

# Correlation between Anxiety with the Success of Cancer Pain Management

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Keywords: Cancer Pain, Pain Management, Anxiety

Abstract: Pain is the most common symptom in cancer patients. The prevalence study states that 56–64% of patients handle cancer pain. Generally, patients diagnosed with cancer have three forms of emotional responses that arise such as rejection, anxiety, and depression. Guidelines for managing cancer pain are quite numerous, but the results are inadequate, therefore often associated with anxiety. Anxiety can cause inadequate pain management in cancer patients so that it needs to be diagnosed as soon as possible to maximize therapy. This study was conducted to find the relationship of anxiety with the management of cancer pain. This research is a descriptive analytic with a cross-sectional design. The study sample was cancer patients in the pain clinic Haji Adam Malik General Hospital who had met the inclusion and exclusion criteria based on the total sampling method. The research data is primary data directly taken from the subject using interview techniques. The research instruments were the HADS, BPI, and PMI questionnaires. Fisher's Exact test results show no association between anxiety and the adequacy of cancer pain management ( $p = 0.321$ ,  $CI = 95\%$ ). There is no relationship between anxiety with the adequacy of cancer pain management.

## 1 INTRODUCTION

Pain is a protective mechanism meant to bring to conscious awareness of tissue damage that is occurring or is about to happen (Sherwood, 2014). Pain is the most common symptom felt by cancer patients. Prevalence studies suggest that cancer pain is handled by 56 to 64% of patients per month (Arslan et al., 2014).

In 2012, there were an estimated 14.1 million new cancer cases and 8.2 million cases of cancer deaths. And the incidence of 50 countries is around 400 per 100,000 men and 300 per 100,000 women (Torre et al., 2016). The prevalence of cancer in Indonesia is 14 per 10,000 people and the prevalence of cancer in North Sumatra of 10 per 10,000 population (Kementerian Kesehatan RI, 2013).

In patients diagnosed with cancer, in general, there are three forms of emotional responses that can arise namely rejection, anxiety and depression. In these circumstances, it is complicated for cancer patients to be able to accept themselves because the condition and treatment of cancer can cause continuous stress so that it not only affects the physical but also the adjustment of individual

psychology. Cancer patients generally will have low self-acceptance, low self-esteem, feeling hopeless, anxiety, and depression. Therefore, people living with cancer generally experience twice the pain of most other illnesses, in addition to suffering from cancer itself also suffer from depression and anxiety. Until now there has been no data on the occurrence of anxiety in lung cancer patients when they first found out about their illness (Harris et al., 2015).

Although there have been many guidelines for managing cancer pain, cancer pain patients still get inadequate treatment of cancer pain (Singh et al., 2016). Anxiety was a psychological factor that can cause inadequate pain management in cancer patients so that they need to be diagnosed as soon as possible to maximize therapy (Teodora et al., 2012). Research in China states that 25% of cancer pain patients do not get adequate management of cancer pain and have a higher risk of anxiety than patients who receive sufficient management of cancer pain. So that if allowed to continue it will further aggravate the success of managing cancer pain (Li et al., 2017).

## 2 METHODS

This research is descriptive analytic with a cross-sectional approach, namely by taking samples of cancer patients with pain. The relationship between variables namely anxiety with the successful management of cancer pain was determined based on data collected from interviews at the pain polyclinic at Haji Adam Malik General Hospital. The population used in this study were all cancer patients in the pain polyclinic of Haji Adam Malik General Hospital. The research sample taken is a subject from the selected population and has fulfilled the inclusion and exclusion criteria. The sampling technique in this study was total sampling. The data used are primary data obtained from interviews in the pain polyclinic of Haji Adam Malik General Hospital. The collected data is then processed using a computer statistics program. In this study, the information is categorical, and the hypothesis will be analyzed using Fisher's Exact statistical test.

### 2.1 Inclusion Criteria

Outpatient cancer pain in the Pain Polyclinic of Anaesthesiology and Intensive Therapy Department at Haji Adam Malik General Hospital which has at least three months of treatment.

### 2.2 Exclusion Criteria

- a. Cancer pain patients who are getting pain medication to undergo chemotherapy.
- b. Patients cannot be interviewed, and no guardian accompanies the patient.

The minimum sample size is taken based on the number of cancer patients who have received therapy for at least three months.

## 3 RESULTS

Of the 50 research subjects consisting of 17 subjects with anxiety and 33 subjects without anxiety, and 5 subjects received inadequate management.

Table 1: Distribution based on patients' socio-demographic profile.

Age	Frequency	Percentage (%)
16-20	0	0
21-30	5	10
31-40	3	6
41-50	15	30
51-60	16	32
>60	11	22
<b>Sex</b>		
Men	26	52
Women	24	48
<b>Education</b>		
Elementary school	13	26
Junior secondary school	16	12
Senior high school	31	62
<b>Occupation</b>		
State employees	4	8
Private employees	4	8
Pastor	1	2
Farmer	8	16
Driver	1	2
Do not work	20	40
Entrepreneur	12	24
<b>Status</b>		
Married	44	88
Single	6	12
<b>Total</b>	50	100

From table 1, most cancer pain patients are found in the age range of 51-60 years (32%), more in men (52%) than women (48%), with senior high school education background (62%), in non-working samples (40%), and married people (88%).

Table 2: Distribution of cancer pain patients based on the type of cancer

Cancer	Frequency	Percentage (%)
Prostate Adenocarcinoma	1	2
Rectum Adenocarcinoma	8	16
Gastric Adenocarcinoma	1	2
Pulmonary adenocarcinoma	6	12
Cervical Carcinoma	5	10
Colon Carcinoma	2	4
Ear Canal Carcinoma + Sinonasal Carcinoma	1	2
Tongue Carcinoma	1	2
Breast carcinoma	2	4
Nasopharyngeal carcinoma	5	10
Ovary Carcinoma	1	2
Thyroid Carcinoma + BPH	1	2
Vulva Carcinoma	1	2
Rectosigmoid Carcinoma	1	2
Sinonasal Carcinoma	1	2
Chordomal Sacrum	1	2
Hepatocellular Carcinoma	1	2
Hepatoma	1	2
Melanoma Palatum	1	2
Non Hodgkin Lymphoma	1	2
Non Hodgkin Lymphoma Colon	1	2
Primary Bone Tumor	1	2
Pulmonary Squamous Cell Carcinoma	1	2
Tongue Squamous Cell Carcinoma	1	2
Bladder transitional cell carcinoma	3	6
Submandibular Tumor	1	2
<b>Total</b>	<b>50</b>	<b>100</b>

From table 2, most patients in the pain polyclinic of Anaesthesiology and Intensive Therapy Department at Haji Adam Malik General Hospital were rectum adenocarcinoma (16%).

Table 3: Anxiety with the success of managing cancer pain.

	Adequate	Not adequate	<i>P value</i>
Anxiety (+)	14	3	0,321
Anxiety (-)	31	2	
<b>Total</b>	45	5	

From table 3, it can be concluded that there is no relationship between anxiety and the success of managing cancer pain or vice versa ( $P \text{ value} > 0.05$ ).

#### 4 DISCUSSION

This study was a cross-sectional study to see the relationship between anxiety with the success of cancer pain management.

In this study, there was no association between anxiety and the success of cancer pain management ( $p = 0.321$ ).

The results of this study are not compatible with the study of Teodora et al., (2012) which states that anxiety, depression, and other psychosocial factors are associated with the failed management of cancer pain. The study also revealed that patients who get adequate treatment of cancer pain also need to be treated with anxiety, depression, and other psychosocial factors because cancer experienced by patients can also have an impact on the patient's psychological condition (Teodora et al., 2012).

The results of this study are by the research conducted in the Portuguese Cancer Institute, and it was found that there was no relationship between anxiety with the success of managing cancer pain with  $P \text{ value} = 0.42$  (Reiz et al., 2017). Teodora's study also mentioned that there was no reciprocal relationship between the two variables (Li et al., 2017).

The current research constraint is that the results are not significant due to the use of potent opioids by 45 samples so that the PMI results from  $\geq 0$ . Although the sample has a high BPI value, the drug given is a potent opioid will produce a PMI value  $\geq 0$  which means Cancer pain treatment is given adequately even though not all samples have high BPI values. In addition to strong opioid

administration factors, researchers suspect that family and environmental factors of patients also have a significant influence on anxiety experienced by patients, this is because when interviewing patients, the patient's family response is perfect and the patient's family also pays attention to the patient's psychological state (Susilawati, 2013).

According to research conducted at Dr. Sarditjo General Hospital in Yogyakarta, family support is closely related to the level of anxiety experienced by patients. Patients who receive positive support from the family show a decrease in the level of anxiety experienced, but family support does not sufficiently affect the patient's anxiety level. The anxiety experienced by the patients based on internal factors such as a factor of maturity, personality type, and physical condition. The external factors are social support and family support. The psychological profile of cancer patients such as cervical cancer that comes during a medical examination shows a high level of anxiety, anger, and alienation. Hospital care is also one of the worrying factors for patients. In patients with cervical cancer who undergo treatment at the hospital when going to surgery, chemotherapy, radiotherapy or other treatment measures, also often experience anxiety. Also, because of the non-personal attitude of doctors, nurses or other hospital staff, sufferers feel that they are the object of examination. Such conditions often make the sufferer feel a loss of self-identity, and lose control of his body, making the patient feel uncomfortable undergoing treatment at the hospital. Due to the many factors that influence anxiety in cancer patients, it is necessary to educate people who care for patients to always pay attention to their bio-psycho-socio and spiritual needs through health education and counseling to patients and families (Susilawati, 2013).

## 5 CONCLUSIONS

There was no association between anxiety and the success of cancer pain management ( $p = 0.321$ , CI = 95%).

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## APPENDIX

BPI: Brief Pain Inventory

HADS: Hospital Anxiety and Depression Score

PMI: Pain Management Index