

Will to Live Among Cancer Patients

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Abstract

Objectives: This study aimed to investigate the **will to live among cancer patients**.

Methodology: The study employed a descriptive research design, as it was considered the most appropriate approach for the nature of the research problem. The sample consisted of **100 male and female cancer patients** receiving treatment at **Al-Zahrawi Hospital** in M'Sila, Algeria. Participants were selected using purposive sampling. Data were collected using the **Will to Live Scale** developed by **Sarah Hossam El-Din Mostafa Mohamed (2016)** after its psychometric properties had been verified within the current study setting. The collected data were analyzed using the **Statistical Package for the Social Sciences (SPSS), Version 22**. Descriptive and inferential statistical techniques, including means, standard deviations, and significance tests, were employed to examine the study hypotheses and achieve the research objectives.

Results: The findings indicated a **high level of will to live** among cancer patients, with a mean score of **84.37**. The results also revealed **no statistically significant differences** in the will to live based on **gender** (male/female) or **duration of illness** (less than one year vs. more than one year).

Keywords: Will to Live; Cancer; Cancer Patients.

Research Problem

Being diagnosed with a disease may constitute a stressful and unexpected life event that threatens an individual's psychological, physical, social, and economic well-being, thereby hindering adjustment to normal life and challenging both psychological and social adaptation. This experience becomes particularly difficult when the disease is life-threatening, such as cancer (Ali, 2020, p. 4). Cancer is one of the leading causes of mortality worldwide and remains a major public health concern. Despite continuous efforts to combat the disease through the expansion of healthcare facilities, improvements in medical infrastructure, and the training of physicians and mental health professionals, its incidence continues to rise at an alarming rate.

Cancer is a complex disease that requires prolonged treatment and continuous medical intervention because of its progressive deterioration of patients' health. Such deterioration may diminish the desire to live and, in some cases, lead to suicidal ideation or attempts (Ali, 2020, p. 4). This finding is consistent with Khalil's (2018) study, which demonstrated a relationship between the **will to live** and suicide.

Conversely, many patients exhibit an increased desire to continue living despite their illness. This phenomenon is reflected in the concept of the **will to live**, which is defined as an individual's readiness to exert maximum effort to enjoy life, overcome crises, plan for the future, and maintain an optimistic

outlook that encourages perseverance and the pursuit of personal goals. Individuals with a strong will to live are therefore more likely to succeed in achieving their aspirations (Farghaly, 2018, p. 4).

The essence of the will to live lies in exerting effort while simultaneously accepting that effort itself often involves suffering. Although every individual experiences some form of weakness, human existence is fundamentally characterized by a continuous rejection of weakness and an ongoing striving toward purposeful action (Shakshak, 2009, p. 148).

Accordingly, the will to live may be viewed as a continuous motivational force that enables individuals to confront various forms of weakness and adversity encountered throughout life.

It is worth noting that the concept of the **will to live** is relatively recent in psychological literature. Psychological theories have offered only limited explanations for this construct. Some scholars regard it as an unconscious instinct, whereas others interpret it as a set of positive cognitions that motivate individuals to continue living. Others consider it an inherent characteristic of human beings.

Against this background, the present study seeks to examine this important psychological construct among cancer patients. Accordingly, the central research question is:

- **What is the level of will to live among cancer patients?**

This main question gives rise to the following sub-questions:

- Are there significant differences in the will to live among cancer patients according to **gender**?
- Are there significant differences in the will to live according to the **duration of illness**?

Research Hypotheses

- Cancer patients exhibit a **high level of will to live**.
- There are statistically significant differences in the will to live according to **gender**.
- There are statistically significant differences in the will to live according to the **duration of illness**.

Significance of the Study

The importance of the present study lies in the following:

- It focuses on an important and vulnerable population within society, namely **cancer patients**.
- It contributes to the investigation and enrichment of the relatively underexplored construct of the **will to live** among individuals with life-threatening illnesses.
- It highlights the importance of the will to live as a psychological resource that may enhance patients' ability to cope with severe diseases.
- It encourages healthcare professionals and mental health specialists to pay greater attention to this construct because of its potential contribution to improving patients' overall health and well-being.

Objectives of the Study

The study aims to:

- Determine the level of will to live among cancer patients.
- Examine gender differences in the will to live among cancer patients.
- Investigate differences in the will to live according to the duration of illness.

Definition of Terms

Will to Live

The **will to live** is defined as the psychological strength residing within the individual that motivates action and purposeful behavior. It is closely associated with the emotional dimension of human functioning, representing the motivation that drives individuals to act according to their values and goals. Human will is considered relative, whereas God's will is absolute and belongs solely to Him (Farghaly, 2018, p. 9).

Operational Definition

In the present study, the **will to live** refers to the total score obtained by cancer patients on the **Will to Live Scale** developed by **Sarah Hossam El-Din Mostafa Mohamed (2016)**.

Cancer

Cancer is a general term encompassing a large group of diseases that can affect virtually any part of the body. Its defining characteristic is the rapid proliferation of abnormal cells that grow beyond their normal boundaries, invade surrounding tissues, and may spread to distant organs through a process known as **metastasis**.

Previous Studies

Bornet et al. (2020) evaluated the concept of the will to live by examining its theoretical foundations and psychometric characteristics through the analysis of **25 quantitative assessment instruments**. Their findings indicated that the will to live remains high even among individuals with severe health impairments and is frequently associated with resilience and quality of life.

Bergqvist and Strang (2017) investigated the relationship between the will to live and breast cancer patients' perceptions of palliative chemotherapy. The study involved **20 women with breast cancer** and employed semi-structured interviews. The findings demonstrated that family support was positively associated with both the will to live and continued adherence to treatment.

Marques et al. (2014) examined the role of the will to live in medical decision-making among older adults. Their findings showed that negative age stereotypes weakened individuals' will to live when confronted with terminal illness, whereas positive perceptions of aging strengthened it.

Karppinen et al. (2012) conducted a **10-year longitudinal study** involving **283 older adults** to investigate whether the will to live predicted survival. Using a modified Cox proportional hazards model, they found that mortality was highest among participants wishing to live for fewer than five years, whereas those expressing a desire to live for longer periods exhibited significantly better survival rates. The will to live emerged as a strong predictor of longevity regardless of age, gender, marital status, or comorbid illnesses.

Lippo et al. (2012) explored the will to live as a conscious personal choice among **200 individuals experiencing severe physical illnesses**. The findings revealed overwhelmingly positive attitudes toward preserving life despite considerable suffering and emphasized the importance of maintaining the will to live during the final stages of life.

Ina et al. (2010) investigated the relationship between depression, quality of life, and the will to live among **698 postmenopausal women** from three Asian countries. Data were collected using self-report measures, a depression scale, a quality-of-life scale, and a will-to-live scale. Women with depression reported lower quality of life and lower will to live. Nevertheless, between **29.2% and 39.5%** of depressed women suffering from chronic illnesses still demonstrated a strong will to live.

Chochinov et al. (2005) examined the will to live among **189 terminally ill cancer patients**. Their descriptive study found significant associations between the will to live and existential,

psychological, and social distress, with weaker associations for physical distress. The study also demonstrated relationships between hopelessness, perceived burden on others, dignity, and the will to live.

Tataryn and Harvey (2002) sought to predict trajectories of the will to live among **168 patients with terminal illnesses** using a self-report questionnaire and a will-to-live scale. The results showed that **58%** of participants exhibited a high will to live, **11%** a moderate level, **3%** a low level, and **28%** little or no will to live. Anxiety, dyspnea, nausea, illness acceptance, duration since cancer diagnosis, and the absence of religious affiliation were identified as significant predictors of the will to live.

Al-Khashab, Naji, and Abbas (2002) investigated the relationships among psychological and social support, the will to live, and depression in **74 patients with HIV/AIDS**. Using the Beck Depression Inventory, measures of psychological and social support, and the Thematic Apperception Test (TAT), the study found significant positive relationships between social and psychological support and the will to live, as well as a significant negative relationship between the will to live and depression (Hossam El-Din, 2016, p. 121).

Bayoumi, Mohamed, and Khalil (1996) examined social support, the will to live, and pain levels among **120 patients with terminal illnesses**. Using a descriptive research design, the researchers administered measures of the will to live, social support, and perceived pain. The findings indicated that patients with stronger social support and a higher will to live experienced lower levels of pain. Moreover, no significant gender differences were found in social support, the will to live, or pain perception (Hossam El-Din, 2016, p. 124).

Commentary on Previous Studies

A review of the previous literature indicates that the principal point of convergence with the present study is the focus on the construct of the **will to live**. **Bornet et al. (2020)** evaluated 25 instruments designed to measure the will to live by examining their theoretical foundations and psychometric properties. Their findings showed that the will to live remained high even among individuals with severe health impairments, primarily because of its association with resilience and quality of life. Although both studies focused on individuals experiencing illness, the present study differs in that it specifically targeted **cancer patients**, whereas Bornet et al. investigated a broader population with serious health conditions. The two studies also differed in the assessment instruments employed.

Similarly, **Bergqvist and Strang (2017)** shared with the present study both the research topic and part of the study population, as their participants were women diagnosed with breast cancer, a subgroup represented within the current sample. However, whereas Bergqvist and Strang explored the will to live and patients' perceptions of palliative chemotherapy using **semi-structured interviews**, the present study employed a standardized **Will to Live Scale**.

Marques et al. (2014) also examined the will to live but focused on medical decision-making among older adults. Consequently, the major difference between their work and the present study lies in the study population, which consisted exclusively of older adults regardless of disease status. The common element between the two studies is the investigation of the will-to-live construct.

In contrast, **Karppinen et al. (2012)** differed substantially from the present study except for the shared focus on the will to live. Their research was a **10-year longitudinal study** involving older

adults and sought to examine the relationship between the will to live and long-term survival using a Cox proportional hazards model.

The study conducted by **Lippo et al. (2012)** addressed the same psychological construct examined in the present research. Nevertheless, it differed in its objective, which was to investigate the will to live as a **conscious personal choice**. Their study involved 200 individuals experiencing serious physical illnesses and utilized a will-to-live questionnaire. Their findings emphasized the importance of maintaining the will to live among individuals approaching the end of life.

Likewise, **Ina et al. (2010)** shared the same primary variable but differed in its inclusion of **depression** and **quality of life** as additional variables. Furthermore, their sample consisted of **698 postmenopausal women**, and data were collected using depression, quality-of-life, and will-to-live scales, together with self-report questionnaires.

Among all previous investigations, the study by **Chochinov et al. (2005)** demonstrated the greatest similarity to the present research. Both studies examined the **will to live**, focused on **cancer patients**, and adopted a **descriptive research design**. The principal distinction lies in the study population, as Chochinov et al. investigated patients with **advanced-stage cancer**, whereas the present study included patients with different stages and types of cancer.

Similarly, **Tataryn and Harvey (2002)** investigated the will to live among patients with life-threatening illnesses but focused specifically on identifying predictors of its trajectory. Their study included **168 patients** and utilized both a self-report questionnaire and a will-to-live scale.

The study conducted by **Al-Khashab et al. (2002)** shared the descriptive methodology and the will-to-live construct with the present study. However, it differed substantially in its research objectives, as it investigated the relationships among psychological and social support, depression, and the will to live in patients with **HIV/AIDS**. Although HIV/AIDS and cancer are both potentially life-threatening conditions, the target populations differed considerably. Moreover, the researchers employed the Beck Depression Inventory, measures of psychological and social support, and the Thematic Apperception Test (TAT) with a sample of **74 patients**.

Finally, **Bayoumi, Mohamed, and Khalil (1996)** exhibited several similarities with the present investigation. Both studies focused on the will to live, employed a descriptive methodology, and investigated individuals suffering from life-threatening illnesses. Nevertheless, Bayoumi et al. examined the relationships between the will to live, **social support**, and **pain intensity**, using three instruments: a social support scale, a will-to-live scale, and a pain perception scale administered to **120 patients**.

Theoretical Background

Concept of the Will to Live

The **will to live** has been defined as the desire and determination to continue living, reflecting the fundamental meaning, value, and quality of an individual's life. This desire is particularly evident among individuals suffering from terminal illnesses, such as patients with advanced cancer, whereas healthy individuals often fail to appreciate the value of life to the same extent (Khan et al., 2010, p. 524).

According to **Joana Neto et al. (2021)**, the will to live is the psychological expression of an individual's desire to continue living. It is grounded in cognitive processes, whereby the will to live reflects how individuals perceive the meaning and value of life (Neto et al., 2021, p. 1).

Fidelindo and O'Leary (2016) define the will to live as an unconscious drive for survival. However, it extends beyond mere biological survival, as it is closely associated with optimism and the preservation of the self, both of which constitute fundamental components of an individual's motivation to live (Fidelindo & O'Leary, 2016, p. 32).

The foregoing definitions demonstrate that scholars have approached the concept of the will to live from different theoretical perspectives. Some emphasize the **meaning and value of life** as the primary source of persistence, particularly among individuals with terminal illnesses. Others focus on the **cognitive dimension**, viewing the will to live as a product of individuals' interpretations and evaluations of life. In contrast, Fidelindo and O'Leary conceptualize it as an **unconscious motivational force**, highlighting the central roles of optimism and self-preservation.

Based on these perspectives, the **will to live** may be understood as a psychological motivational force that drives individuals to continue living and to confront threats to their existence, particularly serious illnesses. In many cases, this motivation becomes even stronger among individuals diagnosed with life-threatening diseases such as cancer.

1. Factors Affecting the Will to Live

4.1 Psychological and Social Factors

Psychological and social factors play an important role in maintaining the will to live because they are associated with fundamental indicators such as self-esteem, social relationships, and a sense of meaning in life. Numerous studies have demonstrated that feelings of hopelessness and perceiving oneself as a burden to others are closely related to the will to live (Khan, Wong, et al., 2020, p. 524). Furthermore, psychological factors have been shown to influence, in one way or another, the dynamics through which patients move toward or away from the desire to continue living until death (Chochinov, Huck, et al., 2005, p. 7).

Neto also reported that indicators of a diminished will to live are strongly associated with depression, anxiety, psychosomatic disorders, and loneliness (Neto, Pinto, et al., 2021, p. 1).

4.2 Social Support

Based on the premise that human beings are inherently social, numerous studies have shown that social support contributes significantly to individuals' emotional well-being, particularly among those suffering from life-threatening illnesses such as cancer. Nevertheless, some patients experience feelings of rejection, abandonment, or loss of dignity resulting from their unavoidable dependence on others, which may even lead to suicidal thoughts. This tendency is particularly evident among individuals characterized by compulsive self-reliance, who perceive dependence on others as a threat (Khan, Wong, et al., 2020, p. 524).

Accordingly, the purpose of social support is to promote positive interaction in which individuals with life-threatening illnesses actively provide and receive both emotional and material support. This type of support can be reflected in the quantity, quality, and functions of social relationships (Kira & Shuwiekh, 2022, p. 353).

4.3 Religiosity and Spirituality

Many scholars emphasize that religiosity and spirituality play an essential role in protecting individuals from psychological disorders and constitute a protective factor against depression. Furthermore, an individual's ability to create meaning and purpose in life is fundamentally rooted in spirituality and religious beliefs (Khan, Wong, et al., 2020, p. 524).

Islam was among the earliest and most influential traditions to emphasize this principle by establishing faith as the foundation from which emotions and behaviors originate.

4.4 Age and Stage of Life

Old age represents a stage characterized by physical decline, the fading of youth, the onset of illness, and the approach of death (Ibrahim, 1968, p. 149).

In this context, Levy and colleagues reported a relationship between self-perceptions of aging and longevity. Their findings indicated that positive perceptions of aging increase the likelihood of maintaining a stronger will to live and, consequently, improve the chances of survival (Levy, Slade, et al., 2002, p. 100).

Similarly, other studies have found that the will to live varies according to age among individuals suffering from life-threatening illnesses. Younger patients tend to experience greater anxiety concerning their daily activities, relationships, and responsibilities toward their children, resulting in higher anxiety levels that strengthen their desire to continue living. In contrast, older adults often experience a greater sense of accomplishment in fulfilling their life goals, leading to lower levels of anxiety and, consequently, a weaker will to live. Nevertheless, the same studies suggested that the presence or absence of the will to live may also depend on the patient's acceptance of the illness itself (Khan & Wong, 2010, p. 525), a topic discussed in the following section.

4.5 Disease- and Treatment-Related Factors

Among individuals suffering from life-threatening illnesses, particularly cancer, severe pain is one of the most distressing complications of the disease. Such pain may have profound psychological consequences, ultimately reducing patients' will to live (Khan & Wong, 2010, p. 525).

Several researchers have emphasized the importance of informing patients about treatment procedures and stages, as this helps them become better prepared to cope with treatment-related side effects. It also enables them to develop more realistic expectations, achieve greater psychological balance, strengthen their desire to live, and reinforce their will to continue life (Bergqvist & Strang, 2017, p. 1168).

Weisman and Worden referred to this psychological and physical suffering as an "**existential plight**," whereby individuals perceive their existence to be threatened by severe and uncontrolled pain. Consequently, some patients seek an immediate solution to eliminate their suffering through euthanasia.

Therefore, promoting the will to live among these patients requires special attention to alleviating both their psychological distress and physical suffering.

Pilot Study Sample

Table (1): Characteristics of the Pilot Study Sample

Study Variables	Categories	Frequency	%
Gender	Male	22	27.5
	Female	58	72.5
Duration of Illness	Less than one year	55	68.75
	More than one year	25	31.25

Table (1) shows the characteristics of the pilot sample. Regarding **gender**, female cancer patients constituted the larger proportion of the sample, accounting for **72.5%**, whereas males represented **27.5%**.

With respect to the **duration of illness**, patients who had been diagnosed with cancer for **less than one year** represented **68.75%** of the sample, which is considerably higher than those who had been living with the disease for **more than one year**, who accounted for **31.25%**.

Main Study Sample

The main study sample was selected using a **purposive sampling technique** and consisted of **100 patients diagnosed with various types of cancer**.

Study Setting: Al-Zahrawi Hospital, Medical Oncology Department, M'Sila Province, Algeria.

Study Period: The field study was conducted between **April and June 2026**.

The following tables present the characteristics of the main study sample according to **gender** and **duration of illness**.

Table (2): Characteristics of the Main Study Sample by Gender

Study Variable	Category	Frequency	%
Gender	Male	29	29.0
	Female	71	71.0
Total		100	100.0

As shown in Table (2), the main study sample consisted of both males and females, with **71.0% females** and **29.0% males**. These findings indicate that female patients constituted the larger proportion of the study sample diagnosed with cancer.

Table (3): Characteristics of the Main Study Sample by Duration of Illness.

Study Variable	Category	Frequency	%
Duration of Illness	Less than one year	64	64.0
	More than one year	36	36.0
Total		100	100.0

Regarding the **duration of illness**, Table (3) shows that patients who had been diagnosed with cancer for **less than one year** constituted the largest proportion of the sample (**64.0%**), whereas those who had been living with the disease for **more than one year** represented **36.0%** of the sample. Although smaller, this latter proportion also represents a noteworthy segment of the study population.

Study Instrument

The Will to Live Scale

a. Scale Description

The **Will to Live Scale**, developed by **Sarah Hossam El-Din Mostafa Mohamed (2016)**, was used in the present study. The scale comprises **three dimensions** (Mohamed, 2016, p. 160):

- **Dimension 1: Self-Awareness** This dimension refers to an individual's awareness of themselves as a unique human being, as well as awareness of their physical, cognitive, and

psychological capacities and insight into their personal abilities. Such awareness enables individuals to recognize even their smallest actions and to take responsibility for their decisions, whether positive or negative.

- **Dimension 2: Goal Achievement** This dimension reflects the plans and strategies adopted by individuals to achieve their goals, overcome unrealistic aspirations, address obstacles that hinder goal attainment, and maintain persistence and concentration in pursuing their objectives.
- **Dimension 3: Challenge** This dimension refers to an individual's optimism about the future, trust in God and in their own abilities, positive thinking, and capacity to confront life's challenges with patience, determination, and perseverance.

b. Scale Scoring

The original scale consisted of **39 items**, each rated on a **three-point Likert scale: Agree (3), Neutral (2), and Disagree (1)**. Negatively worded items were reverse-scored. A higher total score indicates a **higher level of will to live**, whereas a lower score reflects a **lower level of will to live**.

Psychometric Properties of the Scale

Scale Validity

It should be noted that the original version of the scale contained **two items that were identical in wording (Items 31 and 34)**. These two duplicate items were removed because the original author did not provide any justification for their repetition. Furthermore, when the original 39-item version was administered and its psychometric properties were examined, both duplicated items were found to be **statistically non-significant**. Consequently, the final version of the instrument used in the present study consisted of **37 items** instead of the original 39.

1. Internal Consistency Validity

Internal consistency validity was assessed by calculating the **Pearson correlation coefficient** between the score of each item and the total score of the dimension to which it belongs. The results for each dimension are presented separately in the following tables.

Table (4): Item–Total Correlation Coefficients for the Self-Awareness Dimension

Item Order	Item No.	Correlation Coefficient
1	1	0.427**
2	2	0.572**
3	3	0.607**
4	5	0.453**
5	6	0.701**
6	8	0.298*
7	14	0.557**
8	16	0.745**
9	20	0.621**
10	21	0.518**
11	23	0.737**
12	25	0.713**

13	26	0.838**
14	27	0.606**
15	28	0.767**
16	30	0.477**
17	31	0.662**
18	36	0.488**
19	37	0.568**

Note: Significant at the 0.01 level.

Significant at the 0.05 level.

The results presented in Table (4) indicate that the **item–total correlation coefficients** for the **Self-Awareness** dimension ranged from **0.298 to 0.838**. All coefficients were statistically significant at either the **0.01** or **0.05** significance level, indicating satisfactory internal consistency and providing evidence for the construct validity of this dimension.

Internal Consistency Validity of the Second Dimension

Table (5): Item–Total Correlation Coefficients for the Goal Achievement Dimension

Item Order	Item No.	Correlation Coefficient
1	15	0.584**
2	29	0.205
3	13	0.462**
4	12	-0.028
5	19	0.656**
6	7	0.157
7	9	0.550**
8	11	0.458**

Note: Significant at the 0.01 level.

The results presented in Table (5) indicate that all items of the **Goal Achievement** dimension showed statistically significant correlations with the total dimension score at the **0.01** level, with the exception of **Item 29**, **Item 12**, and **Item 7**, which yielded non-significant correlation coefficients. Accordingly, these three items were removed prior to administering the scale in the main study.

Internal Consistency Validity of the Third Dimension

Table (6): Item–Total Correlation Coefficients for the Challenge Dimension

Item Order	Item No.	Correlation Coefficient
1	18	0.624**
2	24	0.668**
3	17	0.289*
4	10	0.622**

5	22	0.544**
6	34	0.602**
7	35	0.552**
8	32	0.388**
9	4	0.079
10	33	0.632**

Note: Significant at the 0.01 level.

Significant at the 0.05 level.

The results presented in Table (6) indicate that the correlation coefficients for all items of the **Challenge** dimension were statistically significant, with most items significant at the **0.01** level and **Item 17** significant at the **0.05** level. However, **Item 4** yielded a very low and non-significant correlation coefficient ($r = 0.079$). Consequently, this item was removed before administering the scale to the main study sample.

Based on the internal consistency analysis of all three dimensions, **four items (Items 4, 7, 12, and 29)** were excluded from the original scale because they did not demonstrate statistically significant item–total correlations. In addition, the **two duplicate items** that had previously been identified were also removed. As a result, the version of the **Will to Live Scale** used in the main study consisted of **33 items**, reduced from the original **37-item** version.

2. Extreme Groups Validity

The **extreme groups method** was also employed to examine the validity of the scale. The total scores of the pilot sample were first arranged in ascending order. Subsequently, the **upper 27%** and **lower 27%** of the distribution were selected, and the differences between the mean scores of the two groups were examined using an **independent-samples t-test**. The results are presented in the following table.

Table (7): Extreme Groups Validity of the Will to Live Scale

Will to Live	Group	n	Mean	Standard Deviation	t-value	Degrees of Freedom	Significance Level
	Lower group	16	67.06	10.241	-10.143	30	0.01
	Upper group	16	93.81	1.642			

The results presented in Table (7) indicate statistically significant differences between the mean scores of the lower and upper groups. The calculated **t-value** was **-10.143**, which was statistically significant at the **0.01** level. This finding demonstrates that the scale possesses satisfactory discriminant validity and is therefore considered a valid instrument.

b. Reliability of the Scale

To examine the reliability of the **Will to Live Scale**, two methods were employed: **Cronbach's alpha coefficient** and the **split-half reliability method**.

1. Cronbach's Alpha Reliability

As previously indicated, Cronbach's alpha coefficient was calculated to assess the internal reliability of the scale. The results are presented in Table (8).

Table (8): Cronbach's Alpha Reliability Coefficient for the Will to Live Scale

Sample	Number of Items	Cronbach's Alpha
58	33	0.903

As shown in Table (8), the **Cronbach's alpha coefficient** was **0.903**, indicating an excellent level of internal consistency and confirming the high reliability of the scale.

2. Split-Half Reliability

A second method used to assess the reliability of the **Will to Live Scale** was the split-half reliability procedure. The results are presented in Table (9).

Table (9): Split-Half Reliability Coefficients for the Will to Live Scale

Study Instrument	Reliability Coefficient	Correlation Coefficient
Will to Live Scale	0.81	0.89

Table (9) shows that the **split-half reliability coefficient** was **0.81**, indicating satisfactory reliability. The corrected reliability coefficient, calculated using the **Spearman–Brown prophecy formula**, was **0.89**, providing further evidence of the scale's high reliability.

c. Determination of Scale Levels

The levels of the **Will to Live Scale** were determined using the following formula:

$$\frac{\text{Highest Score} - \text{Lowest Score}}{3} \div \frac{\text{Highest Score} - \text{Lowest Score}}{3}$$

Accordingly, the levels of the scale were classified as follows:

- **33–54:** Low level of will to live.
- **55–76:** Moderate level of will to live.
- **77–99:** High level of will to live.

Results

Presentation of the Study Hypotheses

Before proceeding with the statistical analyses required to test the study hypotheses using the appropriate inferential statistical procedures, it was first necessary to examine whether the study variable, **will to live**, satisfied the assumption of normality.

The normality of the distribution of the **Will to Live** scores was assessed using the **Kolmogorov–Smirnov test**. The results are presented in the following table.

Table (10): Results of the Kolmogorov–Smirnov Test for Assessing the Normality of the Will to Live Variable

Variable	Kolmogorov–Smirnov Test		
	Statistic	df	p-value
Will to Live	0.149	100	0.000

The results presented in Table (10) show that the **Kolmogorov–Smirnov test** yielded a **p-value of 0.000**, which is lower than the significance level of **0.05**. This indicates that the scores of the **Will to Live** variable are **not normally distributed**. Consequently, the assumption of normality was violated, and **non-parametric statistical tests** were employed to test all hypotheses related to this variable.

The following figure illustrates the distribution of the **Will to Live** scores among the study participants.

Presentation of the Results

Results of the First Hypothesis

The first hypothesis stated that:

The level of will to live among cancer patients is high.

To test this hypothesis, the **mean** and **standard deviation** of the participants' scores on the **Will to Live Scale** were calculated and compared with the theoretical mean of the scale. The results are presented in Table (11).

Table (11): Mean and Standard Deviation of the Will to Live Scale Scores

Variable	Theoretical Mean	Mean	Standard Deviation
Will to Live	33	84.37	10.180

As shown in Table (11), the **theoretical mean** of the scale was **33**, whereas the **observed mean** was **84.37** with a **standard deviation of 10.180**. Furthermore, according to the predefined scale levels (**33–54 = Low**, **55–76 = Moderate**, **77–99 = High**), the obtained mean falls within the **high** category (**77–99**). Therefore, the **first hypothesis was supported**, indicating that cancer patients exhibited a **high level of will to live**.

Results of the Second Hypothesis

The second hypothesis stated that:

There are statistically significant differences in the level of will to live according to gender (male/female).

To test this hypothesis, the **Mann–Whitney U test** was performed, and the **Z statistic** was calculated to examine differences in will to live scores between male and female participants.

Table (12): Mann–Whitney U Test Results for Gender Differences in Will to Live

Gender	n	Mean Rank	Z	p-value
Male	29	52.93	-0.536	0.592
Female	71	49.51		

The results presented in Table (12) show that the **mean rank** was **52.93** for males and **49.51** for females. The **Z value** was **-0.536**, with a **p-value of 0.592**, indicating that the difference between males and females was **not statistically significant**. Therefore, the **second hypothesis was not supported**, suggesting that **gender does not significantly influence the level of will to live among cancer patients**.

Results of the Third Hypothesis

The third hypothesis stated that:

There are statistically significant differences in the level of will to live according to the duration of illness.

To test this hypothesis, the **Mann–Whitney U test** was also employed to compare participants who had been diagnosed for **less than one year** with those diagnosed for **more than one year**.

Table (13): Mann–Whitney U Test Results for Differences in Will to Live According to Duration of Illness

Duration of Illness	n	Mean Rank	Z	p-value
Less than one year	46	49.34	-0.370	0.711
More than one year	54	51.49		

As shown in Table (13), the **mean rank** was **49.34** for patients diagnosed for **less than one year** and **51.49** for those diagnosed for **more than one year**. The **Z value** was **-0.370**, with a **p-value of 0.711**, indicating **no statistically significant difference** between the two groups. Consequently, the **third hypothesis was not supported**, suggesting that the **duration of illness does not significantly affect the level of will to live among cancer patients**.

Discussion of the First Hypothesis

The findings presented in **Table (11)** indicate a **high level of will to live among cancer patients**. This finding is consistent with the study by **Bornet et al. (2020)**, which reported that the will to live remains high even among individuals experiencing severe health impairment. Likewise, the study by **Ina et al. (2010)** found that **29.2%–39.5%** of postmenopausal women suffering from depression still demonstrated a strong will to live despite having chronic illnesses.

The present findings are also consistent with those of **Tataryn and Hervey (2002)**, who reported that **58%** of patients exhibited a high will to live, whereas only **28%** demonstrated a very low level of will to live.

This result can be explained by the nature of the illness itself. In this regard, **Khan, Wong, et al. (2010)** defined the will to live as a psychological tendency that is often particularly strong among

individuals suffering from life-threatening diseases such as advanced cancer. In contrast, healthy individuals may not fully appreciate the value of life in the same way.

The findings may also be interpreted in light of the psychological and social factors that enhance the will to live, including self-esteem, social relationships, and a sense of meaning and purpose in life.

Furthermore, many researchers emphasize the importance of spirituality. This is particularly relevant within the Islamic faith, which encourages patience, hope, and perseverance while discouraging despair. Allah Almighty says:

"And do not despair of relief from Allah." (Qur'an, Surah Yusuf, Verse 87)

Ibn Kathir interpreted this verse as meaning that believers should never lose hope in Allah's mercy (Ibn Kathir, 2005, p. 1525). Likewise, the Prophet Muhammad (peace be upon him) said:

"How wonderful is the affair of the believer! Indeed, all of his affairs are good for him... If something good happens to him, he is grateful, and that is good for him; and if hardship befalls him, he is patient, and that is good for him." (Narrated by Muslim)

This spiritual dimension was clearly reflected during data collection. Nearly all participants repeatedly expressed similar sentiments, such as:

"Death is in God's hands, not in the disease. Cancer cannot kill me unless Allah wills it. This illness is only a test, so I will remain patient, pray to Allah, and, God willing, I will recover and return to my normal life."

These observations suggest that spiritual faith and trust in God play a significant role in strengthening cancer patients' will to live.

Discussion of the Second Hypothesis

The results presented in **Table (12)** indicate **no statistically significant differences between male and female cancer patients in their will to live.**

This finding is consistent with the study conducted by **Bayoumi, Mohamed, and Khalil (1996)**, which reported no gender differences in the will to live among patients with terminal illnesses. Similarly, **Hardman and Alonso (2010)** found no statistically significant differences between males and females. Likewise, **Karpping et al. (2012)** concluded that the will to live is a strong predictor of survival regardless of gender.

However, the present findings differ from those reported by **Svedberg et al. (2013)**, who found statistically significant gender differences favoring males. They also differ from the findings of **Al-Khalil (2020)**, which showed significant differences favoring females.

These findings may be explained by the perspective of **Ibrahim Kira and colleagues**, who described the will to live as **"the central and innate motivation for existence, survival, and continued life"** (Kira et al., p. 353). From this perspective, the instinct for survival constitutes the fundamental core of the will to live and exists equally in both men and women.

Similarly, some scholars argue that the will to live comprises two complementary dimensions. The first is an instinctive physiological component aimed at restoring equilibrium, while the second is a cognitive component through which individuals recognize the value of their lives and strive to preserve them. Neither dimension is inherently related to gender but rather reflects the universal human desire to continue living.

These theoretical perspectives were supported by field observations. During interviews with both male and female participants, none suggested that belonging to a particular gender influenced their desire to live. Rather, all participants consistently expressed a strong desire to continue living.

Discussion of the Third Hypothesis

The results shown in **Table (13)** indicate **no statistically significant differences in the will to live between patients diagnosed for less than one year and those diagnosed for more than one year**. These findings are consistent with those of **Lippo et al. (2012)**, who found that participants maintained highly positive attitudes toward life despite the challenges associated with illness, including disease duration. Likewise, **Harvey, Max Chochinov, et al. (1999)** reported that patients' will to live remained relatively stable throughout different stages of illness.

In contrast, **Tataryn and Hervey (2002)** suggested that the will to live fluctuates considerably across different stages of disease progression.

Some researchers have argued that prolonged illness may generate feelings of rejection, abandonment, or loss of dignity due to increasing dependence on others. Such feelings may, in some individuals, contribute to suicidal ideation, particularly among those characterized by compulsive self-reliance, who perceive dependency as a threat (Khan, Wong, et al., 2020, p. 524).

The present findings may be explained by the fact that the will to live represents a psychological commitment to life and a continued desire to survive regardless of the duration of illness. Although prolonged illness may increase the likelihood of depression, **Helena and Maria** emphasized that depression does not necessarily imply a loss of the will to live, highlighting the importance of self-perception and psychological resilience.

Furthermore, many researchers have emphasized the importance of appropriate treatment planning and effective patient education. Such interventions help patients better understand and accept the side effects associated with prolonged treatment, develop more realistic expectations, achieve greater psychological adjustment, and ultimately strengthen their desire and determination to continue living (Bergqvist & Strang, 2017, p. 1168).

Conclusion

This study was based on an important and fundamental psychological construct, namely the **will to live**, given its close relationship with cancer, a life-threatening disease that has become increasingly prevalent at an alarming rate across different age groups and among both sexes.

The will to live is a construct that becomes particularly salient among individuals suffering from terminal illnesses such as cancer because they experience a direct threat to their lives. Consequently, they tend to value every moment of life and often face profound challenges that heighten their awareness of life's significance. In contrast, healthy individuals are frequently immersed in the routines and demands of daily life, leading them to take life for granted and consequently reducing their awareness of the importance of the will to live.

Based on the quantitative data obtained through the **Will to Live Scale**, several findings emerged and were interpreted in light of the available theoretical and empirical literature, previous studies, and the field observations collected during the research. The main findings of the study can be summarized as follows:

The **first hypothesis** was supported, revealing a **high level of will to live among cancer patients**. The sample obtained a mean score of **84.37** with a standard deviation of **10.180**. According to the scale's classification, this mean falls within the range of **77–99**, indicating a high level of will to live. The interpretation of this finding suggests that one of the strongest factors influencing the will to live is the **spiritual dimension**, which has been emphasized by numerous researchers. This was clearly observed during the fieldwork, both through patients' expressions of determination to continue living and their resilience in confronting their illness, and through interviews with the psychologists working in the oncology department. These professionals explained that when counseling newly diagnosed patients, they often begin by addressing the spiritual dimension, reminding patients that illness is, first and foremost, a test from God, and that the appropriate response is patience, perseverance, and commitment to medical treatment while maintaining hope for recovery through God's will.

Regarding the **second hypothesis**, the findings indicated **no statistically significant differences in the will to live according to gender (male/female)**. One possible explanation is the nature of the disease itself. As suggested by **Khan, Wong, et al.**, life-threatening illness tends to strengthen the will to live regardless of gender, whereas healthy individuals often have a diminished appreciation of life's value because they are not directly confronted with the prospect of mortality. During the field study, both male and female participants frequently described cancer as the primary reason they had become more committed to life and had begun setting new personal goals that they had never considered before becoming ill.

With regard to the **third hypothesis**, the results showed **no statistically significant differences in the will to live according to the duration of illness (less than one year versus more than one year)**. This finding may be explained by the nature of the will to live itself as a cognitive and psychological construct representing the profound internal motivation that drives individuals to preserve their lives regardless of how long they have been living with the disease. It encourages them to pursue their goals, overcome challenges, and endure the hardships associated with illness. In this sense, the will to live constitutes an inner psychological force that motivates individuals to continue moving forward, maintain their health, confront pain and adversity with patience, and strive toward recovery and survival.

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