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**STUDY OF DEPRESSIVE DISORDER IN CANCER PATIENTS  
AT ONCOLOGY CENTER, THAI NGUYEN NATIONAL HOSPITAL,  
VIETNAM, IN 2016**

*Аннотация:* в статье говорится о депрессии больных раком. Это делает клиническую картину больных раком более сложной, трудной для лечения и увеличивает риск смерти. Однако диагноз депрессивного расстройства у пациентов с раком и желания их во время курса лечения по-прежнему не затрагиваются во Вьетнаме. В заключение уровень депрессии у онкологических больных составил 70%. Была связь между умеренной депрессией и полом, между легкой депрессией и стадией рака, между тяжелой депрессией и трудностью в оплате больничного сбора. Кроме того, у больных есть много желаний, чтобы улучшить качество лечения в больнице.

**Ключевые слова:** рак, депрессия, рак больных.

*Abstract:* depression in an article is concerning in cancer patients, It makes the clinical picture of the cancer patients more complex, more difficult to be treated and it increases the risk of death, However, In conclusion, the rate of depression in cancer patients was 70%, There was an association between moderate depression and gender, between mild depression and cancer stage, between severe depression and difficulty in paying hospital fee, In addition, patients have a lot of desires in order to improve the quality of treatment at the hospital.

**Keywords:** cancer, depression depressive, cancer patient.

## *Introduction*

Cancer seems to be one of the most deadly mortal causes throughout the world. According to a recent report from the world health organization 14 million people were diagnosed and 8.2 million patients died in 2012. In Vietnam, Statistics of National Prevention of cancer project estimates that 70.000 patients die and more than 200.000 people. are diagnosed with cancer annually [1]. Cancer treatment often takes long time and it is costly, but the result is still limited especially results on patients with late stage. In addition, patients often suffer from many complications of the treatment which may lead to obsession and fear [2]. Although the achievement of Science and technology can increase the treatment results, cancer patients are often diagnosed at late stage of disease so the cure rate remains low. Therefore, most patients and their family members are often worried, scared, or even become depressed when they are diagnosed of who cancer.

Depression in cancer patients may be a consequence of stress following diagnosis, tile adverse effects of treatment, and the progression of their cancer [5].

Recent studies on depression in cancer patients showed that most cases diagnosed of cancer developed stresses, and long-lasting anxiety. Knowing the fatal disease often lead to madness, depression, hopelessness. This negative feeling can lead to serious additional problems for the patients. According to Tran Dinh Thiet et al., the rate of depression in cancer patients was 57.7% [2], while this rate of Ngo Thi Kim Yen's study was 35% [3]. In another study at Shree Birendra, Nepal Hospital, 28% of cancer patients to improve the treatment has not been addressed fully. Thai Nguyen National Hospital where patients from Central provinces of Vietnam; still there has been has no study on depressive disorders on cancer. Hence, we carry out this study to determine the prevalence of depression and some correlated factors in cancer patients at Oncology department of Thai Nguyen National Hospital, Vietnam in 2016. Also we aim to know some desires of patients with cancer in order to improve the quality of care.

## *Objects and study methods*

### *Objects*

We have totally 150 cancer patients over 13 years old diagnosed of cancer being treated at the Hue University Hospital from November 2015 till July 2016 for developed depression [8]. From these studies, the most common presentations were fatigue, sadness, sleep disorder, diminished mood, loss of appetite, even some patients wanted to commit suicide. The relationship between depression and cancer stage was noted [2; 3]. However, some other factors which can affect the mental status of cancer patients such as influence of tumors, treatment methods, patient care or treatment costs, are still not mentioned.

### *Method*

The study design is a descriptive cross-sectional study. We fulfill the questionnaire by interviewing the cancer patients and looking up their medical records for collecting individual information, cancer related information, their feeling during the explanation of the disease, their wishes for improving the quality of treatment... To evaluate the depression, patients were asked to fill out a self-questionnaire with the Beck Depression Inventory (BDI) in short-form. The BDI is a 21-item self-report questionnaire with four response options for each item (from 0 to 3). Items of the BDI relate to different symptoms of depression such as sorrow, hopelessness, guilt, loss of appetite, ect... On each item, patients have been asked to choose the statement that best described their feeling towards the item for recently times, including the day they were doing this form. Also, they had to fill all the items, otherwise the data will not be completed. Scores of the BDI can vary from 0 to 63 (each item can be scored from 0 to 3) and are often classed as follows:

- + 0–13: no depression + 14–19: mild depression
- + 20–28: moderate depression + 29–63: severe depression [13]

Collected data was checked and cleaned by using Epidata software and analyzed by using SPSS 20.0 software. The descriptive values: Percentage, Frequency, find out the related by testing the test. OR,  $\chi^2$ .

### *Results*

Some characteristics of the study group:

There were 150 patients with average age of  $54.78 \pm 1.32$ . Mean age of male was  $54.26 \pm 2.1$ , mean age of female was  $55.29 \pm 1.66$ . Female patients accounted for 51.3%, the remaining 48.7% came from males (M/F ratio is 1:1.1).

Poverty household rate was 37.2%.

The cancer disease prevalence in both sexes: the highest was Lung cancer (26.5%), Stomach cancer (17.9%), lymphoma cancer (7.8%); In Female, breast cancer's rate was the highest (20.6%).

Table 1

Objects' occupation

Occupation	N	%
Manual labour	131	87.3
Intellectual labour	10	6,7
Retireeand elderly people	9	6
Total	150	100.0

The proportion of manual labor was the highest with over 80% of the cases. As for intellectual labor, retiree and elderly people, the rates were 6.7% and 6% respectively.

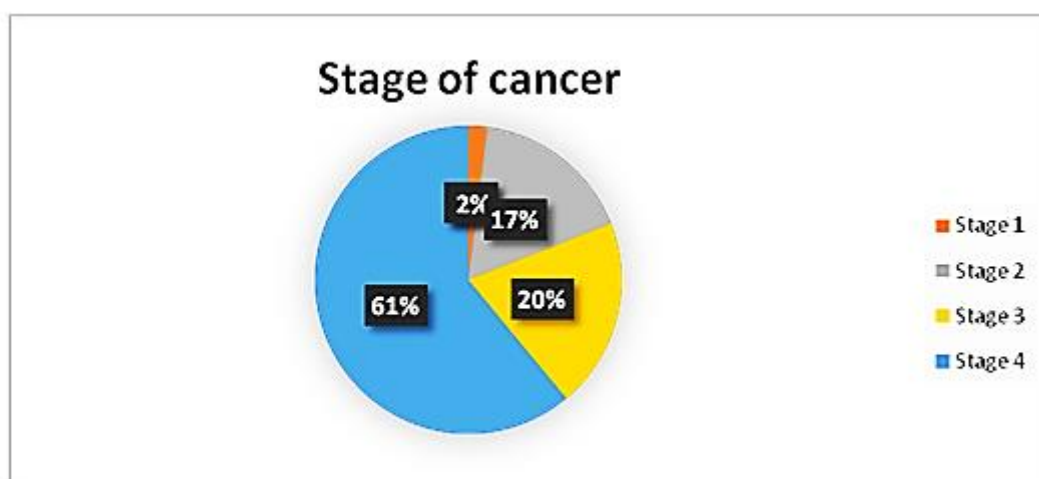


Figure 1. Cancer stage

Patients in our study were diagnosed of cancer mostly at stage IV (61.3%) and only 2% of cases diagnosed at stage I.

Table 2

*Results of depression assessment with The BECK Depression Inventory*

Level of depression		N	%	
No depression		45	30	
Depression	Mild depression	35	105	23.3
	Moderate depression	54		36
	Severe depression	16		10.7
Total		150	100	

Depression rate was 70% in our study. Of depressive patients, moderate depression accounted for 36%; followed by mild depression (23.3%) and the lowest was severe depression (10.7%).

*Table 3*

*Common feeling of cancer patients during the treatment*

Feeling	N	%
Comfortable	19	12.7
Fatigue	109	72.7
Painful	38	25.3
Exhausted	34	22.7
Anxiety	19	12.7
No feeling	18	12
Anorexia	21	14
Nausea and vomiting	19	12.7
Others	22	14.7

Most patients complaint of fatigue during treatment (72.7%); there were a lot of patients who got feelings such as painful (25.3%) and exhausted (22.7%). Besides, some other syndromes were noted such as nausea and vomiting, anorexia, anxiety

*Table 4*

*Desires of patients to be announced and explained about the bad news*

Content	n	%
No	59	39.3

Person who is expected to be announced and explained	Specialist physician	85	91	56.7	60.7
	Family's members	2		1.3	
	Others	4		2.7	

Most patients wanted to be informed about their disease by oncologist 56.7%. However, there were 39.3% of patients who did not want to hear about their disease.

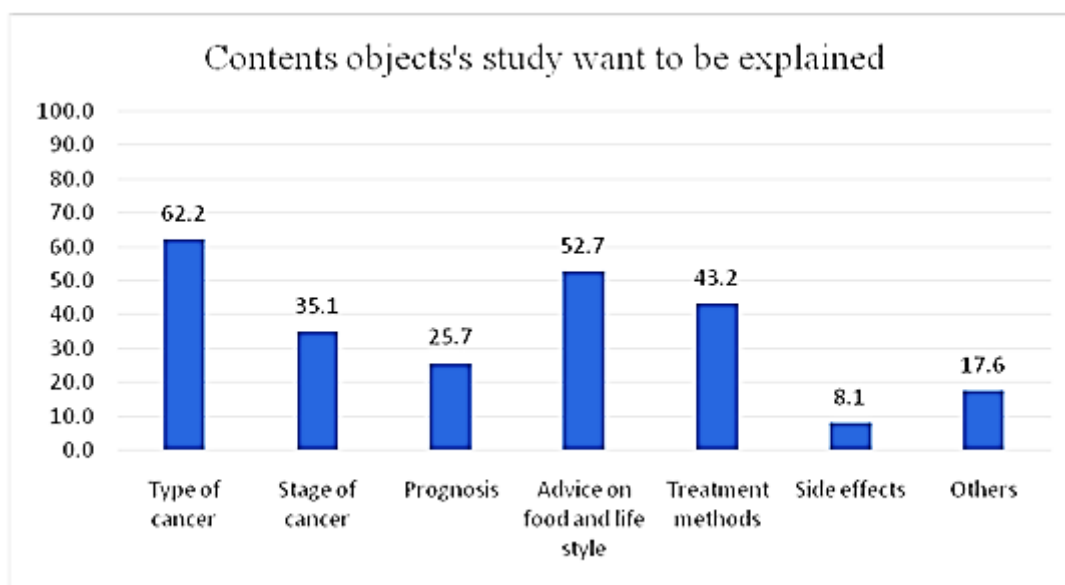


Figure 2. Contents expected to be explained to the patients

Patients would like to know majorly the diagnosis, stage of disease, life style, treatment method but less about prognosis (25.7%) and few patients wanted to know about the side effects of the treatment (8.1%).

Table 5

*Desire of patients to have psychological support*

Content		n	%
Need psychological support	Yes	87	58
	No	63	42
Preferred source of psychological support	Family member	71	81.6
	Friend	44	50.6
	Psychologist	13	14.9
	Oncologist	25	28.7

	Stranger	10	11.5
	Religion (monk, priest...)	5	5.7
	Others	5	5.7

Over 50% cases of patients wanted to have psychological support. Of which, most of them wished to get the support from family’s members and friends 81.6%, 50.6% respectively.

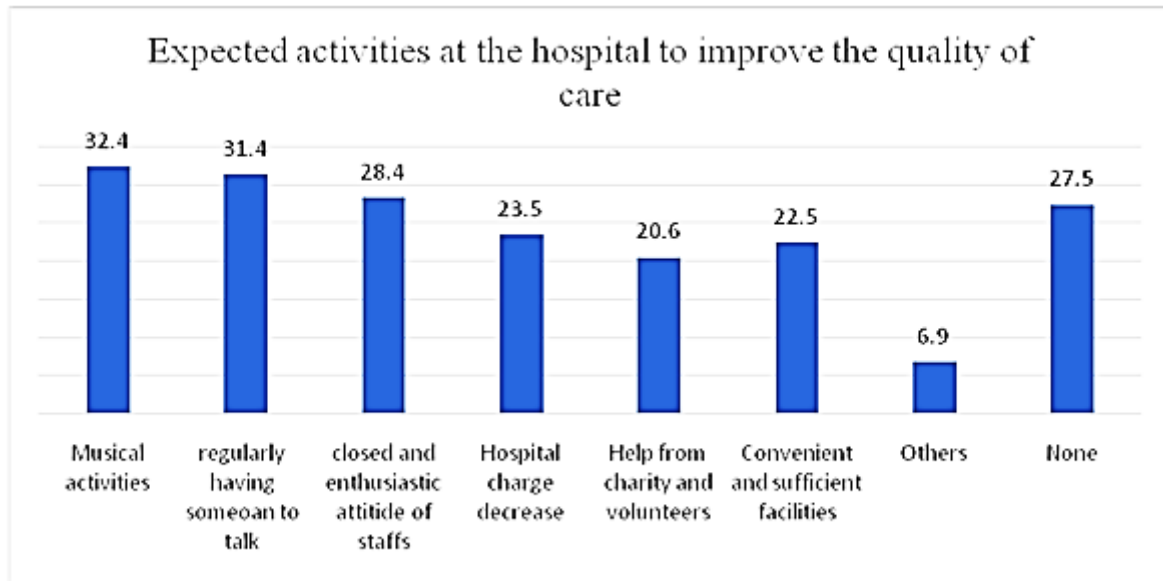


Figure 3. Expected activities at the hospital to improve the quality of care

To improve the quality of care, patients wanted to have musical activities at the hospital (32.4%). someone to talk to (31.4%), closed and enthusiastic attitude of the staff (28.4%); hospital fee decrease (23.5%); improved facilities (22.5%), help from charity and volunteers (20.6%). There were 27.5% of patients who had no suggestions.

Table 6

*The relationship between Level of depression and gender*

Depression	None depression		Mild depression		Moderate depression		Severe depression	
	n	%	n	%	n	%	n	%
Gender								
Male	26	35.6	20	27.4	19	26	8	11

Female	18	23.4	15	19.5	35	45.4	9	11.7
	P > 0.05		P > 0.05		P < 0.05		P > 0.05	
Total	44	29.3	35	23.3	54	36	17	11.3

Rate of male without depression and with mild depression was higher than that of female. Whereas the proportion of female with severe depression was higher than male. However, this difference was not statistically significant. While moderate depression rate in female (45.4%) was higher than in male (26%) with statistical significance ( $p < 0.05$ ).

*Table 7*

*The relationship between level of depression and occupation of cancer patients*

Depression / Occupation	No depression		Mild depression.		Moderate depression		Severe depression	
	n	%	n	%	n	%	n	%
Manual labor	6	60	0	0	4	40	0	0
Intellectual labor	34	26.1	33	25.4	48	36.9	15	11.6
Retiree and elderly people	4	40	2	20	2	20	2	20
	P > 0.05		P > 0.05		P > 0.05		P > 0.05	
Total	44	29.3	35	23.3	54	36	17	11.3

Patients in the group of manual labor and retiree and elderly was noted a high prevalence of no depression (over 50%). Depression levels in manual labor patients is almost equal. There was no correlation between depression level and occupational group.

*Table 8*

*The relationship between level of depression and stage of cancer*

Depression / Stage of cancer	No depression		Mild depression		Moderate depression		Severe depression	
	n	%	n	%	n	%	n	%
I	0	0	3	100	0	0	0	0



II	7	26.9	6	23.1	10	38.5	3	11.5
III	4	13.8	9	31	13	44.8	3	10.4
IV	33	35.8	17	18.5	31	33.7	11	12
	P > 0.05		P = 0.05		P > 0.05		P > 0.05	
Total	44	29.3	35	23.3	54	36	17	11.3

Mild depression accounted for 100% in patients with stage I but only 18.5% at stage IV. In patients with stage IV, level of depression was highly noted at moderate (33.7%) and severe depression (12%). The difference of mild depression in patients with stage I and in stage IV was statistically significant (p = 0.05).

Table 9

*The relationship between level of depression and the difficulty in paying treatment fees of cancer patients*

Depression / The difficulty in paying treatment fees	No depression		Mild depression		Moderate depression		Severe depression	
	n	%	n	%	n	%	n	%
Yes	16	20.5	16	20.5	31	39.7	15	19.3
No	28	38.9	19	26.4	23	31.9	2	2.8
	P < 0.05		P > 0.05		P > 0.05		P < 0.05	
Total	44	29.3	35	23.3	54	36	17	11.3

The percentage of patients without depression was higher in the group without difficulty; of payment (38.9% > 20.5%). While patients having difficulty in payment had higher rate of severe depression (19.3% > 2.8%). This difference was statistically significant.

*Discussion*

Table 2 illustrated that the rate of depression in cancer patients was very high (70%). Among depressive patients, the moderate depression's rate was the highest (36%), followed by the mild depression (23.3%) and the severe depression (10.7%).

According to the result of Tran DinhThiet (2012), the rate of depression in cancer patients was 57.7% (the severe depression was 6.1%, the moderate depression was 18.8%, the mild depression was 32.3%) [2]. The result of Ngo Thi Kim Yen (2014) showed that depression rate was 35%, lower than ours (the severe, moderate and mild depression was 0,1%), 12.4% and 24.4% respectively) [3]. Our result was different from these authors. It may come from our higher percentage of stage IV cancer patients (61.3%), higher than the result of Tran DinhThiet (20.5%) and Ngo Thi Kim Yen (9.2% >). The late-stage patients were exhausted of many symptoms and long-term treatment. It may increase the rate of depression. According to the result of the two authors, the higher stage of cancer, the higher the rate of the depression was.

In our study, the ratio of male/ female was 1:1.1. We could see in this study the difference of depression rate between two genders. Depression affected 2 times more in female than in male ( $p < 0.05$ ). This result matched other studies that depression rate was higher in female. However this rate was much higher than NguyễnThi My Hanh in Ho Chi Minh city (2008) who showed tile depression rate of women was 1/2 higher than men [5], The high prevalence of depression in female can be explained by some ease factors such as endocrinology, pregnancy, menstrual cycles, premenopause, post-menopause and so on [4–6].

Besides, the average age of the study was 53–55. The career of patients was dominated by manual labor, 87.3%) (table 1). However, we did not find relationship between the career and the depression in cancer patients (table 7). This was the same as the result of Ngo Thi Kim Yen in Da Nang city (2014), was not different from the age and career to the depression in cancer patients [3]. From this, at any age or profession, the cancer patients seem likely to have the same depression rate.

In table 8, we found that there was difference with statistical significance between stages I and IV in mild depression ( $p = 0.045 < 0.05$ ), the more severe the disease, the rate of mild depression decrease. This was consistent with the result of Tran Dinh Thiet 2012 ( $p_M < 0.05$ ) and Ngo Thi Kim Yen ( $p < 0.05$ ) 2014 [2; 3]. These authors also found that the level of depression increased with the stage of disease. It was not confirmed by our study. It may be due to our small sample size (150 vs 264 and 695).

The results in table 9 showed that patients with difficulty in paying hospital fees were likely to develop major depression compared with those who had no difficulty in paying hospital fees (19.3% compared to 2.8%), this difference was statistically significance ( $p < 0.05$ ). This was consistent with research on 500 cancer patients being treated at Bach Mai Hospital in 2013, with 93.6% of families facing the tragedy because of medical cost [6]. In addition to the disease burden, patients with difficulty in paying the treatment would get more pressure which can lead to more depressive status.

From the table 4, nearly 40% of patients did not want to be explained about their illness. It might be due to their fear of knowing the illness and they thought that the explanation had no help to cure them from their illness. Forever, 60.7% of patients still wanted to be informed about their disease and they wanted to be explained directly by specialist physicians (56.7%).

The results at figure 2 showed that patients wanted to be clearly informed about were type of cancer (62.2%), diet and activities (52.7%), the treatment methods (43.2%), stage of tile disease (35.1%). Side effects of treatment were an important issue, but few patients (8.1%) wanted to be informed. In addition, patients also desired explanations about the causes of cancer, and drugs responded mechanisms... It can be seen that besides the type of cancer, patients were also interested in finding tile solution for limiting the development of the cancer in order to prolong life. This required that medical staff not only provided the information about the treatment, but also help them on how to manage their lives and reduce the anxiety.

During the course of treatment, patients wanting to have psychological support accounted for 58% (Table 5) which showed that the need for psychological help was a reality even 42% of patients had no need of psychological support. This may be related to our culture. In Vietnam, the family takes care tile patients and by this care, they are being supported mentally. Patients who wished to have psychological support often liked to talk with their relatives (81.6%), friends (50.6%), oncologists (28.7%) whom they trusted, with whom they could share and who easily understood their emotions. Not many patients chose a psychologist (14.9%) to help them with mental problems.

The reason may be the lack of psychologist in Vietnam and patients could not imagine how helpful psychologist can help them.

At the hospital, patients wanted to have more activities such as musical performance exchange (32.4%), frequently having someone to talk with (31.4%), receiving good care with good attitude from the medical staff (28.4%). Others wished that the treatments could be less painful (23.5%), to have better infrastructure facilities (22.5%), to have more care from volunteers and charity (20.6%). Besides that, the needs of praying, limiting hospital visit the patients... were also concerns to improve quality of serving needs of patients.

### *Conclusions*

The rate of depression in cancer patients in our study was 70% including 23.3% with mild depression, 36% with moderate depression and 10.7% with severe depression.

The rate of moderate depression in female patients (45.4%) was two times higher than that of male (26%),  $p < 0.05$ . Age and careers had no effect on depression in our study ( $p > 0.05$ ). Rate of mild depression was lower in cancer patients with stage IV than in stage I with statistical significance ( $p < 0.05$ ). Patients with difficulty in paying fees might have higher severe depression than those who did not (19.3% > 2.8%), this difference is statistically significant ( $p < 0.05$ ).

There were 60.7% of patients wanted to be explained their illness by specialist (93.4%). The explanation included name of illness (62.2%), diet and activities (52.7%), the treatments (43.2%), stage of the illness (35.1%). There were 57.8% of patients who wished to have psychological support. The support may come from their family (81.6%), friends (50.6%) and specialist (28.7%).

During the course of treatment, patients desired to have some cultural activities at the hospital (32.4%), frequently having someone to talk with (31.4%), receiving good care and guidance from the medical staffs (28.4%), lower paying fees (23.5%), help from volunteers and charity (20.6%), facilities improvement (22.5%).

The study need to be continued for larger number of patients involved.

By this study, oncologist should take into consideration to whom to inform the disease. The explanation to patients should include type of cancer, stage of the disease and treatment methods, diet and life style to reduce illness? Side effects of the treatment should be informed to the family? Psychological support is needed in treating cancer patients. Best support should come from the family and friends. At the hospital, to improve the quality of care, patients preferred musical performances, more chatting with patients may be by volunteers, help from charity group and volunteers. In addition, the attitude of the medical staffs should be very important to them.

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