care facility, with 40 cancer patients selected based on certain criteria. For the next three days, they were led to a quiet room and instructed to follow some intriguing instructions for 15 minutes while having complete faith in their GOD. After 14 days, data from both patients and attendants were obtained utilizing a completed questionnaire.

The outcome was excellent. Females outnumbered men by 40%. With an average age of 45, the majority of them were educated. Patients with advanced illness had a higher chance of being diagnosed (60%). Behavioral improvements were seen in nearly 80% of patients, mobility was improved in nearly 75% of paraplegic patients, narcotic reliance was decreased in nearly 90% of patients with severe bone pain, and positive attitudes were developed in nearly 80% of patients. Some patients' therapeutic responses improved, as did their healing abilities.

The health-care system and chemotherapy:

Only 51% of the study group accepted and started chemotherapy, compared to 92% of the control group in a cohort study.[4] Depression reduces treatment adherence, leads to worse outcomes, and increases mortality.[4,5] Depression worsens physical symptoms in cancer patients, lowering their quality of life, and increasing the negative effect on patients and their families throughout the disease's course.[2,4] Patients with greater pre-chemotherapy levels of tiredness, sadness, and sleep disruptions, for example, had elevated levels of these symptoms throughout treatment,

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

which had substantial and negative implications on their QOL14 Depression in cancer patients lengthens hospital stays and consumes more resources, resulting in higher healthcare costs.[5] Depressed cancer patients have a greater risk of suicide than the overall population.[6]

Depression and cancer progression:

When compared to non-depressed cancer patients, depressed cancer patients have a higher chance of death.[5] Although treatment non-adherence accounts for some of the increased risks, evidence from animal and human studies suggests that the chronic stress response, which may contribute to the development of depression in cancer, may also contribute to increased cancer invasiveness, decreased tumor surveillance by the body, increased angiogenesis, decreased tumor suppressor gene activity, and reduced cellular apoptosis.[6]

Immune reprogramming:

The higher risk of death in depressed individuals compared to non-depressed people is considered to be due to a variety of immunological systems.[6] Depression lowers the amount of circulating natural killer (NK) cells, which usually serve as tumor surveillance cells in otherwise healthy persons, and the same is expected to be true in cancer patients.[17] Depressed and worried emotions were linked to lower numbers of T helper 1 cell, cytotoxic T lymphocytes, and interferon (INF) release in both the tumor microenvironment and peripheral blood in ovarian cancer patients.[28] The chronically stressed group was shown to have a greater chance of developing squamous cell carcinoma than the non-stressed group in a mouse investigation that included subjecting stressed and unstressed groups of UV radiation-sensitive mice. The stressed group had a shorter latency period before the first tumor appeared, lower INF- expression, higher infiltrating and circulating regulatory T cell levels, and lower T helper cell infiltration.[19] As a result, persistent stress reduces anti-tumor lymphocyte and NK cell function while simultaneously boosting immunosuppression, impairing the immune system's capacity to fight cancer.

Objective

General Objective:

- To see whether mental boost-up in cancer patients can bring any further improvement in their treatment and lives.

Specific Objective:

- To assess the socio-demographic and clinical status of participants.
- To evaluate the changes in behavior, mobility, opioid dependency, and attitude of cancer patients through mental boost-up.

MATERIAL AND METHODS

This prospective study was conducted in the Department of Radiation and Clinical Oncology, Chattagram Medical College and Hospital, Chattagram, Bangladesh during the period from January 2018 to December 2018. In total 40 cancer patients were included in the study subjected to this intervention. As per the inclusion criteria of this study, cancer patients who became depressed and frustrated or completely silent or mentally shocked after

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

diagnosis, patients suffering from a severe anxiety disorder or fear of death or developed paralysis(hemiplegia/paraplegia) or became bed-bound due to cancer were included. Besides those patients with poor PS or severe pain with maximum analgesic support or in negative belief and faith in treatment as well as doctors or with a narrow spectrum of confidence were also recruited. Patients developing repeated therapy-induced toxicities and showing ignorance of cancer treatment and even patients with the end-stage disease were also included.

RESULTS

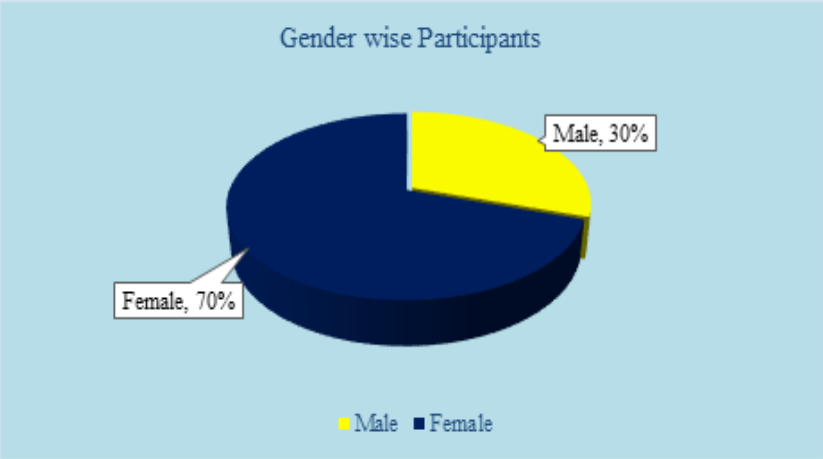

Figure 1: Gender distribution of participants (N=40)

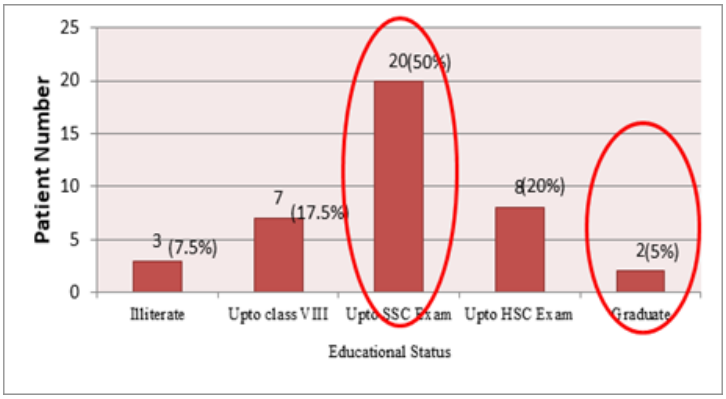

Figure 2: Educational status of participants (N=40)

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

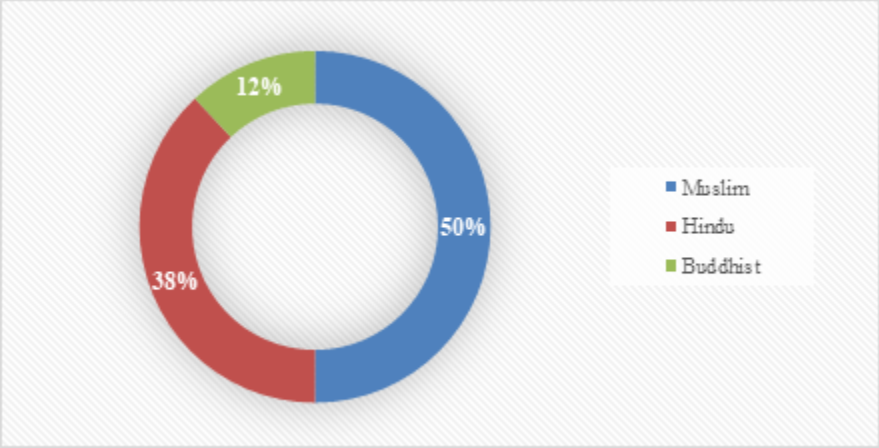

Figure 3: Religious status of participants (N=40)

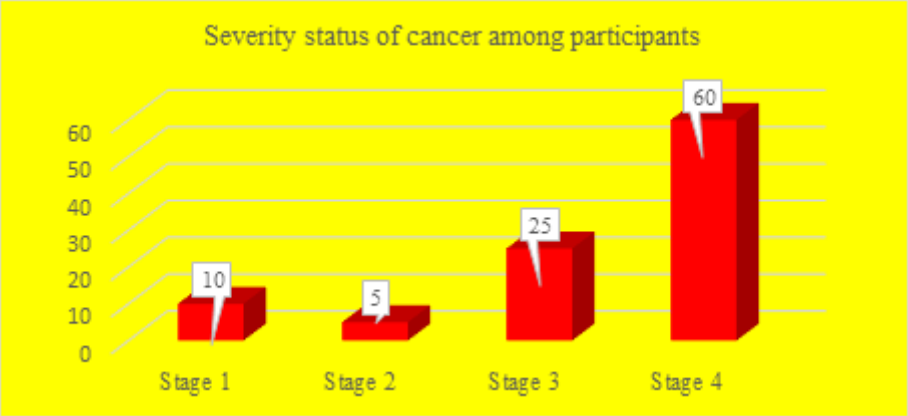

Figure 4: Severity status of cancer among participants (N=40)

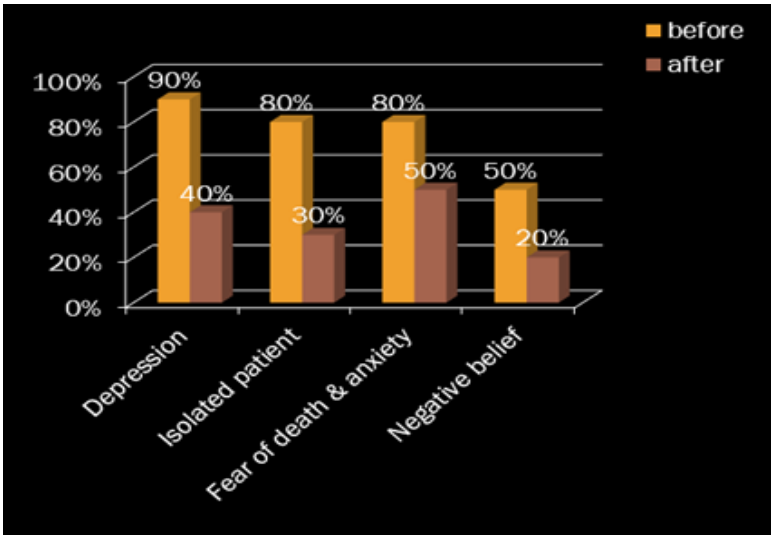

Figure 5: Behavioral changes among participants (N=40)

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

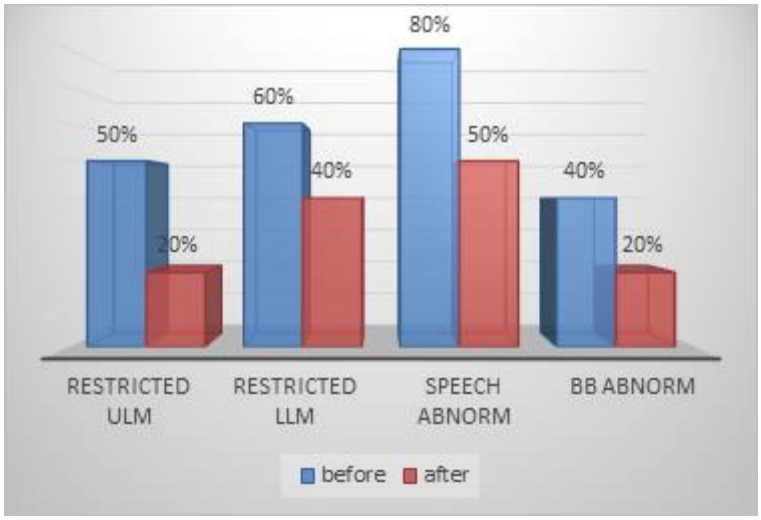

Figure 6: Improvement in mobility among participants

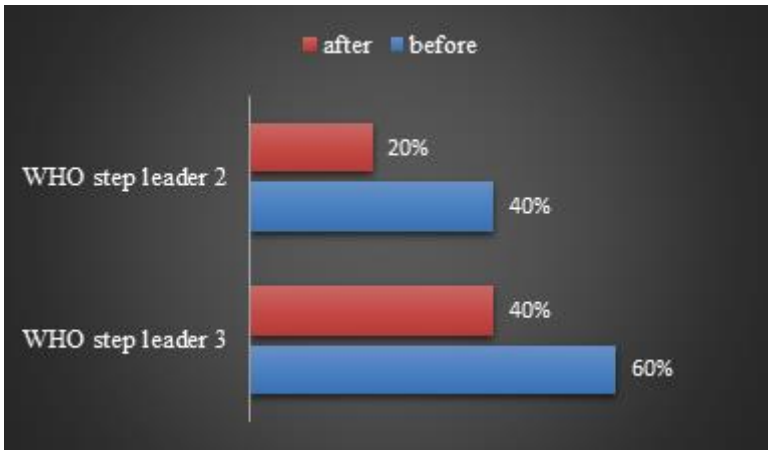

Figure 7: Changes in opioid dependency among participants (N=40)

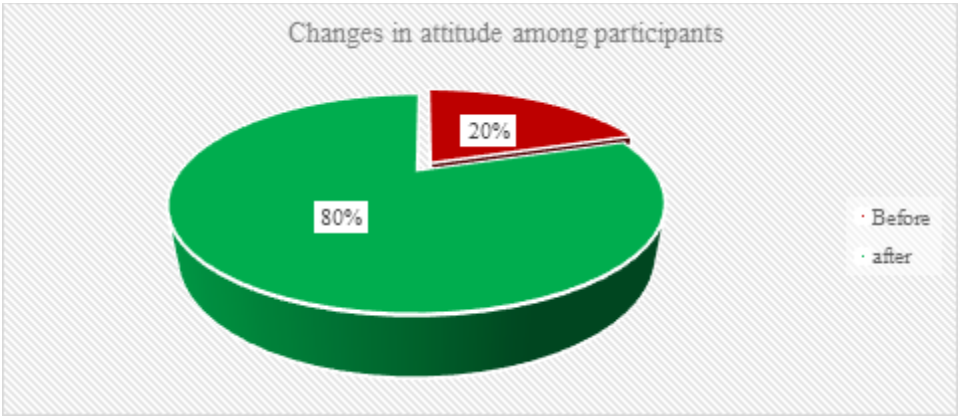

Figure 7: Changes in attitude among participants (N=40)

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

Table 1: Some interesting findings among participants

Serial No	Some interesting findings
1	Improved healing power
2	Decreased CT-induced toxicities
3	Improvement in the familial relationship
4	Improvement in appetite
5	Improvement in sleep disturbance

In this study, among the total of 40 participants, 30% were male whereas the rest 70% were female. So, female participants were dominated in number and the male-female ratio was 1:2.3. The mean age of male patients was 65 years ranging from 45 to 78 years and the mean age of female patients was 45 years ranging from 35 to 60 years. In this study in analyzing the educational status of the participants, it was found that half the patients (50%) were up to SSC exam. Only 7.5% were illiterate whereas 5% were graduates. Among the 40 patients, 50% were Muslim whereas 38% were Hindu and 12% were Buddhist. The majority of the participants (60%) were with advanced stage (Stage 4) cancer whereas the rest 10%, 5%, and 25%, patients were in stage 1, stage 2, and stage 3 respectively. Among total patients, behavioral changes regarding depression, isolation, 'fear of death and anxiety, and negative belief were observed in almost 80%. Improvement in mobility was found in almost 75 % of all paralyzed patients. Opioid dependency is reduced in almost 90 % of patients with severe bone pain. A positive attitude was built in 80% of patients in place of 20%. Besides these, therapeutic good responses were also observed in some patients (5patients, where after mental counseling subjective response of CT became significantly good). Moreover among most of the patients some interesting findings like improved healing power, decreased CT-induced toxicities, improvement in a familial relationship, improvement in appetite, and improvement in sleep disturbance were observed.

DISCUSSION

The aim of this study was to see whether boosting, increasing, or instilling mental strength in cancer patients can bring any further improvement or change in their treatment and lives. Among the total 40 participants, 30% were male whereas the rest 70% were female. So, female participants were dominated in number and the male-female ratio was 1:2.3. The mean age of male patients was 65 years ranging from 45 to 78 years and the mean age of female patients was 45 years ranging from 35 to 60 years. Psychology research has offered a scientific basis for our understanding of the psychological consequences of cancer and methodologies for evaluating psychosocial therapies. The majority of the participants (60%) were with advanced stage (Stage 4) cancer whereas the rest 10%, 5%, and 25%, patients were in stage 1, stage 2, and stage 3 respectively. Among total patients, behavioral changes regarding depression, isolation, 'fear of death and anxiety, and negative belief were observed in almost 80%. Improvement in mobility was found in almost 75 % of all paralyzed patients. In many ancient studies involving cancer patients, optimism which was related to our

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

study was associated with better adjustment to cancer, enhanced well-being, and reduced distress, while being predictive of treatment challenge acceptance.[36] Conversely, essimism predicted denial, avoidance, and impaired quality of life.[37] Besides these, among long-term prostate cancer survivors, those who reported being happy, hopeful, and positive in outlook had fewer negative treatment outcomes than those who were negative.[38] In our study, opioid dependency was reduced in almost 90 % of patients with severe bone pain. A positive attitude was built in 80% of patients in place of 20%. In a study, they mentioned that hope is considered one of the most powerful coping styles when fighting against cancer.[39] Besides these, in our study, therapeutic good responses were also observed in some patients (5patients, where after mental counseling subjective response of CT became significantly good).Six strategies: staying positive, building and sustaining meaningful relationships, living in the present moment, feeling a spiritual connection, promoting accomplishments, and anticipating survival are proven effective in treating cancer patients.[40] Awareness of the necessity of mental bust-up for cancer patients among general people is also in need. Because, cancer patients can develop a sense of hopelessness when distress becomes overwhelming,[41] and social support may be protective against hopelessness.[42] In our study, among most of the patients some interesting findings like improved healing power, decreased CT-induced toxicities, improvement in a familial relationship, improvement in appetite, and improvement in sleep disturbance were observed. All the general and rare findings of this study may be helpful in further similar studies and in the treatment arena of cancer.

The interdisciplinary discipline of psychosocial oncology focuses on the psychological, social, and behavioral aspects of cancer.[16] It is very important for cancer patients' quality of life from diagnosis through survival treatment, and it may substantially help survivors improve their overall health. The American Society of Clinical Oncology (ASCO) has released revised recommendations for the screening, evaluation, and management of anxiety and depressive symptoms in cancer patients.[27] These guidelines are a great resource for advice on when to screen for symptoms, what tools to use, and how to follow up. Across the cancer care continuum, frequent mental health screening using validated tools is advised. The 9-item Personal Health Questionnaire, the Hospital Anxiety and Depression Scale, the Geriatric Depression Scale, the Beck Depression Inventory, the Center for Epidemiological Studies-Depression Scale, the Spielberger State-Trait Anxiety Inventory, and the Beck Anxiety Inventory are all widely used screening instruments for depression and/or anxiety that are mentioned in the ASCO guidelines. The National Institutes of Health's Patient-Reported Outcomes Measurement and Information System, which includes computerized adaptive-testing item banks and short questionnaire evaluation tools [18] is another useful screening tool/system. Early detection and treatment of mental health issues may considerably enhance cancer survivors' emotional and physical health. Some clinicians may find it useful to have patients complete brief quality-of-life assessments, such as the 12-Item Short-Form Health Survey.[29] The Functional Assessment of Cancer Therapy Scale-General,[40] or a single-item assessment, in addition to psychosocial measures of mental

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

health or general distress (asking patients to indicate their overall quality of life on a scale from 0 to 10). This may be used to assess how a patient's physical or mental health state affects his or her overall quality of life, as well as to assess the effect of mental health therapies on survivors' lives. Family members and society may better approach and connect with cancer sufferers by exhibiting supportive behavior and attitudes. Cancer etiquette is an important component of a social model aimed at rehabilitating patients and welcoming them back into society. This approach is especially crucial since contemporary medical therapies are increasing cancer patients' chances of survival. However, we must identify the appropriate language and methods for communicating with recuperating patients.

Positive patient-physician interactions and communication significantly minimize patient suffering [15]. In addition, relaxation methods, psychoeducation, cognitive-behavioral therapy (CBT), problem-solving therapy (PST), and acceptance and commitment therapy (ACT) may be beneficial to patients.[24,25,26,27,28] Meditation and progressive muscle relaxation, for example, allow patients to release mental and physical tension, lowering stress, and have been shown to improve depression and QOL in cancer patients.[14,28] Psychoeducation may be utilized to increase cancer awareness and coping methods while lowering fear and uncertainty. CBT helps patients identify and overcome harmful cognitive processes while also encouraging emotional improvement. Both psychoeducation and cognitive behavioral therapy (CBT) have been shown to improve depression symptoms and quality of life.[15,18] PST focuses on developing, executing, and evaluating solutions for patients' controllable difficulties, including relationships and financial issues. In depressed individuals, PST may enhance psychological outcomes and quality of life.[16] ACT improves psychological flexibility by teaching patients how to accept challenging ideas without being overwhelmed or controlled by them. In terms of mood and quality of life, ACT has been shown to be comparable to CBT.[8] Exercise treatment may also be helpful for cancer patients who are depressed. Although there is a lack of studies utilizing depression as the major outcome, a meta-analysis found that exercise may help cancer survivors with pain, exhaustion, and QOL.[9]

Conclusion and Recommendations

The mental health of persons living with and after cancer, at all stages and forms, is a major scientific and therapeutic focus. Anxiety and depression are more common in persons with cancer than in the general population, although estimates vary depending on a variety of variables, including the kind and stage of cancer. Psychological help and therapy are often unavailable to patients. This is likely due to a number of issues, including a lack of understanding and recognition of mental symptoms, a lack of accessible or given

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

assistance, a lack of data about effective treatments, stigma, and patient desire. We call attention to the scarcity of high-quality research on long-term cancer survivors' mental health, the possible influence of long-term and late consequences of cancer therapy, and the limited studies on prevention. More study is needed, as well as the participation of younger individuals and populations from low- and middle-income nations. This study is crucial since the number of individuals living with and beyond cancer is growing.

Limitations of the study

This was a single-centered study with a small-sized sample. So, the findings of this study may not reflect the exact scenario of the whole country.

CONCLUSIONS

Patients with cancer in spite of craving for life, begin counting/her days after being aware of this disease. As a result, this terror of death creates a sense of hopelessness and this psychological breakdown affects the treatment in such a way that even the best medical care does not work as expected. This study has successfully found that if the mental spirit of a patient can be brought to work with all the medical procedures, a certain success is possible. They just have to be made confident enough to believe that "a man", as Ernest Hemmingway says, "can be destroyed, but not defeated".

REFERENCES

1. Mishel MH, Hostetter T, King B, and Graham V: Predictors of psychosocial adjustment in patients newly diagnosed with gynecological cancer. Cancer Nurs. 7:291-299. 1984
2. Linden W, Vodermaier A, Mackenzie R, and Greig D: Anxiety and depression after cancer diagnosis: prevalence rates by cancer type, gender, and age. J Affect Disord. 141:343-351. 2012.
3. Brintzenhofe-Szoc KM, Levin TT, Li Y, Kissane DW, and Zabora JR: Mixed anxiety/depression symptoms in a large cancer cohort: prevalence by cancer type. Psychosomatics. 50:383-391. 2009.
4. Colleoni M, Mandala M, Peruzzotti G, et al. Depression and degree of acceptance of adjuvant cytotoxic drugs. Lancet. 356:1326-1327. 2000
5. Pinquart M, Duberstein PR. Depression and cancer mortality: a meta-analysis. Psychol Med. 2010;40(11):1797-1810. doi:10.1017/S0033291709992285
6. Regier DA, Kuhl EA, Kupfer DJ. The DSM-5: Classification and criteria changes. World Psychiatry. 2013;12(2):92-98. doi:10.1002/wps.20050
7. Kissane DW, Grabsch B, Love A, Clarke DM, Bloch S, Smith GC. Psychiatric disorder in women with early stage and advanced breast cancer: a comparative analysis. Aust N Z J Psychiatry. 2004;38(5):320-6. doi: 10.1080/j.1440-1614.2004.01358.x.
8. Allen R, Newman SP, Souhami RL. Anxiety and depression in adolescent cancer: findings in patients and parents at the time of diagnosis. Eur J Cancer. 1997;33(8):1250-5. doi: 10.1016/s0959-8049(97)00176-7.
9. von Essen L, Enskär K, Kreuger A, Larsson B, Sjödén PO. Self-esteem, depression and anxiety among Swedish children and adolescents on and off cancer treatment. Acta Paediatr. 2000;89(2):229-36. doi: 10.1080/080352500750028889.
10. Spiegel D, Sands S, Koopman C. Pain and depression in patients with cancer. Cancer. 1994;74(9):2570-8. doi: 10.1002/1097-0142(19941101)74:9<2570::aid-cncr2820740927>3.0.co;2-3.

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

11. Musselman DL, Miller AH, Porter MR, Manatunga A, Gao F, Penna S, Pearce BD, Landry J, Glover S, McDaniel JS, Nemeroff CB. Higher than normal plasma interleukin-6 concentrations in cancer patients with depression: preliminary findings. Am J Psychiatry. 2001;158(8):1252-7. doi: 10.1176/appi.ajp.158.8.1252.
12. Nadjar A, Bluthé RM, May MJ, et al. Inactivation of the cerebral NFkappaB pathway inhibits interleukin-1beta-induced sickness behavior and c-Fos expression in various brain nuclei. Neuropsychopharmacology. 2005;30:1492-1499.
13. Zigmond AS, Snaith RP. The hospital anxiety and depression scale. Acta Psychiatr Scand. 1983;67(6):361-70. doi: 10.1111/j.1600-0447.1983.tb09716.x.
14. Jehn CF, Kuehnhardt D, Bartholomae A, Pfeiffer S, Krebs M, Regierer AC, et al. Biomarkers of depression in cancer patients. Cancer. 2006;107(11):2723-9. doi: 10.1002/cncr.22294.
15. Bierhaus A, Wolf J, Andrassy M, Rohleder N, Humpert PM, Petrov D, et al. A mechanism converting psychosocial stress into mononuclear cell activation. Proc Natl Acad Sci U S A. 2003;100(4):1920-5. doi: 10.1073/pnas.0438019100.
16. Raison CL, Capuron L, Miller AH. Cytokines sing the blues: inflammation and the pathogenesis of depression. Trends Immunol. 2006;27(1):24-31. doi: 10.1016/j.it.2005.11.006.
17. Myint AM, Kim YK. Cytokine-serotonin interaction through IDO: a neurodegeneration hypothesis of depression. Med Hypotheses. 2003;61(5-6):519-25. doi: 10.1016/s0306-9877(03)00207-x.
18. Pavlov VA, Tracey KJ. The cholinergic anti-inflammatory pathway. Brain Behav Immun. 2005;19(6):493-9. doi: 10.1016/j.bbi.2005.03.015.
19. Koenig HG, Shelp F, Goli V, Cohen HJ, Blazer DG. Survival and health care utilization in elderly medical inpatients with major depression. J Am Geriatr Soc. 1989;37(7):599-606. doi: 10.1111/j.1532-5415.1989.tb01249.x.
20. Naughton MJ, Weaver KE. Physical and mental health among cancer survivors: considerations for long-term care and quality of life. N C Med J. 2014;75(4):283-286. doi:10.18043/ncm.75.4.283
21. de Moor JS, Mariotto AB, Parry C, Alfano CM, Padgett L, Kent EE, et al. Cancer survivors in the United States: prevalence across the survivorship trajectory and implications for care. Cancer Epidemiol Biomarkers Prev. 2013;22(4):561-70. doi: 10.1158/1055-9965.EPI-12-1356.
22. Siegel R, DeSantis C, Virgo K, Stein K, Mariotto A, Smith T, et al. Cancer treatment and survivorship statistics, 2012. CA Cancer J Clin. 2012;62(4):220-41. doi: 10.3322/caac.21149.
23. Marroquín B, Vine V, Morgan R. Mental health during the COVID-19 pandemic: Effects of stay-at-home policies, social distancing behavior, and social resources. Psychiatry Res. 2020;293:113419. doi:10.1016/j.psychres.2020.113419
24. Hewitt M, Rowland JH, Yancik R. Cancer survivors in the United States: age, health, and disability. J Gerontol A Biol Sci Med Sci. 2003;58(1):82-91. doi: 10.1093/gerona/58.1.m82.
25. Yabroff KR, Lawrence WF, Clauser S, Davis WW, Brown ML. Burden of illness in cancer survivors: findings from a population-based national sample. J Natl Cancer Inst. 2004;96(17):1322-30. doi: 10.1093/jnci/djh255.
26. Prince M, Patel V, Saxena S, Maj M, Maselko J, Phillips MR, Rahman A. No health without mental health. Lancet. 2007;370(9590):859-77. doi: 10.1016/S0140-6736(07)61238-0.
27. Helgeson VS, Snyder P, Seltman H. Psychological and physical adjustment to breast cancer over 4 years: identifying distinct trajectories of change. Health Psychol. 2004;23(1):3-15. doi: 10.1037/0278-6133.23.1.3.
28. Avis NE, Levine BJ, Case LD, Naftalis EZ, Van Zee KJ. Trajectories of depressive symptoms following breast cancer diagnosis. Cancer Epidemiol Biomarkers Prev. 2015;24(11):1789-95. doi: 10.1158/1055-9965.EPI-15-0327.
29. Kornblith AB, Powell M, Regan MM, et al. Long-term psychosocial adjustment of older vs younger survivors of breast and endometrial cancer. Psychooncology. 2007;16(10):895-903.
30. Danhauer SC, Crawford SL, Farmer DF, Avis NE. A longitudinal investigation of coping strategies and quality of life among younger women with breast cancer. J Behav Med. 2009;32(4):371-379
31. Tropman SE, Hatzell T, Paskett E, Ricketts T, Cooper MR, Aldrich T. Colon cancer treatment in rural North and South Carolina. Cancer Detect Prev. 1999;23(5):428-434.

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-8, Issue-4 | July-August 2022
DOI: 10.53339/aimdr.2022.8.4.35
Page no- 323-337 | Section- Research Article (Oncology)

32. Watson M, Dunn J, Holland JC. Review of the history and development in the field of psychosocial oncology. Int Rev Psychiatry. 2014;26(1):128-135.
33. Wagner LI, Spiegel D, Pearman T. Using the science of psychosocial care to implement the new American College of Surgeons Commission on Cancer distress screening standard. J Natl Compr Canc Netw. 2013;11(2):214-221.
34. Cella DF, Tulsky DS, Gray G, et al. The Functional Assessment of Cancer Therapy scale: development and validation of the general measure. J Clin Oncol. 1993;11(3):570-579.
35. Ware J, Jr, Kosinski M, Keller SD. A 12-Item Short-Form Health Survey: construction of scales and preliminary tests of reliability and validity. Med Care. 1996;34(3):220-233.
36. Miller DL, Manne SL, Taylor K, Keates J, Dougherty J. Psychological distress and well-being in advanced cancer: the effects of optimism and coping. J Clin Psychol Med Settings. 1996;3(2):115-30. doi: 10.1007/BF01996132.
37. Petersen LR, Clark MM, Novotny P, Kung S, Sloan JA, Patten CA, et al. Relationship of optimism-pessimism and health-related quality of life in breast cancer survivors. J Psychosoc Oncol. 2008;26(4):15–32. doi: 10.1080/07347330802359578.
38. Blank TO, Bellizzi KM. After prostate cancer: predictors of well-being among long-term prostate cancer survivors. Cancer. 2006;106(10):2128–35. doi: 10.1002/cncr.21865.
39. Ebright PR, Lyon B. Understanding hope and factors that enhance hope in women with breast cancer. Oncol Nurs Forum. 2002;29(3):561-8. doi: 10.1188/02.ONF.561-568.
40. Saleh US, Brockopp DY. Hope among patients with cancer hospitalized for bone marrow transplantation: a phenomenologic study. Cancer Nurs. 2001;24(4):308-14. doi: 10.1097/00002820-200108000-00012.
41. Vartak J. The role of hope and social support on resilience in cancer patients. Indian J Ment Health. 2015;2(1):35–42. doi: 10.30877/IJMH. 2.1.2015.35-42.
42. Yesilot SB, BOztunc G, Demirci PY, Manav AI, Payday S. The evaluation of hopelessness and perceived social support level in patients with lung cancer. Int J Health Life Sci. 2017;3(2):88-105. doi: 10.20319/ lijhls.2017.32.88105.

Source of Support: Nil, Conflict of Interest: None declared