

Post-Traumatic Stress Responses among Adults with Life-Threatening Illness: Patients with Cancer

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Abstract

Background: Cancer is a major public health problem that affect patients to suffer symptoms of post-traumatic stress anytime **Aim:** The aim of this study was to explore the post-traumatic stress responses among adults with life-threatening illness: patients with cancer. **Design:** A descriptive research design was utilized to achieve the aim of the study. **Setting:** This study was conducted at Oncology unit at Benha University Hospital, Qalubia Governorate. **Sample:** A convenience sample consisted of 100 patients with cancer. **Tools:** Two tools were utilized. Tool (1): Structured interview questionnaire. Tool (2): Post-traumatic stress responses questionnaire. **Results:** More than half of the studied patients had high level of post-traumatic stress responses toward self and society, Also more than half of studied patients had high level of post – traumatic stress responses toward future and effects of disease on activities of daily living. **Conclusion:** There is highly significant positive correlation between patients' feeling toward self and their feeling toward society, future and effects of disease on activities of daily living. **Recommendations:** Stress management program for patients about how to coping with stressors.

Key words: Cancer, Life threatening illness, Post – traumatic stress

Introduction

Cancer is a major public health problem worldwide and is the second leading cause of death in the United States. Cancer have severed effect on Physical and psychosocial condition. The distress levels may depend on the type and stage of cancer in many peoples' minds, a cancer diagnosis means death. Cancer causes great fear and is often a life changing event associated with Physical, psychosocial morbidity and affecting on interpersonal relationships, socio-occupational functioning. and financial situation. Grief and loss are key issues and the extent to which an individual feels supported by friends and family (**Parker, 2021**)

There are many stressors that face patient with threatening illness including the fear of recurrence and possible death, bodily changes, stress of informing family members , and the stress associated with being informed

that their life is going to be drastically changed. Disruption, social stigmatization , side effected of treatment , and other stressors more specific to the disease and treatment are also pertinent (**Torres and pace, 2018**).

Post-Traumatic Stress Disorder (PTSD) is an anxiety disorder that may affect individuals who have suffered a traumatic event as cancer in which is experience with reliving the moment: Intense memories of the time around the diagnosis, especially if accompanied by symptoms like heart palpitations, sweating, uncontrollable shaking, Avoidance: Going to lengths to stay away from places or people that remind of traumatic event, feeling generally detached from others, Increased arousal: Feeling easily startled or angered, being unable to sleep or concentrate (**Lia, 2021**).

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Post-traumatic stress response is a mental health condition occurs in people who have experienced highly traumatic event, witnessed a traumatic event as watching a friend die an atrocious death, or been repeatedly exposed to stories about traumatic event involve threats of Being diagnosed with and treated for cancer is highly stressful and potentially traumatic. Emotional responses to this experience can range from acute fear, sadness, and anger to enduring adjustment difficulties, anxiety, and depression. Post-traumatic stress disorder (PTSD) is a death or serious injury to self and others (**Andrea et al, 2020**).

Post-traumatic stress response symptoms is described as acute when the symptoms begin shortly after the traumatic experience within one month of traumatic event but chronic symptoms not appear until years after the event. These symptoms cause significant problems social or work situations and in relationships. Post-traumatic stress response symptoms characterized by intrusive memories include recurrent unwanted distressing memories of the traumatic event refer to reliving the traumatic event as if it were happening again (**Preston et al, 2020**).

Common responses to serious illness include anger, worrying about the future, felling hopeless, a sense of isolation, feeling cut of from friends and loved ones. Emotion are important to human survival it's argued that most patients will have an emotional response to their illness but anxiety and depression are unlikely to be representative of most patients experience. Emotional reaction to illness is normal and that motions expressed are likely to hold clues to individual adaptation (**Thoresen , 2018**).

Oncology nurses, play an important role in assisting patients in all of these areas. Although nurses are not able to control the disease, they still can provide support in

controlling patients' responses to the illness and education about the disease and its treatment. Education will provide patients with the control necessary to deal with side effects and will help them to make the best decisions. Providing education enhances emotional support and fosters the development of a trusting relationship with patients. Helping patients to confront intense and confusing emotions is a key role for nurses and is an important component of the nurse/patient relationship (**Engstrom et al., 2021**)

Significance of the study

Cancer is consider one of the threatening illness that cause chronic stress, cancer diagnosis is a traumatic experience that leads to emotional distress such as depressive symptoms and in cancer patients, psychological problems persist and can cause an additional burden during treatment .studies for the patients with various types of life threatening event reported the need to restructure their life goals and priorities, studies show that the full diagnostic criteria for post-traumatic stress disorder are seen in 3 to 4% of newly diagnosed early stage cancer patients and up to 35% who have completed treatment (**Park et al., 2021**).

Aim of the study:

The study aimed to explore the post -traumatic stress responses in adults with life-threatening illness : patients with cancer.

Research Question:

What are the post -traumatic stress responses in adults with life-threatening illness : patients with cancer ?

Subject and methods

Research design :

Descriptive study design was utilized to fulfill the aim of this study

Research setting:

This study was carried out at the Oncology unit at Benha University Hospital, in Benha City, Qalubia governorate. This unit is located

in the Medicine Department, it contain2 wards (one male and one female) which have critical room and chemotherapy room. Work in this unit 30 nurses and 7 physicians. .It works 7days /week, 24 hours/ day. It provides health care services to Qalubia, Menofia, Dahlia and El-sharkia governates.

Sampling:-

Sample technique:

All numbers of patients at above mentioned setting were 100 patients diagnosed with cancer.

Inclusion criteria.

1. Age:25-45 years old.
2. Both sex.
3. Patients have chronic illness (cancer).
4. Patients willings to participate in the study.

Tools of data collection:

In order to fulfill the aim of the study ,the data was collected by using the following tools.

Tool I :Structured Interview Questionnaire:

The questionnaire was developed by the researcher based on scientific review of literature to assess the following parts:

Part (1) :Socio-demographic data: to elicit data about patients characteristics such as(age, sex, residence, educational level, employment, marital status, monthly income and number of family members).

part (2) :Clinical data: which includes (diagnosis, time of diagnosis, time of hospitalization, kind of medicine, times of follow up, family history, side effects of treatment and taking treatment regularly)

Tool II :Post-Traumatic Stress Responses Questionnaire:

This questionnaire was originally developed by(Mohamed, 2006)to assess the post-traumatic stress responses, it include **four** subscales (31 questions) to assess the following

The first subscale was developed to assess the personal feeling toward self (11 questions).

The second subscale was developed to assess the personal feeling toward society(8 questions).

The third subscale was developed to assess the personal feeling toward future(7questions).

The fourth subscale was developed to assess the effects of disease on activities of daily living(5questions).

Scoring system :

Positive response will scored 3 while neutral will scored 2 and negative response will scored 1

Total Scoring system :

Low post – traumatic stress response = (1 – 31)

Moderate post- traumatic stress response = (32-62)

High post- traumatic stress response = (63 – 93)

Validity and reliability

To achieve the criteria of trustworthiness of the data collection tools in this study, tools were tested and evaluated for content validity. Arabic translation was done by the researcher for tools of the study and tested for their translation .Content validity was tested by five experts in Psychiatric Mental Health Nursing in Faculty of Nursing at Benha University. According to their opinions modifications were done and the final form was developed. The modification were (modify some words to give the right meaning of the phrase).

Reliability of the tool:

Test the Reliability of the tools through alpha cronbach reliability analysis

Tool	Alpha Cronbach
Post – traumatic stress responses questionnaire	0.824

Reliability of the tool was applied by the researcher for testing the internal consistency of the tools, by administration of the same subjects under similar conditions on one or more occasions .To ascertain relevance, clarity and completeness of the tools, experts elicited

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responses, which were either agree or disagree for the content reliability.

Ethical consideration:-

The objective and aim of the study were clarified by the researcher to every participant in the study, written consent obtained from each student before conducting the interview; and given them a brief orientation to the purpose of the study. The subjects who agreed to participate in the study were assured about the confidentiality of the study. They were informed that they could withdrawal from the study at any time.

Pilot study:

The purpose of the pilot study was to test the applicability, feasibility and clarity of the tools. In addition, it served to estimate the approximate time required for interviewing the patients as well as to find out any problems that might interfere with data collection. A pilot study was under taken after the adaptation of the tools and before starting the data collection. It was conducted on 10% (10 patients) .After obtaining the result of the pilot study, the necessary modifications of tools were done then final format was developed under the guidance of supervisors. Patients who participated in the pilot study were excluded in the main study sample.

Fieldwork:-

The study was started and finished through the following steps:

- The researcher introduced herself to the patients.
- The researcher explained the aim of the study to every one of them.
- oral consent was taken from every one of them before data collection.
- The actual filed work was carried out in about 3 months from first of September 2020 to the end of November 2020, 2days/week, (Saturday and Tuesday) , from 10 am

to 12 pm, nearly from(8-9 patients) per week.

- An individual interview conducted for every participant to collect the necessary data using the tools for data collection. The average time needed for this sheet was around (25-30) minutes.

Statistical analysis:

All data collected were organized, coded, computerized, tabulated and analyzed by using statistical package for social science (SPSS) programs version 20. Data were presented using descriptive statistics in the form of frequencies and percentage for categorical data, the arithmetic mean (X) and standard deviation (SD) for quantitative data. Qualitative variables were compared using chi square test (X²), P-value to test association between two variables and R- test to the correlation between the study variables.

Degrees of significance of results were considered as follows:

- P-value > 0.05 Not significant (NS)
- P-value ≤ 0.05 Significant (S)
- P-value ≤ 0.01 highly statistically Significant (HS).

Results:

Table (1): Shows, socio-demographic data of the studied patients: less than two-thirds (60%) of the studied patients, their age range between 35-45 years, the Mean SD of age is 34.9±7.30 year. As regard to gender and marital status, less than two-thirds (62%) and three quarters (75%) of the studied patients are male and married, respectively. Regarding residence, more than two-thirds (68%) of them residing in rural areas. Also, less than two-thirds (60%) of the studied patients have secondary education. Likewise, about three quarters (74%) of the studied patients are working. Moreover, less than two-thirds (62%) of the studied patients have not enough monthly income. Related to number of family members, less than two-thirds (60%) of the studied patients have 3 -< 5 family members.

Table (2): Illustrates that, less than half (42%) of the studied patients are diagnose with leukemia. Also, less than half (45%) of them are diagnose with cancer from 6 months to less than a year. Likewise, more than half (52%) of the studied patients hospitalize three times previously. Moreover, less than two-thirds (65%) of the studied patients are treat with chemotherapy. Also, less than two-thirds (63%) of them are follow up more than three times. Likewise, more than half (52%) of the studied patients have family history of cancer. In addition, the vast majority (92%) of the studied patients have side effects of treatment that affect physical fitness, two-thirds of them suffer from headache. Furthermore, all (100%) of the studied patients taking treatment regularly.

Figure (1): Shows that, more than half (55%) and half (50%) of the studied patients have high level of post - traumatic stress responses toward self and society, respectively. Also, more than half (60%) and less than half (42%) of them have high level of post- traumatic stress responses toward future and effects of disease on activities of daily living, respectively.

Figure (2): Shows that, more than half (52%) of the studied patients have high level of post-traumatic stress responses. In addition,

slightly more than one-quarter (26%) of them have moderate level. While, slightly more than one-fifth (22%) of them have low level of post-traumatic stress responses .

Table (3): Reveals that, there is high statistically significant relation between patients' post-traumatic stress levels and their socio-demographic characteristics as education level and monthly income at ($P = < 0.01$). In addition, there is statistically significant relation with their age and marital status at ($P = < 0.05$). While, there is no statistically significant relation with their gender, residence and employment at ($P = > 0.05$).

Table (4): Shows that, there is high statistically significant relation between patients' post-traumatic stress levels and their clinical data as time of diagnosis, times of hospitalization and family history of cancer at ($P = < 0.01$). In addition, there is statistically significant relation with their times of follow-ups and side effects of treatment at ($P = < 0.05$). While, there is no statistically significant relation with their diagnosis and kind of medicine at ($P = > 0.05$).

Table (5): Shows that, there is highly significant positive correlation between patients' feeling toward self and their feeling toward society, future and effects of disease on activities of daily living at ($P = < 0.01$).

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Table (1): Number and percentage distribution of the studied patients according to their socio-demographic characteristics.

Socio-demographic characteristics (n=100)	N	%
Age (year)		
25-<30	12	12
30-<35	28	28
35-45	60	60
Mean SD	34.9±7.30	
sex		
Male	62	62
Female	38	38
Residence		
Rural	68	68
Urban	32	32
Education level		
Illiterate	8	8
Read and write	14	14
Secondary education	60	60
High education	18	18
Employment		
Working	74	74
Not working	26	26
Marital status		
Single	21	21
Married	75	75
Divorced	2	2
Widowed	2	2
Monthly Income		
Enough	38	38
Not enough	62	62
Number of family members		
< 3	8	8
3-<5	60	60
≥ 5	32	32

Table (2): Number and percentage distribution of the studied patients according to their clinical data.

Clinical data (n=100)	N	%
Diagnosis		
Leukemia	42	42
Breast cancer	26	26
Liver cancer	10	10
Colon cancer	18	18
Other	4	4
Time of diagnosis		
From a month to 6 months	22	22
From 6 months to less than a year	45	45
From a year to less than 2 years	25	25
From 2 years to more	8	8
Times of hospitalization		
Once	8	8
Twice	22	22
Three times	52	52
More than three times	18	18
Kind of medicine that you have taken		
Chemotherapy	65	65
Radiation	20	20
Chemotherapy and Radiation	15	15
Times of follow-ups.		
Once	5	5
Twice	12	12
Three times	20	20
More than three times	63	63
Family history of cancer		
Yes	52	52
No	48	48
Side effects of treatment that affect physical fitness.		
Yes	92	92
No	0	0
Sometimes	8	8
(*) If yes, what is side effects?		
Insomnia	58	58
Headache	67	67
Hypotension	14	14
Blurred vision	32	32
Taking treatment regularly		
Yes	100	100
No	0	0.0

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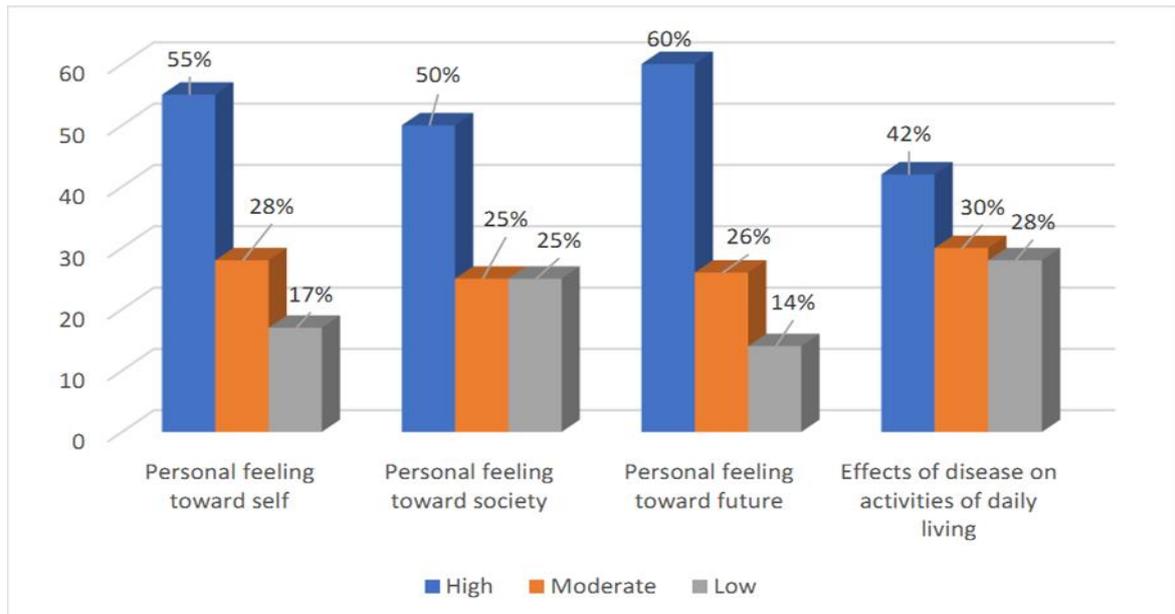


Figure (1): distribution of the studied patients according to total post-traumatic stress subscales (n=100).

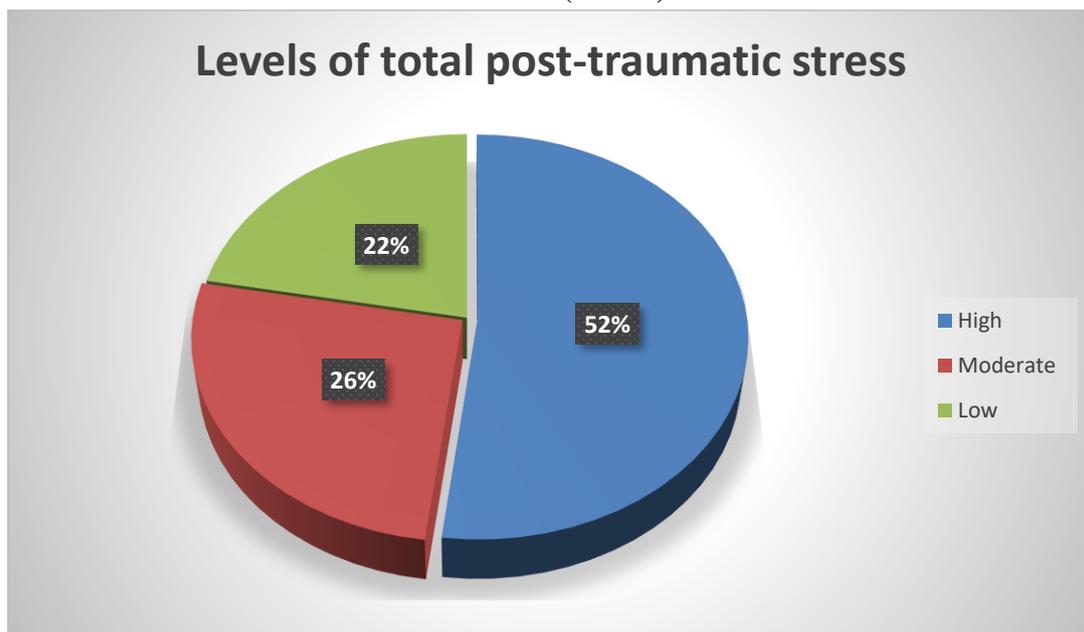


Figure (2): distribution of the studied patients according to total post-traumatic stress (n=100).

Table (3): Relation between patients' socio-demographic characteristics and their levels of total post-traumatic stress (n=100).

Items		Levels of total post-traumatic stress						X ²	P-Value
		High (n=52)		Moderate (n=26)		Low (n=22)			
		N	%	N	%	N	%		
Age (year)	25-<30	10	19.2	2	7.7	0	0.0	11.30	.021*
	30-<35	14	26.9	7	26.9	7	31.8		
	35-45	28	53.9	17	65.4	15	68.2		
Gender	Male	32	61.5	16	61.5	14	63.6	2.024	.208
	Female	20	38.5	10	38.5	8	36.4		
Residence	Rural	30	57.7	18	69.2	20	90.9	3.620	.151
	Urban	22	42.3	8	30.8	2	9.1		
Education level	Illiterate	8	15.4	0	0.0	0	0.0	22.30	.000**
	Read and write	14	26.9	0	0.0	0	0.0		
	Secondary education	30	57.7	20	76.9	10	45.5		
	High education	0	0.0	6	23.1	12	54.5		
Employment	Working	42	80.8	16	61.5	16	72.7	1.963	.314
	Not working	10	19.2	10	38.5	6	27.3		
Marital status	Single	19	36.5	2	7.7	0	0.0	13.02	.011*
	Married	29	55.8	24	92.3	22	100		
	Divorced	2	3.8	0	0.0	0	0.0		
	Widowed	2	3.8	0	0.0	0	0.0		
Monthly Income	Enough	2	3.8	14	53.8	22	100	18.30	.000**
	Not enough	50	96.2	12	46.2	0	0.0		

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Table (4): Relation between patients' clinical data and their levels of total post-traumatic stress (n=100).

Items		Levels of total post-traumatic stress						X2	P-Value
		High (n=52)		Moderate (n=26)		Low (n=22)			
		N	%	N	%	N	%		
Diagnosis	Leukemia	25	48.1	10	38.5	7	31.8	2.517	.199
	Breast cancer	10	19.2	6	23.1	10	45.5		
	Liver cancer	5	9.6	3	11.5	2	9.1		
	Colon cancer	10	19.2	5	19.2	3	13.6		
	Other	2	3.9	2	7.7	0	0.0		
Time of diagnosis	1-6 months	15	28.8	7	26.9	0	0.0	15.30	.008**
	6>12 months	30	57.7	10	38.5	5	22.7		
	1year:>2years	7	13.5	9	34.6	9	40.9		
	< 2years	0	0.0	0	0.0	8	36.4		
Numbers of hospitalization	Once	8	15.4	0	0.0	0	0.0	14.20	.005**
	Twice	20	38.5	2	7.7	0	0.0		
	Three times	20	38.5	20	76.9	12	54.5		
	More than three times	4	7.7	4	15.4	10	45.5		
Kind of medicine	Chemotherapy	32	61.6	14	53.8	19	86.4	4.601	.099
	Radiation	10	19.2	7	26.9	3	13.6		
	Chemotherapy and Radiation	10	19.2	5	19.2	0	0.0		
Numbers of follow-ups	Once	5	9.6	0	0.0	0	0.0	10.62	.042*
	Twice	8	15.4	4	15.4	0	0.0		
	Three times	15	28.8	5	19.2	0	0.0		
	More than three times	24	46.2	17	65.4	22	100		
Family history of cancer	Yes	40	76.9	12	46.2	0	0.0	16.27	.001**
	No	12	23.1	14	53.8	22	100		
Side effects of treatment that affect physical fitness.	Yes	52	100	26	100	14	63.6	13.31	.013*
	No	0	0.0	0	0.0	0	0.0		
	Sometimes	0	0.0	0	0.0	8	36.4		

Table (5): Correlation between patients’ total post-traumatic stress subscales.

Post-traumatic stress subscales		Personal response toward self	Personal response toward society	Personal response toward future
Personal response toward self	r p			
Personal response toward society	r p	.432 .000**		
Personal response toward future	r p	.418 .000**	.441 .000**	
Effects of disease on activities of daily living	r p	.402 .000**	.415 .000**	.426 .000**

Discussion:

Receiving a diagnosis of cancer and undergoing its treatment together comprise an extremely stressful experience that can render individuals vulnerable to long-lasting negative psychological outcomes, including emotional distress, depression, anxiety, sleep problems, fatigue, and impaired quality of life . Cancer is commonly perceived as a life-threatening and potentially traumatic illness, perceptions exacerbated by its sudden onset and uncontrollable nature. Furthermore, cancer patients must deal with dramatic life changes to which they have to adapt throughout their treatment. (**Bedell, 2020**) The aim of this study was to explore the post –traumatic stress responses in adults with life-threatening illness(Patients with Cancer)

Concerning to patients’ age the current study revealed that less than two thirds of studied patients were aged between 35 to 45 years old, from the researcher point of view this result may related to the risk of cancer increased with middle and advanced age so it most common in elderly and this result may be related to old people exposed to carcinogenic agents more than young.

The current study agreed with **Ozbayir et al., (2019)** revealed that more than half of their studied patients were aged between 35 to 50

years old and the risk of stress associated with cancer disease increased by aging and also in accordance with **liu et al., (2020)** found that nearly half of studied patients age over 56 years.

In addition, the gender, the result of the current study showed that about two thirds of studied patients were male, the study is in the same line with **Fonseca et al., (2018)**, aimed at determining the prevalence of anxiety and depression among oncological patients initiating adjuvant treatment, they illustrated that nearly two thirds of studied patients were male.

Regarding to studied patients’ employment status, the current study indicated that nearly three quarters of studied patient were working, from the researcher point of view this may be related to the nature of the society that most people work to afford the burden of life, the study agreed with **Swartzman et al. (2020)**stated that more than two thirds of studied patients were employed. The study is incongruent with **Arnaboldi et al., (2019)**, reported that more than half of studied patients are housewives.

Concerning studied patients income the result of the current study reported that about two thirds of studied patients had insufficient monthly income which may be related to the rising of prices and treatment services, the study

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is supported by **Liu et al., (2020)** stated that nearly half of studied patients had a low income.

Concerning to marital status the result of the current study showed that three quarters of studied patients were married, from the researcher point of view this may be related to that the average age of marriage in Egypt ranging from twenty five to thirty years with variance, the study is congruent with **Seiler & Jenewein., (2019)** they revealed that more than two thirds of studied patients are married. The study is different with **Johansen et al., (2019)** they found that about half of studied sample were unmarried.

As well as, the diagnosis and type of cancer the current study illustrated that more than one third of studied patients had a leukemia and nearly two thirds of them treated by chemotherapy, from the researcher point of view this may be related to that chemotherapy is a cancer treatment modality that have a significant effect in treating and killing of cancer cell and minimizing risk for metastasis. The study was inconsistent with **Swartzman et al., (2020)** ,Stated that about one quarter of the study sample had a brain tumor but their result is agreed with same researcher in that more than one quarter of them treated by chemotherapy.

According to the time of diagnosis, the result of the current study illustrated that about half of studied patient diagnosed from six months to twelve month ago, from the researcher point of view this may be interpreted that the patient is stressed and anxious the first months after diagnosis as they are afraid and fear from disease prognosis and death, the study is agreed with **Matthew et al., (2018)** stated that most patients of their study sample diagnosed less than year ago .

Concerning to family history of cancer the result of the current study revealed that more than half of studied patients had a family history of cancer, from the researcher point of view this

may be related to that cancer has a genetic predisposition that tends to run in families so that family history is a great risk of acquiring cancer disease. The study is in the same line with **Barber et al., (2019)** They revealed that more than half of patients had a family history of cancer.

Regarding Side effects of treatment that affect physical fitness, the result of the current study revealed that most of studied patients had side effects related to the treatment, this may be the serious side effect of chemotherapy and radiotherapy such as nausea, vomiting, weight loss, psychological problems and alopecia. The study is consistent with (**Madmoli , 2019**) reported that more than three quarters of studied patients had a side effects of chemotherapy, ranging from minor side effects such as fatigue to sever complications such as post traumatic cancer depression.

Regarding to patients' post-traumatic stress subscales, the result of the current study revealed that more than half of studied patients had high level of stress toward self and society, from the researcher point of view this may be related to the effect of disease in their psychological status or the effect of treatment modalities that result in fatigue, change in appearance which may increase stress and decrease socialization.

The study is in the same manner with **Leeuwen et al., (2019)** stated that nearly two thirds of studied patients half ahigh level of post traumatic psychological stress related to impaired role function, feeling toward self and socialization.

The result of the present study also illustrated that less than half of studied patients had ahigh level of stress related to activities of daily living, from the researcher point of view this may be interpreted that some of them are tired when caring for them selves and performing their daily activities related to the

effect of disease and treatment side effects. The study is congruent with **Leeuwen et al., (2019)** they stated that they were very fatigued to care for themselves and they always need assistance in physical activities as food preparation and maintaining doctor appointments.

Concerning total post-traumatic stress, the result of the current study illustrated more than half of the studied patients had high level of post-traumatic stress and slightly more than one-quarter of them had moderate level of stress. From the researcher point of view this may be interpreted that cancer patients had a serious disease with bad prognosis, they may have stress related cancer metastasis to another site, potential loss of organ such as mastectomy or prostatectomy, they also may be afraid from complications of chemotherapy and radiotherapy or fear of death.

The result of the current study is supported by **Oliveri et al., (2019)** they revealed that most of their study sample had manifestations of psychological stress ranging from severe to moderate manifestations. Regarding to total PTSS the result of the current study disagreed with **Mathew et al.,(2018)** stated that Cancer-related PTSD has been documented in a minority of patients with cancer and their family members, it is positively associated with other indices of distress and reduced quality of life.

More over the relation between patients demographic characteristics and levels of total post-traumatic stress, the result of the current study illustrated that there was statistically significant relation between patients' post-traumatic stress levels and their their age and marital status, from the researcher point of view this younger patients are more stressed may be stressed as they are afraid from death and leaving their family and young children without financial support , also married patients had a low level of post-traumatic stress because may had support from their partner and family members. The study is agreed with **Dong et al.,**

(2019) they revealed that there was statistically significant relation between patients post traumatic stress level and their age and marital support

The result of the current study illustrated that there was highly statistically significant relation between patients' post-traumatic stress levels and their educational level and monthly income, from the researcher point of view this may be interpreted that highly educated patients had adequate knowledge about the disease so they adapted and accept the condition and its treatment also they may have enough income that provide financial support that help them to get their needs from medication and adhere to follow-up appointment. The study is agreed with **Seiler& Jenewein, (2019)** stated that were highly statistically significant difference between post traumatic psychological stress and their educational level and monthly income.

According to the relation between patients' clinical data and patients' level of total post-traumatic stress, the study illustrated that there were statistically significant relation between post traumatic psychological stress and time of diagnosis, from the researcher point of view, patients who diagnosed from several years had less stress than recently diagnosed because they became more knowledgeable about the disease and its treatment so they adapted with the disease.

There were a highly statistically significant relation between post traumatic psychological stress and family history of cancer, from the researcher point of view, those who had a family history had a high level of stress related because their family may had bad disease prognosis and treatment complications and they were stressed about acquiring such manifestations. The study is congruent with **(Navidian et al., (2020))** they revealed that there were statistically significant difference between patients stress level and duration of the disease and family history of the disease.

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More over, correlation between patients' total post-traumatic stress subscales. there was highly significant positive correlation between patients' feeling toward self and their feeling toward society, future and effects of disease on activities of daily living, this may be related to the effect of the disease and treatment on patient health condition, it produce fatigue which decrease ability to perform ADLs, and treatment may produce alopecia that result in negative feeling about self also they may be afraid from disease prognosis and possible early death.

The study is agreed with **Malathi et al., (2020)** they revealed that there was significant relation between patients' perception toward self, social activities, future, physical activities and effects of disease on activities of daily living and also in accordance with **Li& wang (2019)** they illustrated that there is strong negative correlation between post-traumatic stress response and social support and positive feeling about future.

Conclusion

Post- traumatic stress response is affect individual who have traumatic event as a cancer. The present study revealed that more than half of the studied patients had high level of post - traumatic stress responses toward self and society. Also, more than half of studied patients had high level of post – traumatic stress responses toward future and effects of disease on activities of daily living. In addition there was highly significant positive correlation between patients' post – traumatic stress responses towards self, society, future and effects on disease on activities of daily living.

Recommendations:

* Establishing of rehabilitation program for patients with cancer to enable them to deal with their problem and enhancing their quality of life.

* Psycho-educational program for all patients with cancer should be integrated as nursing intervention to overcome any distress.

* Stress management program for patients about how to coping with stressors.

* Further study should be conducted on a large number of cases at other setting in order to generalize the results

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ردود الأفعال ما بعد الصدمة للبالغين المصابين بأمراض مهددة للحياة : مرض السرطان

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اضطراب ما بعد الصدمة هو حالة صحية عقلية تحدث للأشخاص الذين تعرضوا لحدث صادم للغاية , أو شهدوا حدثاً مؤلماً أثناء مشاهدة صديق يموت ميتة مروعة , أو تعرضوا مراراً وتكراراً لقصاص حول حدث صادم يتضمن تهديدات بالتشخيص ويعد العلاج من السرطان أمراً مرهقاً للغاية ويمكن أن يسبب صدمة. يمكن أن تتراوح الاستجابات العاطفية لهذه التجربة من الخوف الشديد والحزن والغضب الى تحمل صعوبات التكيف والقلق والأكتئاب. اضطراب ما بعد الصدمة هو وفاة أو إصابة خطيرة بالنفس والآخرين. وقد أجريت هذه الدراسة بوحدة الأورام بمستشفى بنها الجامعى على 100 مريض بالسرطان حيث اتضح من النتائج أن هناك أكثر من نصف المرضى الخاضعين للدراسة لديهم مستوى عالى من اضطراب ما بعد الصدمة بالإضافة الى أكثر من ربعهم بقليل لديهم مستوى معتدل فى حين أن أكثر بقليل من الخمس منهم لديهم مستوى منخفض من اضطراب ما بعد الصدمة , كان هناك علاقة إيجابية ذات دلالة إحصائية بين شعور المرضى اتجاه الذات وشعورهم تجاه المجتمع والمستقبل وتأثيرات المرض على أنشطة الحياة اليومية. وأخيراً قد أجابت نتائج الدراسة الحالية على أسئلة الدراسة وحققت الهدف منها. وأوصت الدراسة الى إنشاء برنامج تأهيل من قبل الممرضة لمرضى السرطان لتمكينهم من التعامل مع مشكلتهم وتحسين نوعية الحياة , توعية مرضى السرطان وأسرههم بالأثار الجانبية لعلاج السرطان.