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Article

Effects of comprehensive psychosocial intervention on intervention effect and quality of life of cancer patients

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Abstract: Objective: Cancer patients frequently encounter intense negative emotions such as anxiety and depression. Long-term experience and psychological strain may potentially trigger an emotionally unstable personality disorder among them. This disorder is manifested by significant mood fluctuations, proneness to agitation, challenges in emotional regulation, a dependent personality disorder, and an excessive dependence on the care and support from others. Our study explored the impact of comprehensive psychosocial intervention on the intervention results and quality of life of cancer patients. **Methods:** A total of 120 cancer patients who underwent chemotherapy for colorectal cancer in our hospital between June 2022 and December 2023 were chosen as the subjects. They were randomly divided into a control group and an observation group, with 60 patients in each group using the random number table method. The control group received routine nursing intervention, while the observation group was additionally provided with comprehensive psychosocial intervention on top of the control group's regimen. The alterations in cancer-related fatigue, cancer symptoms, perceived stress, self-efficacy, and quality of life before and after the intervention were compared between the two groups. **Result:** In our study, after 6 months of intervention, the scores of Cancer-related Fatigue Scale (CFS), MD Anderson Symptom Inventory (MDASI) and Chinese version of Stress Perception Scale (CPSS) in both groups decreased in all dimensions, the observation group was lower than the control group ($P < 0.05$), and the scores of the General Self-efficacy Scale (GSES) and European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-Core 30 (EORTC QLQ-C30) in both groups increased. The observation group was higher than the control group ($P < 0.05$). **Conclusion:** Our research investigation has demonstrated that the implementation of a comprehensive psychosocial intervention regimen is efficacious in mitigating cancer-related symptoms and fatigue, reduce the level of perceived stress, improve the quality of life, and bolstering the self-efficacy of cancer patients.

Keywords: comprehensive social psychology; cancer; intervention effect; quality of life; personality disorder

1. Introduction

Cancer has become an issue that cannot be overlooked in the field of public health. With the rapid development of the social economy, the process of industrialization is accelerating, leading to increasingly severe environmental pollution. Human factors, such as industrial emissions and automobile exhaust, have caused irreversible damage to air quality and have directly impacted human health [1]. Moreover, the aging population is growing, making the elderly more susceptible to cancer due to the high incidence of various diseases. Consequently, the annual rise in cancer incidence is closely linked to these macro trends, creating a complex and multifaceted phenomenon [2]. Cancer patients frequently encounter a range of psychosocial challenges, including anxiety about the progression of the disease, concerns about treatment effectiveness,

and uncertainty about the future. Additionally, physical pain, lifestyle changes, and the pressures of treatment can lead to depression and pessimism, which may result in various types of personality disorders [3]. Many cancer patients exhibit symptoms of borderline personality disorder, characterized by significant emotional instability. They may experience extreme emotional reactions, such as sudden anger or despair, and their interpersonal relationships can become increasingly chaotic [4,5]. Due to the physical discomfort experienced by cancer patients, they often reduce their social activities, leading to diminished contact with others and feelings of loneliness. The financial burden of treatment can weigh heavily on both patients and their families, causing anxiety and worry. This strain may also lead to conflicts and issues within family relationships as the disease impacts their loved ones [6,7]. Additionally, cancer patients frequently face social and occupational challenges, fearing that their condition will affect their work, potentially leading to unemployment and hindering career development. Therefore, it is essential to implement effective social and psychological support measures for cancer patients [8].

Current clinical nursing measures for cancer patients primarily include chemotherapy-related care, health education, dietary guidance, and lifestyle support. While these nursing interventions are relatively comprehensive, they often fall short in addressing patients' stress and fatigue [9]. Comprehensive social and psychological nursing interventions build upon traditional nursing methods, implementing more detailed and tailored measures based on the specific conditions of each patient. This approach provides psychological support, allowing patients to express their feelings and thoughts, receiving emotional understanding and comfort. It helps them build confidence and courage to face the disease [10]. Additionally, it is crucial to identify and correct patients' negative cognitive patterns, guiding them to view their illness in a more positive and rational manner. Patients are taught relaxation techniques, emotional management, and other behavioral skills [11]. They are also provided with essential information about their disease, including the processes of radiotherapy and chemotherapy, potential side effects, and key points for rehabilitation, ensuring they have a clear understanding of their situation [12]. Family members are encouraged to offer full care, companionship, and support to patients. Assisting patients in participating in support groups allows them to share experiences and feelings with others, thereby enhancing their sense of belonging [13]. For those who wish to return to work, appropriate vocational rehabilitation suggestions and guidance are provided to help them adapt to their work environment post-illness [14]. Lifestyle guidance encompasses recommendations for a balanced diet, appropriate exercise, and regular rest to promote overall health [15]. Therefore, comprehensive social and psychological care that thoroughly assesses patients' overall health status, combined with psychological interventions to alleviate their stress, may prove to be more effective in addressing personality disorders in cancer patients.

In this study, cancer patients undergoing chemotherapy for colorectal cancer at our hospital were selected as subjects and divided into a control group and an observation group using a random number table method. The control group received routine nursing interventions, while the observation group received comprehensive social psychological interventions in addition to the conventional care provided to the control group. We compared changes in cancer-related fatigue, cancer symptoms,

perceived stress, self-efficacy, and quality of life before and after the intervention between the two groups. The study aimed to discuss the effects of comprehensive social psychological interventions on the outcomes and quality of life of cancer patients.

2. Methods

2.1. Demographic characteristics of patients

In the present study, a total of 120 cancer patients, who underwent chemotherapy for colorectal cancer at our hospital between June 2022 and December 2023, were recruited as the study participants. These patients were randomly assigned into a control group and an observation group using the random number table method, with 60 patients in each group. In the control group, there were 34 male and 26 female patients, with ages ranging from 35 to 60 years, and an average age of (47.15 ± 12.30) years. Regarding educational attainment, 31 patients had a middle school education or below, 40 had a high school education, and 9 had a college degree or higher. In the observation group, there were 38 male and 22 female patients, also within the age range of 35 to 60 years, and an average age of (45.92 ± 10.72) years. The educational distribution was as follows: 29 patients had a middle school education or below, 21 had a high school education, and 10 had a college degree or above. No statistically significant differences were observed in the baseline data between the two groups ($P > 0.05$). The inclusion criteria were as follows: 1) All patients were diagnosed with cancer; 2) the age of the patients exceeded 35 years; 3) the expected survival period was at least 6 months; 4) absence of cognitive behavior disorders, with the patients being literate and capable of independently completing the scale assessment. The exclusion criteria comprised: 1) Patients in a terminal stage, unable to complete the interventions involved in this study; 2) those who were currently receiving other intervention programs or had recently participated in similar studies; 3) the presence of concurrent serious underlying diseases.

2.2. Intervention methods

The control group was subjected to routine nursing interventions, which encompassed the following aspects: 1) Education: This involved imparting knowledge and providing guidance related to cancer, including details about the disease, appropriate rest and activities, general psychological support, and psychological nursing care. Additionally, patients' families were encouraged to actively engage in the physical and mental rehabilitation of the patients; 2) dietary guidance: The significance of proper nutrition for disease recovery was emphasized. Patients were advised to consume fresh vegetables, fish, eggs, and other high-protein foods, as well as fruits, on a daily basis. Foods that could enhance appetite, such as hawthorn, were also recommended. In case of low appetite, patients were instructed to eat smaller, more frequent meals; 3) exercise guidance: Patients were recommended to engage in a moderate amount of exercise daily, such as walking, practicing Tai Chi, or other suitable physical activities; 4) other life guidance: Patients were cautioned to avoid tobacco and alcohol, as well as a diet that was overly stimulating. They were also

informed to seek immediate medical attention in the event of any discomfort; 5) discharge guidance: After each chemotherapy session, patients were promptly informed about potential chemotherapy complications and necessary precautions. Discharged patients were reminded to return to the hospital regularly for further treatment and follow-up examinations. The observation group was supplemented with a comprehensive psychosocial intervention in addition to the measures implemented in the conventional group. The details are as follows:

1) Cognitive intervention: Senior medical professionals, leveraging their extensive clinical experience and in-depth medical knowledge, engaged in face-to-face communication with patients in a simplified and accessible manner. This approach integrated the detailed information from the health handbook and presented the fundamental concepts of the disease, its pathological mechanisms, the significance of treatment, and the potential challenges it might entail in an easily comprehensible format. Specifically, although cancer poses a serious threat to health, due to its relatively slow progression, the treatment process is often manageable. This empathetic and reassuring communication style aimed to instill optimism in patients regarding their illness and foster confidence in the available treatment options. When introducing surgical procedures to patients, the medical staff not only utilized traditional verbal and oral descriptions but also incorporated vivid video materials and intuitive visual images. Through these multimedia resources, they elaborated on the basic principles underlying the surgery and every aspect of the entire surgical process, enabling patients to fully grasp the complexity and importance of the operation. Concurrently, the medical staff also highlighted the pre-operative precautions, such as dietary requirements and rest, as well as the various discomforts that might be experienced during the post-operative recovery phase. This was done to assist patients in formulating accurate expectations and alleviating anxiety, thereby enhancing their cooperation with the doctor's treatment regimen. Furthermore, the medical staff would patiently address the patients' inquiries regarding post-operative recovery, affording them a lucid understanding of their physical condition. This was done to encourage the patients to actively embrace the treatment process and to confront the post-operative rehabilitation in an optimal state of mind.
2) Prior to the psychological intervention, the assigned nurse engaged in communication with the patients for a duration of up to one hour to conduct a comprehensive evaluation of their psychological condition. This was not only to listen attentively to the patients' grievances and requirements but, more crucially, to offer them spiritual sustenance. By employing a diverse range of professional techniques, including cognitive therapy, imagery dialogue, and hypnosis, patients were guided on how to relax, reduce stress, and effectively release pent-up emotions. This not only served to relieve the anxiety and distress that patients might experience due to the impending surgery but also motivated them to be more forthcoming in cooperating with the treatment. Consequently, this ensured a seamless surgical process and diminished the challenges associated with post-operative recuperation. This comprehensive and painstaking nursing approach was designed to furnish patients with a warm and reassuring treatment milieu, enabling them to maintain the most favorable psychological disposition in the

face of the forthcoming surgery and augmenting their trust and cooperation throughout the treatment journey. During the interaction with the patient, the doctor should expound in detail on the significance of the psychological state in relation to the disease recovery. Assist patients in realizing the necessity of maintaining a positive mood by explaining how mood fluctuations can impact physical functions and treatment results. This communication not only acquaints patients with the potential benefits of a favorable mood but also underlines the importance of mental health aspects. Additionally, guide the patient to shift their focus by means of listening to music, watching TV shows, or partaking in other activities, thereby reducing stress and tension. These methods are devised to enable patients to unwind and better accommodate the diverse scenarios that might surface during the treatment process. The doctor can also conduct relaxation training for the patient, which is a purposeful exercise that aids the patient in gradually attaining a relaxed state by discerning the disparity between muscle tension and relaxation. This training is conducive to alleviating pain, improve sleep quality, and improve the patient's capacity to handle the challenges of daily life.

3) The synchronous education of spouses holds a crucial position in the medical care process. When a doctor or nurse imparts detailed information regarding the disease, treatment options and preventive measures to the patient and their family, the corresponding nursing skills and support strategies should also be meticulously explained to the spouse. Through such communication, it can assist the spouse in mitigating the mental strain induced by cancer and evoke their profound and genuine love and care for their partner.
4) Obtain support: The medical staff will organize an exchange meeting involving patients with analogous symptoms and deliberately assemble several patients with favorable curative effects. This allows them to share their experiences with other patients, recounting their personal experiences, moods, dietary conditions, and other aspects of life, thereby fulfilling the objective of mutual encouragement and assistance and maximizing the role of peer support. Besides peer support, the medical staff also need to address the psychological aspects of the patient's family. Family support constitutes an essential element of the patient's emotional requirements. On the one hand, it is necessary to enable the family to come to terms with the reality, and on the other hand, guide them to provide appropriate supervision and companionship, using their own optimistic attitude to influence the patient and assist the patient in cultivating a positive treatment mindset. Both groups underwent treatment for a period of six months.

2.3. Observation indexes

1) Cancer-Related Fatigue: The Cancer-Related Fatigue Scale (CFS) [6] was utilized to evaluate physical, emotional, and cognitive fatigue in three dimensions before the intervention and six months after the intervention. The scale comprises 7 items for physical fatigue, 4 items for emotional fatigue, and 4 items for cognitive fatigue, with each item scored from 0 to 4 points, resulting in a

maximum possible score of 60. A higher score indicates a greater severity of fatigue.

2) Cancer symptoms: The Anderson Symptom Scale (MDASI) [7] was employed to assess cancer symptoms before the intervention and six months after the intervention. This multidimensional screening tool evaluates patient-reported outcomes across two main aspects: Core symptoms (13 items) and the impact on life (6 items). Each item is scored on a scale of 0 to 10 points.
3) Perceived stress: The Chinese version of the Perceived Stress Scale (CPSS) was utilized to assess perceived stress before the intervention and 6 months after the intervention [8]. The CPSS consists of 14 items divided into two dimensions: Tension and loss of control. Each item is rated on a 5-level scale ranging from 0 to 4 points, with the total score ranging from 0 to 56 points. A higher score indicates greater perceived stress. A score of 0 to 28 indicates normal stress levels, a score of 29 to 42 indicates high stress, and a score of 43 to 56 signifies excessive stress.
4) Self-efficacy: The General Self-Efficacy Scale (GSES) [9] was used to evaluate patients both before and after the intervention. The scale consists of 10 items, each scored from 1 to 4 points. A total score below 20 indicates low self-belief, while the total score > 30 indicated high self-belief.
5) Quality of life: The quality of life of patients in the two groups was evaluated by the European Cancer Research and Intervention Tissue Quality of Life Scale (EORTC QLQ-C30) before and 6 months after intervention [10]. The scale includes five dimensions: Physical function, emotional function, social function, cognitive function and role function, with 100 points for each dimension. The higher the score, the better the quality of life.

2.4. Statistical analysis

Statistical analysis was conducted using SPSS 25.0 software. Measurement data were described as mean ± standard deviation, with *t*-tests employed for comparisons. Count data were presented as [n (%)] and analyzed using the χ^2 test. When $P < 0.05$, the difference was statistically significant.

3. Results

Comparison of cancer-related fatigue between the two groups:

Before intervention, there were no statistically significant differences in CFS scores across all dimensions between the two groups ($P > 0.05$). After 6 months of intervention, CFS scores in all dimensions of the two groups were decreased, and the observation group scoring lower than the control group ($P < 0.05$) (**Table 1** and **Figure 1**).

Table 1. Comparison of cancer-related fatigue between the two groups ($\overline{x} \pm s$).

Group	Body fatigue		Emotional fatigue		Cognitive fatigue	
	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Control group (n = 60)	21.33 ± 3.50	17.31 ± 3.46*	13.45 ± 1.50	11.40 ± 2.37*	13.81 ± 1.64	11.73 ± 2.15*
Observation Group (n = 60)	20.65 ± 3.56	15.40 ± 3.80*	13.11 ± 1.70	10.28 ± 2.15*	13.26 ± 1.65	10.28 ± 2.35*
t	1.055	2.879	1.162	2.711	1.831	2.879
P-value	0.294	0.005	0.248	0.008	0.071	0.005

Note: * means that compared with the same group before intervention, $P < 0.05$.

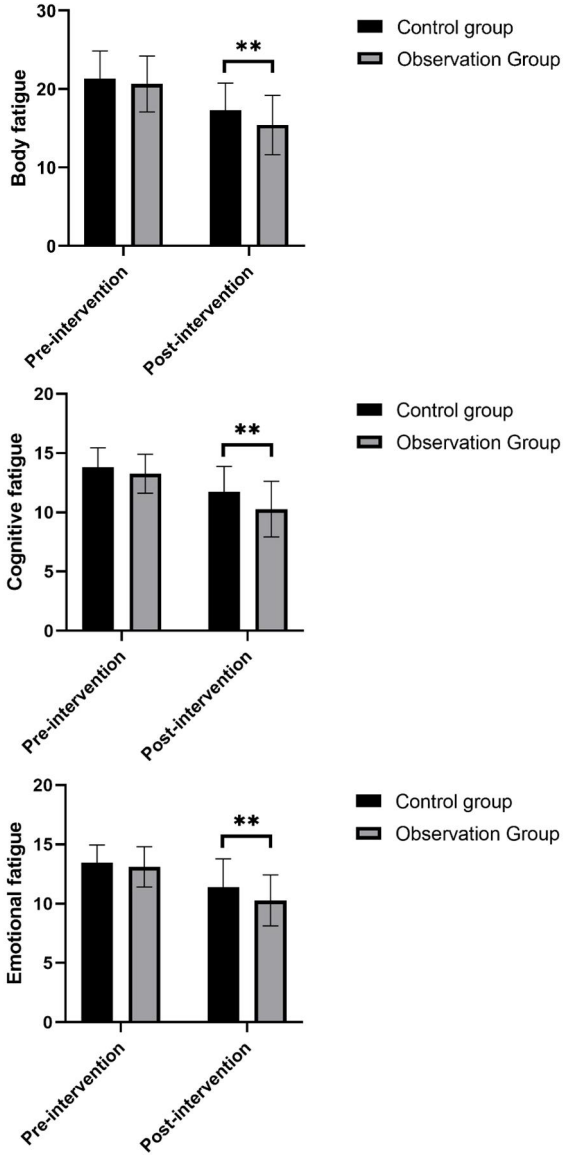

Figure 1. Comparison of cancer-related fatigue.

3.1. Comparison of cancer symptoms between the two groups

Before the intervention, there were no significant differences in MDASI scores across each dimension between the two groups ($P > 0.05$). After 6 months of intervention, the MDASI scores in each dimension, as well as the overall scores, were

lower in the observation group compared to the control group ($P < 0.05$) (**Table 2** and **Figure 2**).

Table 2. Comparison of cancer symptoms between the two groups ($\overline{x} \pm s$).

Group	Core symptom		The impact on life		Overall score	
	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Control group (n = 60)	85.41 ± 6.05	87.30 ± 10.48*	28.35 ± 5.10	27.46 ± 4.21*	119.36 ± 6.19	112.65 ± 7.31*
Observation Group (n = 60)	86.14 ± 7.69	81.34 ± 6.98*	27.98 ± 6.11	24.16 ± 3.11*	118.16 ± 5.40	103.68 ± 6.67*
t	0.578	3.666	0.361	4.884	1.132	7.021
P-value	0.565	< 0.001	0.719	< 0.001	0.261	< 0.001

Note: * means that compared with the same group before intervention, $P < 0.05$.

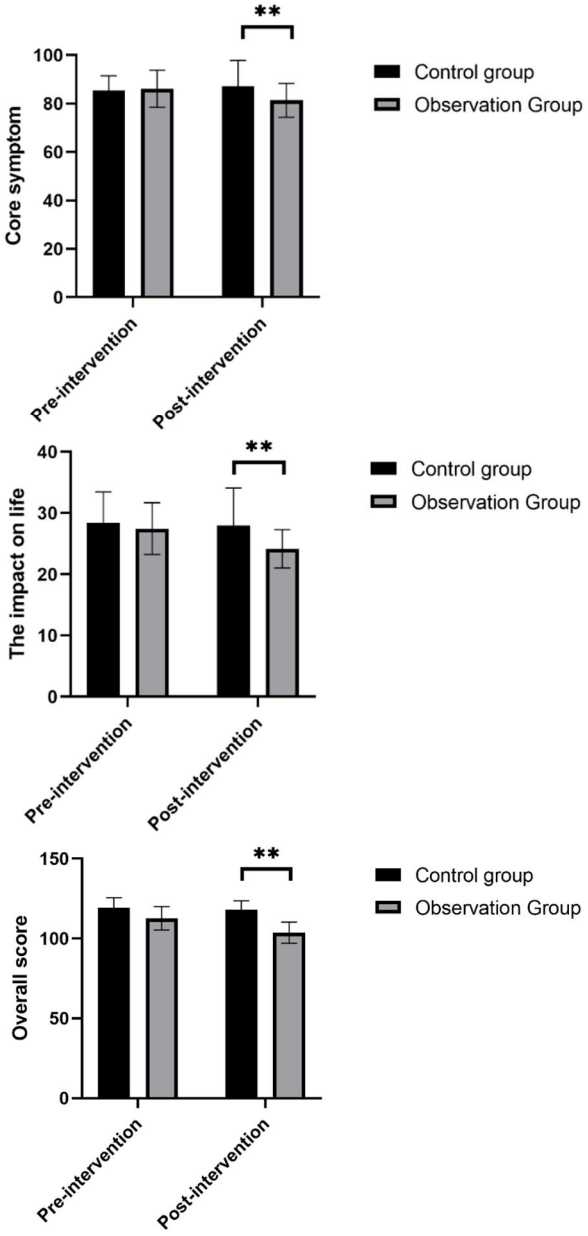

Figure 2. Comparison of cancer symptoms.

3.2. Comparison of perceived stress and self-efficacy between the two groups

Before the intervention, there were no significant differences in CPSS scores and GSES scores between the two groups ($P > 0.05$). After 6 months of intervention, CPSS score in the observation group was lower than that in the control group, while the GSES score was higher in the observation group compared to the control group ($P < 0.05$) (**Table 3** and **Figure 3**).

Table 3. Comparison of perceived stress and self-efficacy between the two groups ($\overline{x} \pm s$).

Group	CPSS score		GSES score	
	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Control group (n = 60)	25.16 ± 3.50	23.64 ± 4.20*	29.40 ± 5.11	35.40 ± 6.37*
Observation Group (n = 60)	24.80 ± 4.11	18.46 ± 3.58*	30.65 ± 6.18	42.13 ± 5.20*
t	0.517	7.271	1.207	6.341
P-value	0.606	< 0.001	0.231	< 0.001

Note: * means that compared with the same group before intervention, $P < 0.05$.

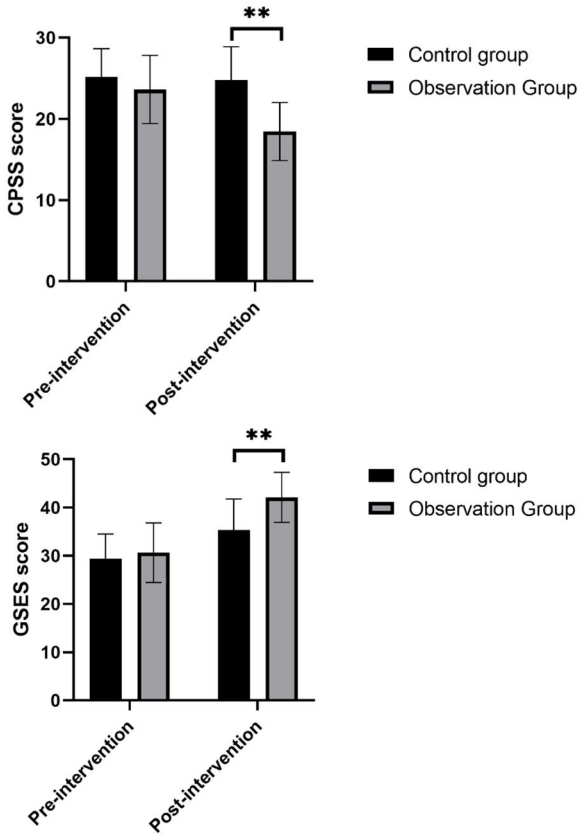

Figure 3. Comparison of perceived stress and self-efficacy.

3.3. Comparison of quality of life between the two groups

Before the intervention, there were no significant differences in EORTC QLQ-C30 scores between the two groups ($P > 0.05$). After 6 months of intervention, the EORTC QLQ-C30 scores for both groups were significantly higher than those

measured before the intervention, with the observation group scoring higher than the control group ($P < 0.05$) (**Table 4** and **Figure 4**).

Table 4. Comparison of quality of life scores between the two groups ($\overline{x} \pm s$).

Group	Somatic function		Emotional function		Social function		Cognitive function		Role function	
	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Control group (n = 60)	62.31 ± 10.11	74.94 ± 10.01*	73.16 ± 2.16	81.55 ± 6.01*	64.36 ± 3.54	71.37 ± 5.53*	62.31 ± 1.11	74.94 ± 11.01*	63.16 ± 2.16	73.55 ± 4.01*
Observation Group (n = 60)	62.41 ± 10.23	80.41 ± 10.13*	73.13 ± 2.13	86.12 ± 6.02*	64.35 ± 3.43	75.98 ± 5.48*	62.41 ± 1.23	85.41 ± 12.13*	63.13 ± 2.13	76.12 ± 4.02*
t	0.054	2.975	0.077	4.161	0.016	4.587	0.468	4.951	0.077	3.506
P-value	0.957	0.004	0.939	0.001	0.987	0.001	0.641	0.001	0.939	0.001

Note: * means that compared with the same group before intervention, $P < 0.05$.

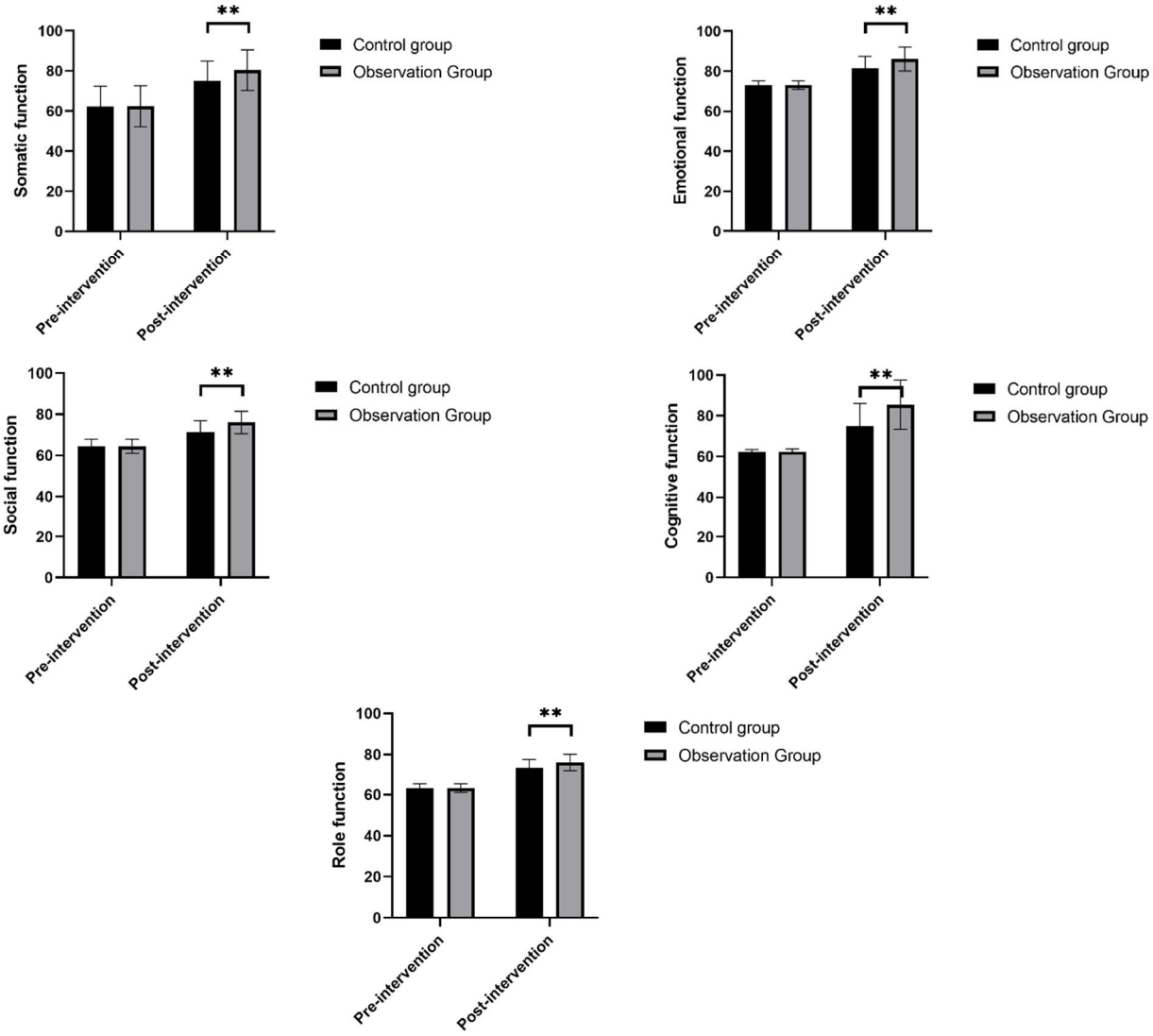

Figure 4. Comparison of quality of life scores.

4. Discussion

Cancer is not only a physical affliction but also poses significant psychological and social challenges. Over time, patients endure persistent pain [16]. As the disease progresses, physiological indicators including weight loss, fatigue, and loss of appetite may also change, further exacerbating the psychological burden and potentially leading to personality disorders [17]. In such cases, patients may experience a range of mental health changes such as depression, anxiety, and even feelings of hopelessness [18]. Cancer patients face more complex social and psychological issues. They often grapple with worries and anxieties regarding disease progression, treatment efficacy, and the risk of recurrence. This can lead to feelings of depression, helplessness, and hopelessness, as well as a loss of interest in life, and fears surrounding pain, death, and physical disability [19]. Moreover, cancer can alter a patient's sense of self-identity. Due to physical changes and the impact of the disease, patients may question their roles and value, worry about how others perceive them, and feel discriminated against, leading to a sense of being different from others [20]. Social activities may decrease, and patients often feel that others cannot truly understand their experiences, resulting in profound feelings of loneliness [21]. Anxiety, depression, and other emotional challenges in cancer patients may lead to difficulties in falling asleep and frequent awakenings. Additionally, patients may develop post-traumatic stress disorder (PTSD) following painful treatments or major changes in their condition [22]. Cancer patients often experience strained relationships, facing conflicts with family members over care and emotional support, and become distant from friends. The mental pressure can be overwhelming, as the burden of the disease, economic challenges, and family responsibilities contribute to excessive stress [23]. Therefore, it is crucial to provide effective psychological comfort and support to cancer patients, particularly those experiencing personality disorders. Such support can help ensure that patients receive appropriate care and alleviate feelings of anxiety and depression. Comprehensive psychological nursing intervention is a multi-faceted and all-round nursing model that systematically understands patients' psychological states, emotional characteristics, and coping styles, providing a foundation for developing personalized intervention strategies [24]. It involves patiently listening to patients' inner feelings, allowing them the opportunity to express negative emotions while offering understanding, support, and comfort [25]. The intervention also helps patients identify and correct irrational cognitive beliefs, fostering a more accurate understanding of their illness and treatment. Techniques such as deep breathing, progressive muscle relaxation, and meditation are guided to help alleviate tension and anxiety [26]. Moreover, providing essential psychological education about cancer—including the treatment process, prognosis, and self-management—can enhance patients' sense of control. Strengthening social support is also vital; encouraging family and friends to offer care, companionship, and motivation, as well as promoting communication among patients, can help establish a supportive network. Assist patients in establishing healthy lifestyle and behavioral habits, such as maintaining a regular work-rest schedule, following a balanced diet, and engaging in moderate exercise [27]. Utilize spiritual encouragement, role modeling, and other methods to stimulate patients' internal motivation and foster

positive emotions. Personalized interventions should be tailored to the patient's age, personality, cultural background, and other factors to develop an appropriate psychological nursing program [28]. Comprehensive psychological nursing intervention extends beyond pharmacological treatment; it also includes training in listening and communication skills, as well as courses in emotional management to help patients cope with anxiety and depression that may arise during chemotherapy and radiotherapy [29]. In addition to these measures, comprehensive care interventions encompass the provision of family and social support. This approach not only addresses the needs of patients within the hospital but also focuses on helping them build a supportive social network that provides access to essential information, resources, and emotional support [29]. After discharge, we continue to offer health education services aimed at teaching patients and their caregivers how to maintain healthy habits at home, prevent relapses, and develop effective coping strategies when re-entering the medical environment [30].

In our study, after 6 months of intervention, the scores for CFS, MDASI, and CPSS decreased in both groups, with the observation group showing significantly lower scores than the control group ($P < 0.05$). This indicates that comprehensive psychosocial intervention can effectively alleviate cancer symptoms, fatigue, and perceived stress in cancer patients. The possible reason is that integrated psychosocial intervention has been shown to enhance mental health through a series of systematic and comprehensive strategies in modern medical practice. This intervention emphasizes the development of patients' mindfulness awareness, encouraging them to consciously pay attention to and recognize their current mental and physical states without subjective evaluation or criticism. This practice allows patients to observe their emotional responses more calmly and objectively, thereby improving their emotional management skills [31]. This enhanced ability not only helps patients reduce psychological stress but also boosts their confidence in their health status. By fostering inner self-awareness and self-efficacy, comprehensive psychological intervention empowers patients to face the challenges posed by cancer with greater resilience [32]. As a result, patients can effectively improve their stress tolerance and self-regulation [33]. These improvements are crucial for the overall recovery of patients, enabling them to progress further in their cancer journey and return to a healthier, higher quality of life [34].

In our study, after 6 months of intervention, the scores for GSES and EORTC QLQ-C30 increased in both groups, with the observation group showing significantly higher scores than the control group ($P < 0.05$), indicating that comprehensive psychosocial intervention can effectively improve the quality of life of cancer patients and enhance their self-efficacy. The possible reason is that the comprehensive psychosocial intervention not only disseminates medical knowledge about the disease but also provides in-depth psychological counseling. Healthcare professionals work to correct patients' misconceptions and help them establish accurate medical and treatment concepts. In this process, patients gain authoritative information about their condition and learn how to manage the various emotional fluctuations that may arise, such as fear, anxiety, and other extreme reactions. Such interventions effectively mitigate the impact of negative emotions on patients' quality of life, enabling them to approach the treatment process with a more positive outlook, thereby enhancing

treatment outcomes and facilitating holistic physical and mental recovery [35]. Additionally, the implementation of psychological interventions is grounded in a thorough understanding of the patient and consideration of individual needs. Through a well-designed psychological counseling program, the transfer of educational knowledge, emotional regulation skills, and relaxation techniques are effectively integrated. This comprehensive treatment approach aims to help patients develop healthy mental habits and improve their ability to cope with stress, ultimately achieving an optimal mental state [36]. Such interventions not only alleviate the mental burden on patients but also effectively avoid the stress responses caused by excessive tension or anxiety, ensuring that patients can face the challenges in life with a more peaceful and positive attitude [37]. Through such comprehensive psychological support, patients can better manage their emotions, enhance their inner resilience, and ultimately achieve the harmonious development of both body and mind [38]. Therefore, the comprehensive psychosocial intervention model offers holistic assistance to cancer patients by integrating various psychological and social support strategies, such as psychological counseling, cognitive behavioral therapy, and the establishment of social support networks. This approach addresses the physical discomfort, psychological distress, and social adaptation challenges that patients face during their illness. In terms of symptom relief, comprehensive psychosocial intervention can effectively reduce the common symptoms of cancer patients such as pain and nausea, reduce fatigue, and improve the physical state of patients to a certain extent. For the reduction of perceived stress, the intervention helps patients adjust their perceptions of the disease and learn coping skills, thereby diminishing their psychological burden. Moreover, in improving quality of life, the intervention emphasizes not only the physical health of patients but also the recovery of their psychological and social functions. This enables patients to better adapt to their illness and reintegrate into their family and social lives. Additionally, the positive impact on personality disorders helps correct any maladaptive mental patterns that patients may have, promoting overall mental health. The enhancement of self-efficacy instills greater confidence and motivation in patients, empowering them to confront the challenges posed by their illness and actively engage in the treatment and rehabilitation process.

5. Conclusion

In conclusion, comprehensive psychosocial interventions can effectively alleviate cancer symptoms and fatigue, reduce perceived stress, improve quality of life, address the impact of personality disorders, and enhance the self-efficacy of cancer patients, which is a psychological intervention model with potential. The remarkable effects and broad application prospects of comprehensive psychosocial interventions in the physical and mental rehabilitation of cancer patients offer new approaches for their care and treatment. However, when promoting and implementing this model, it is essential to consider individual differences, the allocation of medical resources, and the sustainability of interventions to achieve optimal therapeutic outcomes.

Despite these promising findings, this study has several limitations. Firstly, the sample size was relatively small, which could affect the generalizability and representativeness of the research results. Secondly, the duration of the intervention was short, leading to insufficient evaluation of long-term effects. Additionally, there may have been some subjectivity in the implementation and evaluation of the intervention measures, and objective evaluation indicators and methods need to be further improved.

Ethical approval: The study was conducted in accordance with the principles of the Declaration of Helsinki and was approved by the local ethics committee of Central Hospital affiliated to Shenyang Medical College (Registration No.: 2025-XK8-566-68).

Informed consent statement: Not applicable.

Conflict of interest: The author declares no conflict of interest.

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