TECHNIUM
SOCIAL SCIENCES JOURNAL

Vol. 12, 2020

A new decade for social changes

www.techniumscience.com

ISSN 2668-7798

Technium Social Sciences Journal
Vol. 12, 150-159, October 2020
ISSN: 2668-7798
www.techniumscience.com

Depression in cancer patients

Vlad-Andrei David[1], Rodica- Gabriela Enache[2]

[1]Independent researcher, [2]"Ovidius" University of Constanța, Romania, Faculty of Psychology and Educational Sciences

david_vladandrei@yahoo.ro[1], rodicaenache3@gmail.com[2]

Abstract. As part of a more lengthy study major, this paper studies the prevalence of depression in cancer patients and the psychological impact that it has on them throughout the healing process. It is known as a fact that such a disease can cause damage not only to the patient's body, but also to his mind. Besides the symptoms of depression, a person that is suffering from cancer can develop other disorders. We researched certain studies that confirm this hypothesis, and as a consequence, we will try to come up with ideas to improve the methods of helping those in need of psychological aid.

Keywords. depression, anxiety, oncological diseases

I. Introduction

I.1. Depression describing

Depression (major depressive disorder) is a common and serious medical illness that negatively affects how you feel, the way you think and how you act. Fortunately, it is also treatable. Depression causes feelings of sadness and/or a loss of interest in activities once enjoyed. It can lead to a variety of emotional and physical problems and can decrease a person's ability to function at work and at home.

"**Depression** is a pathological sadness through intensity, duration, prevalence, in cases where depression is not justified by a negative event in the person's life.

People experience depression as a deep, intense, "moral" pain, each aspect loses value: life or their own person (feelings of self-depreciation appear: inability, worthlessness, guilt). The individual feels the inability to make future plans (loss of hope). He/she can no longer feel joy in the present (anhedonia appears). Attraction to the painful past (failures, mistakes) which bring out feelings of guilt.**"(Bredicean, 2014, p. 14).**

I.2. Signs and symptoms

- Persistence of sadness, anxiety
- Feelings of misery or pessimism;
- Feelings of guilt or uselessness;
- Loss of interest in or pleasure for hobbies or ordinary activities, including sex;
- Low energy, fatigue, feeling of "slowness";
- Low capacity of concentration or difficulty in decision-making;

Technium Social Sciences Journal
Vol. 12, 150-159, October 2020
ISSN: 2668-7798
www.techniumscience.com

- Permanent feelings of anger, anxiety and emptiness.
- Feelings of powerlessness;
- Feelings of guilt, helplessness and loss of one's calm;
- Loss of interest in certain activities or hobbies;
- The feeling of fatigue;
- Loss of memory and lack of concentration, and the inability of making decisions;
- Sleep disorders (insomnia or excessive sleep);
- Loss of or increase in appetite;
- Suicidal tendencies;
- Persistent pain which does stop even after treatment (headache, digestive disorders).
  - Sleep problems, waking up early in the morning or sleeping more than usual;
  - Changes in appetite and/or weight;
  - Thoughts of death or suicide, even attempted suicide;
  - Anxiety or irritability;
  - Low self-esteem;
  - Physical problems, as well as the persistent headaches, digestive disorders, chronic pain that does not respond to the usual medication. (Diagnostic and Statistical Manual of Mental Disorders V, 2016)

I.3. Types of depression

a) Major depressive disorder

The effects of major depressive disorder may cause a real handicap for the patient. It may cause disturbances in the basic physiological processes - feeding, sleep, the level of physical activity, concentration and the ability to perform certain tasks. If this is not treated properly, major depressive disorder may lead to a total loss of productivity, and functional decline and increased risk of mortality.

b) *Psychotic depression*

Psychotic depression has 3 main characteristics: deep sadness, the decrease of intellectual activity and the decrease of psych-motric abilities. The concept of "pain" is a major problem: Profound moral gloom, delirious thoughts, misery and self-loathing It is accompanied by the psycho-intelectual hypokinesis, slow thinking, high latency in drawing up responses to questions, hoarse whisper, status of physical hypokinesis (motor function): sad posture, looking down (avoiding eye contact). Following these symptoms, the person has the desire to commit suicide, but is not capable of doing so (inability of putting words into action).

Psychotic depression comes in waves, at approximately 10% of the population, frequently at the age of 40-60 years, rarely in teens. That period of occurrence is the most frequent at the end of the spring and the beginning of the summer.

Technium Social Sciences Journal
Vol. 12, 150-159, October 2020
ISSN: 2668-7798
www.techniumscience.com

Dysthymia

It has a long period of manifestation (2 years or more), but it is less severe. Persons suffering from dysthymia have a depressive disposition most of the time. They describe the mood as "sad" or "modishness", may have no interest in dealing with daily chores, having a deep feeling of helplessness.

The symptoms become a day-to-day aspect in the life of the individual, so it is seen as a part of their personality ("I have always been this way" or "It's just me"). This disorder causes the individual discomfort, strong in the field of professional or school, of social interaction or other important areas of operation.

c) Postpartum depression

Postpartum depression may appear as a symptom in mothers who just gave birth. Without treatment, postpartum depression may have a lengthy debilitating evolution. This disease is very frequent, affecting 1 of 8 women after giving birth. It may also occur spontaneously after an abortion, stillbirth or abortion. In rare cases, a woman with postpartum depression may develop psychotic symptoms which may endanger both the patient, as well as the others (postpartum psychosis).

e) The seasonal affective disorder

The seasonal depression (also called seasonal affective disorder) is, in short, a state of mental and physical discomfort associated with the change of seasons, usually in autumn and winter. One of the possible causes of the occurrence are: disturbance of the internal biological clock (circadian rhythm) or adjustment difficulties of a cerebral chemical substance, called serotonin.

The symptoms of the seasonal depression start in the autumn, reaches a maximum point in the winter and fades during spring. There is a small percentage of individuals who may suffer from this affective disorder in the summer. 70-80% of those suffering from this disorder are women around the age of 30.

f) ***Bipolar disorder (maniac-depressive)***

It is characterized by changing the cyclic statuses: anger and depression. These changes in status can be dramatic and rapid, but often they are gradual. In the maniacal episode, the person concerned may be hyperactive, very chatty, bursting with energy. Mania often affects thinking, judgment and social behaviour, causing serious problems and embarrassing behaviours at a social level. The person may be characterised as foolish, being unable to make decisions either in professional or personal capacity. Untreated, anger can lead to a psychotic depression (loss of sense of reality).

I.4. The causes of depression

There are cases in which depression occurs in several generations (it is possible to inherit certain biological factors), like in the event of bipolar transistors. Major depression could manifest itself from generation to generation, although there are instances where there is no such history in the family. Often, depression is associated with changes in the structure or operation of the brain. Like the people with low self-esteem, which have a pessimistic view in general or which are already overwhelmed by stress are prone to depression.

Recent studies have shown that the physical changes may be accompanied by mental changes. Physical diseases such as heart attack, cancer, Parkinson's disease, hormonal disorders, can cause depressive disorders, making the person sick, lifeless and without the desire

Technium Social Sciences Journal
Vol. 12, 150-159, October 2020
ISSN: 2668-7798
www.techniumscience.com

to take care of her physical needs, thereby affecting the period of recovery. Also, the loss of someone a loved one, toxic relationships, financial problems or any changes in life (desired or not) may entail a depressive episode.

I.5. Depression in patients diagnosed with cancer

Depression is a psychiatric disorder which affects both the mind and human behaviour, as well as the normal functioning of the organs, decreasing the quality of life in certain patients.

Clinical depression is seen in literature as a state of persisting exaggerated sadness which affects a person's day-to-day activities. It is linked with other diseases, including cancer, the statistical data showing that 1 of the 4 persons suffering from cancer develop a kind major depressive disorder (clinical depression). The men and the women are affected in equal measure, the incidence of depression in patients suffering from cancer increasing at the same time with the progress of the disease, the debilitation of the physical functions and the constant pains. In advanced stages, studies show a frequency of depression in 77% of the patients.

Cancer can be defined, broadly, by the chaotic multiplication of cells in the organism. This uncontrolled division leads to the appearance of malignant tumours. At their level, through blood and lymphatic vessels, cancerous cells can multiplicate throughout the body, causing metastasis. The metabolism and multiplication of cancer cells, can disturb certain processes and even cause the decline of certain function in the body.

"Depression is common in cancer patients, up to 38% of patients meet the criteria for being diagnosed with major depressive disorder and 58% report high levels of depressive symptoms**" (Massie, 2004).** Also, a recent meta-analysis has shown that both depressive disorders and depressive symptoms are associated with higher mortality in cancer patients **(Satin et al., 2009).**

Anxiety, when associated with a neoplasm diagnosis, can decrease the pain threshold, interfere with the individual's sleeping pattern, can trigger digestive symptoms, thus interfering significantly with the person's quality of life. However, the theory that suggests people who have found a purpose in life tend to express a lower subjective sense of anxiety and fear of death was advanced by certain authors **(Pollak J.M., 1980).**

I.6. The biological, psychological and social mechanisms

The connection between depression and cancer, from a biological point of view, has not been completely elucidated, although there are several hypotheses related to chemicals released by the cancerous cells and by the immune system. Thus, some scientists say that depression may cause or increase the risk of developing such a disease. The assumptions relate to the links of immunological and central nervous system.

Activation of the immune system and persistence of the inflammation in neoplasia leads to the release of pro-inflammatory cytokines in the plasma, which experimentally it was proven that can generate depression by interfering with the hypothalamic-pituitary-cortical-adrenal axis which is affected by it.

The fact is that a person that is suffering from cancer could develop behavioural disorders which, in the end, lead to depression. Behavioural manifestations do not appear only in sick patients, but also in their families and friends, such as anxiety, fear and depression. Patients with a certain type of will develop feelings of loss of control which may cause a distortion of their personal image (both physical and mental) or the reallocation of social roles. The main way in which depression affects the patients with cancer is by affecting their

Technium Social Sciences Journal
Vol. 12, 150-159, October 2020
ISSN: 2668-7798
www.techniumscience.com

existential image, causing them to stop their treatment. Depression may appear after the patient has been informed that he/she suffers from cancer.

It may cause symptoms like:

- Sleep or eating disorders;
- Anxiety;
- Irritability;
- Hopelessness;
- Fears about the future;
- Loss of concentration and interest for daily activities.

If the symptoms are known, the patient can be helped to suppress these feelings within a few weeks. The DSM V (Diagnostic and Statistical Manual of Mental Disorders V, 2016) describes this pre-depressive episode as an adaptation disorder with depressive, anxious and mixed symptoms. For family and friends, these symptoms might occur when the feeling of helplessness and guilt start cluttering their minds when dealing with the person that is suffering from cancer. The symptoms might persist even after this person has beaten cancer.

I.7. Causes

Statistically, it has been proven that the people most affected by the emotional changes are those who are in terminal stages of the disease. These patients argue that, in most cases, depression is a secondary symptom, affecting their relations with their significant others and their beliefs about life. The emotional stress caused by this can be translated into physical symptoms such as pain, nausea and chronic fatigue. The stress causing problems in the case of a patient suffering from cancer are:

- The fear of death;
- Changes in their life plans;
- Changes in their self image;
- Major changes in their day-to-day life;
- Legal and financial problems;
- Starting a new treatment;
- Waiting for the results;
- Resistance to treatment.

In addition, the feelings which may be faced by a person suffering from cancer and which can induce depressive states are:

- Overwhelming life;
- Denial (at the beginning, it is a natural reaction meant to help the patient adapt to certain changes, but in the long run it may affect the healing process);
- Mania induced by fear, panic, frustration, anxiety, helplessness;
- Fear (can be affected by a distorted image of their disease);
- Stress and anxiety (slow healing);
- Sadness;
- Self blame (or blaming others for not sharing their pain);
- Isolation. (Diagnostic and Statistical Manual of Mental Disorders V, 2016)

II. Psychological Research

II.1. Purposes of the study is to identify, investigate and describe various types of reactions in patients diagnosed with cancer.

Technium Social Sciences Journal
Vol. 12, 150-159, October 2020
ISSN: 2668-7798
www.techniumscience.com

II.2. Hypothesis

1. It is presumed there is a positive correlation regarding depression and anxiety in patients diagnosed with cancer.
2. It is presumed that there are significant differences between the level of depression of patients with anxious personality traits without oncological diseases and patients with oncological diseases.

II.3. Participants

We conducted a reasearch on a group of local patients diagnosed with cancer, regarding their emotional state (using specific questionnaires to rate the levels of depression, anxiety and stress). The group was comprised of 15 women suffering from cancer (mostly HPV, which is one of the most common types of cancer). In the study we included 15 patients with anxious personality traits without oncological conditions in order to compare the levels of emotional distress of both lots.

II.4. Research Instruments

The **Beck Depression Inventory** (**BDI**, **BDI-1A**, **BDI-II**), created by Aaron T. Beck, a 21-question multiple-choice self-report inventory, one of the most widely used psychometric tests for measuring the severity of depression.

The **State-Trait Anxiety Inventory** (**STAI**) is a psychological inventory based on a 4-point Likert scale and consists of 40 questions on a self-report basis. The STAI measures two types of anxiety – state anxiety, or anxiety about an event, and trait anxiety, or anxiety level as a personal characteristic. Higher scores are positively correlated with higher levels of anxiety.

II.5. Analysis and interpretation

In order to verify the confirmation/infirmation of this hypothesis, we calculated the normality of both the depression and anxiety inventories.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Depression	.131	15	.200*	.943	15	.426

Table no. 1 Test of normality for depression

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Anxiety State	.108	15	.200*	.949	15	.513
Anxiety Trait of personality	.141	15	.200*	.958	15	.660

Table no. 2 Test of normality for anxiety as a trait of personality and as a state

Technium Social Sciences Journal
Vol. 12, 150-159, October 2020
ISSN: 2668-7798
www.techniumscience.com

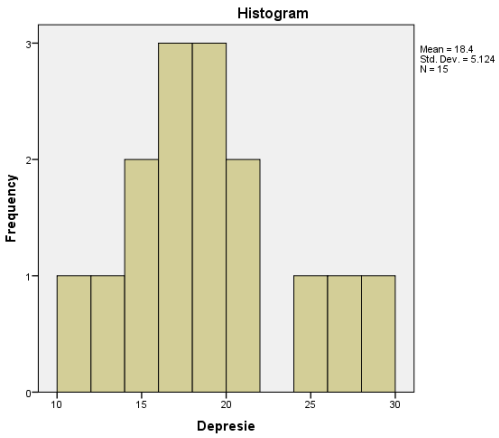

Fig. 1 Depression histogram

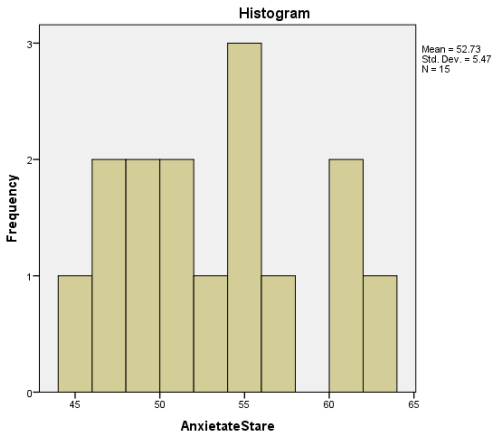

Fig. 2. Anxiety as a state histogram

II.6. Data analysis and interpretation

Hypothesis 1

1. It is presumed there is a positive correlation regarding depression and anxiety in patients diagnosed with cancer

In order to verify the correlation, we used the Pearson Correlation method.

		Depression	Anxiety state
Depression	Pearson Correlation	1	.721**
	Sig. (2-tailed)		.000
	N	15	15
Anxiety State	Pearson Correlation	.721**	1
	Sig. (2-tailed)	.000	
	N	15	15

Tabel no. 3 Pearson correlation coefficient

The correlation verifies as positive, meaning that depression and anxiety are influenced by one another in cancer patients. The confirmation of this hypothesis can be attributed to the fact that both depression and anxiety have common symptoms, being aggravated when faced with a disease such as cancer. The fear of death would be the main cause of anxiety in cancer patients, being also a factor for developing depression.

The other studies (Finck, K.S., 1979, Richards 1974) show that the most common psychological response to hysterectomy is depression, with about a 30 percent occurrence. According to the results of one study, there are 2.5 times more referrals to psychiatrists for treatment after hysterectomy than after any other surgical procedure.

Women with a previous history of depression or prior emotional breakdown are more prone to be depressed after hysterectomy. Others factors that tend to promote unfavourable psychological responses for post hysterectomy women are:

a) high anxiety and neurotic levels prior to the surgery,
b) poor relationship with their mothers,
c) fear about sexual activities,

Technium Social Sciences Journal
Vol. 12, 150-159, October 2020
ISSN: 2668-7798
www.techniumscience.com

d) poor preparation for the surgery. (Finck, K.S, 1979)

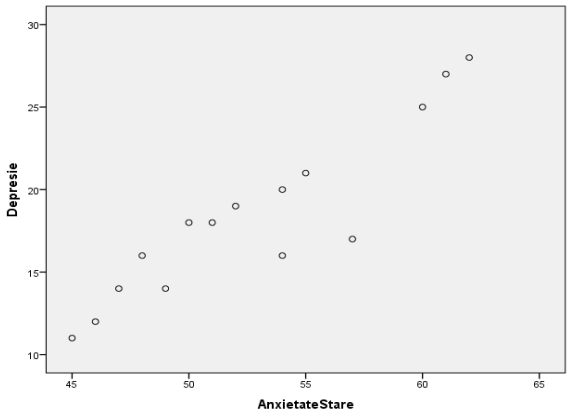

Fig. 3. Correlation between depression and anxiety as a state

Second hypothesis

It is presumed that there are significant differences between the level of depression of patients with anxious personality traits without oncological diseases and patients with oncological diseases.

	Cancer	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Depression	patients with oncological diseases	.131	15	.200*	.943	15	.426
	patients with anxious personality traits without oncological diseases	.196	15	.124	.858	15	.022

Table 4 Tests of Normality

The test of normality shows positive significance for both variables (cancer patients/ patients with anxious personality traits without oncological disease). Therefore, in order to check the difference between the two groups, we will use the T Test method.

Technium Social Sciences Journal
Vol. 12, 150-159, October 2020
ISSN: 2668-7798
www.techniumscience.com

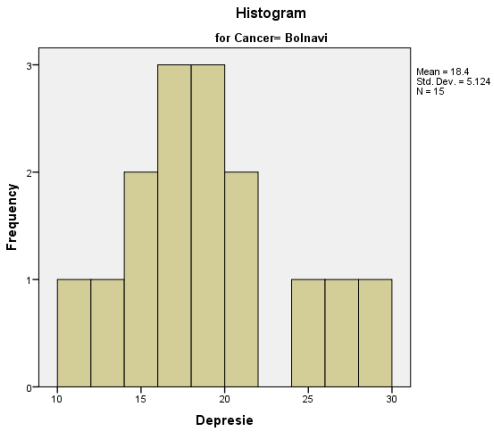

Fig. 4. Depression – Cancer patients Histogram

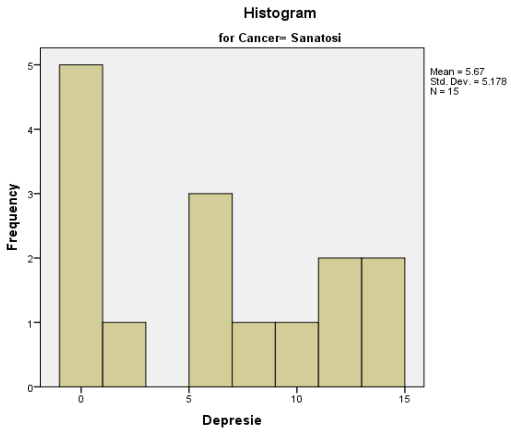

Fig. 5 Depression – Healthy group Histogram

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Depression	Equal variances assumed	.156	.696	6.770	28	.000	12.733	1.881	8.880	16.586
	Equal variances not assumed			6.770	27.997	.000	12.733	1.881	8.880	16.586

Table no. 5 Independent Samples Test

The table above shows that there are significant differences between the two groups. Patients suffering from cancer are more susceptible to depression than people without oncological diseases but with anxious personality traits.

The confirmation of this hypothesis maybe due to the nature of the disease the patients are suffering from. It is a known fact that cancer has a high mortality risk and the methods of treating it cause great strain on the patient's body. Depression is very common amongst cancer patients, contributing to the deadliness of their disease.

The other study shows that there are two principal stressors after mastectomy. The first is similar in individuals who have had cancer treatment: the fear of recurrence. The other major stressor with respect to breast cancer surgery is the worry that the woman would no longer be feminine with the absence of her breasts. However, artificial breasts and plastic surgery can be quite helpful in this regard.

Technium Social Sciences Journal
Vol. 12, 150-159, October 2020
ISSN: 2668-7798
www.techniumscience.com

Psychotherapy and family therapy are often necessary to help the post-mastectomy woman restore her self-confidence and her self-image.

Conclusions

In conclusion, this study is intended to raise awareness to the need of psychological help when such disorders occur when dealing with a disease like cancer. The information we gathered is just a starting point in the development of the field of psycho-oncology. Hopefully, along with the evolution of the social sciences, depression will be a thing of the past.

References

[1] AMERICAN PSYCHIATRIC ASSOCIATION, Diagnostic and Statistical Manual of Mental Disorders, 5th edition, 2016, https://dsm.psychiatryonline.org/doi/book/10.1176/appi.books.9780890425596

[2] *AARON T. BECK, ROBERT A. STEER, MARGERY G. CARBIN, Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation, Clinical Psychology Review, Volume 8, Issue 1, 1988, 77-100, ISSN 0272-7358,* https://doi.org/10.1016/0272-7358(88)90050-5

[3] BREDICEAN C., PAPAVA I., PIRVULESCU A., GIURGIU-ONCU C., ILE L., POPESCU A., HURMUZ M., , Resilience in Oncology Patients: The role of coping mechanisms in Ionescu S., Tomita M, Cace S., The Second World Congress on Resilience: From Person to Society, MEDIMOND International Proceedings, 47-51, 2014, https://congress.resilience.uvt.ro/documents/Congress%20on%20Resilience%202014%20E-book%20R508%2030.10.2014.pdf

[4] ENACHE R.G, The relationship between anxiety, depression and self-esteem in women with breast cancer after surgery, Procedia - Social and Behavioral Sciences, Volume 33, Pages 124-127, ISSN 1877-0428, 2012, https://doi.org/10.1016/j.sbspro.2012.01.096, http://www.sciencedirect.com/science/article/pii/S1877042812001048)

[5] FINCK, K.S., The potential health care crises of hysterectomy. In Kjervik, D.K and Martinson, I.M (eds), Women in Stress: A Nursing Perspective, New York:Appleton-Century-Crofts, 1979, pp.276-302

[6] MASSIE M.J., Prevalence of Depression in Patients With Cancer, *JNCI Monographs*, Volume Issue 32, 57–71,2004, https://doi.org/10.1093/jncimonographs/lgh014

[7] POLLAK JM. Correlates of Death Anxiety: A Review of Empirical Studies. OMEGA - Journal of Death and Dying. 1980;10(2):97-121. doi:10.2190/4KG5-HBH0-NNME-DM58

[8] SATIN JR, LINDEN W, PHILLIPS MJ, Depression as a predictor of disease progression and mortality in cancer patients: A meta-analysis. Cancer 115(22):5349–5361, 2009, https://acsjournals.onlinelibrary.wiley.com/doi/full/10.1002/cncr.24561