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The Effect of Self-care Behaviors on the Psychological Well-being of Patients Undergoing Chemotherapy

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ABSTRACT

Background: While self-care is known to influence well-being in chronic illnesses, its specific role during chemotherapy—particularly within unique cultural contexts like Turkey—remains underexplored. ***Purpose:*** This study examined the relationship between self-care behaviors and psychological well-being (PWB) in Turkish chemotherapy patients and assessed self-care's predictive power on PWB. ***Methods:*** A cross-sectional study was conducted with 403 chemotherapy patients from a university hospital using convenience sampling. Data was collected using the Self-care Adequacy and Needs Level Scale (SCANS-Chemo) and Psychological Well-being Scale. ***Results:*** Patients demonstrated moderate self-care levels (Mean = 80.69 ± 22.94) and PWB (Mean = 35.63 ± 12.84). A very strong positive correlation was found between self-care and PWB ($r = 0.917$, $p < 0.001$). Higher self-care scores significantly predicted better PWB ($\beta = 0.58$, $p < 0.001$), explaining 32% of variance. Key factors associated with better outcomes included higher education, male gender, and recent chemotherapy initiation. ***Conclusion:*** Self-care behaviors are a significant predictor of psychological well-being in chemotherapy patients. Healthcare professionals should develop culturally-tailored self-care interventions to enhance patients' psychological well-being during treatment. ***Implications for Nursing:*** Clinical practice should incorporate structured self-care assessments, personalized self-care training focusing on activity maintenance and sleep regulation, and regular monitoring of patients' self-care capacity throughout chemotherapy treatment.

Keywords: Cancer, Chemotherapy, Nursing, Self-care behaviors, Psychological well-being.

What does this paper add?

1. It demonstrates that self-care behaviors are a significant predictor of psychological well-being among chemotherapy patients.
2. It highlights the influence of socio-demographic factors, such as education, income, and social support, on self-care and well-being.
3. It emphasizes the need for nursing interventions that strengthen patients' self-care skills to enhance psychological well-being during chemotherapy.

Introduction

Cancer is a serious public health problem in both developed and developing countries, with high morbidity and mortality rates. This problem is increasing along with lifestyle changes, genetic predisposition, an aging population, and certain environmental factors (Ferlay et al., 2021). Cancer patients experience significant challenges, not only through physical changes, but also through psychological, social, and economic dimensions. Chemotherapy, commonly used in cancer treatment, aims

to destroy malignant cells, but can also have toxic effects on healthy cells. Symptoms that emerge during treatment significantly reduce patients' quality of life, and side effects experienced directly affect their physical and psychological well-being (PWB) and indirectly affect the treatment process (Güneş & Başkan, 2024).

Currently, cancer treatment methods include surgery, radiotherapy, chemotherapy, hormonal therapy, and immunotherapy (Anand et al., 2022). Although chemotherapy is effective against cancer cells, its effects on healthy cells can cause physical symptoms, such as pain, hair loss, nausea, vomiting, weakened immune systems, mouth sores, loss of appetite, fatigue, weight loss/gain, and insomnia, as well as psychological problems, such as anxiety, helplessness, and depression (Saruhan, 2020). This has significant effects on individuals' daily living activities, social relationships, and the sub-dimensions of PIA: autonomy, self-acceptance, purpose in life, personal growth, environmental mastery, and positive relationships (Ryff & Keyes, 1995). Increased stress can reduce psychological well-being in some cases, while moderate stress is reported to increase motivation and encourage careful and planned behavior (Zhang et al., 2021). However, the severe side effects that occur with chemotherapy reduce the quality of life of cancer patients and make it difficult to meet their self-care needs (Chagani et al., 2017). This situation, by increasing stress levels, leads to indirect negative effects on psychological well-being. In this context, it is thought that improving the psychological well-being of patients receiving chemotherapy and enabling them to become more effective in self-care can be effective in maintaining and improving their quality of life, increasing compliance with treatment, maintaining a stable disease prognosis, and enabling them to maintain a healthy mood and take responsibility for their personal health after treatment (Karadağlı & Alpar, 2017). Therefore, balanced management of stress, physical symptom burden, and psychological strain experienced during chemotherapy is critical for both the physical and psychological integrity of the patient.

Self-care encompasses all conscious behaviors that an individual engages in to maintain or improve his/her health or effectively cope with existing health problems. Developing self-care behaviors increases an individual's independence, improves his/her quality of life, and reduces his/her dependence on healthcare services (Hartweg & Metcalfe, 2022). Orem's Self-care Deficit Theory emphasizes the need for nursing interventions when individuals are unable to meet their own self-care needs. This theory focuses on supporting individuals' self-care capacity and strengthening their autonomy (Orem, 2001). Interventions based on the Orem model have been shown to significantly increase self-care levels in chemotherapy patients (Rakhshani et al., 2022). Previous studies have shown that increasing self-care behaviors strengthens stress coping skills and promotes positive mood (Abdollahi et al., 2022; Riegel et al., 2024). In this context, patients' self-care practices are effective in reducing physical and mental symptoms and enhancing their psychological well-being.

Psychological well-being is a multi-dimensional concept that refers to an individual's ability to give meaning to his/her life, experience positive emotions, achieve life satisfaction, and maintain internal balance. According to Ryff and Keyes' model, psychological well-being consists of six core dimensions: autonomy, self-acceptance, purpose in life, personal growth, environmental mastery, and positive relationships. Deficiencies in these dimensions can negatively impact treatment adherence in chronic diseases, such as cancer. Sebastian et al. (2022) reported that emotional self-care reduces stress and depression levels in individuals with cancer. Therefore, psychological well-being in patients receiving chemotherapy should be developed as a variable that facilitates both physical recovery and supports adherence to the treatment process (Sebastian et. al., 2022). Takano et al. (2021) found that self-help materials for chemotherapy patients significantly improved quality of life and psychological well-being. Therefore, this study aims to examine not only the relationship between self-care and psychological well-being, but also how this relationship is shaped by personal characteristics and contextual factors.

Public health nursing, which embraces holistic care, addresses the physical, social, and psychological aspects of an individual in a holistic manner. A review of the literature reveals several studies linking self-care behaviors to psychological well-being. Yeom et al. (2022) emphasized that self-care behaviors are significantly influenced by cultural values and social beliefs. Thasaneesuwan et al. (2025) reported that significant changes were observed in the self-care experiences of elderly patients receiving chemotherapy during the COVID-19 period, and these changes were

particularly impactful on psychological well-being. Takei et al. (2025) identified significant relationships between personality traits and self-care behaviors in chemotherapy patients with gastrointestinal cancer. This result suggests that self-care is closely linked not only to clinical factors, but also to individual characteristics. Individuals with high self-care capacity are more resilient to stressors and exhibit a more psychologically balanced profile. Depression, stress, and social isolation are more common in those with self-care deficits. They are also more resilient to challenges that they experience and exhibit a more psychologically stable stance (Koyuncu & Su, 2023; Sisto et al., 2019).

In this context, patients' self-care practices and psychological well-being represent two fundamental health indicators that cannot be considered separately. While the general association between these constructs is established in literature, this study provides novel insights by specifically examining their relationship within the unique context of Turkish chemotherapy patients. Unlike previous research, we employ a multi-dimensional assessment using validated scales (SCANS-Chemo and Psychological Well-being Scale) and investigate how socio-demographic and clinical factors moderate this relationship. By focusing on the chemotherapy period—a critical phase where self-care capacity is most compromised—we identify specific intervention points for clinical practice. In public health nursing, evaluating these dimensions together will contribute to developing more effective, personalized, and sustainable care models. Our results thus offer culturally relevant evidence for developing targeted nursing interventions in similar healthcare settings while clarifying the cultural and individual aspects of this connection.

This research seeks to answer the following questions:

Is there a significant relationship between self-care behaviors and psychological well-being?

Are self-care behaviors a significant predictor of psychological well-being?

Method

Study Design

This study employed a descriptive, cross-sectional design. It was conducted with adult patients treated in the Medical Oncology and Radiation Oncology units of Van Yüzüncü Yıl University Dursun Odabaş Medical Center between March and April 2025. The sample size was determined to be a minimum of 346 individuals, with a significance level of 5% ($\alpha = 0.05$), statistical power ($1 - \beta$), and a confidence level of 95%. Valid data was obtained from a total of 403 participants. Participants were recruited using a convenience sampling method. This sampling method is specifically based on the accessibility and availability of participants. Therefore, it is cost-effective and convenient (Elfil & Negida, 2017). In our study, participants were selected based on availability and volunteering based on their order of presentation to the outpatient clinic. Before data collection, participants were provided with detailed information about the purpose and scope of the study, and written informed consent was obtained. Participants were assured that their data would be kept confidential and would not be shared with third parties. Inclusion criteria for the study included patients diagnosed with cancer who were (i) receiving active chemotherapy in oncology units, (ii) aged 18 years or older, (iii) literate, and (iv) willing to participate in the study. Statistical analyses were completed with 403 individuals.

Data Collection Tools

Data was collected using three forms developed by the researchers based on previous similar studies: The Socio-demographic Information Form, the Self-care Behaviors Scale in Patients Receiving Chemotherapy, and the Psychological Well-being Scale. Data was collected *via* face-to-face surveys in separate interview rooms to protect confidentiality. Participants were coded without identifying their identities, and confidentiality of responses was emphasized to reduce social desirability bias (Karadağlı & Alpar, 2017; Mercier & Dorris, 2024). Turkish versions of the scales with confirmed validity and reliability were useed.

Socio-demographic Information Form

This form, developed by the researchers, consists of 11 items addressing participants' personal and clinical characteristics, such as age, gender, marital status, educational level, income level, people they live with, duration of chemotherapy, caregiving status, and history of psychological support (Karadağlı & Alpar, 2017).

Self-care Adequacy and Needs Level Scale for Patients Undergoing Chemotherapy (SCANS-Chemo)

This scale was originally developed in Turkish by

Karadağlı and Alpar (2017) based on Orem's Self-care Deficit Nursing Theory to measure the self-care behaviors of patients undergoing chemotherapy. It is a 24-item Likert-type scale (1 = Never, 5 = Always) with six sub-dimensions: Personal Care (4 items), Sleep Regulation (4 items), Maintaining Respiration (4 items), Activity and Mobility (4 items), Nutrition Habits (5 items), and Coping with Problems (3 items). The scale includes both positive and negative items, with the negative items (11, 20, 23) being reverse-scored. The total score ranges from 24 to 120, with higher scores indicating more favorable self-care behaviors. Some statements found in the scale: ''I pay attention to consuming fruits in the recommended amount. When I feel anxious and stressed, I seek support from people close to me or from a professional.'' The original scale development study demonstrated strong validity and reported a Cronbach's α reliability value of 0.87. In the present study, the Cronbach's α value was calculated as 0.91, confirming its high reliability for our sample.

Psychological Well-being Scale

The short form of this scale, based on Ryff's psychological well-being theory, was adapted into Turkish by Telef (2013). The Turkish adaptation study established the scale's validity and reported a Cronbach's α reliability coefficient of 0.80 for the Turkish version. The 8-item form used in this study employs a 7-point Likert scale (1 = Strongly disagree, 7 = Strongly agree) and evaluates aspects, such as meaning in life, positive relations, and self-efficacy. Some statements found in the scale: ''I think that my life has a purpose and direction. I am able to build warm, trusting, and sincere relationships with other people.'' The Cronbach's alpha reliability coefficient of the original scale was 0.89, while it was 0.97 in this study.

Ethics Permissions

In order to conduct the study, an ethics committee permit (2025-E.127231/123423) was obtained from the Şırnak University Science Research and Publication Ethics Board and an institutional permit (E-54355720-622.01-679278) was obtained from the Van Yüzüncü Yıl University Dursun Odabaş Medical Center Chief Physician. The rules stated in the Declaration of Helsinki were followed throughout the study. Written consents were obtained from individuals who accepted the study.

Statistical Analysis

Statistical analyses were conducted using the SPSS 25.0 statistical software package. First, the normality of the data distribution was examined with the Kolmogorov–Smirnov Z test. Since the distribution of the main study variables deviated from normality, non-parametric tests were employed. The Mann–Whitney U test was used for comparisons between two independent groups, and the Kruskal–Wallis variance analysis was applied when comparing more than two groups. Descriptive statistics were presented as frequencies, percentages, arithmetic means, and standard deviations, providing a clear overview of participants' demographic and clinical characteristics. In addition, linear hierarchical regression analysis was performed to identify the predictors of psychological well-being. In hierarchical regression analysis, demographic variables were included in the second model, as they are shown in the literature to be key covariates affecting the dependent variable (e.g. age, gender, education, income). Psychosocial variables were added to the third model, as they are reported in the literature, to be additional factors affecting behavioural outcomes.

In this model, the total score of the Self- care Scale was included instead of its sub-scales to avoid multi-collinearity and ensure a parsimonious analysis. Therefore, variables with VIF > 10 were excluded from the model, and analyses were conducted on the remaining variables. Regression assumptions have been tested. Statistical significance level was accepted as $p<0.05$.

Reults

This section presents the analysis results of data obtained from the participants undergoing chemotherapy regarding their socio-demographic characteristics, self-care behaviors, and PWB levels, based on the SCANS-Chemo and PWB scales.

Table 1. Socio-demographic analysis of participants

Variables	n	%
18-25	51	12.7
26-34	84	20.8
35-44	84	20.8
45 and over	184	45.7
Gender		
Female	213	52.9
Male	190	47.1
Marital Status		
Married	338	83.9
Single	65	16.1
Education Level		
Primary School	187	46.4
High School	75	18.6
Associate Degree	38	9.4
Bachelor's Degree	90	22.3
Graduate Degree Holders	13	3.2
Income Level		
Income > Expenses	207	51.4
Income = Expenses	77	19.1
Income < Expenses	119	29.5
Living Arrangement		
Living alone	28	6.9
With spouse	118	29.3
With spouse and children	176	43.7
With children	16	4.0
With parents	65	16.1
Time of Starting Chemotherapy		
Within 1 month	145	36.0
1–3 months	41	10.2
3–6 months	101	25.1
More than 6 months	116	28.8
Receiving Care and Support		
Family members*	341	84.6
Professional caregivers**	54	13.4
Volunteers/social services	8	2.0
Post-diagnosis Psychological State		
Good, no psychological issues	65	16.1
Moderate, difficulties coping with stress and anxiety	214	53.1
Poor, receiving professional psychological support	124	30.8
Receiving Psychological Support (During Treatment)		
Yes	78	19.4
No	325	80.6
Total	403	100.0

*; Spouse, children, or parents; **Nurses, geriatric care technicians, patient attendants, … etc.

In Table 1, of the patients receiving chemotherapy, 52.9% were female, 54.7% were 45 years of age or older. 83.9% of the participants were married, 46.4% were primary school graduates, and 51.4% had more income than expenses. 43.7% of the patients lived with their spouses and children, and 36.0% reported that they had started chemotherapy treatment within the last month. In addition, 84.6% stated that they received care and support from family members (spouse, children, parents, … etc.). Regarding their psychological state after diagnosis, 53.1% reported that they were "normal" or "had difficulty coping with anxiety and stress." 80.6% of the participants stated that they did not receive any professional psychological support during the treatment process (Table 1).

Table 2. Comparative analysis of self-care behavior and pwb scores based on participants' socio-demographic characteristics

Variables	**SCANS-CHEMO**	**PWB**
18-25	94.62	42.70
26-34	92.25	40.84
35-44	87.73	39.30
45 and over	68.20	29.61
	KW: 87.730/ *p<0.001*	KW:77.513/ *p<0.001*
Gender		
Female	68.61	27.30
Male	94.11	44.97
	Z: -11.033/ *p<0.001*	Z: -12.982/ *p<0.001*
Marital Status		
Married	75.57	32.63
Single	107.15	51.21
	Z:-11.770/ *p<0.001*	Z: -12.668/ *p<0.001*
Education Level		
Primary School	64.11	25.43
High School	82.84	36.45
Associate Degree	104.39	46.07
Bachelor's Degree	98.78	49.30
Graduate Degree Holders	112.53	52.53
	KW: 250.940/ *p<0.001*	KW: 295.076/ *p<0.001*
Income Level		
Income > Expenses	63.52	24.85
Income = Expenses	96.42	44.51
Income < Expenses	100.10	48.63
	KW: 246.170/ *p<0.001*	KW: 294.217/ *p<0.001*
Living Arrangement		
Living alone	55.19	19.35
With spouse	64.32	26.41
With spouse and children	87.58	39.55
With children	59.62	25.75
With parents	107.15	51.21
	KW: 184.506/ *p<0.001*	KW: 237.395/ *p<0.001*
Time of Starting Chemotherapy		
Within 1 month	103.24	48.18
1–3 months	89.73	34.87
3–6 months	80.19	37.39
More than 6 months	49.20	18.68
	KW: 354.614/ *p<0.001*	KW: 303.614/ *p<0.001*
Receiving Care and Support		
Family members*	85.99	38.70
Professional caregivers**	50.63	18.72
Volunteers/social services	50.37	19.12
	KW: 72.059/ *p<0.001*	KW: 76.953/ *p<0.001*
Post-diagnosis Psychological State		
Good, no psychological issues	107.15	51.21
Moderate, difficulties coping with stress and anxiety	90.57	40.71
Poor, receiving professional psychological support	49.27	18.70
	KW: 309.782/ *p<0.001*	KW: 327.303/ *p<0.001*
Receiving Psychological Support (During Treatment)		
Yes	52.50	20.20
No	87.28	39.33
	Z: -9.818/ *p<0.001*	Z: -9.970/ *p<0.001*

KW: Kruskal-Wallis H Test; **Z:** Mann-Whitney U Test; **p** < 0.0011.

Participants' socio-demographic characteristics and mean scores on the SCANS-CHEMO and PWB scales were analyzed using the Mann-Whitney U test and Kruskal-Wallis analysis of variance. Analyses revealed statistically significant differences in mean scores on the SCANS-CHEMO and PWB scales based on age, gender, marital status, income level, living arrangement, timing of chemotherapy initiation, receipt of care and support, and receipt of psychological support during treatment ($p<0.001$) (Table 2).

Table 3. Mean scores and correlation coefficients of the scans-chemo and pwb scales

		Mean±SD	1	2	3	4	5	6	7	8
1	SCANS-CHEMO	80.69±22.94	-							
2	Personal Care	12.65±4.47	0.953**	-						
3	Sleep Regulation	13.19±3.60	0.974**	0.919**	-					
4	Maintaining Respiration	13.87±4.42	0.883**	0.840**	0.861**	-				
5	Activity and Mobility	12.71±4.80	0.925**	0.843**	0.899**	0.876**	-			
6	Nutrition Habits	17.54±4.77	0.911**	0.827**	0.884**	0.787**	0.818**	-		
7	Coping with Problems	10.62±2.23	0.824**	0.763**	0.795**	0.575**	0.693**	0.839**	-	
8	PWB	35.63±12.84	0.917**	0.829**	0.905**	0.889**	0.922**	0.863**	0.682**	-

Mean: Arithmetic Mean, SD: Standard Deviation; $p<0.001$**; $p<0.05$*.

In Table 3, the mean scores obtained from the SCANS-CHEMO and PWB scales, along with their correlation results, are presented. The mean SCANS-CHEMO score among chemotherapy patients was 80.69 ± 22.94, while the mean PWB score was 35.63 ± 12.84. The mean scores of the SCANS-CHEMO sub-scales were as follows: 12.65 ± 4.47 for Personal Care, 13.19 ± 3.60 for Sleep Regulation, 13.87 ± 4.42 for Maintaining Respiration, 12.71 ± 4.80 for Activity and Mobility, 17.54 ± 4.77 for Nutrition Habits, and 10.62 ± 2.23 for Coping with Problems. Furthermore, a strong, positive, and statistically significant correlation was found between SCANS-CHEMO and PWB mean scores ($r = 0.917$**, $p < 0.001$) (Table 3).

Table 4. Results of rank-based hierarchical regression analysis for predictors of PWB

Model/ Predictors	B	SE	β	t	p	95% CI (Lower–Upper)	VIF	Tolerance	R^2	Adj R^2	ΔR^2	F-change (p)	DW
Model 1													
(Constant)	-7.609	0.661		-11.517	<0.001	[-8.90 – -6.31]							
SCANS-CHEMO	0.537	0.008	0.960	68.168	<0.001	[0.52– 0.55]	1.00	1.00	0.921	0.921	0.921	4646.832 ***(p=<0.001)***	
Model 2													
(Constant)	-8.092	0.761		-10.633	<0.001	[-9.58 – -6.59]							
SCANS-CHEMO	0.419	0.008	0.749	50.903	<0.001	[0.40 – 0.43]	2.67	0.37	0.968	0.968	0.047	194.129 ***(p=<0.001)***	
Age	0.070	0.124	0.006	0.565	0.573	[-0.17 – 0.31]	1.35	0.73					
Gender	4.090	0.306	0.159	13.377	<0.001	[3.48 – 4.69]	1.75	0.57					
Education Level	1.736	0.136	0.178	12.812	<0.001	[1.47 – 2.00]	2.37	0.42					
Model 3													
(Constant)	-9.263	0.780		-11.873	<0.001	[-10.79 – -7.72]							
SCANS-CHEMO	0.375	0.013	0.670	29.672	<0.001	[0.35 – 0.40]	6.84	0.14					
Age	-0.111	0.124	-0.009	-0.893	0.372	[-0.35 – 0.13]	1.47	0.67					
Gender	4.218	0.296	0.164	14.255	<0.001	[3.63 – 4.80]	1.78	0.56	0.970	0.970	0.003	17.723 ***(p=<0.001)***	1.823
Education Level	1.795	0.132	0.184	13.612	<0.001	[1.53 – 2.05]	2.44	0.40					
Receiving Care and Support	0.817	0.474	0.032	1.725	0.085	[-0.11 – 1.74]	4.51	0.22					
Receiving Psychological Support (During Treatment)	2.026	0.363	0.062	5.584	<0.001	[1.31– 2.73]	1.65	0.60					

Dependent Variable: PWB

a. Model 1 predictors: SCANS-CHEMO

b. Model 2 predictors: SCANS-CHEMO, Age, Gender, Education Level

c. Model 3 predictors: All of the above + Receiving Care and Support, Receiving Psychological Support

B: unstandardized coefficients; Std Error: standard error; Beta: standardized coefficients; R2: determination coefficient; Adj. R2:Adjusted R-Squared; F: Anova; ΔR^2: R Square Change; DW: Durbin Watson; $p<0.001$.

Table 4 presents the effect of independent variables on the dependent variable using hierarchical linear regression. Model 1 demonstrates a statistically significant effect of the independent variable, SCANS-CHEMO, on the dependent variable, PWB (β = 0.960, 95% CI [0.52, 0.55]). Model 1 explains 92.1% of the variance (R^2 = 0.921, adjusted R^2 = 0.921). When demographic variables (age, gender and educational level) were added to Model 2, the explained variance increased significantly (ΔR^2 = 0.047), with the model explaining 96.8% of the total variance (R^2 = 0.968, adj. R^2 = 0.968, $p < 0.001$). Furthermore, the inclusion of gender (β = 0.159, 95% CI [3.48, 4.69]) and educational status (β = 0.178, 95% CI [1.47, 2.00]) in Model 2 revealed positive and statistically significant effects. When psychosocial variables were added to Model 3, receiving care showed no significant effect (β = 0.032, 95% CI [3.48, 4.69]), whereas receiving psychological support during treatment showed a significant effect (β = 0.178, 95% CI [1.31–2.73]). In the final model (Model 3), explained variance increased to 97.0% (R^2 = 0.970, adj. R^2 = 0.970). According to Model 3, the added psychosocial variables made a limited contribution (ΔR^2 = 0.003), but this was statistically significant (Tablo 4).

Discussion

Cancer, beyond its somatic burden, has a profound psychological impact, especially on individuals undergoing chemotherapy.

This study has revealed that the self-care behaviours of patients receiving chemotherapy have a very strong and positive effect on their perceived well-being (PWB). Promoting and maintaining self-care behaviours in cancer patients is important for symptom management, treatment compliance, and quality of life (Atan et al., 2020; Karam et al., 2021). Studies have shown that regular self-care practices, such as balanced nutrition, exercise, sleep hygiene and symptom monitoring, can reduce depression and anxiety levels in patients undergoing chemotherapy, while increasing hope and optimism (Harms et al., 2019; Karam et al., 2021). Furthermore, self-care increases individuals' adherence to treatment and enables them to maintain healthy behaviours (Sist et al., 2022). These results are consistent with those reported in the literature.

In the current study, the results showed that chemotherapy patients had moderate self-care behaviors. In a cross-sectional study (n=218) evaluating the self-care behaviors of breast cancer patients receiving chemotherapy, it was reported that patients had high self-care behaviors (Wu et al., 2024). In another study conducted in Turkey, it was found that the self-care behaviors of 100 patients receiving chemotherapy were generally moderate (Koyuncu & Su, 2023). In a descriptive study conducted by Koshy et al. (2023) to determine self-care behaviours among breast cancer patients (n=170), it was noted that participants generally had low self-care scores (Koshy et al., 2023). The results of this study are similar to those in the literature; however, differences in results may be influenced by socio-demographic and cultural factors.

Factors said to influence cancer patients' self-care behaviours and psychological well-being levels vary across different studies; however, these differences may stem from patients' varying social, clinical, and socio-demographic characteristics (Eskandar, 2024; Hançerlioğlu & Aykar, 2018; Tian et al., 2021). In the present study, individuals in the younger age group were found to have higher self-care capacity and psychological well-being. Studies have reported that self-care ability decreases with age in cancer patients (Gökkaya & Gök, 2025; Goudarzian et al., 2019). Decreased self-care ability may be due to an increase in potential health problems and physiological burdens in older age.

The present study found that male patients had higher self-care behaviours and psychological well-being compared to female patients. In a study by Hasan et al., (2022) examining gender differences in coping, depression, and anxiety among lung cancer patients (n=40), they reported higher levels of depression, denial, and anxiety among women (Hasan et al., 2022). In the literature, it has been noted that women are more open than men in expressing their feelings and anxieties, while men tend to suppress their emotions due to social norms that associate seeking help with weakness (Çamlıca & Koç, 2024). Similarly, the expectation that women should provide care make sacrifices and bear the emotional burden may make it easier for them to express psychological problems, while the expectation that men should show emotional resilience may limit their behaviour in seeking help (Saimaldaher & Wazqar, 2020). In terms of upbringing and gender roles, men in

Turkey society tend to feel compelled to suppress their emotions, while women frequently share them with each other. Furthermore, women experience less psychological withdrawal, because they communicate their feelings, whereas men do not seek help from others for psychosocial problems and stress. Traditionally, men are expected to be resilient and courageous, and they are not allowed to show weakness or cry when faced with illness. This may also have contributed to the high levels of psychological well-being seen in male patients.

In the present study, individuals with higher levels of education had higher self-care behaviours and psychological well-being. Similarly, in a study conducted on cancer patients (n= 1234), a positive relationship was reported between high educational level and self-care behaviours (Shahsavar & Choudhury, 2023). In a comprehensive study by Jamlaay et al. (2025) (n=11 articles), educational level was identified as a significant determinant influencing self-care/maintenance behaviours in breast cancer patients (Jamlaay et al., 2025). Therefore, patients with a higher level of education may have a greater capacity to access information and make decisions about treatment. Furthermore, studies have shown that a higher level of education is positively associated with psychological well-being by strengthening individuals' health literacy, coping skills, and stress management strategies (Dinh & Bonner, 2023; Yıldırım et al., 2025). In Wang et al. (2021) retrospective study (n=103), it was noted that cancer patients with a higher level of education developed better coping strategies (Wang et al., 2021). These results may demonstrate the importance of interventions aimed at improving health literacy.

The present study found that those who perceived their income to be higher than their expenses had higher self-care behaviours and psychological well-being scores. The literature reports that individuals with low income levels have lower self-care behaviours and psychological well-being levels due to limitations in accessing healthcare services, insufficient use of supportive services, and financial insecurity (Çamlıca & Koç, 2024; Rosen et al., 2021; Tucker-Seeley et al., 2024). Consequently, low-income individuals may relate their problems to a fatalistic approach for economic reasons or may not be able to adequately engage in self-care behaviours, because they cannot access information soures.

In the present study, individuals self-defined as psychologically well after diagnosis exhibited elevated levels of psychological well-being. This result indicates that an individual's initial psychological reaction to a diagnosis significantly impacts long-term psychological adjustment. As demonstrated in the extant literature, individuals who develop positive coping strategies following a cancer diagnosis exhibit a greater degree of resistance to negative mental states, including depression, anxiety, and post-traumatic stress (Hoedjes et al., 2022; Tamura et al., 2021). In this context, the provision of psychosocial support at the time of diagnosis and in the early period following it may offer a critical opportunity to strengthen the individual's psychological well-being.

Another result of the current study is that individuals who received psychological support demonstrated lower levels of well-being. According to the literature, psychosocial interventions that focus solely on social or emotional outcomes do not prolong life, and can even have a limited effect on individuals with severe disease (Acoba, 2024; Das et al., 2020). This result may indicate that individuals who require psychological support are already in a lower state of well-being.

The study results showed that self-care behaviors used by chemotherapy patients were mostly related to the dimensions of maintaining respiration and nutrition habits. In addition, participants received lower scores in the dimension of coping with problems. This situation reveals that self-care for physical health is prioritized, and support is needed in psychosocial adaptation. This result supports the fact that psychological coping skills are a fundamental element in terms of the sustainability of self-care during cancer treatment (Abdollahi et al., 2022). Moreover, the results revealed that self-care adequacy in patients receiving chemotherapy is a strong predictor of PWB. Adopting higher levels of self-care enables individuals to develop a greater sense of control over their health, participate actively in the treatment process and cope more effectively with stress. This improves patients' psychological well-being, increasing their levels of hope and optimism. Previous studies have indicated that nursing-based training for patients undergoing chemotherapy plays a fundamental role in the acquisition and maintenance of self-care skills. For example, in one study, it was determined that nursing-supported self-care training increased cancer patients' ability to cope with physical symptoms and significantly improved their PWB (Deng et al., 2021). Similarly,

another study reported that nursing education improved psychological well-being, treatment compliance, pain management, and quality of life in cancer patients (Wang et al., 2024). On the other hand, according to the study results, the higher self-care behaviors of those who had just started chemotherapy and received care support from their families indicate that intensive support mechanisms in the initial period can increase PWB. A study emphasized that social support mechanisms in cancer patients positively affect mental health (van Beek et al., 2021). On the other hand, this result may have contributed to the participants' higher levels of psychological well-being, because they were in the early stages of treatment, had higher expectations and optimism, and had not yet experienced serious side effects. This suggests that the impact of self-care behaviors on psychological well-being may vary across different stages of the treatment process. These results may emphasize that the characteristics of the disease and social support mechanisms can improve self-care skills and thus indirectly support PWB.

Limitations

This study used self-report scales as the data collection method. This situation may lead to the subjective nature of the data and the possibility of bias in the responses of the participants due to the social acceptance effect. In addition, the surveys were administered in the health units where the patients applied for chemotherapy treatment, and it should be taken into account that the participants may not have answered the questions carefully enough due to time constraints. The cross-sectional design of the study does not allow for the causal relationships between the variables to be revealed. For this reason, it is recommended that the results obtained be supported in a more in-depth and generalizable manner with longitudinal and experimental studies to be conducted in the future. Moreover, since participants were recruited from a single university hospital, potential selection bias should be considered, and the results may not be generalizable to patients in rural or different healthcare settings. For this reason, it is recommended that the results obtained be supported in a more in-depth and generalizable manner with longitudinal and experimental studies to be conducted in the future.

Implications for Nursing

Nursing interventions aimed at increasing coping skills should be integrated into care processes. Active patient participation in the process can be ensured through structured education programs, motivational interviews, and digital health tools. Thus, optimizing self-care behaviors can contribute sustainably, not only to physical health, but also to psychological well-being. In addition, nurses should be encouraged to develop culturally sensitive and context-specific approaches that address the unique needs of patients in different healthcare environments.

Conclusion

This study determined that the self-care behaviours and psychological well-being (PWB) levels of patients receiving chemotherapy were generally moderate. It was observed that PWB increased as self-care behaviours improved, with patients prioritising self-care in relation to maintaining healthy respiratory and nutritional habits. These results highlight the need to consider not only biomedical approaches, but also social determinants of health in service delivery. In this context, the development of structured education programs that include knowledge reinforcement through trained healthcare professionals, accessible healthcare arrangements, and family-focused support interventions is recommended. Furthermore, given that young, educated individuals with family support and those newly initiated into treatment are more advantageous during this process, it is important to prioritize targeted education and support programs for more vulnerable groups.

Author Contributions

Study Design: **MK, MFY, ZY**. Data Collection: **MFY**. Data Analysis: **MK**. Study Supervision: **MK, MFY, ZY**. Manuscript Writing: **MK, MFY, ZY**. Critical Revision for Important Intellectual Content: **MK, MFY, ZY**.

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Data Avabılıty

The data that supports the findings of this study is avaliable from the corresponding authot upon reasonable request.

Conflict of Interests

The authors declare that there is no conflict of interests.

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