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# Integrating Psychotherapeutic Interventions for Enhanced Resilience and Coping in a Cancer Patient: A Case Study

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**ABSTRACT**

Cancer, a formidable adversary of human health and well-being, imposes profound physical and emotional challenges upon those who are diagnosed with it. This case study embarks on an exploration into the transformative potential of psychotherapeutic interventions in a 49-year-old female who had been diagnosed with clear cell carcinoma of the left ovary. Psychotherapeutic interventions were systematically integrated into the early stages of cancer treatment. The structured psychotherapeutic interventions consisted of client-centered counselling coupled with mindfulness training and cognitive restructuring. The aim of the intervention was to provide more comprehensive and effective paradigm in cancer care. A mixed-method approach, combining qualitative and quantitative assessment using Brief-COPE scale and Brief Resilience scale was employed. Findings indicated a marked improvement in the patient's resilience, coping, and capacity to confront the physical and emotional challenges posed by cancer. The novel aspect of this research lies in its meticulous examination of a single patient's journey, showcasing the potential of a highly individualized approach.

**KEY WORDS:** Psychotherapeutic interventions, resilience, coping, mindfulness, cognitive restructuring.

## INTRODUCTION:

For many, the word "cancer" can be profoundly distressing and psychologically devastating. It is a stark reminder of mortality, a sudden confrontation with the fragility of life. When a healthcare professional communicates this diagnosis, it reverberates through the patient's psyche, leaving them grappling with a maelstrom of emotions - shock, disbelief, fear, and sometimes even a profound sense of isolation. The sudden confrontation with probable mortality and the uncertainty that accompanies cancer can be an overwhelming experience.

The nature of cancer is well defined in the article, “How Cancer Arises” (Weinberg, 1996). The 30 trillion cells that make up an average, healthy human body reside in a complicated, interconnected condominium where they control each other's growth. In fact, normal cells don't proliferate until they get instructions from nearby cells to do so. This constant cooperation guarantees that every tissue keeps its proper size and structure in accordance with the requirements of the body. Against this pattern, cancer cells, on the other hand, defy normal restrictions on proliferation and pursue their own internal reproduction agenda. They also have a trait that is even more deceptive: they may spread out from the place where they started, encroaching on surrounding tissues, and accumulating into masses in other parts of the body. These

cancerous cells give rise to tumours that progressively grow more aggressive and deadly when they destroy organs and tissues vital to the organism's overall existence (Weinberg, 1996).

Patients with cancer frequently experience depression, anxiety, and other psychological morbidities such as adjustment difficulties (Ryan, et al, 2005). The looming uncertainty of the future, coupled with financial worries due to treatment costs, compound the emotional burden. Relationships strain under the weight of altered roles and communication challenges. Cancer patients also grapple with existential questions, pondering the meaning of life and their place within it. Body image concerns arise, as treatments like surgery and chemotherapy can alter one's appearance, potentially eroding self-esteem. Anger and frustration may follow, directed at the disease, the treatment process, or even the healthcare system negatively affecting resilience and the ability to cope. Isolation creeps in, as treatment protocols can necessitate withdrawal from social spheres. In this study, the researcher aims to integrate psychotherapeutic interventions to enhance resilience and coping in a cancer patient at the time of diagnosis, through prognosis, and the survivorship phase.

**REVIEW OF LITERATURE:**

The relentless stress of treatment, coupled with its toll on the body, manifests in physical symptoms and can lead to a pervasive feeling of helplessness. Although anxiety and depression are arguably the most prevalent illnesses in everyday psychotherapeutic practice, additional issues such as somatoform disorders, PTSD, adjustment disorders, and alcohol or drug dependence are also noticed (Singer et al., 2009).

According to Hopwood, et al (2000) significant changes in body image can arise from cancer therapy, such as the loss of a bodily part, disfigurement, scars, or skin changes. While systemic chemotherapy may result in temporary, reversible alterations (such as hair loss), radiotherapy may induce tissue damage with subtle changes over many years. On the other hand, the effects of surgery are more rapid but frequently irreversible. More universal alterations, like gaining weight might require indefinite time for reversibility (Hopwood, et al, 2000).

According to a study on epidemiological evidence for a relationship between life events, coping style, and personality factors in the development of breast cancer (Butowa, et al, 2000), the activation of the endocrine system is linked to "stress," and it is plausible that psychosocial variables might have a higher effect in breast cancer than at other locations. This review centres on the psychosocial factors—life events, coping style, affect, personality, and social support that are hypothesized to be connected to the onset of breast cancer and the reviews state how these variables are connected (Butowa, et al, 2000).

According to a meta-analysis conducted by Singer, Das Munshi, & Brahler one-third of cancer patients receiving acute care had mental illnesses, indicating the necessity for adequate therapy (Singer, et al., 2009).

Even though it is widely acknowledged that receiving a cancer diagnosis and undergoing treatment exerts a great deal of stress and emotional strain on patients, it has only been within the past 15 years that the distinct traits of psychosocial problems related to cancer have been examined in greater detail (Grassi L et al, 2000).

According to Rowland and Baker, 2005, many cancer survivors exhibit exceptional resilience in the face of sickness, even occasionally enduring catastrophic occurrences, after speaking with and listening to the tales of hundreds of cancer survivors (Rowland & Baker, 2005).

Resilience is the capacity to rebound or bounce back from stress. It is crucial to recognize the traits or elements that may foster resilience in people who are dealing with health issues, such as optimism, active coping, and social support (Smith et al., 2008). According to (Newman, 2005) the capacity of a person to adapt in the face of tragedy, trauma, adversity, hardship, and continuous serious life stresses is known as resilience.

A study on Resilience as a Predictor for Emotional Response to the Diagnosis and Surgery in Breast Cancer Patients (Markovitz, et al, 2015) supports the theory that cancer patients may benefit from resilience to some extent in preventing mental discomfort and indicate that resilience could be a characteristic that is mostly unaffected by hardship (Markovitz, et al, 2015). Another study on the mediating role of resilience on quality of life and cancer symptom distress in adolescent patients with cancer (Wu, et al, 2015) supports the notion that resilience plays a mediating role in the association between QoL and cancer symptom distress. The findings contribute to raising doctors' consciousness of the significance of evaluating and enhancing patients' resilience (Wu, et al, 2015).

The topic of whether there are strategies to develop resilience and assist people deal with adversity more successfully, asserts that some people may be innately more resilient than others in handling life's pressures (Rowland & Baker, 2005). There is still a lot of debate among researchers and medical professionals about whether such changes are beneficial or real, despite the fact that 30% to 90% of people who experience serious illness and other types of adversity report improved quality of life and other positive life changes as a result of their experience (Aspinwall & MacNamara, 2005).

Coping is the process of regulating and adjusting to demanding or stressful circumstances. It encompasses the mental and behavioural strategies people use to manage, lessen, or tolerate stress, discomfort, or challenging emotions. Coping strategies can be proactive (adaptive) or reactive (maladaptive), conscious or unconscious. Some cancer patients employ coping mechanisms that allow them to rely on different resources and techniques to cultivate certain mindsets and abilities that help them deal with the disease (Chen and Chang, 2012). According to a meta-analysis conducted by Roesch, proactive coping strategies for prostate cancer have favourable psychological and physical effects as well as a positive correlation with a return to pre-cancer activities (Roesch et al, 2005).

Furthermore, a critical review study by Shennan, et al (2011) indicated noteworthy advancements in anxiety, sadness, stress, sexual challenges, physiological arousal, and immunological function, as well as subjective advantages throughout all therapies (Shennan, 2011). Ryan, et al, (2005) stated that active listening, asking open-ended questions, and utilizing emotive language, reacting properly to patients' emotional cues, and adopting a client-centered consulting approach are some strategies that might help with screening for psychological distress and emotional concerns (Ryan, et al, 2005).

According to (Germer, 2005) being mindful is a technique that helps us respond to the present moment less emotionally. It is an approach to all experience, happy, negative, or neutral, that lowers our total suffering and raises our feeling of well-being (Germer, 2005). Through an 8-week Mindfulness-Based Stress Reduction program on the sleep quality of a heterogeneous sample of 63 cancer patients Carlson and Garland (2005) noted that cancer patients frequently experience sleep disturbances, which have not received much attention in the research on treatment interventions. The program also concluded that various domains of functioning mindfulness meditation has shown therapeutic benefits for a range of patient groups (Carlson and Garland, 2005).

According to Mehta, et al (2019) the roots of mindfulness-based meditation could be found in the ancient Eastern religions of Buddhism and Hinduism. A conscious and controlled state of mind can be attained

through today's practice of mindfulness, as it is understood in the western healthcare system. In turn, this strategy lowers stress, enhances physical well-being, and promotes harmony in daily life. There are other mindfulness techniques in practice, but they could be private and taboo (Mehta, et al, 2019).

Cognitive restructuring is a specific approach within cognitive therapy. Its primary objectives are to initially instruct clients in recognizing and appraising automatic thoughts—these are the immediate words or mental images that occur at the surface level of thinking and can lead to distress or dysfunctional behaviours. Additionally, this method identifies dysfunctional core beliefs and assumptions. Core beliefs are deeply ingrained convictions we hold about ourselves and our environment. Throughout the therapeutic process, clients are directed to address the most troubling and recurring issues, starting with the assessment and adjustment of their automatic thoughts. Once this phase is completed, clients receive support in amending their core beliefs (Hamdan, 2008).

The above review of literature clearly favours combining varied psychotherapeutic interventions to help cancer patients. This study highlights the need of a comprehensive and customized approach to use psychotherapeutic interventions with the focus on the potential for long-lasting beneficial impacts on enhancing resilience, well-being, and ability to cope with cancer.

## OBJECTIVES OF THIS RESEARCH:

1. To determine and understand the underlying psychological stressors in a patient with a diagnosis of cancer.
2. To assess the resilience in a patient with a diagnosis of cancer.
3. To understand the coping strategies used by a cancer patient.
4. To determine the efficacy of psychotherapeutic interventions on the levels of stress, resilience, and coping mechanisms in cancer patients.

## METHODOLOGY:

***Research Design:*** The researcher has adopted case study method in studying a single case combining qualitative and quantitative assessment.

***Sample:*** In this case study, the researcher focused on a single case, which consisted of a 49-year-old female from the Ernakulam district of Kerala, who was diagnosed with clear cell carcinoma of the left ovary on the 26$^{th}$ of May, 2023.

***Procedure*:** The researcher attempted to integrate psychotherapeutic intervention for enhanced resilience and coping in a cancer patient post diagnosis. A mixed method following qualitative and quantitative analysis was adopted. The quantitative assessment was done using the Brief-COPE Scale (Carver, 1997) and Brief Resilience Scale (Smith et al, 2008), and qualitative analysis was based on the information and observations made through counselling, mindfulness training, and CBT.

**Table 1 showing the psychotherapeutic intervention schedule:**

| Intervention | Schedule |
|---|---|
| Frequency of Sessions | One session per week considering the patient's convenience. |
| Duration of Sessions | 1 hour |
| Total Number of Sessions | 10 sessions (consultations and sessions subject to alteration due to medical intervention) |

| | |
|---|---|
| Psychotherapeutic Intervention Techniques | Client-centered counselling, mindfulness training, CBT. |
| Homework or Activities | Mindfulness-based relaxation exercises twice a day and journaling activities for cognitive restructuring. |
| Progress Evaluation | Case record of patient's report of the usefulness and effectiveness of the prescribed psychotherapeutic interventions was maintained. |

***Client-Centered Counselling:***

The Rogerian counselling approach was employed throughout this intervention involving active listening, unconditional positive regard, and genuine empathy, which facilitated self-exploration. Open-ended questions were asked to encourage the patient to share her thoughts, emotions, and concerns about her cancer diagnosis. The patient's feelings and concerns were summarized to ensure clear understanding. The patient received both reassurance and comfort, knowing that her emotions were acknowledged and considered valid. The patient's existing resilience, coping strategies, and strength were recognized and acknowledged.

***Mindfulness Training:***

A mindfulness-based relaxation technique to help manage stress, enhancing well-being, and promote a sense of control was prepared referring the book, Mindfulness and Psychotherapy (Germer, 2005). The script for mindfulness training was provided to the patient with an aim to establish a routine for effectively practicing mindfulness. The script was as follows,

"To begin with, locate a peaceful, comfortable spot where you won't be disturbed. Sit or lie in a comfortable position, then close your eyes. Breathe in deeply and slowly through your nose as you focus on this exercise. Then, gently breathe out through your mouth. Pay close attention to how your breath feels. Bring your attention back to your body. Gradually scan upwards from your toes, noting any discomfort or regions of tension. Imagine letting go of this tension and letting your muscles relax as you breath. Now, focus on your senses. Take note of the noises surrounding you, whether they are close or far away. Be aware of the things you are now touching. As you breathe in, focus on any predominant smell in the air. Whenever your mind starts to wander, gently redirect it back to your breathing. Pay attention to how your chest and abdomen rises and falls as you breathe in and breathe out. If anxieties or concerns surface in your mind, observe them objectively and let them float away like leaves in a stream. Give some thought to the feelings and experiences you are having now; ask yourself whether you feel better. When you're ready, carefully open your eyes and bring yourself back to the here and now, maintaining your calm." The mindfulness training session was scheduled for 20 minutes.

***Cognitive Restructuring:***

Cognitive restructuring was done based on the procedure referred to in the book *Current Psychotherapies*, (Beck, et al, 1989). The patient was guided to revisit the experience and observe the nature of her thoughts as they emerged. She was encouraged to identify the emotions and feelings linked to the thoughts she had during her cancer diagnosis. The researcher examined the thoughts, situations, and emotions shared by

the patient and the focus was on addressing maladaptive thinking pattern. The researcher also clarified any doubts related to the diagnosis.

The researcher encouraged the patient to explore and adopt alternate thought processes related to the diagnosis of cancer. The patient was made to examine each thought process and come up with more adaptive styles of thinking. The researcher helped the patient to identify the situations which triggered negative thoughts and the emotions she experienced. She was made to focus on the experienced emotion and the expressed emotion. The therapist then directed the patient to evaluate her thought processes and the intensity of the emotion that the thoughts triggered. Subsequently, the patient was encouraged to focus on her emotional state, manage the experienced motion with positive thoughts in order to impact her response to diagnosis and treatment. The patient was instructed to consciously consider more positive responses.

After various interventions were given, the researcher administered Brief Resilience Scale and Brief COPE Scale.

***Tools Used for Assessment:***

***1. Brief Resilience Scale (Smith et al, 2008)***

The Brief Resilience Scale (BRS) was devised by Smith, B. W., Dalen, Wiggins, Tooley, Christopher, & Bernard (2008) to assess the perceived ability to bounce back or recover from stress. The scale consisted of 6 items with a possible score range from 1 (low resilience) to 5 (high resilience). Internal consistency of BRS is good, with Cronbach's alpha ranging from .80–.91. BRS is positively correlated with measures of positive coping and life satisfaction, providing convergent validity. Divergent validity was supported by negative correlations between the BRS and measures of psychiatric symptoms, succumbing, and self-stigma.

***2. Coping Orientation to Problems Experienced Inventory-Brief-COPE (Carver, 1989)***

The Brief-COPE inventory (Carver et al., 1989) is a 28-item self-report questionnaire designed to measure effective and ineffective ways to cope with a stressful life event. The scale determines primary coping styles along three subscale, problem-focussed coping, emotion-focussed coping, and avoidant coping. Cronbach's alphas for the Brief COPE sub-scales range from 0.50 to 0.90. The test-retest reliability coefficients ranged from between 0.46 and 0.86.

***Analysis of Result:***

The data collected was subject to qualitative and quantitative analysis taking in mind that this was a single case study. Counselling was offered and the patient's feedback after CBT training was recorded and analysed. The assessment of the two questionnaires post intervention indicated the patient's levels of resilience and predominant coping styles.

***Discussion:***

The patient was a 49-year-old woman who was diagnosed with clear cell carcinoma of the left ovary. Upon receiving the diagnosis, the patient was shocked and was crying uncontrollably. She was anxious about the upcoming surgery, felt depressed, and also worried about the future of her family. It was at this point in time, the patient's daughter referred the patient to the researcher to manage her emotional symptoms following the diagnosis of cancer. An online consultation schedule taking into account the patient's availability and time constraints amidst her surgical procedures, chemotherapy sessions,

postoperative recovery, and other follow up appointments was prepared. The sessions were aimed at enhancing the patient's coping mechanism, increasing emotional resilience, and shedding irrational beliefs using cognitive behavioural therapy (CBT) while adhering to the client-centered approach of counselling. At this point, the patient's consent was obtained to record her case.

Following the counselling sessions, the patient expressed profound gratitude. She shared that initially receiving the cancer diagnosis left her in a state of disbelief, making it challenging to come to terms with. She conveyed deep concerns about the burden it was imposing on her family. Moreover, she was grappling with inadequate sleep and a noticeable decline in motivation to carry out her daily activities. At one point, she even questioned her own capacity to navigate through this phase of her life. However, with the guidance and support provided in the sessions, she found a renewed sense of strength, hope, and a clearer path forward. The patient now feels more equipped to face the challenges ahead with a positive outlook and a strengthened sense of self. The patient described feeling deeply heard and valued, which created a profound sense of comfort during a challenging time. She emphasized how this therapeutic relationship provided a safe haven for her to explore her thoughts and concerns. The patient expressed her gratitude by repeatedly mentioning "I am thankful for the opportunity to meet you." The frequency with which the patient expressed that she felt reassured and relieved increased as the counselling sessions progressed, indicating a positive trajectory in her emotional well-being. The patient's heartfelt thanks underscored the significance of the therapeutic space in her coping process. The patient was evidently beginning to utilize both emotional and problem-focused coping strategies to address her challenges. She also observed that besides the cancer diagnosis, she and her mother have not shared similar life events. Consequently, she no longer believed she will have to face everything her mother went through. The patient expressed a newfound understanding that being diagnosed with cancer does not determine a person's fate. She mentioned that her mother, who had experienced postoperative complications following cancer surgery, now serves as her caregiver and that she admires her mother's resilience. Furthermore, she shared that her mother conveyed how her outlook on life transformed significantly after her cancer journey.

Mindfulness-based relaxation technique to help manage stress and racing thoughts was introduced to the patient and she expressed that the guidance on deep, intentional breathing, and body scanning had helped her release tension and find a sense of calm. She also noted that focusing on her senses and redirecting her thoughts when they wandered had been a powerful experience. According to her, this practice had become an invaluable tool in managing her stress and promoting a feeling of control.

The patient repeatedly expressed a belief that her destiny would mirror that of her mother, who faced throat cancer, underwent surgery, and encountered postoperative complications. It was determined that it would be beneficial to restructure this dysfunctional assumption and hence cognitive restructuring was implemented. This maladaptive thinking pattern was disputed using various prompts. It helped the patient examine her dysfunctional assumptions. The patient thus identified her faulty thinking patterns and expressed her understanding that when her mother faced a cancer diagnosis, her community lacked adequate healthcare system for her treatment. Additionally, financial constraints within the family made it difficult to access advanced facilities for the mother. Cognitive restructuring helped the patient move form a state of self-pity to a realistic perception of the family's current financial situation, which has since improved. In the cognitive restructuring sessions, the patient reported that she understood that cancer could impact anyone, regardless of genetics.

In the interim, the patient underwent four rounds of chemotherapy without any complications. With continuous support from the counsellor, the patient demonstrated remarkable resilience in the face of chemotherapy-induced hair loss. The patient approached these negative effects of chemotherapy with a light-hearted attitude. When asked about her hair loss and the change in her appearance, she responded with humour, showing little concern about the situation. This positive shift highlights the beneficial impact of psychotherapy, especially the cognitive restructuring and mindfulness-based relaxation exercises on her emotional well-being. There was noted improvement in the patient's coping and resilience in each session. The patient exhibited a significant enhancement in her mood and emotional well-being, demonstrating active engagement in subsequent sessions. She mentioned that she managed to extend her mindfulness-based relaxation sessions to approximately 20 minutes, which proved effective in managing her restlessness and racing thoughts. This practice also provided her with a means to regulate her emotions.

The patient's response to both the tests used for assessment of resilience and coping were analysed and interpreted based on the norms provided in the test manuals. The assessment on these two scales was done after the patient was offered the intervention, which extended for three months.

The patient's score on the Brief Resilience Scale was 4.8, indicating high resilience and the patient's score on of 3.1 on the Brief COPE Scale indicated that her ability to focus on a problem at hand was relatively high. Although the patient reported that she could cope emotionally better than before, her score still indicated average levels of emotion-focused coping which is indicated by a score of 2.5. The patient's score of 1.6 on avoidant-focused coping was attributed by the patient to the effect of both counselling and cognitive restructuring training. The patient mentioned that the tendency to adopt avoidant-focused coping such as procrastination had considerably reduced after counselling and cognitive restructuring sessions.

The diagrammatic representation of the scores of the patient's coping styles is indicated in the histogram given below.

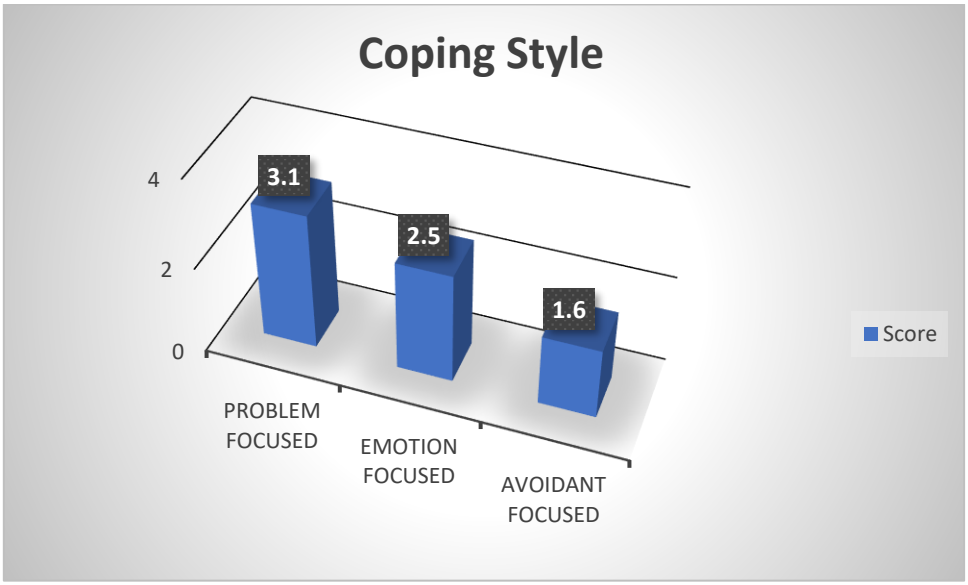


*Figure 1 Histogram1 showing the strength of each coping styles of the patient*

The patient's score on the Brief Cope subscales is indicated in the histogram below.

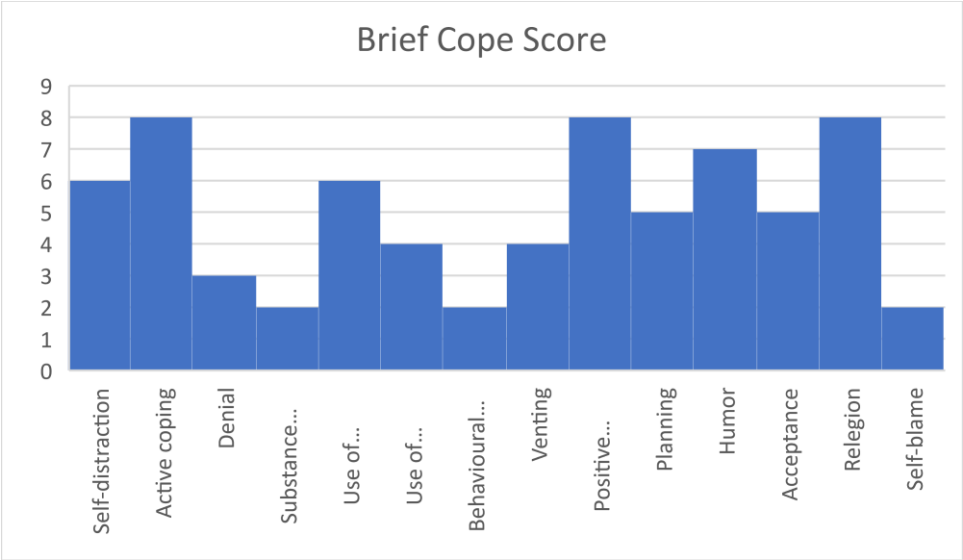


*Figure 2 Histogram2 represents the patient's score on the Brief COPE Subscales*

The patients score on active coping, positive reframing, and strength of religious beliefs were the highest with a score of 8, followed by self-distraction, humour, and use of emotional support. The level of the patient's acceptance was moderate with a score of 5 along with the ability to focus on planning. The tendency to vent out emotions and use of informational support was low with a score of 4 as both were addressed during the counselling sessions. The patient's tendency to abuse substances, to be in a state of denial, resort to self-blame, and behavioural disengagement were reflected with a very low score of 2. The patient reported that these low scores were due to the effect of mindfulness training, cognitive restructuring, and counselling.

**CONCLUSION:**

In conclusion, this study seeks to demonstrate the advantages of introducing client-centered psychotherapeutic interventions at an early stage in cancer treatment, thereby enhancing the overall efficacy and comprehensiveness of cancer care. The patient's nonchalant response to chemotherapy-induced hair loss, even expressing a desire to shave her head entirely was an indication of her unwavering determination. This shift in perception stands in stark contrast to her initial reaction to the diagnosis of cancer itself. It underscores the transformative impact of psychotherapeutic interventions at the early stages of cancer diagnosis. This case serves as a crucial reminder of the critical importance of integration of psychotherapeutic interventions to enhance resilience and coping in the multifaceted challenges faced by individuals battling cancer. It reaffirms the potential for a profound positive change, even in the midst of formidable adversities as reported by the patient.

**LIMITATIONS:**

This single case study has recorded the patient's responses post intervention and the study lacks baseline data. The initial baseline data of the patient's resilience and coping styles could not be collected as the patient could not cooperate due to the chemotherapy-induced nausea and neuropathy resulting in physical distress. The study gives an insight into the effectiveness of the interventions offered, although a pre-post analysis would have thrown light on the actual effectiveness of the intervention offered in the study.

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