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Assessment Of Quality Of Life In Post Chemotherapy Subjects

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ABSTRACT

Background-Chemotherapy is an essential cancer treatment, but it frequently has negative side effects that impact a patient's physical, mental, and social well-being. Many patients still have difficulties in their everyday lives after chemotherapy is finished. In order to provide the right treatment and assistance, it's critical to comprehend how their general quality of life is impacted.
Objective- To assess how chemotherapy impacts quality of life post- treatment, focusing on physical, psychological, and social dimensions.
Material and methodology- institutional protocol and ethical committee approval, vide their letter no.KVV/IEC/01/2025 dated january 23,2025. this observational study was conducted in karad using a survey method over the duration of six months. The samle size was calculated using the formula n= z2 × p × q / L2 ,resulting in 100 participants ,were z presents the confidence level , p the prevalence, q = 100-p ,and L the allowable error. Data collection involved a consent form and standardized questionnaire, participant included post chemotherapy patients and both males and females. Patient undergoing chemotherapy and other illness were excluded from the study
Results- Most patients reported moderate to severe impairments in quality of life. many reported physical fatigue, weakness, and low energy; several reported mental health issues, mood swings, and low self-esteem; some also expressed concerns about healthcare services and financial strain, which affected their environment score.
Conclusion- The results indicate that post-chemotherapy individuals bear a heavy burden of impaired quality of life. Males reported more physical limits, but females displayed more emotional and psychological difficulties

KEYWORDS: Chemotherapy, Cancer survivors, Quality of life, Post-treatment symptoms, Emotional distress, Fatigue

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INTRODUCTION

Cancer significantly impacts the quality of life linked to health in most individual. jeopardizing their mental and physical health The aberrant, unchecked proliferation of once-normal cells is known as cancer.A cell's metamorphosis is caused by changes to its DNA that build up throughout time. A cell can no longer perform its tasks correctly due to a change in its genetic information.

The function of cancer cells to divide quickly is one of their main traits; the aggregation of these cells is known as a tumor. A tumor is considered benign as it develops if it does not spread to the surrounding tissues. When a tumor spreads to adjacent or distant tissue, it is deemed malignant. Benign tumors typically grow slowly, spreading outward from a central mass, and are localized, self-contained, and have a clearly defined perimeter.

When they pressure the surrounding tissue, they become harmful. In the brain, a benign tumor next to a blood vessel may result in paralysis; in the abdomen, it may limit blood flow, which could affect digestion. Malignant tumors typically do not squeeze the surrounding tissue and are not self-contained. Although they can develop slowly, they can also expand very quickly through an irregular invasion of neighboring cells. They shed calls that spread through the bloodstream and infect tissue in other places; this process is known as metastasis. They have the capacity to develop cancerous progress in a different kind of tissue:

Leukemia, lymphomas, sarcoma, and carcinoma are the four primary types of cancer. The skin or epithelium is where over 90% of human cancers start. The internal organs, glands, and body cavity tissue that frequently give birth to carcinoma are the skin, breast, colon, rectal, lung, and prostate. Sarcoma occur less commonly than carcinoma, are characterized by the transformation of cells found within connective tissue, including fat, muscle, bone, and cartilage. Although sarcoma sub types can occur anywhere on the body, they most frequently appear in the arms or legs.

Liposarcoma is a malignant fat tissue tumor,whereas osteosarcoma is a bone originating sarcoma certain type of cancer do not form solid tumor, such as leukaemia,which is a type of cancer affecting the bone marrow, leading to overproduction and early discharge of immature leukocytes. lymphatic system is the site of origin for lymphomas. This system which is a component of the body's immune response and consist of lymph, lymph vessels,lymph nodes, function as filtering mechanism for the blood and tissues,the five most common cancers in males, in decreasing order are prostate, lungs and bronchus,colorectal,urinary bladder and skin melanoma.

Breast, lungs and bronchus cancer women are most frequently diagnosed with certain types of cancer. Colorectal and pancreatic cancer are among the top five most prevalent fetal forms of the illness in both men and women. While chemotherapy can be

effective in achieving there goals.it can also have a profound impact on patients quality of life Post-chemotherapy period is characterized by unique set of physical, emotional and social difficulties that may impact a patients well being.

importance of quality of life in post chemotherapy period examining the physical ,emotional and social challenges and opportunities for improving their overall well-being

As cancer survival rates continue to rise, it has become essential to understand the long-term impact of chemotherapy on patient quality of life, which include multiple aspects such as physical well-being and emotional health. well-being ,social functioning and the ability to perform daily activities.The patients often experience a range of side effect after chemotherapy treatment including fatigue, pain, cognitive changes and emotional distress ,consequently there factors can diminish not only the patients physical capability but also their mental and emotional wellness affecting their relationship and overall life through a better understanding of post-chemotherapy quality of life we can enhance patient centered care and faster improve health outcome for cancer survivors.

Chemotherapy remains one of the cornerstone treatments for cancer, having significantly transformed the management of various malignancies. While the primary objective of chemotherapy is often to achieve tumor reduction and enhance overall survival rates, the intricate trajectory of a cancer patient's experience extends far beyond these clinical endpoints. As effective as chemotherapy may be, it is accompanied by a multitude of acute and late-onset side effects, which can significantly diminish patients' overall quality of life (QOL). Therefore, a comprehensive assessment of QOL in post-chemotherapy patients is essential to understand the holistic impact of cancer treatment.

Physical challenges that can include debilitating fatigue, nausea, pain, and cognitive impairments commonly referred to as "chemo brain." Emotional ramifications, ranging from anxiety and depression to feelings of isolation, can arise as individuals navigate the uncertainties associated with their health. Furthermore, social dynamics may be affected, as relationships with family, friends, and colleagues can shift due to the altered realities faced by survivors. Thus, the need for a multidimensional exploration of QOL becomes apparent, as the various facets of a patient’s experience may interplay to influence overall well-being. The concept of quality of life goes beyond merely being free from illness or disability; it also includes a persons mental well-being,social connections,and the surrounding they live in.The concept of quality of life in the context of cancer is a dynamic and multifaceted construct.it covers every facet of patient's life diverse needs they may experience throughout their illness. and Quality of life in this situation involves physical ,emotional ,social ,and psychological dimension ,recognizing that each of these area plays a critical role in the overall well-being and life satisfaction of the patient. When a cure for advanced cancer is regraded as a realistic possibility, the toxicity associated with chemotherapy is often accepted by both patient and doctors. Offers of chemotherapy is not accepted by some patient with tumors such as lymphoma and metastasis testicular cancer because the side effects are feared more then the disease itself.The certainty of death is weighed against the side effects of drugs and difficulty choices are made. For cancer of gastrointestinal tract or lung, where the hope of cure is minimal, aggressive treatment is often pursued.

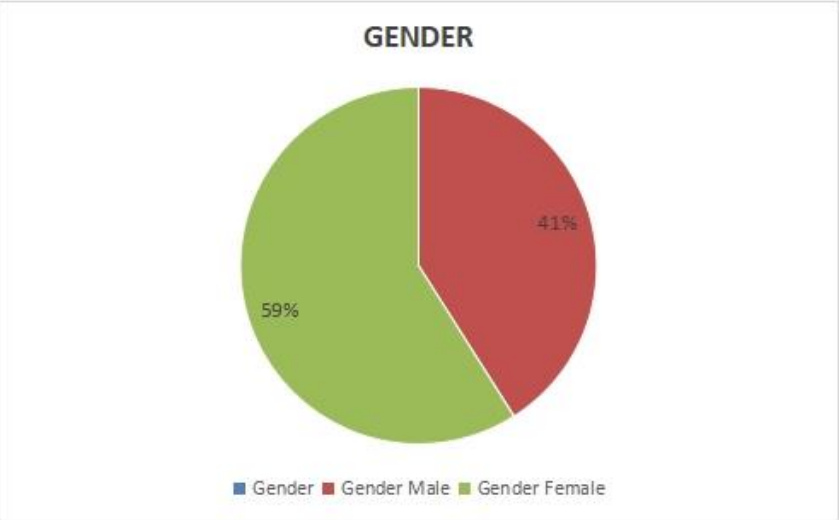
Palliative chemotherapy is defined as that which is expected to enhance overall well-being in patient with cancer. However, in the assessment of outcome, quality of life has rarely be included in traditional evaluation. Survival time and tumors response Rates act as markers. Even when toxicity data is provided, the question “will I better off if this treatment is given to me?I is not answered. This question is what patients want to be answered A hypothesis was tested by the Australian-new Zealand Breast Cancer Trials group, proposing that intermittent chemotherapy in metastasis Breast cancer might provide better palliation that continuous chemotherapy.

During the first three cycles identical treatment was received by both group, and patient showed considerable progress in their overall being . Although nausea and vomiting were reported more frequently during chemotherapy, significant improvements in physical well being ,pain mood ,appetite and overall assessment of quality of life was included. Some positive effects could have been contributed by non specific symptomatic in quality of life was still suggested to have resulted from chemotherapy.After three cycles,chemotherapy with its associated toxicities was continued in one group, while no specific anti-tumour treatment was administered to the other. A superior quality of life was were given continuous chemotherapy.Survival may be improved by chemotherapy in patient with advanced Colo rectal cancer and non-small cell lung cancer.found that participation in a chemotherapy trial for metastatic non-small cell cancer would be declined by more than four- fifths of lung cancer experts. The main reasons cited for rejection were the perceived ineffectiveness and toxicity of the treatment.

An improvement in their patients quality of life had occurred after anti-hypertensive treatment had been initiated. However,it was believed by three quarters of the patients relatives that the condition had worsened. When discussions were held with the patient,48% reported feeling better ,8% reported feeling worse ,And 44% reported no change. The correct perception, it could be argued, was held by those on the receiving end.Substantial improvements in progression-free and total survival duration in cancers of the breast,colon and rectum can be produced by chemotherapy when it is used in conjunction with local treatment intended to be curative-referred to as supportive chemotherapy in women treated for early-stage breast cancer, 46% believed that the treatment were justified even by a minimal gain of six months in life expectancy over five yrs. The majority of women accepted the treatment if their chance of five-year survival improved from 65% to 67%. An improvement of 10% in five year survival rate among women under 50 with node-positive breast cancer has been shown by adjuvant treatment using a combination of cyclophosphamide, methotrexate and fluorouracil. Many physical symptoms are experienced by newly diagnosed cancer patients. When chemotherapy received by the patient , the cyclic changes of acute side-effects and the slow accumulation of possible chronic side effect may further complication this picture. The proposed clinical model is intended to differentiate the causes of physical symptoms and to demonstrate how these may be altered over time. Cancer related symptoms, acute side effects ,chronic side

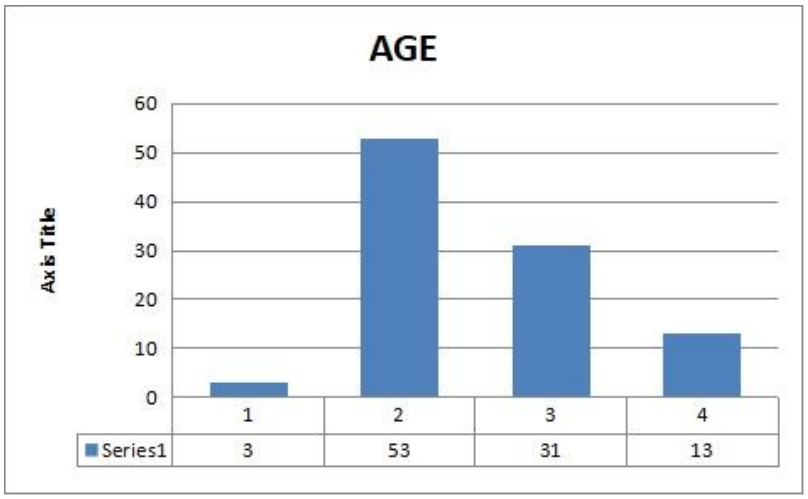
effects and symptoms not related to cancer Cancer- related symptoms A certain level of symptoms is experienced by the patient before chemotherapy is begun, such as pain. If the tumour responds to treatment,fever symptoms are expected to be experienced this is considered a clinical response may be either partial or total, meaning that some or all disease symptoms may disappear A portion of this decrease might also be attributed to response shift ;for example, a higher level of fatigue might be accepted as normal by the patient, leading to a lower fatigue rating in future evaluation if the cancer Acute side effect typical acute side effect associated with chemotherapy are usually experienced in a cyclic pattern. An increase in symptoms is typically observed during or immediately following cytotoxic treatment and usually subside within 5-10 days. In some instances a consistent low level of acute side effect is experience throughout the treatment cycles. Complication may also be developed by a few patient due to the treatment (e.g leucopoenia with sepsis),leading to short term symptoms. Over time,the severity of acute side effects may vary.a decrease in severity may be caused by improved symptoms control and or response shift. Conversely an increase severity indicate poor symptoms Chronic side effect these side effect tend to build over time. Initially, they may arise during cytotoxic treatment and disappear before the next cycle.

Statistical analysis-



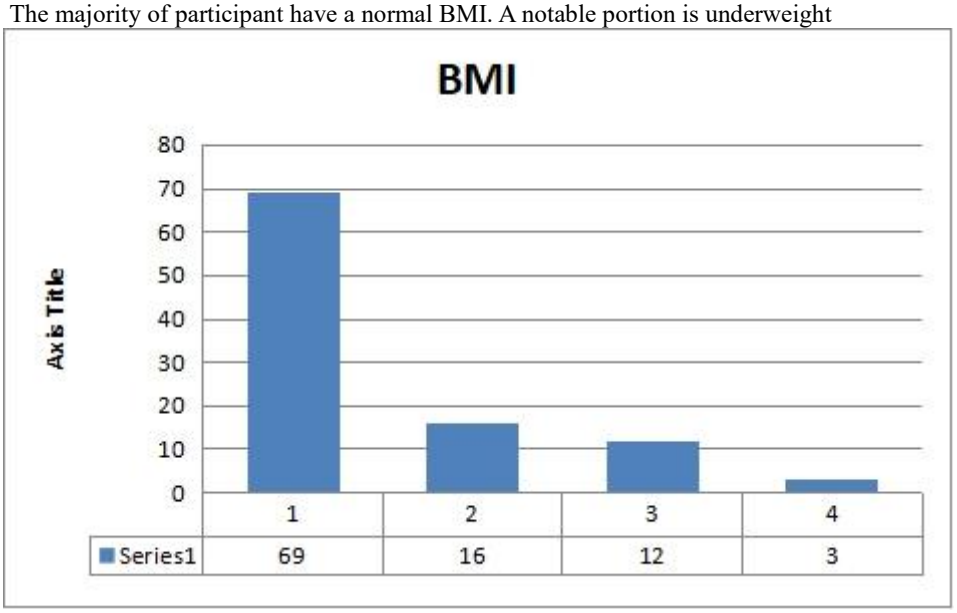
41% of the sample are female
59% of the sample are male
This indicates that males form the majority of the sample group, while females are in the minority. The sample is not gender-balanced, with a difference of 18% between the two genders

Age	Frequency	Percentage
Elderly	3	3%
Mid aged adult	53	53%
Older adult	31	31%
Young adult	13	13%



BMI		
	BMI Range	Count
Normal	18.5-24.9	69
Underweight	<18.5	16
Overweight	25-29.9	12
Obese	30 and above	3

Interpretation - The majority of participant have a normal BMI. A notable portion is underweight

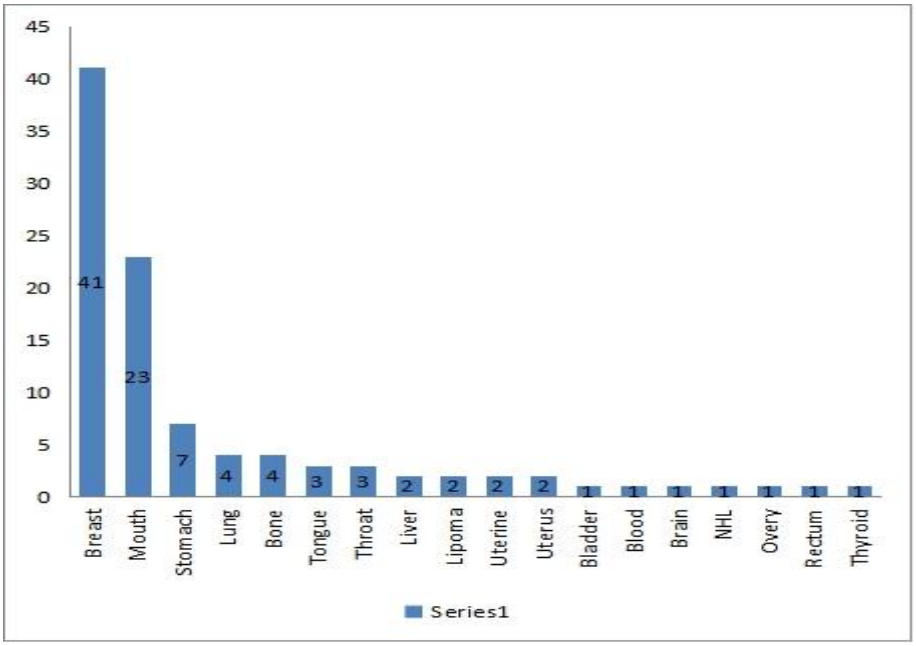


Cancer Type		
	Frequency	Percentage
Bladder	1	1%
Blood	1	1 %
Bone	4	4%
Brain	1	1%
Breast	41	41%
Lipoma	2	2 %
Liver	2	2%
Lungs	4	4%
Mouth	23	23%
NHL	1	1%
Overy	1	1%
Rectum	1	1%
Stomach	7	7%
Throat	3	3%
Thyroid	1	1%
Tongue	3	3%
Uterine	2	2%
Uterus	2	2%

Interpretation

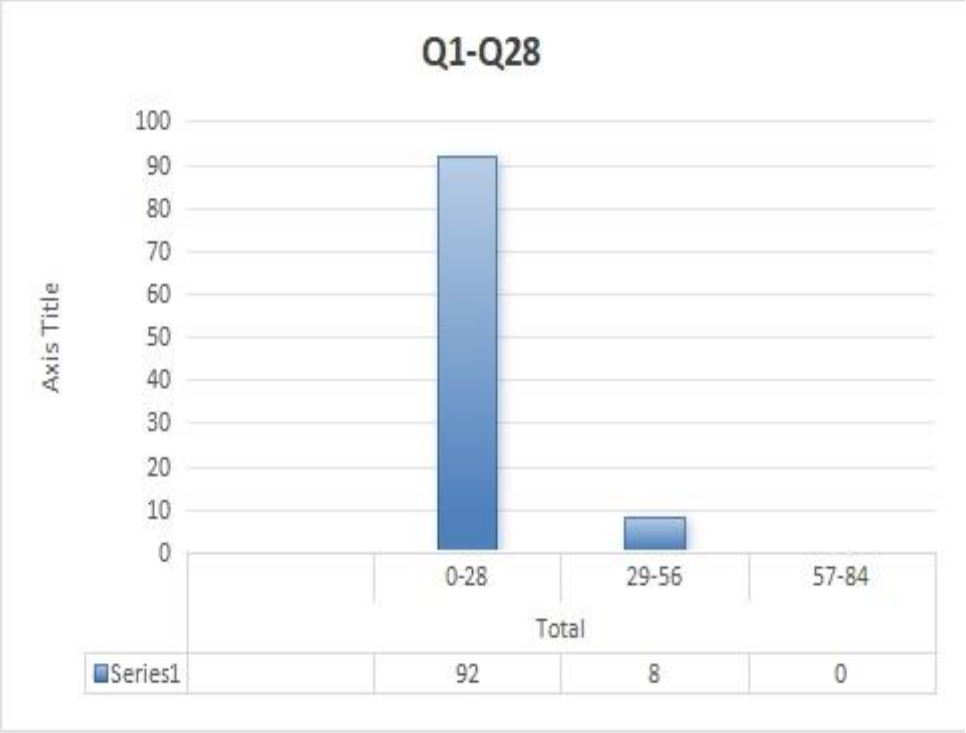
Breast cancer dominates the data set with 41 cases ,constituting nearly half of all cases(41%). Breast cancer is one of the most commonly diagnosed cancer in women.

Mouth cancer is the second most common ,with 23 cases (23%) , which may suggest lifestyle or environmental factors such as tobacco or alcohol use Bone ,lungs, stomach cancer appear moderately. Several types including bladder,blood ,brain NHL,rectum ,thyroid ,each had only 1case (1%) these lower frequencies may indicate either lower incidence



TOTAL		
0-28	Poor	92
29-56	Average	8
57-84	Good	0

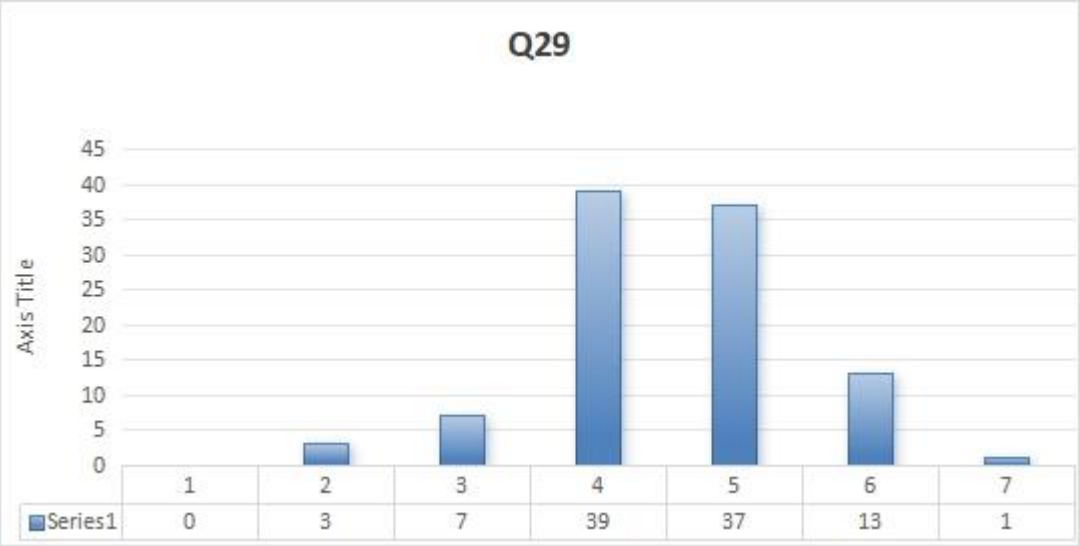
Interpretation - A vast majority (92%) of participant reported a poor quality of life ,while only a small fraction reported an average one .none rated their quality of life as good based on the first 28 questions.



	Frequency	Percentage
Health during the past week		
1 Very poor	0	0%
2	3	3%
3	7	7%
4	39	39%
5	37	37%

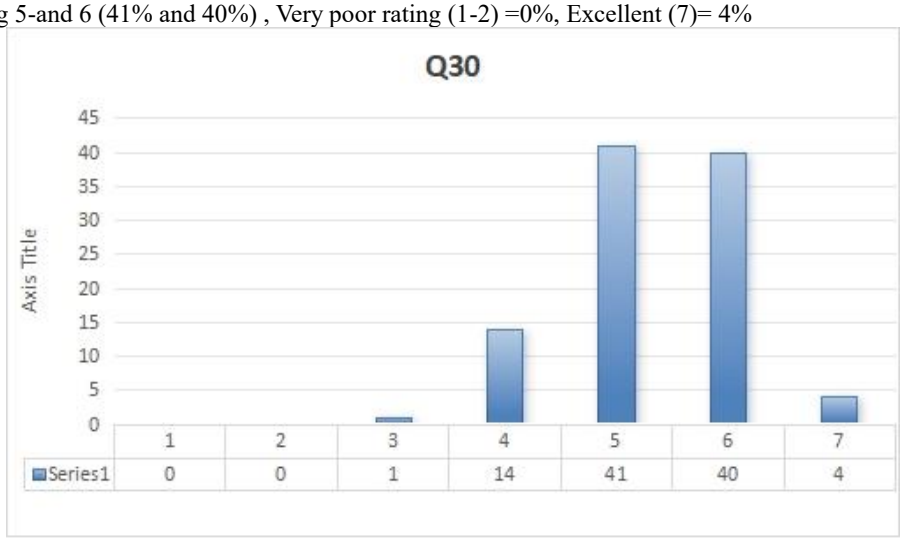
6	13	13%
7 Excellent	1	1%

Interpretation
Most selected rating 4 and 5 (39% and 37%) , Lower rating (1-3)= 10 %, Higher rating (6-7) = 14%



Quality of life during the past week		
1 Very poor	0	0%
2	0	0%
3	1	1%
4	14	14%
5	41	41%
6	40	40%
7 Excellent	4	4%

Interpretation
Most selected rating 5-and 6 (41% and 40%) , Very poor rating (1-2) =0%, Excellent (7)= 4%



DISCUSSION

This is observational study aimed to find Quality 0f life post chemotherapy subjects. In this study we are aimed to find post chemotherapy subjects . For these we conclude results from responses of structured questionnaire with hundred percent response. We conduct survey about thirty questions among 100 post chemotherapy subjects. Quality of life of post chemotherapy in female is more than male according to response. According to result among 100 participants 59 females and 41 males. A qualitative studies Female are more prone to post chemotherapy. Post-chemotherapy quality of life is important,as cancer treatment influences not just physical health but also significantly impact mental,emotional, and social well-being.

Gender difference can also influence Quality of life outcomes ,research indicates that women often face increased emotional distress and fatigue following the completion of treatment ,whereas men may report greater impact on physical functioning or

body image depending on cancer type The assessment was carried out to evaluate the quality of life among patients who had finished chemotherapy for different types of cancer. A total of 100 post-chemotherapy subjects were evaluated using a validated questionnaire that was designed to assess physical, emotional, social and functional dimensions of life after chemotherapy. it was found that a majority (92%) of the subjects reported a poor quality of life, and none rated their QOL as good. The significant observation indicated that the burden of cancer and its treatment continues to persist even after the completion to persist even after the completion of chemotherapy.

Physical well-being symptoms such as fatigue, weakness, pain, sleep disturbance, appetite loss, and gastrointestinal issues like constipation or nausea were frequently reported by participants. These impairments were found to reflect the long-term impact left by chemotherapy on the body. Among these, fatigue was identified as one of the most frequently experienced symptom, significantly limiting daily activities and independence.

Emotional and psychological health high levels of emotional distress including depression ,anxiety, irritability, and poor concentration were reported by a large number of participants. These symptoms were particularly observed in female subjects, who made up 59% of the sample. It has been found that women are more likely to experience emotional and psychological distress post chemotherapy, including body image concerns and heightened emotional reactivity.

A considerable number of participants indicated that their treatment and physical condition had interfered with family roles, occupational responsibilities, and social life. Financial stress related to treatment costs was also commonly reported. These findings suggest that the consequences of cancer extend beyond physical health, significantly affecting social dynamics and economic stability.

In this study, it was observed that females reported a lower quality of life compared to males. While men mostly experienced physical difficulties, women were more likely to face emotional and psychological issues.This distinction highlights the need for gender-sensitive rehabilitation program tailored to address these difference in post-chemotherapy experiences.

After finishing chemotherapy, many patients found it hard to return to their jobs or take part in social life. They often felt tired, lacked self-confidence, and worried about how others saw them. These problems made some people feel lonely or isolated, which affected their quality of life.

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