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THE RELATIONSHIP OF ANXIETY LEVEL TO EARLY MOBILIZATION IN POSTOPERATIVE PATIENTS WITH SPINAL ANESTHESIA

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ABSTRACT

Background: Early mobilization of postoperative patients with spinal anesthesia is beneficial for helping the wound healing process, preventing complications, and re-functioning body organs. Many patients however are found to feel hesitant or reluctant to perform early mobilization because they are worried that the movements, they do could actually harm the postoperative wound.

Method: This research aims to determine the relationship of anxiety levels to early mobilization in postoperative patients with spinal anesthesia at Wijayakusuma Hospital in Purwokerto. The design of this research was cross sectional design. Respondents involved in this research consisted of 85 people chosen by incidental sampling technique. Sources of data were questionnaires and patient registration books.

Result: There is a significant and positive relationship between patient anxiety and early mobilization as evidenced by *p value of 0.019*.

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INTRODUCTION

Surgical procedure is one of the proceedings taken by doctors in dealing with health problems. Surgery is a treatment procedure using an invasive method by opening or displaying part of body to be treated, generally using incision: opening the surgical site, taking correct measurement for treating the health problem, and ending the proceeding by stapling and suturing the wound (Sjamsuhidajat& Jong, 2005).

The development of implementation of health services includes techniques for surgery, anesthesia, and selecting more effective and economical medicines. Anesthesiologists are required to provide optimal service, not only to facilitate surgery but also capable to provide comfort to patients undergoing surgery. Many anesthetic techniques are developed to facilitate surgery. Nowadays the use of regional anesthesia is growing and widespread, one of which is spinal anesthesia (Nainggolan, et al, 2014). Spinal anesthesia is regional anesthetic technique that is produced by blocking spinal nerves in subarachnoid space by local anesthetic substances. Some advantages of spinal anesthesia technique are simple, effective, safe for nervous system, causing no dangerous plasma concentration, giving strong level of analgesia, making the patient conscious, adequate muscle relaxation, less surgical wound bleeding, less risk of aspiration for patient with a full stomach, and also faster restoration of digestive tract function (Nainggolan, et al, 2014).

The occurrence of surgery with spinal anesthesia at Wijayakusuma Hospital in Purwokerto for 7 months (May-November 2017) is 572 people with average of 81.71 people per month. The postoperative proceeding that needs to be done is early mobilization to help the wound healing process and regularity process of the body's organs. Mobilization or movement is a person's ability to move freely using coordination of nervous and musculoskeletal systems (Prawirohardjo, 2008). Aisyah (2014) stated that early

mobilization is individual's ability to move freely, easily and regularly with the aim of meeting the needs of activities to maintain health.

The benefit of early mobilization is to assist wound healing. It is also beneficial for all body systems, especially bowel, bladder, circulation and lung function. Mobilization might prevent post section caesarean complication which is to prevent blood clot formation (thrombosis) in leg veins and to help the mother progress from being dependent on the role of illness to being healthy and independent role, yet some patients still have not conduct early mobilization after few hours of the delivery (Prawirohardjo, 2008). Adverse effects of post-SC mothers who do not immediately perform early mobilization are an increase in body temperature, abnormal bleeding and bad uterine involution. According to the results of research conducted by Christina and Kristanti (2012), it was concluded that there was a relationship between early mobilization and the increase of postoperative wound healing. Of the 30 respondents, most of the patients had fast wound healing rate with total 25 respondents (83.31%). Early mobilization after heart surgery could improve physical function such as the ability to increase the distance of walking (Kanejima et al., 2020)

Surgery performed in operation causes injury. Early mobilization for postoperative patients with spinal anesthesia is very useful for helping the wound healing process, preventing complications, and functioning body organs. Those benefits of early postoperative mobilization however have not completely eliminated anxiety in postoperative patients. Many patients find that they are worried if their body is moved to a certain position after surgery, it will affect the surgical wound that has not healed, and also, they are worried of the influence of the pain felt by them after the effects of anesthesia worn off.

Based on the descriptions above, the problem raised in this research is: "Is there a relationship

between anxiety level and early mobilization in postoperative patients with spinal anesthesia?"

Research Method

The design used in this research was cross sectional. This research would examine the relationship between the anxiety level and early mobilization in postoperative patients with spinal anesthesia. The research population was all postoperative patients with spinal anesthesia at Wijaya Kusuma Hospital in Purwokerto, Central Java Province, Indonesia. Respondents of this research were 85 people chosen by incidental sampling technique. Data were collected by questionnaires and patient registration books. Patient anxiety variables were measured using Hamilton Anxiety Rating Scale (HARS) based on the occurrence of symptoms in individuals experiencing anxiety. This measuring instrument consisted of 14 groups of symptoms and was elaborated into 62 questions. Early mobilization variables were measured by 7 question items based on Standard Operating Procedure (SOP) for Early Mobilization of Postoperative Patients with Spinal Anesthesia at Wijayakusuma Hospital in Purwokerto. The data analysis to see the relationship between mobilization and anxiety was by using Chi-Square test.

Research Result

1. Univariate Analysis

a. Patient Anxiety

. Tabel1.

Frequency Distribution of Anxiety Level in Postoperative Patients with Spinal Anesthesia at Wijayakusuma Hospital in Purwokerto, 2018

(n=85)

Anxiety	Frequency	%
No Anxiety	0	0
Mild Anxiety	62	72.9
Moderate Anxiety	23	27.1

Severe Anxiety	0	0
Panic level Anxiety	0	0
Total	85	100,0

Source: Processed Primary Data in 2018.

From table 1. Above, it is found that the level of anxiety of respondents is dominated by mild anxiety with total 62 respondents (72.9%), while the rest of them are at the moderate level with total 23 respondents (27.1%). The table above also explains that all postoperative patients with spinal anesthesia experience anxiety, but no one has severe anxiety or even panic anxiety.

b. Early Mobilization

An overview of frequency distribution of early mobilization variables could be seen in table 2 below:

Tabel2.

Frequency Distribution of Early Mobilization in Postoperative Patients with Spinal Anesthesia at Wijayakusuma Hospital in Purwokerto, 2018
(n=85)

Early Mobilization	Frequency	%
High	75	88.2
Medium	10	11.8
Low	0	0
Total	85	100,0

Source: Processed Primary Data in 2018.

Table 2 above explains that the total respondents of early mobilization in high category are 75 respondents (88.2%) and 25 respondents (11.8%) are in medium category. It can be concluded that most of the respondents carry out early mobilization in accordance with the applicable provisions at Wijayakusuma Purwokerto Hospital informed by the doctors and/or nurses.

2. Bivariate Analysis

Bivariate analysis is an analysis of the relationship between the independent variable, level of patient anxiety, and the dependent variable, early mobilization. The analysis was carried out using Chi-Square and the results is displayed in the following table:

Tabel3.

Results of Chi-Square Analysis on the Relationship between Patient Anxiety Level and Early Mobilization in Postoperative Patients with Spinal Anesthesia at Wijayakusuma Hospital in Purwokerto, 2018
(n=85)

Anxiety	Early Mobilization						Total	P value	
	Low		Medium		High				
	f	%	f	%	f	%	f	%	
No Anxiety – Mild	0	0	7	11.3	55	88.7	62	100	.019
Moderate	0	0	3	13	20	87	23	100	
Severe – Panic	0	0	0	0	0	0	0	0	
Total	0	0	10	11.8	75	88.2	85	100	

Based on the data in table 3 above, it shows that of the 10 respondents who carried out early mobilization in the moderate category, there are 7 respondents (11.3%) with mild anxiety level and 3 respondents (13%) with moderate anxiety level. Furthermore, of the 75 respondents who carried out early mobilization in the high category, there are 55 respondents (88.7%) with mild anxiety level and 20 respondents (88.7%) with moderate anxiety level.

The result of statistical analysis presents a significant relationship between the level of patient anxiety and early mobilization in postoperative patients with spinal

anesthesia at Wijayakusuma Hospital in Purwokerto which showed *p value* of 0.019.

B. Discussion

1. Anxiety in Postoperative Patients with Spinal Anesthesia at Wijayakusuma Hospital, Purwokerto

This research found that most respondents experience mild anxiety after surgery with spinal anesthesia with total 62 respondents (72.9%). The remaining 23 people (27.1%) are in moderate anxiety. Thus, all patients experience anxiety after surgery with spinal anesthesia, but not to the severe and panic level.

The occurrence of anxiety in patients is a natural thing because the surgery leaves a wound on the surgical site, so it requires wound healing process as well as steady process of body's organs. Patients certainly want postoperative wounds to heal quickly, so they tend to try to do whatever deemed necessary to expedite and accelerate the healing process. One of those is to limit themselves from moving. Patients might have a view that moving too much could hinder the wound healing process. As stated by Moira (in Christina and Kristanti, 2012), the operation is carried out by surgical method, causing injuries to the parts of the body that was operated on. The presence of painful wound makes the patient feel afraid and anxious to perform early mobilization, so that the patient tends to lie down and keep the whole-body stiff, and does not pay attention to the surgical area. This might lead to complications such as stiff joints, bad posture, muscle contractures, tenderness, and venous thrombosis, if early mobilization is not carried out.

There are certain concerns that arise in patients with spinal anesthesia surgery according to the definition of anxiety by Durand and Barlow (2006) who stated that anxiety is a mood state

characterized by negative affects and symptoms of physical tension where individual anticipates the possibility of danger or misfortune in the future by feeling anxious.

The researches considers that future harm or misfortune in the context of this research could be interpreted as anxiety in postoperative patient with spinal anesthesia about the possibility of negative things related to postoperative wounds which later might hinder the healing process. This anxiety makes the patient afraid or at least hesitant to perform early mobilization after the spinal anesthesia surgery. The higher the level of anxiety experienced by the patient, the higher the fear and doubt to immediately carry out early mobilization.

The result of this research shows that all patients experience anxiety, but the anxiety level is in mild and moderate categories and the majority of anxiety level is mild. The occurrence of anxiety in mild category makes patients not experience much doubt or fear to do early mobilization in accordance with the direction of the doctor and/or nurse at Wijayakusuma Hospital, Purwokerto.

2. Early Mobilization of Post-Operation of Spinal Anesthesia at Wijayakusuma Hospital, Purwokerto

The research data show that 75 respondents (88.2%) are in high category of early mobilization, and 25 respondents (11.8%) are in medium category of early mobilization. Hence, it could be concluded that most of the respondents conduct early mobilization in accordance with the applicable regulations or according to recommendations from doctors and/or nurses at Wijayakusuma Hospital in Purwokerto.

Based on the Standard Operating Procedure (SOP) for Early Mobilization in Postoperative

Patients with Spinal Anesthesia in Wijayakusuma Hospital, Purwokerto, there are 7 (seven) steps of early mobilization for postoperative patients with spinal anesthesia that the doctors and nurses do, as follows:

1. The initial stage (the first postoperative day) is to teach exercise by inhaling through nose, then exhaling through mouth. Exercise frequency is 12-14 per minute.
2. Train the patients to lean over their body left and right.
3. Train to move and lift arms back and forth, then straightening and bending the legs and arms for 1-2 hours
4. Do movement exercise by changing position from supine to right and left positions alternately for 15 minutes.
5. Exercise their body to be able to sit either leaning back or sitting on the bed for 5 minutes.
6. Help positioning the patients to sit, whether leaning back or not, and sitting on the bed with legs dropped or placed on the floor while moving.
7. Help the patients to walk slowly over a short distance of \pm 2-3 meters.

Doctors and/or nurses at Wijayakusuma Purwokerto Hospital carry out these SOPs by giving directions to patients for early mobilization. Patients generally follow these directions, but early mobilization varies from patient to patient. There are those who do all the early mobilization movements according to the directions from the doctors and/or nurses, while some only do part of it. In this research, the categories of early mobilization are as follows:

- a. Low category of early mobilization: the patient only performs 1-2 early mobilization movements according to the directions from the doctors and/or nurses.

- b. Medium category of early mobilization: the patient only performs 3-4 early mobilization movements according to the directions from the doctors and/or nurses.
- c. High category of early mobilization: the patient only performs 5-7 early mobilization movements according to the directions from the doctors and/or nurses.

From the data of research result, majority of respondents do early mobilization. This shows that the majority of patients do most to all early mobilization movements according to the direction of the doctor and/or nurse. This is very beneficial for patients to speed up and accelerate the healing process as well as accelerate body organs function for patients with spinal anesthesia. Prawirohardjo (2008) argued that the advantage obtained from early mobilization is helpful for assisting the wound healing. Mobilization is also very useful for all body systems, especially bowel, bladder, circulation and lung function. Mobilization also aims to prevent *post sectio caesarean* complications such as helping to prevent the blood clot formation (thrombosis) in the leg veins and helping the mother progress from being dependent on the role of illness to being a healthy and independent role, some patients however still have not performed early mobilization after a few hours of delivery.

In line with Prawirohardjo's opinion above, Aisyah (2014) stated that in the *sectio caesarea* delivery using epidural or spinal anesthesia, early mobilization begins with the lower body by feeling and wiggling the legs. From 6-10 hours after delivery, the mother could start to learn leaning over their body right and left, and after 24 hours, they could start learning to sit and gradually learn to walk carefully. The disadvantages for the mother if they do not immediately carry out early mobilization include an increase in body temperature, abnormal

bleeding and bad uterine involution. Reviews from several medical/surgical protocols recommend early mobilization of hospitalized patients including post-spinal patients with spinal anesthesia in order to reduce morbidity and LOS (length of stay) (Epstein, 2014).

The results of this research indicate that most of the respondents carry out early mobilization in accordance with applicable regulations or as recommended by doctors and/or nurses at Wijayakusuma Hospital, Purwokerto. Besides showing adherence to recommendations from doctors and/or nurses, this condition could also be influenced by patients' understanding and awareness of the importance of early postoperative mobilization. This makes patients not hesitate to perform early mobilization in the hope that the postoperative recovery process could run quickly and smoothly. This condition also shows a high motivation for patients to heal or recover soon, so they do not hesitate to follow directions from doctors and/or nurses to carry out early mobilization. Patients believe that early mobilization is useful to support the postoperative recovery process.

3. The Relationship between Patient Anxiety Level and Postoperative Early Mobilization with Spinal Anesthesia at Wijayakusuma Hospital, Purwokerto

Based on the research result, it is known that the most patient anxiety is in mild category and most early mobilization is in high category. From the result of the analysis carried out with Chi-Square, *p value* is 0.019 which is smaller than 0.05. From this result, it can be concluded that H_0 is rejected and H_a is accepted. This means that there is a relationship between the level of anxiety and early mobilization in postoperative patients with spinal anesthesia at Wijayakusuma Hospital, Purwokerto.

The result of research above is in accordance with the result of research conducted by Christina and Kristanti (2012) which concluded that there is a relationship between early mobilization and the increase of postoperative wound healing. Of the 30 respondents, most of the patients have a fast wound healing rate with total 25 respondents (83.31%). Post-operative mobilization combined with breathing exercises with spirometry prevents postoperative pulmonary complications and improves postoperative vital status, blood gases, and quality of life as well as reduces postoperative pain and LOS (Length of stay) in hospital in upper abdominal surgery patients (Bashir et al., 2019).

Based on the result of this research and also the result of research from Christina and Kristanti (2012), it can be said that the level of patient anxiety has a close relationship with early mobilization in postoperative patients with spinal anesthesia at Wijayakusuma Hospital, Purwokerto. In this case, the severity of anxiety level experienced or felt by the patients has an impact on their behavior in early mobilization. If the anxiety is mild, it is easier for the patient to be directed to early mobilization.

The mild anxiety level prevents the patients from hesitating to do most to all of the early mobilizing movements directed by the doctor and/or nurse. On the other hand, if the level of anxiety felt by the patients is severe, the patients tend to feel reluctant to do early mobilization. This could be caused by the patients feeling afraid or worried about negative effects on the surgical scar, for example the wound gets worse or the wound healing takes longer, so it could later prolong the postoperative recovery process.

The worry experienced by the patients is a form of anxiety and is normal. This could be due to the patients' lack of knowledge about the

benefits of early mobilization to speed up the postoperative recovery process. It might also be due to the patients' perception that postoperative wound will heal faster if they do not do any movement, or stay completely still if necessary. These perceptions are false because early mobilization is very beneficial to speed up the postoperative recovery process.

Conclusion

1. There are 62 respondents (72.9%) experiencing mild anxiety and 23 others (27.1%) experience moderate anxiety. Hence, it could be concluded that the anxiety experienced by respondents is mild.
2. There were 75 respondents (88.2%) in high category of early mobilization and 25 respondents (11.8%) in medium category of early mobilization. Thus, it can be concluded that most of the respondents conduct high early mobilization.
3. There is a positive and significant relationship between patient anxiety and early mobilization as evidenced by p value of 0.019 which is smaller than 0.05. Based on these results, the research hypothesis which stated "There is a relationship between anxiety level and early mobilization in postoperative patients with spinal anesthesia at Wijayakusuma Hospital Purwokerto" is accepted.

Suggestion

1. For Patients

Postoperative patients should follow doctors and/or nurses' directions to carry out maximum early mobilization in order to speed up the postoperative recovery process.

2. For Future Research

Future research needs to be carried out with different variables, targets and wider research areas, for example regarding education variables and socio-economic status.

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