



The Quality Test for Postoperative Pain Management using *the American Pain Society Patient Outcome Questionnaire Revised (APS-POQ-R)* version Indonesia at Mohammad Hoesin Hospital in Palembang
(A study of the quality level of postoperative pain management and the factors that influence it)

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ABSTRACT

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage. APS-POQ-R (*Revised American Pain Society Patient Outcome Questionnaire*) is a measuring tool for assessing the quality of postoperative pain management by exploring patient experiences and outcomes. This research aims to assess the quality of postoperative pain management at Mohammad Hoesin Hospital Palembang and to determine the factors that influence it. The Cross-sectional observational analytic study was conducted toward 51 respondents. Data was collected primarily by using questionnaires and interview. Data was analyzed by using *chi-square*. The study showed that the quality of postoperative pain management at RSUP Mohammad Hoesin General Hospital Palembang has good quality with a total of 27 patients (52.9%). From statistical analysis there was significant relationship between the quality of post-operative pain management with age ($p=0,037$), gender ($p=0,027$), ethnicity ($p=0,039$), education level ($p=0,039$), and economic level ($p=0,005$). So it can be concluded that was a significant relationship between the quality of post-operative pain management with age, gender, ethnicity, education level, and economic level.

1. Introduction

Pain is the main symptom most often, causing a person to seek help. Pain is a form of unpleasant sensory and emotional experiences associated with tissue damage or a condition that indicates tissue damage. Pain can also be considered a poison in the body, because pain occurs due to tissue or nerve damage that will release various chemical mediators, causing discomfort.¹

It has been repeatedly confirmed by studies in the last 3 to 4 decades in which 20 to 80% of patients undergoing surgery suffer from inadequate pain.²

Despite increasing knowledge and resources for treating pain, the problem of uncontrolled pain continues to pose a significant challenge. for postoperative patient management.²

Poor postoperative pain management can lead to a range of negative physiological and psychological consequences, including painful distress and delayed recovery. Worse, severe acute postoperative pain may be associated with the risk of developing persistent pain.³

Valid and reliable measurements are important for exploring effective pain management strategies and evaluating quality improvement in pain management.³ APS (*American Pain Society*) published the APS-POQ-R (*Revised American Pain Society Patient Outcome Questionnaire*) which is one of the measuring tools. to assess the quality of postoperative pain management. APS-POQ-R as part of quality assurance standards for pain management to explore patient experiences and outcomes. The questionnaire measures 6 quality aspects of pain management, including pain relief and severity, impact of pain on function and emotions, side effects of treatment, provision of helpful information, participation in decision making and nonpharmacological methods of pain management.⁴

This research was conducted to assess the quality of postoperative pain management at RSUP Mohammad Hoesin Palembang, and to determine the factors that influence it. Good pain management can provide many benefits such as improving the patient's quality of life, facilitating immediate healing, reducing morbidity, and reducing hospital costs.

2. Research Methods

This study was an analytic observational study with a *cross sectional* design which was conducted on 29-30 October 2019 at RSMH. The sample in this study were all adult patients who would undergo elective surgery at RSMH on 29-30 October 2019 who met the inclusion

and exclusion criteria, amounting to 51 people. The dependent variable in this study is the quality of postoperative pain management, while the independent variables in this study are age, gender, ethnicity, education level, and economic level. Data collection using questionnaires and interviews. The data were analyzed using *chi-square* and if it did not meet the requirements then *Fisher's* alternative test was used.

3. Results

Based on the data obtained in **table 1**, it was found that there were more respondents aged <49 years than patients with age ≥49 years, namely 27 people (52.9%). The most sexes were women with a total of 30 people (58.8%). Most patients came from Palembang, namely 29 people (56.9%), the highest level of education was higher education, namely 29 people (56.9%) and the most economic level was patients who had an income less than wages. the regional minimum is 30 people (58.8%)

Based on **Table 2** it can be concluded that the most pain management is quality pain management with a total of 27 patients.

Based on the results of the bivariate analysis in **Table 3**, it was found that age, gender, ethnicity, education level and economy had a *p value* <0.05, which means that there was a relationship between age, gender, ethnicity, education level and economy with the quality of pain management. postoperative.

Table 1. Respondents based on sociodemographic factors

Sociodemographic factors	n	(%)
Age		
▪ < 49 years old	27	52.9
▪ ≥ 49 years old	24	47.1
Gender		
▪ Male	21	41.2
▪ Female	30	58.8
Tribes/ethnic		
▪ Palembang	29	56.9
▪ Outside Palembang	22	43.1
Level of education		
▪ College (High School, College)	29	56.9
▪ Low (SD, SLTP)	22	43.1
Economic level		

▪ > UMR	21	41.2
▪ < UMR	30	58.8

Table 2. Postoperative Pain Management

Postoperative Pain Management	n	(%)
Quality Pain Management	27	52.9
Inadequate Pain Management	24	47.1

Table 3. Relationship between sociodemographic factors and quality of postoperative pain management

Factor	Quality of Pain Management		P value	OR	(95% CI)
	Quality Pain Management	Unqualified Pain Management			
Age					
▪ < 49 years old	18	9	0.037	3.333	1.055 - 10.530
▪ ≥ 49 years old	9	15			
Gender					
▪ Male	15	6	0.027	3.455	1.070 – 11.158
▪ Female	12	18			
Tribes/ethnic					
▪ Palembang	19	10	0.039	3.325	1.044 – 10.585
▪ Outside Palembang	8	14			
Level of education					
▪ College (High School, College)	19	10	0.039	3.325	1.044 – 10.585
▪ Low (SD, SLTP)	8	14			
Economic level					
▪ > UMR	16	5	0.005	5.527	1.585 – 19.271
▪ <UMR	11	19			

4. Discussion

From the results of the bivariate analysis, it was concluded that there was a relationship between age and postoperative pain management (p value = 0.037; $p < 0.05$). From the data it was found that patients aged <49 years had a 3.3 times risk of having quality postoperative pain management compared to patients aged > 49 years. Age shows a measure of the time a person grows and develops. Age correlates with a person's experience, knowledge, understanding and views of the disease they experience. So that it will form a person's perceptions and attitudes. Older people respond to pain differently than younger people.⁵ Some

of the factors that affect the response of parents include parents who think that the pain that occurs is something they must accept.⁶ Most parents are afraid of drug side effects and become dependent, so they do not report pain or ask for pain relief drugs.⁷ This can cause pain management can not be done optimally.

From the results of the bivariate analysis, it was concluded that there was a relationship between gender and postoperative pain management (p value = 0.027; $p < 0.05$). According to research. Rafati (2016) states that female patients receive more analgesics than men. Women express their pain more often than men.⁸ Men have a lower sensitivity than women.⁵ This

can lead to better quality pain management in women than men.

Based on the bivariate analysis of ethnicity and pain management, it can be concluded that there is a relationship between ethnicity and postoperative pain management (p value = 0.039; $p < 0.05$). Tribe is a pending factor for someone to respond to pain.⁵ Tribe also has a role in how individuals receive and communicate their pain⁹

Based on the results of the bivariate analysis of the level of education and pain management, it can be concluded that there is a relationship between education level and postoperative pain management (p value = 0.039; $p < 0.05$). From the data, it was found that patients with a high level of education had a 3.3 times risk of having quality postoperative pain management compared to patients with a low level of education.

The higher a person's education level, the higher the level of dissatisfaction with pain management. This is natural, because highly educated patients objectively demand to receive good quality health care and are more critical of all actions taken against them, so that they get more attention from health workers. The end result is that they get more adequate and quality pain management. In addition, individuals with low levels of education are shown to have less understanding of communication with information provided by health workers. So that it makes the cooperation between patients and health workers not optimal, making the quality of pain management that patients get is not optimal.¹⁰⁻¹¹

From the results of the bivariate analysis it was concluded that there was a relationship between the economic level and postoperative pain management (p value = 0.005; $p < 0.05$). From the data, it was found that patients with a high economic level were at 5.5 times more likely to have quality postoperative pain management than patients with a low economic level. Based on a study conducted by Kugelman et al, it was found that patients who came from low socioeconomic levels reported higher pain scores and worse *outcomes*. This is in contrast to patients with a higher

socioeconomic level, in this group access to medical care is greater so that the health care they get is maximized. It is also supported that patients with high socioeconomic levels have healthier lifestyle habits and have better emotional health, which contributes to improved physical health and bodily functions. So that the end result of their pain management can be better¹¹

5. CONCLUSION

After conducting the study, it was found that there were more patients aged <49 years than patients aged ≥ 49 years. Most of the sexes are women. Most patients come from Palembang. The highest level of education level is higher education level and the most economic level is patients who have an income less than the regional minimum wage (UMR).

Based on the quality of postoperative pain management, the most post-operative pain management in RSUP Mohammad Hoesin Palembang was quality pain management with a total of 27 patients (52.9%).

From the results of the bivariate analysis, it was found that age, gender, ethnicity, education level and economy had a p value < 0.05 , which means that there was a relationship between age, gender, ethnicity, education level and economy with the quality of postoperative pain management.

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