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THE CORRELATION BETWEEN THE SYNDROME DEPRESSIVE SCORES WITH PATIENTS LUNG CANCER QUALITY OF LIFE

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Abstract

Background: *Cancer is a serious and chronic disease in which the patient was not having expectations, reminiscent of a painful death, guilt and anxiety. Lung cancer constitute the main cause deaths from malignancy worldwide, totally for 1.2 million caused deaths each year. Anxiety and depression are common reactions in patients with this cancer.*
Research aim: *To determine the correlation between depressive syndrome score with a score of quality of life of patients with lung cancer.*
Research Method *is an analytic study research with corelative Numerical with cross-sectional approach, the sampling technique using non-probability sampling technique the kinds consecutive sampling. Place of research taken: Hospital in the Department of Pulmonology and Respiratory Medicine General Hospital Haji Adam Malik Medan. Period the study: January 2015 to July 2015. All patients met the criteria for inclusion and exclusion criteria were included in the study. Furthermore, the research subjects were asked to fill in the data regarding the identity and demographic characteristics. The research subjects were asked to fill out a questionnaire Beck Depression Inventory- II (BDI-II) and the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-C30 (EORTC* ***QLQ-C30).***
Results of the study: *30 patients with lung cancer who are hospitalized in the Department of Pulmonology and Respiratory Medicine Dr H. Adam Malik were included in this study. Based on demographic characteristics was found that the age group most is the age > 50 years as many as 26 people (86.7%), males were 21 people (70%), married as many as 22 people (73.3%), work as many as 20 people (66.7%), and basic education levels as many as 17 people (56.7%). Scores depressive syndrome research on the subject was (30.20 ± 8.68). Quality of life scores on the subject of research equally score the Global Health Status (QoL) (40.55 ± 20.96), score Functional Scales (FS) (50.93 ± 19.42), score Symptom Scales / Items (SS / I) (48.47 ± 19.26).*
Conclusions: *The correlation between depressive syndrome score (BDI) with a score of Global health status (QoL) was obtained p <0.001 showing that the correlation between depressive syndrome score (BDI) with a score of Global health status (QoL) that meaningful. Pearson correlation value of -0.632 showed a negative correlation with the strength of the strong correlation. The higher the value of QoL showed the quality of patients life is getting lower.*

Keywords: Lung cancer, depressive syndrome, *Beck Depression Inventory*- II (BDI-II), *The European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-C30* (EORTC **QLQ-C30).**

1. Background

Cancer is a disease that is considered a serious and chronic disease that has no hope or uncertainty, reminiscent of a painful death, evoke guilt and anxiety, as well as causing panic and confusion. The first reaction to an illness suffered by a person is in shock and disbelief. In the second phase, the patient's reaction is becoming more widespread. The basic reaction in this period is anxiety. The third phase is the period during which the patient can accept. This was a period in which patients learn to live with the disease. If emotions and

reaction behavior exceeds the limit that expected, this may turn into depression (Alacacioglu et.al, 2013).

Lung cancer constitute the main cause deaths from malignancy worldwide, accounting for 1.2 million deaths each year. [2] In the United States, t ear 2009 estimated 219.440 new cases and 159.390 Dead result lung cancer so often the cause of death both in men and women. Almost 75% of cancer lungs histology types are *non-small cell lung cancer* (NSCLC) (Videtic GMM, et.al, 2013).

P revalensi cancer estimated to increase from 11.3 million cases in 2007 to 15, 5 million cases in 2030. In Malaysia, cancer is one of the five leading causes of death which also contributes 9:54% national death in 2004 and it has been estimated that approximately 30,000 new cases of cancer are diagnosed each year (Lin LP, et.al, 2011).

The problem of cancer in Indonesia, among others, nearly 70% of patients the disease is discovered in an advanced stage. In Oemiati et al study, the prevalence of malignancy d i North Sumatra was 2.88% (95% CI 2.33 to 3.56) and by type / location of the cancer is cancer of respiratory tract (lungs) of 0.6 (95 % CI 0,4-0,9). *World Health Organization* (WHO) states that the five major cancer in the world is lung cancer, breast cancer, colon cancer, gastric cancer and liver cancer (Oemati R, et.al, 2011)

Anxiety and depression are common reactions in patients with cancer. The average occurrence of anxiety in patients with cancer ranges from 13% to 17% and depression ranged from 3% to 77%. Patients with depression and anxiety reported that they have little hope. For example, in a study of lung cancer patients in 80 hospitals in Italy, they found a significant negative correlation between hope and anxiety (r = -0.50) and depression (r = -058). Depression and anxiety are associated with low levels of quality of life in patients with advanced cancer (Utne I, *et.al*, 2010).

Under these conditions, through this research we want to know whether there is a correlation between symptoms of depression quality of life in patients with lung cancer in General Hospital Haji.Adam Malik, who is ultimately expected to provide information to clinicians and patients with lung cancer.

Formulation of the problem

Whether there is a correlation between depressive syndrome score with a score of quality of life of patients with lung cancer?

Hypothesis

There is a correlation between depressive syndrome score with a score of quality of life of patients with lung cancer.

Research purposes

a. General purpose:

To determine the correlation between depressive syndrome score with a score of quality of life of patients with lung cancer.

b. Special purpose:

1. To know the description of demographic characteristics in patients with lung cancer.
2. To determine the score of depressive syndrome in patients with lung cancer.
3. To determine the quality of life scores in patients with lung cancer.
4. To determine the correlation between depressive syndrome score with a score of quality of life of patients with lung cancer.

Benefits of research

1. The field of education

The results of this study are expected to provide information on the correlation between depressive syndrome score with a score of quality of life of patients with lung cancer

2.Field of study

The results of this study can also be resumed for further research materials similar or research is taken as b ahan reference.

3.Health care

By knowing, the correlation between depressive syndrome score with a score of quality of life for lung cancer patients can provide feedback to health workers to detect early and anticipate further treatment if necessary.

2.LITERATURE REVIEW

Depressive Syndrome in Patients with Lung Cancer

Depression at least two times more common in patients with some diseases medical or neurological. Clinical "Rule of thumb" is that 25 percent of patients cancer c enderung enough oppressed at some point in Her disease course to ensure evaluation and treatment. Depression is syndrome which is becoming a great concern in individuals with cancer. In some studies, d epresi be a challenge for symptoms occur d ari grief until the interference atmosphere and the feeling. S is often difficult to evaluate when a patient confronted by its survival is threatened, receive cancer treatment, to tired late, or pain. although many the research group already rate depression in cancer patients since 1960s, the prevalence reported (Major depressive disorder 0-38 percent; spectrum syndrome depression 0-58 percent) vary significantly because various conceptualization depression, different criteria be used to define depression, the difference in approach methodological for measurement depression, and different populations studied. The method used in both reports self, instruments screening short, and interviews clinical structured the most commonly used is HADS, BDI, EORTC - QLQ - C30, and criteria DSM III. Effect cancer treatment and variable non - cancer related which influence affective / *mood* often not taken into account in this study (Natcher WH, 2002).

A meta-analysis of 58 studies conducted 1980-1994 show that cancer patients significantly more depression rather than population normal and that there a significant difference between groups associated with gender, age, and types of cancer. other reviews from 49 studies on depression in cancer patients showed no gender differences, though prevalence depression in women greater than prevalence in men (Natcher WH, 2002).

Type cancer which is very associated with depression: oropharyngeal (22-57 percent), pancreas (33-50 percent), breast (4.5 to 46 percent) and lungs (11-44 percent). A prevalence less depression high reported in patients with other cancers, such as colon (13-25 percent), gynecology (12-23 percent), and lymphoma (8-19 percent) (Natcher WH, 2002).

In a study of Fox et al, general symptoms were reported in all cancers including lung cancers are depression, *fatigue*, pain. The report on the symptoms of depression, fatigue, and pain, for total symptom assessed in one study, 94% of patients reported experience at least "A little" of the symptom 3, 98% depression ($r = 0.51$, $p = 0.01$), 100% fatigue ($r = 0.51$, $p = 0.01$), and 65% pain (Fox SW, 2006).

However, there are few data on the unique role of the atmosphere and the feeling in predicting survival. Results of the 8-year follow-up study of 10,000 patients showed that the coexistence of cancer and depression is associated with an increased risk of death. Faller reported that the emotional distress of lung cancer patients overcome depression and *coping* predicts shorter survival. Interpretation of these results is not common, depression may have a direct effect on neuroimun, or depressed patients may show poor adherence to the treatment of cancer, or depression-related behavior affects several aspects of life such as the patient's health status, quality of life, the role of parents, work (Pasquini M, et.al, 2007).

A study by Arrieta et al, d epresi and anxiety found in one-third from patient newly diagnosed with NSCLC. Depression and anxiety associated with down scaling of *Health Related Quality of Life* (HRQL), and depression independently associated

with obedience treatment and poor prognosis (Arrieta O, 2013).

***The European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-C30* (EORTC QLQ-C30)**

The European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-C30 (EORTC QLQ-C30) is an integrated system to assess quality living with cancer participating in clinical trials internationally. questionnaires core QLQ - C30, is a product of more than a decade of research collaborative. After general release in 1993, the QLQ - C30 has been used in various cancer clinical trials, with a large number of the research group. The QLQ - C30 combines five scale functional (Physical, role, cognitive, emotional, and social), three scales symptom (Fatigue, pain, nausea and vomiting), status global health / scale quality of life, and a number of items single rate additional symptoms commonly reported by cancer patients (Dyspnoea, loss of appetite, insomnia, constipation and diarrhea) and the financial impact of the disease (WWL Li, et al, 2002).

EORTC QLQ-C30 has been used internationally in over 3000 research as the questionnaires used in cancer enderita p. questionnaires This has been translated and validated more than 50 discussed a. EORTC QLQ-C30 and the Medical Outcomes Study Short Form 36 (SF-36) have the same five domains: physical function, mental health / emotional functioning, social functioning, vitality / fatigue and pain. Both questionnaires often used to find the convergent validity of Similar construction between them (Perwitasari DA, et al, 2011).

***Beck Depression Inventory-II* (BDI-II)**

Beck Depression Inventory-II (BDI-II) is one of the most frequently used in measuring the severity of depression syndrome in adolescents and adults who fit the criteria of the *Diagnostic and Statistical Manual of Mental Disorders* -iv (DSM-IV) and the *American Psychiatric Association's* (APA) in 1994. in 1961 the BDI was developed and then revised in 1978 and again in 1996 to BDI-II. [27] This scale can normally be completed within 5 to 10 minutes. BDI has several advantages can be done in a short time, do not need a coach, *self-rating scale*, able to read and minimal administration and scoring process appears to meet standardization. The main use of the BDI is as an outcome measure in clinical trials of interventions for depression include psychotherapy intervention. This instrument is also used as a screening, it can be used to assess depression in clinical and non-clinical environment. The strength of the instrument lies in measuring the depth of the depression and comprehensive coverage of the cognitive dimension of depression (Blacker D, 2009).

The Beck Depression Inventory-II (BDI - II) is one the most many used as a screening tool for depression and can provide a useful method for screening depression in palliative care. this instrument is a report questionnaire - self that was originally developed to assess severity symptoms of depression. BDI - II show quality psychometrics the good one as a tool screening for depression. though, BDI - II contains some item in g ejala somatic depression (Eg, p ertanyaan about loss of energy, fatigue, and loss of appetite), which can cause too high from positive cases in patients group with disease Somatic. Several *studies-cal Centre for Epidemiologic Studies-Depression* (CES-D) showed that BDI shows sensitivity and specificity on samples cancer patients (Warmenhoven F, 2012).

Background preparation BDI is the low level of agreement between clinicians in diagnosis of depression, so the researchers can not rely on a clinical diagnosis, therefore, Beck intends to design a measuring instrument that measures behavioral manifestations of depression. The validity and reliability of research results show that the level of agreement BDI diagnosis of depression remains low (73%), whereas the level of agreement for measuring the severity of depression is quite high (97%). Beck concluded that the instrument BDI good enough to

use as an instrument for the study of depression and as a first step (screening) depression quantitatively (Warmenhoven F, 2012).

3.RESEARCH METHODS

Research design

This research is an analytic study of the relative ko Numerical using *cross-sectional* (Dahlan MS, 2010).

Place and time

1. Installation inpatient research place in the Department of Pulmonology and Respiratory Medicine Dr H. Adam Malik

2. Research time : January 2015 - July 2015

Research Population

1.The target population: Lung Cancer Patients treated at inpatient installation in the Department of Pulmonology and Respiratory Medicine Hospital Haji Adam Malik Medan.

2.Affordable Population: Patients with lung cancer treated at inpatient installation in the Department of Pulmonology and Respiratory Medicine Hospital Haji Adam Malik period January 2015 - July 2015.

3.The research sample: Lung Cancer Patients treated at inpatient installation in the Department of Pulmonology and Respiratory Medicine Hospital Haji Adam Malik

4.How sampling: *Non probability* sampling types *Consecutive sampling*, are all subjects that come up and meet the selection criteria for inclusion in this study until the required number of subjects met.

Large sample

Calculation of sample size that provides the greatest number is 29.93, thus, the sample size for this study is defined as 30 subjects.

Inclusion and Exclusion criteria

Inclusion criteria (Fox SW, 2006):

1. Lung cancer patients who have been diagnosed by a Pulmonary Specialist Doctors in the Department of Pulmonology and Respiratory Medicine.

2. Lung cancer patients who experience a depressive syndrome that has a score ≥ 17 using the BDI-II questionnaire.
3. Age over 18 years
4. Able to read and write
5. Cooperative and willing to participate in research.

Exclusion criteria (Mystakidou K, *et al*, 2013):

1.Having a history of previous psychiatric disorder

2.A history of alcohol and substance use of total p

Press Agreement After Explanation / Informed Consent

All the study subjects will be asked for its approval by first briefed prior to be included as a research subject.

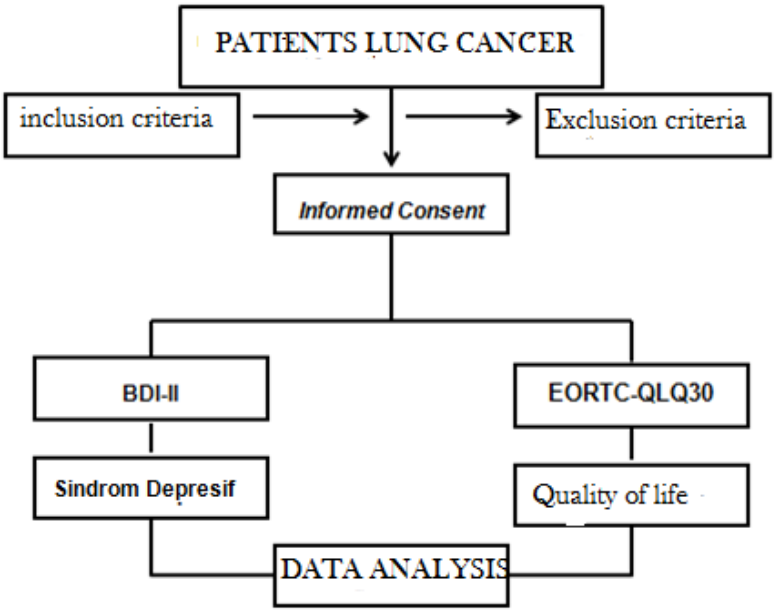
Research ethics

This study was approved by the Research Ethics Committee at the Faculty of Medicine North Sumatera University Medan.

Ways of working

Subject who meet the inclusion and exclusion criteria will be asked to fill out a written consent *(informed consent)* following a detailed and clear explanation to participate in the study. Furthermore, the research subjects were asked to fill in the data regarding the identity and demographic characteristics. The research subjects were asked to fill out a questionnaire *Beck Depression Inventory*- II (BDI-II), which consists of 21 questions. After the subject was given a questionnaire to assess quality of life by using *the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-C30* (EORTC **QLQ-C30).** Once all of the data subjects themselves questionnaire and then

the completed questionnaires were collected and then processing the data analysis.



Framework

Data analysis

Processing and statistical analysis of the obtained data is computerized using the tools of the program *Statistical Package for Social Sciences* (SPSS). From these data to see the correlation between depressive syndrome score with the score of the quality of life of lung cancer patients will be used Pearson correlation test if they qualify. If you do not qualify, then use an alternative test that Spearman to find the value of r (strength and direction of correlation) and the limit of inference p = 0.05.

4.RESEARCH RESULT

A total of 30 lung cancer patients who are hospitalized in the Department of Pulmonology and Respiratory Medicine Dr H. Adam Malik were included in this study. This research is a correlative numerical analytic study with *cross-sectional* approach to the period January 2015-July 2015.

Table 4.1. Distribution Subject Research Based on Demographic Characteristics

	characteristics of Respondents	amount	%
Age	18-30	1	3.3
	31-40	1	3.3
	41 - 50	2	6.7
	> 50	26	86.7
Gender	Man	21	70
	female	9	30
Marital status	Married	22	73.3

	not Married	8	26.7
Work	Work	20	66.7
	Does not work	10	33.3
Education	basic education	17	56.7
	Middle education	12	40.0
	higher education	1	3.3

Table 4.1 shows that the age group most is the age group> 50 years as many as 26 people, namely 86.7%, male sex as many as 21 members, namely 70%, were married as many as 22 people, namely 73.3%, which works as many as 20 people, namely 66.7%, and the level of basic education as many as 17 persons, namely 56,7%.

Table 4.2. Scores on the subject Depressive Syndrome Research

	mean	SD	*P*
BDI score	30.20	8.68	0:17
N	30		

Test with the Shapiro-Wilk normality

Table 4.2 shows that the obtained scores of depressive syndrome research on the subject was (30.20 ± 8.68). In the test *of Shapiro-Wilk test*, both depressive syndrome score and score quality of life has a value of p = 0.17. Therefore the value of p> 0.05, it can be concluded two sets of data have a normal distribution.

Table 4.3. Scores on Quality of Life Research Subjects

	mean	SD	*P*
QoL scores	40.55	20.96	0.64
score FS	50.93	19:42	0:06
Scores SS / I	48.47	19:26	0:24
N	30		

Test with the Shapiro-Wilk normality

Table 4.3 shows that the quality of life scores obtained on the subject of research that score *the Global Health Status* (QoL) (40.55 ± 20.96), score *Functional Scales* (FS) (50.93 ± 19.42), score *Symptom Scales / Items* (SS / I) (48.47 ± 19.26). In the test *of Shapiro-Wilk test*, both depressive syndrome score and score quality of life has a value of p> 0.05, it can be concluded two sets of data have a normal distribution.

Table 4.4. Results of Pearson Correlation Analysis between Score Score Depressive Syndrome Quality of Life

	BDI score
QoL scores	*r* = - 0.632 p <0.001 n = 30
score FS	*r* = -0.834 p <0.001 n = 30
Scores SS / I	*r* = 0.698

	p <0.001 n = 30

Pearson Correlation Test

Table 4.4 shows that the correlation between depressive syndrome score (BDI) with a score of *Global health status* (QoL) was obtained p <0.001 showing that the correlation between depressive syndrome score (BDI) with a score of *Global health status* (QoL) is meaningful. Pearson correlation value of -0.632 showed a negative correlation with the strength of the correlation is strong. The correlation between depressive syndrome score (BDI) with a score of *Functional scales* (FS) values obtained p <0.001 showing that the correlation between depressive syndrome score (BDI) with a score of *Functional scales* (FS) is meaningful. Pearson correlation value of -0.834 showed a negative correlation with the strength of the correlation is very strong. While the correlation between depressive syndrome score (BDI) with a score of *Symptom Scales / Items* (SS / I) obtained p <0.001 showing that the correlation between depressive syndrome score (BDI) with *scales Symptom* score (SS) that meaningful. Pearson correlation value of 0.698 indicates a positive correlation with the strength of the correlation is strong.

5.DISCUSSION

This research is a correlative numerical analytic study with *cross-sectional* approach. Aiming to determine the correlation between depressive syndrome score with the score of the quality of life of lung cancer patients who were hospitalized in the Department of Pulmonology and Respiratory Medicine Dr H. Adam Malik period January 2015-July 2015.

Based on demographic characteristics can be seen in Table 4.1 shows that the age group most is the age group> 50 years as many as 26 people, namely 86.7%, male sex as many as 21 members, namely 70%, were married as many as 22 members, namely 73 , 3%, who worked as many as 20 people, namely 66.7%, and the level of basic education as many as 17 persons, namely 56,7%. The study results are consistent with studies conducted by Montazeri et al, 2003 in Scotland, the characteristics of patients suffering from lung cancer at most are men that is equal to 77 (60%), with a mean age of 67.5 years (sd = 9.1), and married as many as 77 people (60%) (Montazeri A, et.al, 2006).

Studies Alacacioglu et al, 2013 in Turkey, based on the demographic characteristics of the observed cancer patients are not in accordance with these studies where most sex most often found suffering from cancer are women as much as 177 people (53.6%). But for age, marital status and education, study Alacacioglu according to this study, the mean age was found suffering from cancer was 53.04 ± 13.8, for marital status most often found is that getting married as many as 280 people (84.8%) , while for the most prevalent education is basic education as many as 143 people (43.3%) (Alacacioglu et.al, 2013).

Studies Svobodnik et al, 2004 in Birmingham, found the average age of patients with lung cancer was 66.8 years. Based on the characteristics most often found demografiknya was married as many as 471 people (72.5%). This is consistent with the study conducted (Montazeri A, et.al, 2006)

Studies conducted by Lin et al, 2011 at Malaysia common demographic characteristics in all cancer patients based on age was found mean age was 50.4 ± 12.3 (18-72) years old, female as many as 90 people (60%), married as many as 128 people (85.3%), and education level that most of the secondary education as many as 72 people (48%), and does not work as many as 70 people (78%). However, in this study the research subject not only of lung cancer patients but most are breast cancer as many as 53 people (35.3%), whereas lung cancer by 8 people (5.3%) (Lin LP, et..al, 2011) ,

Studies Wilson et al, 2001 in Hong Kong, found common demographic characteristics by age mean age was 63.0 ± 14.7 years, male sex as many as 20 people (74.1%), married as many as 20 people (74.1 %), and education level that most of the basic education as many as 13 people (48.1%). This is consistent with the study conducted (WWL Li, et al, 2002).

Studies conducted by Aubin et al, 2010 in Canada, for demographic characteristics of age in this study met the mean (sd) was 63.4 ± 9.5 years, and the sex most often found in patients with lung cancer were male as much as 225 people (57%) (Aubin M, et al, 2012)

This study also according to a study conducted by Wintner et al, 2013 in Austria, for the demographic characteristics of age in this study met the mean (sd) was 64.3 (8.7), and the sex most often found in patients with lung cancer is male (64.1%) (Wintner LM, et al, 2013).

Table 4.2 shows that the obtained scores of depressive syndrome research on the subject was (30.20 ± 8.68). In the test *of Shapiro-Wilk test*, both depressive syndrome score and score quality of life has a value of p = 0.17. Therefore the value of p> 0.05, it can be concluded two sets of data have a normal distribution. In a study Mystakidou et al, 2013 in Greece, from 73 cancer patients found sk or BDI ≤16 many as 18 people (25%) while the BDI score> 16, 55 people (75%) (Dahlan MS, 2010).

Table 4.3 shows that the quality of life scores obtained on the subject of research that score *the Global Health Status* (QoL) (40.55 ± 20.96), score *Functional Scales* (FS) (50.93 ± 19.42), score *Symptom Scales / Items* (SS / I) (48.47 ± 19.26). In the test *of Shapiro-Wilk test*, both depressive syndrome score and score quality of life has a value of p> 0.05, it can be concluded two sets of data have a normal distribution. Studies conducted by Montazeri et al, 2002 in Scotland found a score of *Global Health Status* (QoL) in 82 patients before being diagnosed with lung cancer was (53.8 ± 22.3), and then *followed up* for 3 months after being diagnosed with lung cancer found scores *Global Health Status* (QoL) (51.8 ± 25.6) (Montazeri A, et.al, 2006).

Table 4.4 shows that the correlation between depressive syndrome score (BDI) with a score of *Global health status* (QoL) was obtained p <0.001 showing that the correlation between depressive syndrome score (BDI) with a score of *Global health status* (QoL) is meaningful. Pearson correlation value of -0.632 showed a negative correlation with the strength of the correlation is strong. The correlation between depressive syndrome score (BDI) with a score of *Functional scales* (FS) values obtained p <0.001 showing that the correlation between depressive syndrome score (BDI) with a score of *Functional scales* (FS) is meaningful. Pearson correlation value of -0.834 showed a negative correlation with the strength of the correlation is very strong. While the correlation between depressive syndrome score (BDI) with *scales Symptom* score (SS) obtained p <0.001 showing that the correlation between depressive syndrome score (BDI) with a score of *Symptom Scales / Items* (SS / I) is meaningful. Pearson correlation value of 0.698 indicates a positive correlation with the strength of the correlation is strong.

This is according to a study conducted Fox et al, 2006 in Virginia, in this study 51 patients with lung cancer singnifikan correlation was found between depression and quality of life (r = 0.51, p = 0.01). Meanwhile, a study conducted by Lin et al, 2011 in Malaysia assess the association between anxiety and depression were assessed using *the Hospital Anxiety and Depression Scale* (HADS) and *Health Related Quality of Life* using the *McGill Quality of Life Questionnaire* (MMQoL) found that the stronger the correlation between HADS-A with MMQoL (r = -0.578, p <0.001) when compared with the HADS-D (r = -0.430, p < 0.001) (Lin LP, et..al, 2011).

6.CONCLUSION

A total of 30 lung cancer patients who are hospitalized in the Department of Pulmonology and Respiratory Medicine Dr H. Adam Malik were included in this study. Based on demographic characteristics was found that the age group most is the age group> 50 years as many as 26 people, namely 86.7%, male sex as many as 21 members, namely 70%, were married as many as 22 people, namely 73.3%, which worked as many as 20 people, namely 66.7%, and the level of basic education as many as 17 persons, namely 56,7%.

Scores depressive syndrome research on the subject was (30.20 ± 8.68).

Quality of life scores on the subject of research that score *the Global Health Status* (QoL) (40.55 ± 20.96), score *Functional Scales* (FS) (50.93 ± 19.42), score *Symptom Scales / Items* (SS / I) (48.47 ± 19.26).

The correlation between depressive syndrome score (BDI) with a score of *Global health status* (QoL) was obtained p <0.001 showing that the correlation between depressive syndrome score (BDI) with a score of *Global health status* (QoL) is meaningful. Pearson correlation value of -0.632 showed a negative correlation with the strength of the correlation is strong. The correlation between depressive syndrome score (BDI) with a score of *Functional scales* (FS) values obtained p <0.001 showing that the correlation between depressive syndrome score (BDI) with a score of *Functional scales* (FS) is meaningful. Pearson correlation value of -0.834 showed a negative correlation with the strength of the correlation is very strong. While the correlation between depressive syndrome score (BDI) with a score of *Symptom Scales / Items* (SS / I) obtained p <0.001 showing that the correlation between depressive syndrome score (BDI) with *scales Symptom* score (SS) is meaningful. Pearson correlation value of 0.698 indicates a positive correlation with the strength of the correlation is strong.

Suggestion

1.With the discovery of the correlation between depressive syndrome and quality of life in patients with lung cancer, the necessary cooperation between specialists lung diseases and psychiatric specialists so as equally to improve the quality of life.
2.For subsequent authors are expected to examine other factors that may affect the relationship between depressive syndrome is the quality of life which not examined in this study.

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