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Research Article

**STUDY TO ANALYZE IMPACT OF CANCER RELATED
FATIGUE ON QUALITY OF LIFE OF CANCER PATIENTS****Dr. Sana Fatima¹, Dr Ayesha Bhatti², Dr Summaira Munir³**¹ Nawaz Sharif Medical College Gujrat² Fatima Jinnah Medical University, Lahore³ Jingtangshan University, China**Abstract:**

Objective: This study was conducted to investigate the effect of fatigue on the life of patients of cancer and the patient experience of tiredness and insight about the causes, effect and controlling of symptoms. **Methods:** Data was collected from Anmol Cancer Hospital, Services Hospital and Jinnah Hospital, Lahore. A Cross-sectional study was conducted and 170 patients were studied. Functional Assessment of Chronic Illness Therapy Fatigue (FACIT-F) was used for cancer patients, which was filled by patients undergoing anticancer treatment or chemotherapy. All patients were chosen using purposive sampling technique. **Results:** It was observed that fatigue had significant effect on emotional, physical, psychological and social wellbeing. It was most common unmanaged and disruptive symptom in patients with cancer. Mean and Standard Deviation was calculated for each domain. **Conclusion:** Valid conclusion was drawn that fatigue had great impact in patients with cancer than physical and mental consequences. The most feared concern of the treatment was pain. Fatigue had more impact on the everyday lives of cancer patients than nausea and pain. **Key words:** Fatigue, Cancer, Chronic, Quality of life, Chemotherapy.

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INTRODUCTION:

Cancer related Fatigue is defined as persistent overtiredness and distressing as a result of mental, emotional and physical illness characterized by reduce ability to work and lessen efficiency to react to stimuli. Cancer-related fatigue also acknowledged as cancer fatigue. It is often labelled as tiring and paralyzing. It is one of the collective side effects of cancer and the significant effect of vigorous treatment and may stay into post treatment periods. (1) Cancer fatigue is not expected by the type of cancer or cancer stage, it occurs unexpectedly, not typically after movement and is not comforted by sleep and rest.(2)

The most important impact of fatigue is decrease in functional ability as patients of cancer are too tired to contribute in activities of everyday life. Fatigue adversely affect life of cancer patients and families of victim involving physical, psychological and emotional aspects. Exercise is effective in decreasing fatigue and increases activity level. Early studies of exercise in cancer patients indicate that exercise could increase functional capability of patients (3)

Few evidence based psychoeducational interventions designed to increase psychological suffering, mood, and other symptoms such as sleep troubles. These interventions have time and resource implications in relation to training and standardization. (4, 5)Exercise training revealed benefits in muscular power, cardiorespiratory capability, efficient task routine, lean body mass, and fatigue, with unpredictable effects observed for adiposity.(6)

The incidence and sequence of fatigue in patients with cancer have been well considered and there is developing understanding of the basic biological mechanisms. Inflammation seems to have a vital role in fatigue earlier, during, and after cancer-treatment. (7, 8)

Cancer-related fatigue is compelled by initiation of the pro-inflammatory cytokine system. In this analysis, we inspect the existing state of the evidence involving inflammation and cancer-related fatigue, taken from latest human study and from experimental animal models examining effects of cancer and cancer treatment on inflammation and fatigue. Identification of the process driving cancer-related fatigue and related risk factors will assist the growth of targeted interventions for susceptible patients.(9, 10)

A study was conducted by Kiecolt-Glaser JK et al in 2014 and he reported that the persistent fatigue in cancer fighters may be related in part to triggering of the inflammatory network. Consistent exercise lessens fatigue as well as inflammation. However, fatigue and pain repeatedly limits survivors' physical activity. Yoga provides categorized exercise that can be tailored for individuals who are inactive. In addition, studies with cancer survivors recommended that yoga exercise lowers fatigue and improves mood and sleep quality.(11)

Exercise is effective in reducing cancer fatigue and thus improves activity tolerance in cancer patients as well as cardiovascular, chronic respiratory and renal disease. Research shows that simple walking is theoretically effective and harmless intervention as well as low-cost to manage cancer fatigue. Other benefits of exercise include reduce pain, shorten stay in hospital, decreased nausea and enhance immune system. It helps in managing fatigue. Activity helps a lot in reducing excessive rest and boredom as well. Nutrition is also very essential to gain energy and avoid fatigue. Exercise is indicated to decrease Cancer Fatigue Syndrome.(12, 13)

The influence of cancer related fatigue is rarely discussed and occasionally treated. Quality life of cancer patients can be improved by heightened awareness of fatigue, perception of patient about the symptoms, better recognition of its effect and advance communication, knowledge and awareness with interventions that can decrease its devastating consequences. (14)

Another study was conducted by Linda K. Larkey et all in 2015 and they reported that by combining movement, breathing and meditation cancer fatigue can be controlled. This study aims to compare a meditative movement practice on breast cancer survivors. Tai Chi and Qigong are ancient practices directed to improved health, fitness and wellbeing for limitless individuals up to the present time. (15)

OBJECTIVE:

To determine the influence of cancer related fatigue on the life of patients with cancer and its effect on social, emotional, physical and psychological wellbeing.

MATERIAL AND METHODS:

A Cross-sectional study was conducted. Data was collected from Jinnah Hospital and Anmol Cancer Hospital and Jinnah hospital. Study was completed in four months. Purposive sampling technique was used

to obtain the sample. A sample size of 170 patients was taken in the study by using online sample size calculator with 95% significance level. Cancer patients having age >20 and <60 years with either gender included. Cancer patients with primary complaint of fatigue undergoing cancer treatment were included in the study. All types of cancer patients were included in the study for instance breast cancer, intestinal cancer, uterine cancer, lung cancer and bone cancer etc. Cancer patients having age <20 and >60

years were excluded. Cancer patients who were not willing to fill questionnaire were excluded. Patients who were unfit or unable to finish the questionnaire were also excluded. Cancer related fatigue was found by using Functional Assessment of Chronic Illness Therapy Questionnaire (FACIT-F). The data was analyzed using SPSS 18 version. The continuous variables expressed as mean and standard deviation, whereas qualitative variables expressed in the form of frequency, tables and percentage.

RESULTS:

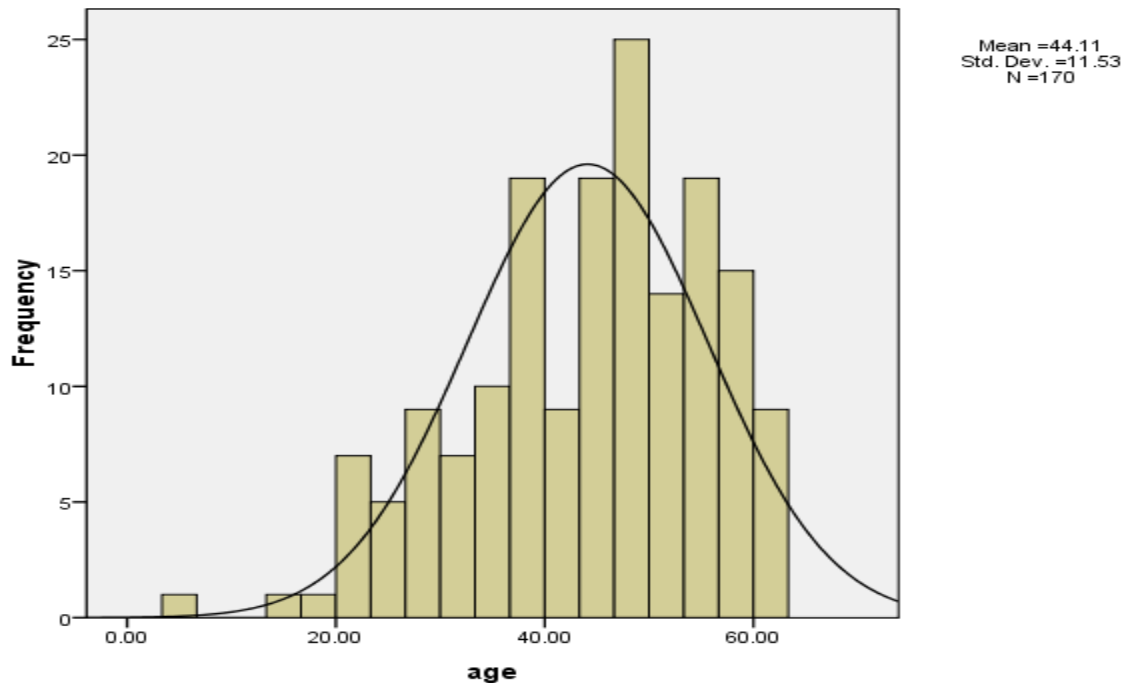
170 cancer patients, 43 males and 127 females were included in the study and no patient was missed and mean age was 44.11

Table#1

		gender*FACITF crosstabulation			
		mild	Moderate	Severe	Total
Gender	male	2	24	17	43
	Female	1	57	69	127
Total		3	81	86	170

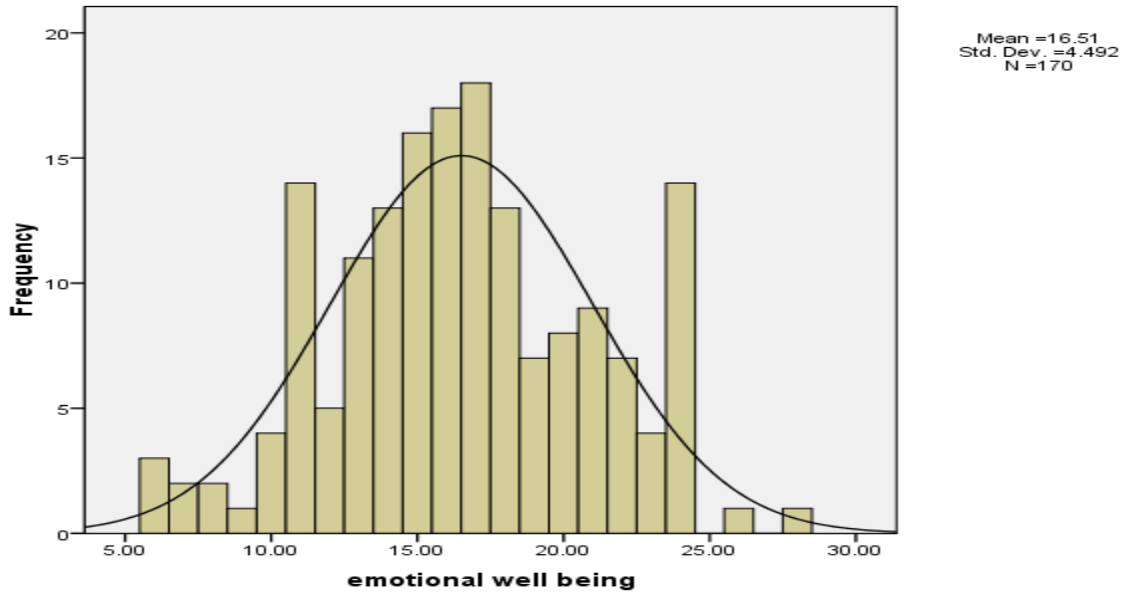
Table#1: This table shows that out of 43 male patients 17 suffered from severe fatigue, 24 from moderate fatigue and 2 from mild fatigue. And out of 127 female patients 69 suffered from severe fatigue, 24 from moderate and 1 from mild fatigue. Total 86 cancer patients suffered from severe fatigue, 81 from moderate fatigue and 3 from mild fatigue.

Graph # 1



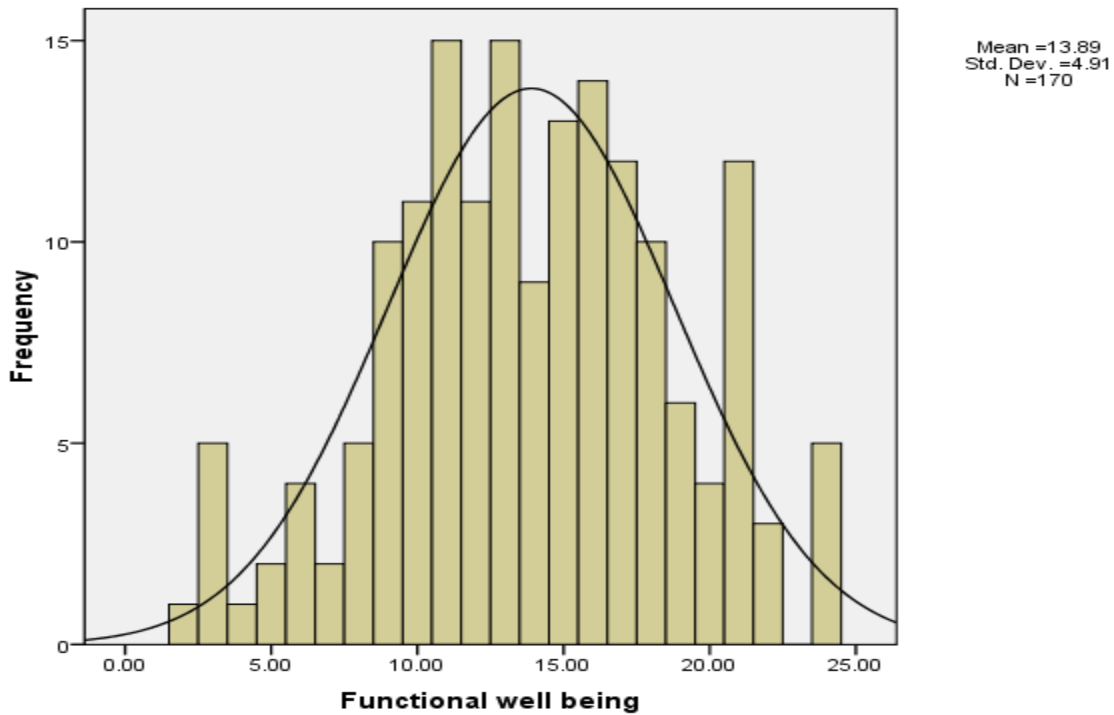
Graph #1: This histogram shows that 170 cancer patients from 20 to 60 years old were included in this study among which mean age was 44 years.

Graph # 2



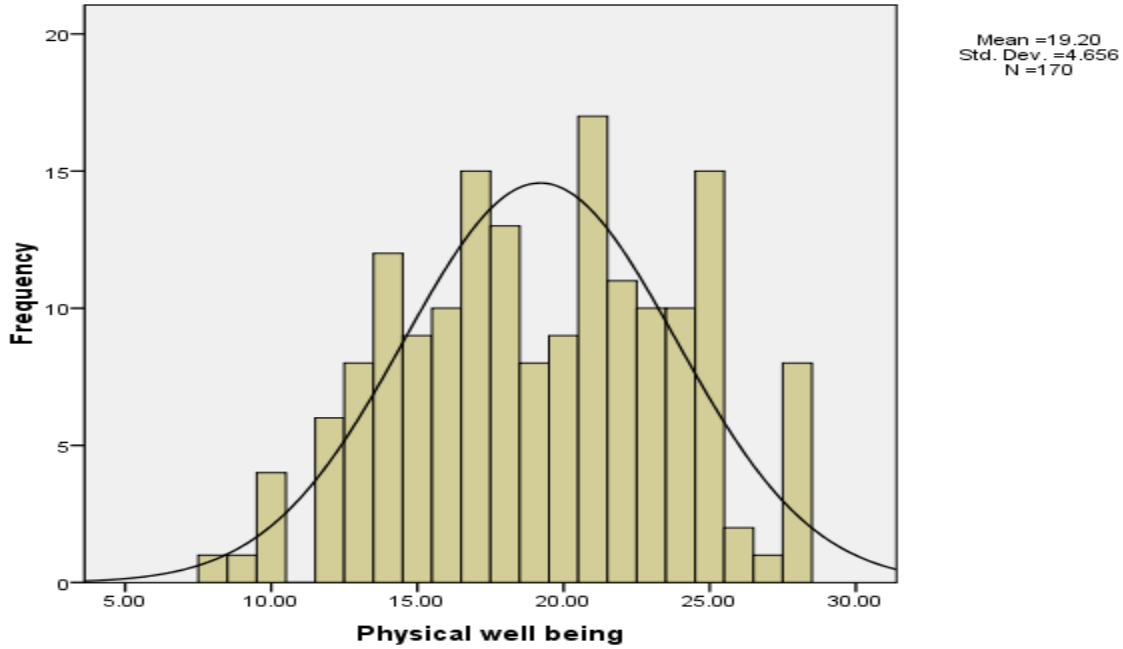
Graph #2: This histogram shows that mean is 16.51, which is less than total score of emotional wellbeing. Mean value shows that cancer patients suffer emotionally.

Graph # 3



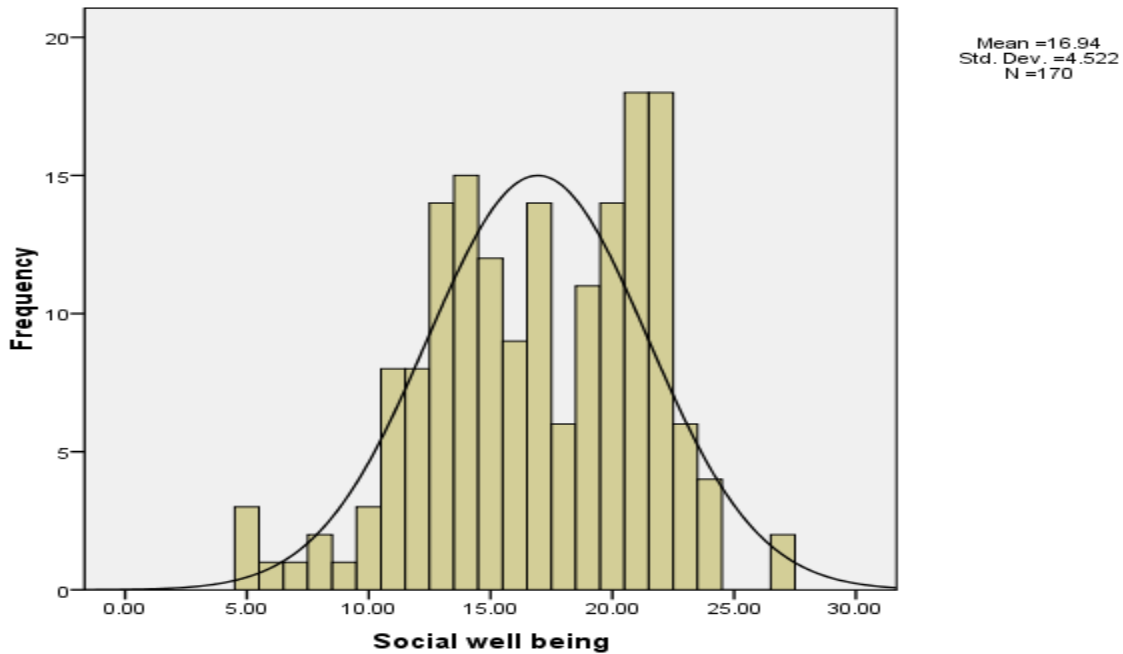
Graph #3: This histogram shows that mean is 13.89, which is less than total score of functional wellbeing. Mean value shows that cancer patients have functional limitation.

Graph # 4



Graph #4: This histogram shows that mean is 19.20, which is less than total score of physical wellbeing. Mean value shows that cancer patients have lack of energy and suffer physically.

Graph # 5



Graph #5: This histogram shows that mean is 16.94, which is less than total score of social wellbeing. Mean value shows that cancer patients suffer socially as well.

DISCUSSION:

The purpose of this study was to define the impact of fatigue on the life of cancer patients and its special effects on physical, functional and emotional and social wellbeing of patients. To know the effect of cancer related fatigue on cancer patients FACIT-F Questionnaire was used cross sectional Survey was conducted and 170 cancer patients were included. Functional Assessment of Chronic Illness Therapy Fatigue Questionnaire (FACIT-F) was used for assessment. Results of current study showed that cancer patients suffered from severe fatigue. In previous studies, findings include that fatigue is the most common adverse effect of cancer, Inflammation is a key mechanism of cancer-related fatigue. Host factors increase risk for fatigue in patients with cancer. Effective interventions include exercise and targeted psychological and mind-body treatments, an overall impact of cancer fatigue was determined (16) But in the current study, impact of fatigue on male as well as female cancer patients was determine separately. Results show that females are more affected by severe fatigue than males. Current study assessed the mean scores of emotional wellbeing which was less than total score of emotional wellbeing which shows that cancer patients suffer emotionally. Current study also calculated mean and standard deviation of functional wellbeing, physical wellbeing and social wellbeing and found that it was less than half of the total score of these domains which shows that cancer patients have decrease functional ability, lack of energy, feel ill and have psychological disturbance also. Clinically relevant levels of CRF are present in approximately 1/3 of cancer survivors up to 6 years post-treatment, and this is associated with high levels of disability.(17)Experimental group (Medication with aerobic exercise) were decreasing which reflected Improvement as compared to other two groups Medication and aerobic exercise alone. Current study concluded that Mean and Standard Deviation of these two score was less than other groups. So, a valid conclusion was drawn that there is more consistency and reliability in score of experimental group. Medication with aerobic exercise is more effective than medication or aerobic exercise alone in improving functions, symptoms and over all wellbeing among cancer patients.

CONCLUSION:

Results from current study demonstrate that cancer related fatigue leads to extreme tiredness and

weariness as a result of cancer and had great impact on quality of life of cancer patients than any other consequence of disease. Many factors lead to cancer fatigue including anemia, insomnia, poor nutrition, psychological distress, chemotherapy, radiotherapy, immune therapy and combination therapy. Patients with cancer have been facing physical, social, emotional and psychological problems and required special training programs and exercises to overcome these difficulties. Few patients felt that these symptoms were poorly managed. And the patients failing to report fatigue were thought it is inevitable. The treatment plan to recover effects of fatigue required a multidisciplinary team of professionals. Complete understanding of the difficulties and functional needs of patient help us to achieve maximum output.

Recommendations

1. Create awareness among doctors and cancer patients about the indication and usefulness of non-pharmalogical methods of decreasing cancer fatigue which includes exercises and counseling.
2. Few patients have received some treatment and advice to manage fatigue. The most frequent recommendation was to have rest.

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