

Palliative care and its relationship to life satisfaction among cancer patients

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Abstract:

The current study aims to determine the relationship between palliative care and life satisfaction among cancer patients. This study is one of the descriptive studies that focus on monitoring and analyzing the relationship between the two variables. The study utilized the social survey method with a deliberate sample of (128) cancer patients from the Oncology Institute in Aswan. The study findings showed a statistically significant positive relationship between the dimensions of palliative care and life satisfaction among cancer patients at a significance level of (0.01).

Keywords:

Palliative care - life satisfaction - cancer patients.

Study problem:

Social work is one of the professions that aims to help people and provide them with social services to enable them to perform their roles better (Abu Al-Nasr, 2016, p.15). Casework is one of the social work methods that aim to help individuals solve their problems and improve their social performance (Othman, 2016, p.245), and it achieves harmony between them and their social environment to execute their functions efficiently (Saleh, 2017, p.39). Given its crucial role, the medical field is widely recognized as a cornerstone of social work. Medicine has recently been concerned about what is called comprehensive patient care (Ramah, 2020, p.17); the medical social worker plays a major role in teamwork at various times through the multiple roles he performs (Ghabari, 2004, p.177).

Cancer is one of the chronic diseases that not only threaten individuals' health and well-being but also pose a major challenge for families and entire societies. Globally, statistics indicate that the world witnessed about 18 million reported cases of cancer in 2020 and 20 million by 2022, and more than 35 million diagnoses of cancer, with a 77% increase, are expected by 2050. This will amplify the burden on health systems, individuals, and societies (Who, 2024). Concerning Egypt, the number of cancer-infected cases was estimated at about 170,000 annually (Journal of the National Cancer Institute, 2024).

Among the multiple modern trends that have recently emerged with the aim of alleviating pain from serious illnesses for all ages is palliative care, which consists of a work team that includes a social worker, a psychologist, palliative care doctors, and nurses (Abdel Moneim, 2024, pp.166,173). It intends to ease suffering and provide support to achieve a high standard of life for patients suffering from

chronic diseases such as cancer (Matar, 2013, p.8). Therefore, palliative care is one of the modern medical practices that has received the attention of specialists in the social work profession. Social workers play a pivotal role in providing palliative care by relying on the obtained inputs in order to develop an intervention plan and a sound treatment strategy that supports the patient's acceptance of his illness and mitigates the presence of other negative complications for him and his family (Abdul Hamid, 2023, pp.18,20).

Palliative care, thus, has been extensively studied by many researchers. O'Donnell et al. (2018) concluded that palliative care effectively improves advanced care planning. In addition, Dhavale et al. (2020) investigated palliative care interventions from a social work perspective. Fischer et al. (2021) illustrated the initial positive effects of palliative care. Moreover, Al-Harthi (2022) emphasized the social worker's role in palliative care with cancer patients and their families. Similarly, Tawfiq (2022) indicated that palliative care can alleviate the pain of disease symptoms. However, Al-Dhabyani (2024) discussed the obstacles facing the social worker in palliative care departments when dealing with the hospital administration, the medical team, the patient and his family.

Life satisfaction depends on the individual's ability to adapt to different life situations (Abu Al-Nasr, 2017, p.32) It is characterized as a trait that emerges from within the individual through his evaluation of the life he lives in light of his feelings and his ability to deal with the surrounding environment (Muawad et al., 2024, p.246). Hence, people who are more satisfied with their lives were found to have better mental and physical health and are more capable of adapting to changes in life circumstances than those who are less satisfied (Yassin et al., 2024, p.322).

Some researchers have been concerned with life satisfaction. For instance, Mahmoud (2020) indicated an inverse relationship between life satisfaction and social anxiety. Moreover, Çalışkan et al. (2021) found a positive relationship between life satisfaction and positive adaptation. Kiani et al. (2022) showed that the level of life satisfaction was high. Martínez et al. (2023) showed that there was a direct relationship between life satisfaction and psychological resilience. Khadi (2024) showed that the level of life satisfaction was low. Yassin et al. (2024) confirmed the relationship between life satisfaction and self-empowerment.

Casework, a basic method of social work, has many professional approaches that aim to achieve palliative care and improve life satisfaction among cancer patients. The spiritual approach, for example, is a therapeutic, guiding, and advisory method. Therefore, the study problem can be crystallized into a main question: **What is the nature of the relationship between palliative care and life satisfaction among cancer patients?**

Study objective:

The main objective of the study is to determine the relationship between palliative care and life satisfaction among cancer patients.

The following sub-objectives are derived from this main objective:

- 1) Determining the relationship between the social dimension of palliative care and life satisfaction in cancer patients.
- 2) Identifying the relationship between the psychological dimension of palliative care and life satisfaction in cancer patients.
- 3) Examining the relationship between the spiritual dimension of palliative care and life satisfaction in cancer patients.
- 4) Investigating the relationship between the physical dimension of palliative care and life satisfaction in cancer patients.

Study concepts:

First, palliative care is defined as an approach to improving the quality of life of patients and their families who face problems associated with a life-threatening disease; it is implemented through prevention services, pain relief, and facing some physical, psychological, social, or spiritual problems and providing their proper treatment (World Health Organization, 2013, p.11). Similarly, Hasselaar et al. (2019) stressed its effective role in the early relief of suffering with an accurate assessment of the condition on an ongoing basis, in addition to diversifying pain treatment methods for related problems (p.559). Palliative care in the current study is defined as a comprehensive approach that attempts to provide social, psychological, spiritual, and physical support and improve communication between the cancer patient, his family, and the care team. The operational concept of palliative care in this study can be defined as the scores obtained by a cancer patient on the palliative care scale, which includes social, psychological, spiritual, and physical aspects.

Second, life satisfaction is defined as a cognitive assessment of the extent to which an individual accepts himself and the degree of his compatibility with the surrounding physical and social environment

(Al-Dhawadi, 2015, p27). It refers to an individual's assessment of his quality of life-based on specific criteria (Xiaojun et al., 2019, p.93). It is a comprehensive psychological indicator that measures the quality of an individual's life (Chen et al., 2020, p.1150). Life satisfaction in the current study is defined as a feeling of acceptance and satisfaction with life, in general, despite the health challenges that cancer patients face as a result of the disease. The operational concept of life satisfaction in this study can be defined as the scores obtained by a cancer patient on a life satisfaction scale, which includes the aspects of satisfaction with family life, the living environment, the relationship with friends, and oneself.

The theoretical orientation of the study:

The spiritual approach in casework:

The theoretical foundations on which the spiritual approach depends in casework are as follows:

First, self-transcendence theory assumes that social and psychological problems are linked to the absence of spiritual factors. It also seeks to achieve individual growth through his natural potential and with the help of his environment, which provides him with support and social backing to obtain personal fulfillment and satisfaction with life (Ali, 2010, p.405).

Second, systems theory is based on the following assumptions: A person or a group can be viewed as a system consisting of a number of interconnected parts; each system has basic needs that must be satisfied, and each part of the system could be effective or ineffective (Mansour, 2004, pp. 49-35).

The assumptions on which the spiritual approach is based in casework include accepting that all social problems are, in full or in part, a result of spiritual weakness in man. Besides, the client innately possesses a charitable tendency. Each individual problem has spiritual axes that can be associated with the values of his faith. The values of the spiritual approach constitute the essence of social work: "humanity of man, justice, individualism, impartiality" (Othman. Ali al-Din, 2015, p.257).

The current study suggests that the spiritual approach in casework represents a fundamental dimension in palliative care; it seeks to address the cancer patient's psychological, spiritual, and social dimensions and contributes to enhancing the feeling of self-acceptance. It is not limited to the patient but also includes his family and community, which helps them deal with him and enhances family cohesion, which is positively reflected in increasing their life satisfaction.

Methodology:

This study is one of the descriptive studies that focus on monitoring and analyzing the relationship between palliative care (as an independent variable) and life satisfaction among cancer patients (as a dependent variable). The study relied on using the social survey method with a deliberate sample of (128) cancer patients visiting the Oncology Institute in Aswan Governorate.

Study hypotheses:

The main hypothesis of the study is that "there is a statistically significant direct relationship between palliative care and life satisfaction among cancer patients." The following sub-hypotheses emerge from this main hypothesis:

- 1) There is a statistically significant direct relationship between the social dimension of palliative care and life satisfaction among cancer patients.
- 2) There is a statistically significant direct relationship between the psychological dimension of palliative care and life satisfaction among cancer patients.
- 3) There is a statistically significant direct relationship between the spiritual dimension of palliative care and life satisfaction among cancer patients.
- 4) There is a statistically significant direct relationship between the physical dimension of palliative care and life satisfaction among cancer patients.

Study tools:

The data collection tools were as follows:

1) Initial data sheet for cancer patients

The researchers designed the initial data sheet for cancer patients, which included the axes of gender, age, marital status, educational status, and average monthly family income.

2) Palliative care scale for cancer patients

- (A) The researchers designed a scale of palliative care among cancer patients based on the theoretical heritage guiding the study.
- (B) The researchers identified the dimensions included in the palliative care scale, represented by four main dimensions: namely, social, psychological, spiritual, and physical dimensions. The phrases for each dimension were determined and formulated, resulting in a total of 28 phrases evenly distributed, with 7 phrases per dimension.

- (C) The palliative care scale was based on the three-point scale so that the response to each phrase was "agree" (with a weight of 3 degrees), "somewhat" (two degrees), or "disagree" (one degree).
- (D) The researchers relied on the “logical validity” of the Palliative care scale to verify the content validity by reviewing the theoretical literature that addressed the study dimensions and then analyzing it. Then the scale was presented to (7) arbitrators from faculty members specialized in casework at the Faculties of Social Work at Aswan University and Helwan University to express their opinions on the validity of the tool. Accordingly, the scale was formulated in its final form.
- (E) The researchers relied on calculating the stability of the palliative care scale using the test and retest method (Test. R. Test) for a sample of (15) cancer patients not included in the study sample and met the eligibility criteria. In addition, the application was repeated on the same sample after a time interval of (15) days from the date of the first application. Then the correlation coefficient was calculated using Pearson’s correlation coefficient, and the stability coefficients of the dimensions were shown to have a high degree of stability, as shown below.

Table (1) shows the results of the stability of the palliative care scale for cancer patients (N=15)

Dimensions	Social Dimension	Psychological Dimension	Spiritual Dimension	Physical dimension	Dimensions of the scale as a whole
Correlation Coefficient	0.916	0.955	0.944	0.962	0.981
Significance	**	**	**	**	**
Strength of Correlation Coefficient	Strong Ejection	Strong Ejection	Strong Ejection	Strong Ejection	Strong Ejection

** Significant at (0.01)

* Significant at (0.05)

Table (1) indicates that the stability levels of the Palliative Care Scale for Cancer Patients have a high degree of stability, accuracy, and reliability, and the tool has reached its final form.

3- Life Satisfaction Scale for Cancer Patients

- (A) The researchers designed a scale of life satisfaction among cancer patients based on the theoretical heritage guiding the study.
- (B) The researchers identified the dimensions included in the life satisfaction scale, represented by four main dimensions: namely, satisfaction with family life, the living environment, the relationship with friends, and oneself. The phrases for each dimension were determined and formulated, resulting in a total of 28 phrases evenly distributed with 7 phrases per dimension.

- (C) The life satisfaction scale was based on a three-point scale so that the response to each phrase was "agree" (with a weight of 3 degrees), "somewhat" (two degrees), or "disagree" (one degree).
- (D) The researchers relied on the "logical validity" of the life satisfaction scale to verify the content validity by reviewing the theoretical literature that addressed the study dimensions and then analyzing it. Then the scale was presented to (7) arbitrators from faculty members specialized in casework at the Faculties of Social Work at Aswan University and Helwan University to express their opinions on the validity of the tool. Accordingly, the scale was formulated in its final form.
- (E) The researchers relied on calculating the stability of the life satisfaction scale using the test and retest method (Test. R. Test) for a sample of (15) cancer patients not included in the study sample and met the eligibility criteria. In addition, the application was repeated on the same sample after a time interval of (15) days from the date of the first application. Then the correlation coefficient was calculated using Pearson's correlation coefficient, and the stability coefficients of the dimensions were shown to have a high degree of stability, as shown below.

Table (2) shows the results of the stability of the life satisfaction scale among cancer patients (N=15)

Dimensions	Satisfaction with Family life	Satisfaction with living environment	Satisfaction with relationship with friends	Satisfaction with self	Dimensions of the scale as a whole
Correlation Coefficient	0.926	0.948	0.951	0.973	0.988
Significance	**	**	**	**	**
Strength of Correlation Coefficient	Strong Ejection	Strong Ejection	Strong Ejection	Strong Ejection	Strong Ejection

** Significant at (0.01)

* Significant at (0.05)

The previous table shows that the stability levels of the life satisfaction scale for cancer patients have a high degree of stability, accuracy, and reliability, and the tool has reached its final form.

Determining the levels of arithmetic averages for the study dimensions: The level of the study dimensions can be determined using the arithmetic average. The data was coded and fed into the computer. To determine the length of the cells of the three-dimensional scale (lower and upper limits), the range was calculated = the largest value - the lowest value (3 - 1 = 2). It was divided by the

number of cells on the scale to obtain the corrected cell length ($2/3 = 0.67$). This value was added to the lowest value in the scale or the beginning of the scale, which is the correct one, to determine the upper limit of this cell, as illustrated below.

Table (3) shows the levels of arithmetic averages for the study dimensions

Values	The level
If the average value of the phrase or dimension ranges from 1 to 1.67	Low level
If the average value of the phrase or dimension ranges from 1.68 to 2.34	Medium Level
f the average value of the phrase or dimension ranges from 2.35 to 3	High Level

Statistical analysis methods:

The data was collected during the period from July 1, 2024, to August 10, 2024, and processed by a computer using the Statistical Package for the Social Sciences (SPSS.V.24.0) program. The following statistical methods were applied: frequencies and percentages, arithmetic mean, standard deviation, range, simple regression analysis, multiple regression analysis, Pearson correlation coefficient, coefficient of determination, t-test for two independent samples, one-way analysis of variance to determine the variance between groups, and the least significant difference method to determine the direction of variance in favor of any group.

Fields of study:

- 1) Place field: The Institute of Oncology in Aswan governorate represents the place field of the study.
- 2) Human field: The human field of study in the social survey was represented in the purposive sample of cancer patients visiting the Oncology Institute in Aswan Governorate, as shown below.
 - A- Sampling frame: About (2800) cancer patients visit the Oncology Institute in Aswan governorate every month.
 - B- Sampling unit: The study sample unit was a cancer patient visiting the Oncology Institute in Aswan Governorate, according to the following conditions: The cancer patients should be able to read and write; they should be in the fourth stage of the disease; and they should obtain consent to cooperate with the researchers.
 - C-Type and sample size: The sample type for the study was the purposive sample, and by applying the eligibility criteria to the participants, its size reached (128) patients, in addition to (15) ones to conduct validity and reliability tests.

Field study results

First: Description of Cancer Patients Study Sample

Table (4) shows the description of cancer patients in the study sample (N=128)

N	Quantitative variables	Mean	σ	N	Gender	Number	%
1	Age	61	4	1	Male	94	73.4
2	Average monthly household income	4726	424	2	Female	34	26.6
				Total		128	100
N	Social status	Number	%	N	Educational status	Number	%
1	Married	101	78.9	1	Intermediate qualification	31	24.2
2	Divorced	16	12.5	2	Above average qualification	58	45.3
3	Widower	11	8.6	3	High qualification	28	21.9
				4	Postgraduate studies	11	8.6
Total		128	100	Total		128	100

Table (4) indicates the following:

- The average age of cancer patients is (61) years, with a standard deviation of approximately (4) years.
- The average monthly income of cancer patients' families is (4726) pounds, with a standard deviation of approximately (424) pounds.
- The largest percentage of cancer patients are males at (73.4%), while females at (26.6%).
- The largest percentage of cancer patients are married at (78.9%), followed by divorced at (12.5%) and finally widowed at (8.6%).
- The largest percentage of cancer patients have an above-average qualification at (45.3%), followed by an intermediate qualification at (24.2%), then a higher qualification at (21.9%), and finally, postgraduate studies at (8.6%).

Second: The level of palliative care for cancer patients

Table (5) shows the level of palliative care for cancer patients (N=128)

N	Dimensions	Arithmetic mean	Standard deviation	Level	Arrangement
1	Social dimension	2.43	0.33	High	4
2	Psychological dimension	2.53	0.28	High	1
3	Spiritual dimension	2.51	0.29	High	2
4	Physical dimension	2.45	0.31	High	3
Dimensions of palliative care as a whole		2.48	0.22	High level	

Table (5) shows that the four dimensions of palliative care for cancer patients achieved a high level, with an arithmetic mean of (2.48). The psychological dimension ranked first, with an arithmetic mean of (2.53), followed by the spiritual dimension, with an arithmetic mean of (2.51) and the physical dimension, with an arithmetic mean of (2.45), and finally, the social dimension, with an arithmetic mean of (2.43).

Third: Level of life satisfaction among cancer patients

Table (6) shows the level of life satisfaction among cancer patients (N=128)

N	Dimensions	Arithmetic mean	Standard deviation	Level	Arrangement
1	Satisfaction with family life	2.49	0.28	High	1
2	Satisfaction with living environment	2.38	0.35	High	4
3	Satisfaction with relationship with friends	2.44	0.3	High	3
4	Satisfaction with self	2.47	0.3	High	2
Dimensions of palliative care as a whole		2.44	0.24	High level	

Table (6) demonstrates that the four dimensions of life satisfaction among cancer patients achieved a high level, with an arithmetic mean of (2.44). Satisfaction with family life among cancer patients ranked first, with an arithmetic mean of (2.49), followed by self-satisfaction, with an arithmetic mean (2.47) and satisfaction with the relationship with friends, with an arithmetic mean (2.44), and finally, satisfaction with the living environment, with an arithmetic mean (2.38).

Fourth: The significance of the remarkable differences between the responses of cancer patients according to some demographic variables with regard to their determination of the level of palliative care for cancer patients

Table (7) shows the significance of the remarkable differences between the responses of cancer patients according to some demographic variables with regard to their determination of the level of palliative care for cancer patients (N=128)

Dimensions	Research community	N	Arithmetic mean	Standard deviation	value (T)	Moral Sig	Significance	
Dimensions of palliative care as a whole	Gender	Male	94	2.46	0.21	2.275-	0.025	*
		Female	34	2.55	0.23			
		Research community	N	Arithmetic mean	Standard deviation	value (F)	Moral Sig	Test LSD
	Social status	Married	101	2.48	0.22	0.213	0.809	Not significant
		Divorced	16	2.49	0.23			
		Widower	11	2.52	0.24			
	Educational status	Intermediate qualification	31	2.54	0.2	*2.724	0.047	4 - 2 <1
		Above average qualification	58	2.51	0.24			
		High qualification	28	2.4	0.21			
		Postgraduate studies	11	2.4	0.09			

** Significant at (0.01)

* Significant at (0.05)

Table (7) indicates that the following:

- There are statistically significant differences at a significance level of (0.05) between the responses of cancer patients according to gender, regarding their determination of the level of palliative care for cancer patients in favor of the responses of female cancer patients.
- There is no statistically significant difference between the responses of cancer patients according to their marital status regarding their determination of the level of palliative care for cancer patients.
- There is a statistically significant difference at a significance level of (0.05) between the responses of cancer patients according to educational status (i.e., intermediate, above-intermediate, high, and postgraduate education) regarding their determination of the level of palliative care for cancer patients, in favor of the first category.

Fifth: The significance of the remarkable differences between the responses of cancer patients according to some demographic variables with regard to their determination of the level of life satisfaction among cancer patients

Table (8) exhibits the significance of the significant differences between the responses of cancer patients according to some demographic variables with regard to their determination of the level of life satisfaction among cancer patients (N=128)

Dimensions	Research community	N	Arithmetic mean	Standard deviation	value (T)	Moral Sig	Significance	
Dimensions of life satisfaction as a whole	Gender	Male	94	2.43	0.23	-	0.144	Not significant
		Female	34	2.5	0.25			
	Research community		N	Arithmetic mean	Standard deviation	value (F)	Moral Sig	Test LSD
	Social status	Married	101	2.43	0.24	0.889	0.414	Not significant
		Divorced	16	2.52	0.24			
		Widower	11	2.46	0.2			
	Educational status	Intermediate qualification	31	2.48	0.2	1.901	0.133	Not significant
		Above average qualification	58	2.45	0.26			
		High qualification	28	2.45	0.23			
		Postgraduate studies	11	2.29	0.16			

** Significant at (0.01)

* Significant at (0.05)

Table (8) illustrates the following:

- There are no statistically significant differences between the responses of cancer patients according to gender regarding their determination of the level of life satisfaction among cancer patients.
- There is no statistically significant difference between the responses of cancer patients according to their marital status concerning their determination of the level of life satisfaction among cancer patients.
- There is no statistically significant difference between the responses of cancer patients according to educational status with regard to their determination of the level of life satisfaction among cancer patients.

Sixth: Study assignments test

Testing the main hypothesis of the study and its sub-hypotheses: “There is a statistically significant direct relationship between palliative care and life satisfaction among cancer patients.”

Table (9) shows the relationship between palliative care and life satisfaction among cancer patients

Dependent variables / Independent variables		Satisfaction with family life	Satisfaction with living environment	Satisfaction with relationships with friends	Satisfaction with Self	Dimensions of life satisfaction as a whole
Cancer patients (N=128)	Social Dimension	**0.349	**0.413	**0.390	**0.424	**0.512
	Psychological Dimension	**0.319	**0.320	**0.396	**0.355	**0.450
	Spiritual Dimension	**0.416	**0.418	**0.298	**0.453	**0.514
	Physical Dimension	**0.313	**0.456	**0.496	**0.507	**0.578
	Dimensions of Palliative Care as a Whole	**0.482	**0.558	**0.548	**0.603	**0.712

** Significant at (0.01)

* Significant at (0.05)

Table (9) indicates that there is a statistically significant direct relationship at a significance level of (0.01) between palliative care and life satisfaction among cancer patients. The dimensions of palliative care most closely related to life satisfaction among cancer patients were as follows: the physical dimension, followed by the spiritual dimension, then the social dimension, and finally, the psychological dimension. This may be due to the existence of a strong direct relationship between these dimensions and the fact that they came to express what the study aims to achieve.

Table (10) Shows the simple regression analysis of palliative care on life satisfaction among cancer patients

Independent variables	Dependent variable	Regression coefficient (B)	T Test	F Test	Correlation coefficient (R)	Determination coefficient (R ²)
Cancer patients (n=128)	Social Dimension	0.368	**6.698	**44.863	**0.512	**0.263
	Psychological Dimension	0.377	**5.651	**31.930	**0.450	**0.202
	Spiritual Dimension	0.422	**6.727	**45.255	**0.514	**0.264
	Physical Dimension	0.440	**7.944	**63.109	**0.578	**0.334
	Palliative Care as a Whole	0.770	**11.389	**129.708	**0.712	**0.507

** Significant at (0.01)

* Significant at (0.05)

Table (10) demonstrates that the value of the correlation coefficient between the independent variable "social dimension of palliative care" and the dependent variable "life satisfaction among cancer patients" indicates a moderate direct correlation between the two variables at a significance level of (0.01). The (F) test results reveal the regression model's significance. The value of the coefficient of the determination reached (0.263), meaning that the social dimension of palliative care explains (26.3%) of the total variance in life satisfaction among cancer patients. This confirms the first sub-hypothesis of the study: "There is a statistically significant direct relationship between the social dimension of palliative care and life satisfaction among cancer patients".

In addition, the value of the correlation coefficient between the independent variable "psychological dimension of palliative care" and the dependent variable "life satisfaction among cancer patients" indicates a moderate direct correlation between the two variables at a significance level of (0.01). The (F) test reveals the significance of the regression model, and the value of the coefficient of determination reached (0.202), meaning that the psychological dimension of palliative care explains (20.2%) of the total variance in life satisfaction among cancer patients. This also confirms the second sub-hypothesis of the study, i.e., "There is a statistically significant direct relationship between the psychological dimension of palliative care and life satisfaction among cancer patients."

Besides, the value of the correlation coefficient between the independent variable "the spiritual dimension of palliative care" and the dependent variable "life satisfaction among cancer patients" indicates a medium direct correlation between the two variables at a significance level of (0.01). The (F) test reveals the significance of the regression model, and the value of the coefficient of determination reached (0.264), meaning that the spiritual dimension of palliative care explains (26.4%) of the total variance in life satisfaction among cancer patients. This, thus, confirms the third sub-hypothesis of the study: "There is a statistically significant direct relationship between the spiritual dimension of palliative care and life satisfaction among cancer patients".

Furthermore, the value of the correlation coefficient between the independent variable "the physical dimension of palliative care" and the dependent variable "life satisfaction among cancer patients" indicates a moderate direct relationship between the two variables at a

significance level of (0.01). The (F) test reveals the significance of the regression model, and the value of the coefficient of determination reached (0.334), meaning that the physical dimension of palliative care explains (33.4%) of the total variance in life satisfaction among cancer patients. This, hence, confirms the fourth sub-hypothesis of the study: "There is a statistically significant direct relationship between the physical dimension of palliative care and life satisfaction among cancer patients".

Additionally, the value of the correlation coefficient between the independent variable "dimensions of palliative care as a whole" and the dependent variable "life satisfaction among cancer patients" indicates that there is a strong direct relationship between the two variables at a significance level of (0.01). The (F) test indicates the significance of the regression model, and the value of the coefficient of determination reached (0.507), meaning that palliative care explains (50.7%) of the total variance in life satisfaction among cancer patients. This, therefore, confirms the main hypothesis of the study: "There is a statistically significant direct relationship between palliative care and life satisfaction among cancer patients".

Table (11) The multiple regression analysis of palliative care on life satisfaction among cancer patients

Independent variables		Dependent variable	Regression coefficient (B)	Beta coefficients	T Test	F Test	Correlation coefficient (R)	Determination coefficient (R ²)
Cancer patients (N=128)	Social Dimension	life satisfaction as a whole	0.169	0.235	**3.206	21.815 **	0.713 **	0.509 **
	Psychological Dimension		0.182	0.216	**3.141			
	Spiritual Dimension		0.207	0.252	**3.511			
	Physical Dimension		0.212	0.279	**3.584			

** Significant at (0.01)

* Significant at (0.05)

Table (11) illustrates that the value of the multiple correlation coefficient between all independent variables, i.e., the social, psychological, spiritual, and physical dimensions of palliative care, and the dependent variable, i.e., life satisfaction among cancer patients, was (0.713), which is statistically significant at a significance level of (0.01). This confirms a significant direct correlation between the independent variables and the dependent variable.

The (F) test result indicates the significance of the regression model. The value of the coefficient of determination reached (0.509), meaning that the social, psychological, spiritual, and physical dimensions of palliative care explain (50.9%) of the total variance in life satisfaction among cancer patients.

The (t) test indicates that the relationship between all independent variables of the social, psychological, spiritual, and physical dimensions of palliative care and the dependent variable, i.e., life satisfaction among cancer patients, is considered statistically significant at a significance level of (0.01).

Through the values of the Beta coefficients, the independent variables can be arranged according to relative importance as follows:

1. The physical dimension of palliative care (Beta = 0.279).
2. The spiritual dimension of palliative care (Beta = 0.252).
3. The social dimension of palliative care (Beta = 0.235).
4. The psychological dimension of palliative care (Beta = 0.216).

This confirms the main hypothesis and sub-hypotheses of the study: "There is a statistically significant direct relationship between palliative care and life satisfaction

Discussion:

The current study showed that the level of palliative care provided to cancer patients is high, which is consistent with the findings of previous studies such as Al-Najm (2017), Yasmine (2022), Davali et al. (2020), Fisher et al. (2021), Al-Harhi (2022), and Samia Tawfiq (2022). However, the study findings differed from those of Al-Dhabiani (2024). The high level of palliative care may be due to its ability to relieve the patient's pain and help him accept his illness, in addition to its role in providing psychological and social support.

In addition, the study findings showed that the level of life satisfaction among cancer patients is high, which aligns with the findings of Mahmoud (2020), Shalishkan et al. (2021), Kiani et al. (2022), and Martinez et al. (2023). On the other hand, satisfaction with the family environment ranked first, and this is attributed to family cohesion and the presence of an environment of love, psychological support, and cooperation between family members. The study also revealed the existence of statistically significant differences according to gender in determining the level of palliative care, as women's responses were more positive due to their emotional nature.

The results of the current study showed that there is no statistically significant difference between the responses of cancer patients according to their social status with regard to their determination of the level of palliative care for cancer patients. This could be because most cancer patients live with their families, and they are not concerned with poor treatment in coping with the disease. The results also showed that there is a statistically significant difference between the responses of cancer patients according to their educational status with regard to their determination of the level of palliative care. These differences are in favor of the first category, i.e., intermediate education, which makes cancer patients accept the least type of palliative care services provided to them.

The current study also showed that there are no statistically significant differences between the responses of cancer patients according to gender with regard to the level of life satisfaction because males and females live in the same conditions, suffer from the same disease, and receive the same services in hospital and from family; therefore, their levels of life satisfaction are almost equal. The results also showed no statistically significant difference between the responses of cancer patients according to educational status regarding the level of life satisfaction among cancer patients. This may be due to the fact that life satisfaction is an internal thing that does not depend on education, but rather, the judgment here is based on the services provided and the treatment of the palliative team.

The current study tested the main hypothesis of the study and its sub-hypotheses; the results showed that there is a direct relationship between palliative care and life satisfaction among cancer patients. This is consistent with the findings of Yassin et al. (2024), Çalişkan et al. (2021), Kiani et al. (2022), Aliwa (2022), and Martínez et al. (2023), confirming a strong positive direct relationship between these dimensions and that they came to express what the study aims to achieve. This could be a result of the role that the social worker plays in the palliative care team, helping the cancer patient accept his illness and express the various negative feelings associated with the disease. This is consistent with the theoretical orientation of the study, namely, "the spiritual approach in casework" and its theoretical assumptions.

Finally, the results of the current study indicated that the value of the correlation coefficient between the independent variable, i.e., the dimensions of palliative care, and the dependent variable, i.e., life satisfaction among cancer patients, indicates a strong direct

correlation between the two variables. This, hence, confirms the main hypothesis of the study: "There is a statistically significant direct relationship between palliative care and life satisfaction among cancer patients", which reflects the possible effect of the independent variable, palliative care, on the dependent variable, life satisfaction. The results also agree with the theoretical orientation of the study, i.e., the spiritual approach in casework, which is concerned with the human and spiritual aspects of the personality. The results also align with the findings of Al-Najem (2017), Rajmohan (2013), Aliwa (2022), and Yassin et al. (2024). As a result, the better the palliative care provided to a cancer patient, the more increased the acceptance of the disease, which results in higher life satisfaction.

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