

CHAPTER 4

RESULTS AND DISCUSSION

This descriptive study aimed to explore the pain experiences of Javanese and Batak patients, to examine the differences of pain experiences of Javanese and Batak patients, and to explore the cultural beliefs/practices about pain the two ethnic groups. One hundred and twenty three subjects who underwent moderate to major surgery were recruited from 4 government-owned hospitals in Medan, Indonesia.

Results

The results of this study will be presented as follows:

1. Subject characteristics
2. Pain experiences of Javanese patients
3. Pain experiences of Batak patients
4. The differences of pain experiences between Javanese and Batak patients
5. The cultural beliefs/practices about pain of Javanese and Batak patients

1. Subject Characteristics

Initially, sixty-five postoperative Javanese patients and sixty-three postoperative Batak patients were approached. Five subjects were excluded because they underwent major surgery of the head (craniotomy) and that might affect their responses to the

questionnaires. Finally sixty-three postoperative Javanese patients and sixty postoperative Batak patients from surgical wards of four government hospitals participated in this study. Fifty-seven patients were from Putri Hijau Army Hospital, 21 patients were from Tembakau Deli Hospital, 27 patients were from Dr Pirngadi Hospital, and 18 patients were from Haji Adam Malik Hospital. The mean age was 35.67 years (SD= 9.89) and ranging from 20-59 years. Table 4-1 shows the subject's demographic characteristics. The majority of the subjects was male (56.9%), Muslim (69.9%) and married (81.3%). Most of the subjects were senior high school graduates (63.4%). The subject's occupation was grouped into six categories as businessmen (38.2%), student (10.6%), farmer (4.9%), government employee (27.6%), private employee (8.9%) and unemployed (9.7%). Fifty-three percent of the subjects' incomes were more than the standard minimum salary in Indonesia.

Sixty-three Javanese patients were involved in this study. The mean age was 35.0 years (SD=10.7), ranging from 20-59 years. Table 4-1 shows the frequency and percentage of Javanese patient's characteristics. There were almost equal numbers of female (49.2%) and male (50.8%) and were all Muslim (100%), with 79.4% married. The majorities were senior high school graduates (65.1%) and none were uneducated. Businessman (38.1%) and government employee (33.3%) were the main occupations of this group. Nearly half the subjects had incomes between Rp.500.000-Rp.1, 000.000 (49.2%) per month.

The mean age of the sixty Batak patients was 35.0 years (SD=8.9), ranging from 20-57 years. Table 4-1 shows the frequency and percentage of Batak patients' characteristics. It shows that 63.3 % were male and 36.6% were female. More than half of the Batak patients was Christian (61.7%) and the rest were Muslim (38.3%). Most of them were married (83.3%). More than half of subjects were senior high school graduates (61.67%). Businessman (38.5%) and government employee (21.7%) were the main occupation of this group. More than half of the subjects (53.3%) had an income between Rp.500. 000-Rp.1, 000,000 per month.

Table 4-1 Frequency and percentage of subject's demographic characteristics (Javanese patients n=63, Batak patients n=60)

Characteristic	Javanese Number (percent)	Batak Number (percent)	Total Number (percent)
1. Gender			
- Female	31 (49.2)	22 (36.6)	53 (43.1)
- Male	32 (50.8)	38 (63.4)	70 (56.9)
2. Religion			
- Muslim	63 (100)	23 (38.3)	86 (69.9)
- Christian	-	37 (61.7)	37 (30.1)
3. Marital status			
- Single	13(20.6)	10 (16.7)	23 (18.7)
- Married	50 (79.4)	50 (83.3)	100(81.3)
4. Education			
- None	-	2 (3.3)	2 (1.6)
- Elementary school	10 (15.9)	3 (5.0)	13 (10.6)
- Junior high school	11 (17.5)	14 (23.3)	25 (20.3)
- Senior high school	41 (65.1)	37 (61.6)	78 (63.4)
- Diploma	1 (1.6)	3 (5.0)	4 (3.2)
- Bachelor	-	1 (1.7)	1 (0.8)

Table 4-1 (continued)

Characteristic	Javanese Number (percent)	Batak Number (percent)	Total Number (percent)
5. Occupation			
- Businessman	24 (38.1)	23 (38.5)	47 (38.2)
- Student	8 (12.7)	5 (8.3)	13 (10.6)
- Farmer	3 (4.8)	3 (5.0)	6 (4.9)
- Government employee	21 (33.3)	13 (21.7)	34 (27.6)
- Private employee	4 (6.3)	7 (14.3)	11 (8.9)
- Unemployed	3 (4.8)	9 (15.0)	12 (9.7)
6. Income per month			
- None	3 (4.8)	8 (13.3)	11 (8.9)
- <Rp 500.000,	17 (27.0)	12 (19.0)	29 (23.6)
- Rp.500.000-1.000.000,	31 (49.2)	35 (58.3)	66 (53.6)
- >Rp 1.000.000,	12 (19.0)	5 (8.3)	17 (13.8)

All subjects involved in this study had experienced postoperative pain for 24 to 48 hours after surgery. Table 4-2 shows the frequency and percentage of medical diagnoses, type of surgery, area of operation, wound size and previous experience of pain. Twenty-four percent of them underwent surgery as a result of fracture, followed by ileum obstruction (14.6%), renal problem (11.4%), and ovarian cancer (8.9%). Forty-four percent of the subjects underwent laparotomy and 24.4% received orthopedic surgery. The major area of operation in these patients was abdomen (52.8%), followed by extremities (24.4%) and flank (11.4%).

Seventy-one percent of wound sizes from surgery were between 10-20 cm; 24.4% were less than 10 cm; and 4.9% were more than 20 cm. All patients had experienced pain

in the past. The major causes of previous pain experience were menstrual pain (22.0%), accidental injury (20.3%) and surgery (14.6%). From this previous pain experience, about half of the patients (51.2%) had experienced pain for less than 5 days and 29.3% had experienced pain in their abdomen, followed by extremities (23.6%) and flank (12.2%).

The medical characteristic of Javanese and Batak patients were found to be comparable in most characteristics (Table 4-2).

Table 4-2 Frequency and percentage of subject's characteristics according to medical diagnoses, type of surgery, area of operation, wound size and previous experience of pain (Javanese patients n=63, Batak patients=60)

Medical Characteristics	Javanese Number (percent)	Batak Number (percent)	Total Number (percent)
1. Medical diagnosis			
- Fracture	18(28.6)	12 (20.0)	30 (24.3)
- Ileum obstructions	10 (15.9)	8 (13.3)	18 (14.6)
- Renal problem	6 (9.5)	8(13.3)	14 (11.4)
- Ovarian cancer	7 (11.1)	4 (6.7)	11 (8.9)
- Prostate cancer	3 (4.8)	5 (8.3)	8 (6.5)
- Breast cancer	1 (1.6)	3 (5.0)	4 (3.3)
- Colon cancer	5 (7.9)	2 (3.3)	7 (5.7)
- Hernia	-	5 (8.3)	5 (4.1)
- Thoracic disease	2 (3.2)	-	2 (1.6)
- Thyroid cancer	1 (1.6)	2 (3.3)	3 (2.4)
- Other	10 (15.8)	11(18.3)	21(17.0)

Table 4-2 (continued)

Medical Characteristics	Javanese Number (percent)	Batak Number (percent)	Total Number (percent)
2. Type of surgery			
- Abdominal surgery	28(44.4)	26(43.3)	54(43.9)
- Orthopedic surgery	18(28.6)	12(20.0)	30(24.4)
- Laminectomy	-	5(8.3)	5(4.1)
- Mastectomy	1(1.6)	3(5.0)	4(3.3)
- Hysterectomy	7(11.1)	4(6.7)	11(8.9)
- Thyroidectomy	1(1.6)	2(3.3)	3(2.4)
- Nephrectomy	6(9.5)	8(13.3)	14(11.4)
- Thoracic surgery	2(3.2)	-	2(1.6)
3. Area of operation			
- Chest	3 (4.8)	3 (5.0)	6 (4.9)
- Extremities	18 (28.6)	12 (20.0)	30 (24.4)
- Back	-	5 (8.3)	5 (4.1)
- Abdomen	35 (55.5)	30 (50.0)	65 (52.8)
- Neck	1 (1.6)	2 (3.3)	3 (2.4)
- Flank	6 (9.5)	8 (13.3)	14 (11.9)
4. Wound size			
- < 10 cm	21(33.3)	9(20.0)	30(30)
- 10 cm-20 cm	38(60.3)	49(81.6)	87(70.7)
- > 20 cm	4(6.3)	2(3.3)	6(4.9)
5. Previous experience of pain			
Cause of pain			
- Accident injury	6(9.5)	19(31.6)	25(20.3)
- Difficult defecation	-	4(6.7)	4(3.3)
- Knife cut	7(11.1)	3(5.0)	10(8.1)
- Laceration	11(17.5)	1(1.6)	12(9.8)
- Abscess	5(7.9)	-	5(4.1)
- Menstruation	14(22.3)	13(21.7)	27(22.0)
- Surgery	6(9.5)	12(20.0)	18(14.6)
- Urination pain	-	7(11.6)	7(5.7)
- Otitis media acute	2(3.2)	-	2(1.6)
- Toothaches	5(7.9)	1(1.7)	6(4.9)
- Backache	7(11.1)	-	7(5.7)

Table 4-2 (continued)

Medical Characteristics	Javanese Number (percent)	Batak Number (percent)	Total Number (percent)
Duration of pain			
- <5 days	29 (46.0)	34 (56.7)	63 (51.2)
- 5-7 days	12 (19.0)	16 (26.7)	28 (22.8)
- > 7 – 365 days	10 (15.9)	3 (5.0)	13(10.6)
- > 1 years	12 (19.0)	7 (11.7)	19 (15.4)
Area of pain			
- Finger	2 (3.2)	11 (18.3)	13 (10.6)
- Extremities	18 (28.6)	11 (18.3)	29 (23.6)
- Abdomen	18 (28.6)	18 (30.0)	36 (29.3)
- Flank	11 (17.5)	4 (6.7)	15 (12.2)
- Elimination area	2 (3.2)	5 (8.3)	7 (5.7)
- Ear	2 (3.2)	-	2 (1.6)
- Back	2 (3.2)	3 (5.0)	5 (4.1)
- Mouth	6 (9.5)	5 (8.3)	11 (8.9)
- Chest	2 (3.2)	3 (5.0)	5 (4.1)

3. Pain experience of Javanese patients

The postoperative pain that the Javanese patients experienced was located in their wound site. As a majority of patients underwent abdominal surgery, the location of pain was primarily in the abdominal area (55.6%). Other common locations were extremities (28.6%), flank (9.5%), and chest (4.8%). To deal with severe postoperative pain, pain medications were prescribed. Tramadol Hcl 100 mg was the most commonly prescribed medication (71.4%) for pain relief, followed by Tramadol Hcl 50 mg (28.6%). Review of Javanese patients medication records found that all Javanese patients were prescribed and

received analgesic for their pain relief on a fixed schedule, intravenous 50 mg every 8 hours or 100 mg every 12 hours during the 24 hours post surgery period. Area of postoperative pain and medications taken are shown in table 4-3 and 4-4.

Table 4-3 Frequency and percentage of postoperative pain areas in Javanese patients

Item	Frequency	Percentage
Area of pain		
- Chest	3	4.8
- Extremities	18	28.6
- Abdomen	35	55.6
- Neck	1	1.6
- Flank	6	9.5

Table 4-4 Frequency and percentage of medication taken by Javanese patients

Item	Frequency	Percentage
Medication		
- Tramadol Hcl 100 mg	45	71.4
- Tramadol Hcl 50 mg	18	28.6

Twenty-one percent of the Javanese patients reported a mean of 70% relief from all pain intervention, of which the majority was medication. Frequency and percentage of pain relief after taking pain medication in Javanese patients is shown in Table 4-5.

Table 4-5 Frequency and percentage of pain relief after taking pain medication

Item	Frequency	Percentage
Pain relief		
- 10%	1	1.6
- 20%	1	1.6
- 30%	5	7.9
- 40%	9	14.3
- 50%	12	19.0
- 60%	10	15.8
- 70%	13	21.0
- 80%	11	17.0
- 90%	1	1.6

From the BPI short form, the pain intensity and pain interference of Javanese patients during 24- 48 hours after surgery showed that .the mean pain intensity for worst pain, least pain, average pain and right now pain scores were 8.31, 1.88, 4.12 and 3.71 respectively, where 0 means no pain and 10 means very severe pain. Table 4-6 shows mean scores for pain intensity.

Postoperative pain interfered to some degree with Javanese patient's daily activities. Table 4-6 shows mean scores of pain interference experienced by Javanese patients. Similar to pain intensity, pain interference was measured by 0-10 scale, where 0 means that it does not interfere and 10 means completely interfere. The most affected areas in pain interference were normal work (mean 8.66), walking ability (mean 8.47),

general activity (mean 7.03) and relations with others (mean 5.16). The overall mean pain interference score was 5.85.

Table 4-6 Mean scores of pain intensity and pain interference of Javanese patients.

Item	Mean	SD	Range	Skew	Kurtosis
1. Pain intensity					
- Worst pain	8.31	.71	3.00	0.2	0.2
- Least pain	1.88	.65	2.00	0.3	-0.4
- Average pain	4.12	1.03	5.00	0.1	0.4
- Right now pain	3.71	1.08	5.00	-3.5	1.0
Overall pain intensity	4.50				
2. Pain interference					
- General activity	7.03	1.97	7.00	-1.5	-1.2
- Mood	3.52	1.33	6.00	-3.3	2.8
- Walking ability	8.47	.80	5.00	-3.6	.8
- Normal work	8.66	1.28	5.00	-2.3	-0.6
- Relations with other people	5.16	1.75	8.00	-4.9	4.8
- Sleep	5.00	1.98	8.00	-2.7	1.3
- Enjoyment of life	3.04	1.31	7.00	0.4	2.1
Overall pain interference	5.85				

3. Pain experience of Batak patients

The postoperative Batak patients experienced pain located in their wound site. Because the majority of this group had abdominal surgery, the location of pain was primarily in the abdominal area (50.0%). Other common locations were extremities (20%), and flank (13.3%). In dealing with postoperative pain, several pain medications were prescribed. Tramadol Hcl 100 mg was the major prescribed medication (83.3%) for relieving the pain, followed by Tramadol Hcl 50 mg (16.6%). A review from Batak patients medical and medication records found that all Batak patients were prescribed and received analgesic for their pain relief on a fixed schedule, intravenous 50 mg per 8 hours or 100 mg per 12 hours. Area of postoperative pain and medications taken are shown in Table 4-7 and 4-8.

Table 4-7 Frequency and percentage of areas of postoperative pain in Batak patients

Item	Frequency	Percentage
Area of pain		
- Chest	3	5.0
- Extremities	12	20.0
- Back	5	8.3
- Abdomen	30	50.0
- Neck	2	3.3
- Flank	8	13.3

Table 4-8 Frequency and percentage of medication taken by Batak patients

Item	Frequency	Percentage
Medication		
- Tramadol Hcl 100 mg	50	83.3
- Tramadol Hcl 50 mg	10	16.7

Thirty-six percent of the Batak patients stated a mean of 50% relief from all intervention, of which the commonly used intervention was pain medication. Frequency and percentage of percent of pain relief after taking pain medication in Batak patients is shown in Table 4-9.

Table 4-9 Frequency and percentage of pain relief after taking pain medication in Batak patients

Item	Frequency	Percentage
Pain relief		
- 10%	2	3.3
- 20%	1	1.7
- 30%	12	20.0
- 40%	10	16.7
- 50%	22	36.7
- 60%	7	11.7
- 70%	1	1.7
- 80%	5	8.3

From the BPI short form, the pain intensity and pain interference of Batak patients during 24- 48 hours after surgery showed that, the mean pain intensity for worst pain, least pain, average pain and right now pain scores were 9.85, 4.05, 5.18 and 5.14

respectively, using 0-10 scale, where 0 means no pain and 10 means very severe pain.

Table 4-10 shows mean scores for pain intensity.

Postoperative pain interfered to some degree with the patients' daily activities. Table 4-10 shows the mean scores of pain interference experienced by Batak subjects. The most affected areas in pain interference were walking ability (9.40), normal work (9.20), general activity (8.38), sleep (8.25) and mood (6.28). The overall mean pain interference score was 6.51.

Table 4-10 Mean scores of pain intensity and pain interference of Batak patients.

Item	Mean	SD	Range	Skew	Kurtosis
1. Pain intensity					
- Worst pain	9.85	.40	2.00	-0.5	-2.7
- Least pain	4.05	1.05	6.00	4.1	2.0
- Average pain	5.18	.79	4.00	-1.6	0.7
- Right now pain	5.41	1.25	7.00	3.5	1.4
Overall pain intensity	6.05				

Table 4-10 (continued)

Item	Mean	SD	Range	Skew	Kurtosis
2. Pain interference					
- General activity	8.38	1.32	6.00	-3.0	-0.8
- Mood	6.28	1.69	9.00	1.0	0.4
- Walking ability	9.40	.74	4.00	-3.5	5.0
- Normal work	9.20	1.27	7.00	-5.8	5.0
- Relations with other people	7.86	1.76	8.00	-1.8	0.9
- Sleep	8.21	1.31	8.00	-2.1	0.3
- Enjoyment of life	5.56	1.55	9.00	-1.7	0.2
Overall pain interference	6.51				

4. The Differences in Pain Experiences between Javanese and Batak Patients

The differences in pain experiences between Javanese and Batak patients was examined using inferential statistics, and independent t-test. Independent t-test was used to examine the equality between pain intensity and pain interference mean scores of Javanese and Batak patients. The assumptions of independent t-test were examined. Although some variables did not meet the assumptions of normality, from either significant skewness or kurtosis as shown in Table 4-6 and Table 4-10, no attempt was made to transform the scores because that would make the scores difficult to interpret (Tabachnick & Fidell, 1996). As the assumption of homogeneity of variance between the two groups were met in most variables, it was accepted to further analyze the results of independent t-test. The results indicated that Javanese patients and Batak patients had

significantly mean scores different for worst pain, least pain, average pain, and pain now.

The mean scores of Javanese patients were significantly lower than Batak patients for worst pain, least pain, average pain, and right now pain ($p < .01$) (Table 4-11).

Table 4-11 The difference in pain intensity scores between Javanese and Batak patients

Variable	Mean	SD	t	P
Pain Intensity				
Worst pain				
- Javanese	8.31	.71	-14.72	.000*
- Batak	9.85	.40		
Least pain				
- Javanese	1.88	.65	-13.50	.000*
- Batak	4.05	1.06		
Average pain				
- Javanese	4.12	1.03	-6.32	.000*
- Batak	5.18	.79		
Right now pain				
- Javanese	3.71	1.08	-8.07	.000*
- Batak	5.41	1.25		

* $p < .001$

For pain interference, there were significant differences in mean scores of general activity, mood, walking ability, normal work, relationship with others, sleep, and enjoyment of life between Javanese and Batak patients. Batak patients reported significantly higher scores than Javanese patients in all aspects of pain interference ($p < .01$) (Table 4-12).

Table 4-12 The difference in pain interference between Javanese and Batak patients

Variable	Mean	SD	t	P
Pain Interference				
General activity				
- Javanese	7.03	1.99	-4.44	.001*
- Batak	8.38	1.32		
Mood				
- Javanese	3.52	1.33	-9.99	.000*
- Batak	6.28	1.69		
Walking ability				
- Javanese	8.47	.80	-6.63	.000*
- Batak	9.40	.74		
Normal work				
- Javanese	8.66	1.28	-2.31	.002*
- Batak	9.20	1.27		
Relations with other people				
- Javanese	5.12	1.75	-8.64	.000*
- Batak	7.86	1.76		
Sleep				
- Javanese	5.00	1.98	-8.82	.000*
- Batak	8.21	2.06		
Enjoyment of life				
- Javanese	3.04	1.31	-9.72	.000*
- Batak	5.56	1.55		

*p<.01

As can be seen in Table 4-1 (p. 43) for Batak patients, the majority of the patients was Christian (61.7%) as opposed to Muslim (38.3%). Additional analysis was conducted to find out whether religion had an influence on pain experiences for Batak patients. The difference in pain experiences of Muslim Batak patients and Christian Batak is shown in Table 4-13 and Table 4-14.

Table 4-13 The difference between Muslim Batak and Christian Batak in pain intensity
($p = .05$)

Variable	Mean	SD	t	P
Pain Intensity				
Worst pain				
- Muslim Batak	9.95	.20	1.91	.060
- Christian Batak	9.78	.48		
Least pain				
- Muslim Batak	4.26	.75	1.22	.229
- Christian Batak	3.92	1.21		
Average pain				
- Muslim Batak	5.39	1.04	1.63	.109
- Christian Batak	5.05	1.36		
Right now pain				
- Muslim Batak	5.21	1.07	-.97	.336
- Christian Batak	5.54	1.31		

* $p < .05$

Table 4-13 shows that there was no difference between Muslim Batak and Christian Batak patients for pain intensity. In addition, for pain interference, there was also no significant difference in mean scores of mood, walking ability, normal work, relationship with others, sleep, or enjoyment of life between Batak Muslim and Batak Christian patients (Table 4-14). It might be concluded that pain experiences embedded ethnic groups, rather than related to religion.

Table 4-14 The difference in pain interference between Muslim Batak and Christian Batak ($p = .05$)

Variable	Mean	SD	t	P
Pain Interference				
General activity				
- Muslim Batak	8.65	1.30	1.25	.215
- Christian Batak	8.22	1.31		
Mood				
- Muslim Batak	6.52	1.56	.85	.396
- Christian Batak	6.13	1.78		
Walking ability				
- Muslim Batak	9.43	.58	.28	.777
- Christian Batak	9.37	.82		
Normal work				
- Muslim Batak	9.13	1.52	-.33	.742
- Christian Batak	9.24	1.11		
Relations with other people				
- Muslim Batak	7.60	1.97	-.89	.375
- Christian Batak	8.02	1.62		
Sleep				
- Muslim Batak	8.00	1.59	-.64	.525
- Christian Batak	8.35	2.31		
Enjoyment of life				
- Muslim Batak	5.26	1.65	-1.20	.233
- Christian Batak	5.75	1.48		

* $p < .0$

5. The cultural beliefs/practices about pain of Javanese and Batak patients

In order to understand the cultural beliefs or practices related to pain of Javanese and Batak patients, a structured-interview was conducted. The qualitative, interviewed data were analyzed and categorized as follows:

5.1. Meaning of Pain

Several meanings of pain for both ethnic groups were revealed. For Javanese patients, pain has 3 meanings, suffering, disturbing, and “cobaan” (spiritual test). Eight Javanese patients perceived pain as suffering. As one patient stated:

After the surgery, the pain made me suffer. It was so uncomfortable. I felt my skin was cut

(Abdominal surgery patient)

Five Javanese patients perceived pain as disturbing. One patient stated:

I was in pain, I could not walk for a moment and it interrupted my activities. It also interfered with my concentration, stopping me from conversation.

(Mastectomy patient)

Spiritual test was another meaning of pain stated by four Javanese patients. They believed that when someone is suffering, it means that God is testing their patience. One patient stated:

I believed it was a “cobaan” (test) from Allah, even though I felt a very painful sensation at the wound site. Because it came from Allah, we should sincerely accept it. I had to be more patient and did more praying to handle this situation.

(Orthopedic Patient)

For Batak patients, pain had three meanings, disturbing, discomforting, and tiring experience. When they were having pain, 6 Batak patients said that it was disturbing for them. It interfered with their activities. One Batak patient stated:

It really disturbed me. It interfered with my sleep and other activities such as I could not talk to my family members and this condition made me easy to get upset.

(Abdominal surgery patient)

Five Batak patients perceived that pain put them in a situation of discomfort. One patient stated:

When the painkiller ran out, the pain came to the wound site little by little and after a few minutes I could not tolerate it.

(Laminectomy patient)

One patient stated:

The sensation was like being cut, very painful, and leads me to panic. It was so terrible. I really needed pain killer to cope with it.

(Hysterectomy patient)

Another meaning of pain perceived by 5 Batak patients was as a tiring experience.

They perceived that pain made them feel tired. One Batak patient stated,

In the painful situation, I was restless. I was in condition of easy to get angry, yelling, and I was very sensitive. This situation really made me tired, physically and psychologically.

(Nephrectomy patient)

5.2. Responses to Pain

Stoic versus Expressive

Javanese and Batak patients responded to pain differently. This study found that when they were in pain, Javanese patients showed varied responses. Seven Javanese patients stated that they tried to ignore it and just kept silent. In their culture, when dealing with suffering, Javanese people are taught to face it with patience and they are not allowed to complain. Complaining means weakness. They are expected to be a strong person and undergo their destiny. It is emphasized that the person in pain should accept it or just endure it. One Javanese patient stated:

When a nurse came to approach me, even though I was in pain at that time, I would not ask anything from the nurse about my pain. I would say I was OK. I think I could deal with that pain.

(Abdominal surgery patient)

Meanwhile, Batak patient showed relatively different responses to pain. When the pain appeared, 5 Batak patients stated that they cried, since they could not stand the pain. Four Batak patients stated that they yelled to get prompt attention from nurses or other hospital staff, in order to help them to relieve the pain. One of them said:

When I am having pain, I want other people to give their attention to me. I am yelling or crying in order to get the nurse's attention and wish that they give me medicine.

(Abdominal surgery patient)

Praying versus Complaining

Other responses to postoperative pain for Javanese and Batak patients were praying versus complaining. Six Javanese patients tried to distract the pain through religious activities such as praying or doing “zikir” (spelling the name of Allah). One Javanese patient said:

If the pain appears, I am trying to relieve it by diverting it through activities such as doing zikir (spelling the name of Allah) so that my mind becomes calm.

(Orthopedic patient)

Meanwhile, four Batak patients responded to the pain by complaining and getting angry. By complaining, they wished that they would get help from the nurse. One Batak patient stated:

When I am in pain, I approach the nurse to complain that I have pain at the operative site. I want the nurse to help me by giving me medication to diminish the pain.

(Abdominal surgery patient)

5.3. Perception of Others to Pain Responses

Perceived No Pain versus Perceived Pain

When the subjects were asked what others might think of their responses to pain, four Javanese patients stated that others might think that they had no pain. The consequence of ignoring the pain and trying not to show that they were in pain, other people perceived that they were not in pain, even though they were. They said that they were taught to be brave, not weak person, since they were young. They were also taught

to be patient when facing a problem including suffering like pain. One Javanese patient stated:

I was in pain, but I ignored it and kept silent.... hold it. Because of no complaint, I think the nurses don't know that I am in pain.

(Orthopedic patient)

In contrast, six Batak patients stated that others might think that they had pain since Batak patients were more expressive in communicating their pain by yelling or getting angry and therefore needed help. They stated that they wanted other people to know that they had a problem and could not handle it. That person would give their hands to help. One Batak patient said:

Because I often yell or getting angry when the pain attack me, nurses or other people might think I do need help because of the pain.

(Laminectomy patient)

Received Less Attention versus Received Attention

Six Javanese patients stated that other parties, such as nurses paid less attention to them when they were in pain. This may be due to their responses to pain, where they did not show that they were in pain. One Javanese patient said:

The pain was bad after I woke up from anesthetic effect. I would feel ashamed if I could not tolerate it. I tried not showing it to others, including to the nurse. That's why the nurse did not know whether I had pain or not.

(Thyroidectomy patient)

In contrast, four Batak patients stated that nurses paid more attention to them when they were in pain. This is because of their expressive behavior against the pain that showed they were in pain. One Batak patient said:

The nurse was very considerate when I told her that I had pain. She asked about the pain and then suggested me to take a deep breath. After a few minutes a painkiller was given to me.

(Hysterectomy patient)

5.4. Self-Pain Relief Strategies

Findings of this study revealed that both Javanese and Batak patients used many methods for relieving the postoperative pain they experienced. Even though Javanese patients tried to not show that they were in pain, they still put effort into reducing their pain by various methods. Changing position was one method to relieve pain stated by three Javanese patients. Three Javanese patients carried out religious activities such as praying. Three Javanese patients did relaxation measures such as taking deep breaths; three asked nurses to give them pain medications and two took traditional herbs. They believed that these measures help them to reduce their pain.

Of 10 Batak patients, all asked nurses to give them pain medications to reduce their pain. Three of them changed position as the way to reduce pain, and two carried out relaxation measures such as taking deep breaths, singing, or listening to music. They believed that by singing or listening to music they could relax their body and their mind, helping them to reduce the pain indirectly.

Discussion

This study aimed to examine and compare the pain experiences of Javanese and Batak patients and to explore their cultural beliefs/practices about pain in four government hospitals in Medan, Sumatra Utara Province of Indonesia. This study

focused on six dimensions of the pain experience: physiologic, sensory, affective, cognitive, behavioral and sociocultural dimension.

The majority of the Javanese patients were married. Female and male were equally represented, and all Javanese patients were Muslim. The mean age was 35.0 years and ranged from 20 to 59 years. The predominant educational background of the Javanese patients was a senior high school graduation. The majority of the Javanese patients were businessmen and their income per month showed that Javanese patients were at moderate economic status. Most of the Javanese patients underwent abdominal and orthopedic surgery.

The majority of the Batak patients were male, married, and Christian. The mean same age also was 35.0 years. The educational level of the Batak patients was at senior high school level. The most common causes of surgery were abdominal and orthopedic problems.

Both ethnic groups had experienced severe pain in the 24-48 hours after surgery. Eventhough the patients had received analgesia they were still experiencing moderate to severe pain. The findings in this study support what has been reported in previous studies. Prescribing and receiving analgesia regularly does not mean that postoperative patients do not suffer from moderate to severe pain (Mark & Sachar, 1973; Erniyati, 2002). However, all subjects received analgesia in the 24-48 hours but they still experienced postoperative pain at high intensity.

1. Pain Experience of Javanese and Batak Patients

This study revealed the pain experience of Javanese and Batak patients with postoperatively and also demonstrated some differences in their experience of pain, and cultural beliefs/practice. Pain experiences of these two groups were grouped into six dimensions: physiologic, sensory, affective, cognitive, behavioral, and sociocultural dimension.

1.1 Physiologic dimensions

The subjects in this study experienced pain at different levels of intensity. This difference might relate to the disease or their medical condition. Postoperative patients reported moderate to severe pain (Bonica, 1990). It can be explained since many factors influence the intensity, quality, and duration of postoperative pain including the site, nature, and duration of the operation; type of incision and amount of intraoperative trauma; presence of serious complication; and physiology and psychological makeup of the patient (Bonica, 1990). Wilder-Smith and Schuler (1992) found that the intensity and duration of pain revealed difference between other surgeries like hysterectomy being more painful than mastectomy.

In relation to the physiologic dimension of pain experience, both groups of patients experienced pain, as a result at surgical treatment. Most Javanese patients experienced pain, which arose from abdominal surgery and orthopedic surgery, because these two kinds of surgery were predominant. The pain locations were surely in the two areas, abdomen and extremities. Similarly, Batak patients also experienced pain as results

of abdominal surgery and orthopedic surgery. The location of pain they experienced was in abdominal area and extremities.

Two types of surgery, abdominal and orthopedic surgeries are common surgeries conducted in Medan. Medan as the third big city in Indonesia has high violent accident. Vehicle accidental injury resulted in orthopedic problems such as fracture and also head injury. High number of abdominal surgery was related to high incidence of gastrointestinal problems.

1.2 Sensory dimension

This study showed that subjects had their own experience on how the pain was actually felt. In relation to the sensory dimension of pain experienced. Subjects rated their postoperative pain as mild to severe level. In general, both Javanese and Batak patients rated their pain at severe level and Batak patients also rated their pain at severe level. This study found that the overall pain scores for Javanese patients was 4.50 and Batak patients was 6.05 and The worst pain score experienced by Javanese patients was 8.13 (severe pain) and Batak patients was 9.85 (severe pain).

A study of patients with postoperative pain (Erniyati, 2002) found that mean scores of the pain average for postoperative patients was 4.28 and the worst pain was 6.78. In addition, patients with coronary artery bypass had moderate to severe level of pain and the worst pain intensity increased over time (Kuperberg & Grubs, 1997; Ferguson, Gilroy & Puntillo, 1997).

This study found that Javanese patients rated pain intensity scores significantly lower than Batak patients in all aspects. This might be related to pain threshold. No study

has been done regarding pain threshold for both ethnic groups. However, the difference may be due to pain threshold of Javanese patients being higher than Batak patients. This also can be related to wound size. In this study, 81.6% of Batak patients had wound size around 10-20 cm compared to 60.3% of Javanese patients.

This difference may be related to the cultural beliefs about pain for both ethnic groups. Batak patients believed that the pain they experienced had to be shown to others in order to get attention and then wished to get help from them for pain relief. This clearly explains why Batak patients did not stand for or endure the pain.

1.3 Affective dimension

In relation to the affective dimensions of pain experience, postoperative patients scored mild to moderate level in two aspects of pain interference, mood and enjoyment of life. The mean scores of mood for Javanese patients was 3.52 (mild) and 6.28 (moderate) for Batak patients. And the mean scores of enjoyment of life for Javanese patients was 3.04 (mild) and 5.56 (moderate) for Batak patients. Javanese patients reported the mean scores of mood and enjoyment of life lower than those of Batak patients. This may be related to the character of Javanese patients as having strong, patient, calm, having high tolerance for suffering and acceptance of destiny (Riyadi, 1994). Rusli (1994) also stated that Batak patients were known as having extrovert character. The Batak patients will speak forward how they want to say and how they feel. Batak cultural values involve strong unity, hard working, happy in nature and perceived surgery also influenced mood and enjoyment of life. This finding indicated that postoperative pain interfered with patient s' mood and enjoyment of life.

The scores for these two items were higher for Batak patients than Javanese patients. As known, Batak people have cheerful and joyful character. They are also warm and always feel happy in running their life (Rusli, 1994). Therefore, when the pain was experienced, it greatly influenced their mood and enjoyment of life. In contrast, Javanese people have calm character and high tolerance to sufferings (Riyadi, 1994). So, they could deal with pain by enduring it and accepted it as God's will. Therefore, mood and enjoyment of life for Javanese patients weren't much influenced by the pain they experienced compared to Batak patients.

Regarding pain interference to mood, the finding in this study is consistent with the study of Dorrepaal et al. (1989) which found that the pain experienced by their subjects influenced their mood state. In addition, Moore (1994) found that negative emotion increased after coronary artery bypass surgery among their subjects. Similarly, a study conducted by Wells (2000) involving 139 patients with cancer who experienced pain during hospitalization found that pain moderately affected enjoyment of life (mean 5.19) and mood (mean 4.57). She also found that subjects in her study who had surgery reported less interference in term of enjoyment of life and mood compared to those who did not have surgery, even though both reported similar pain intensity, prescribed analgesic, and pain relief.

1.4 Cognitive dimension

The cognitive dimension of pain experience is concerned with the meaning of pain and the way patients interpret their pain. In relation to the cognitive dimension of pain experience, patients stated their meaning of pain. This study found that Javanese

patients perceived pain as suffering, disturbing, and “cobaan” (spiritual test). Javanese patients believed that pain is a suffering and disturbing experience. They felt pain as painful, uncomfortable sensation. Moreover Javanese patients believed that pain was a spiritual test from “Allah” (God). Michael (2002) found that when a Javanese patient loses self control, as in anger, yelling or sorrow, the Javanese patients will usually advise that is necessary to “eling” (meaning of consciousness). It refers to a high level self-awareness that enables the Javanese patients to observe and control all movement of the self, both inner and outer, its actions, words, and thoughts. This meaning of pain as suffering is similar to meaning of pain stated by informants in a study by Villarruel (1995) investigating Mexican-American cultural meanings, expression, self-care and dependent care actions associated with experience of pain. This meaning is also consistent with the definition of pain stated by IASP (1986). IASP defined pain as an unpleasant feeling that is conveyed to the brain by sensory neurons associated with actual injury to the body. Because this uncomfortable sensation interfered with their activities, Javanese patients were disturbed by it. Disturbing means that the pain distracted them. Javanese patients also perceived pain as a spiritual test. In other words, they ascribed the pain as a means to test their patience. This meaning is influenced by their religion. In this study, all Javanese patients were Muslim. Muslim believes that suffering or disaster is a test from Allah. When they are in suffering, it means Allah is testing their patience and their effort to overcome it without complaint. Thus, when they get pain, they have to be patient. Holy Qur-an says “And Allah loves patient people” (Surah Ali Imran, verse 146;

translated by Ali, 1982). This finding suggests that religion play an important role in how pain is managed and expressed by the patient (Juarez, Ferrel, & Borneman, 1998).

Similarly, Batak patients ascribed comparable meanings of pain. They perceived pain as an uncomfortable, disturbing, and tiring experience. As the pain hurts, it creates of a sensation comfort. It also disturbs them. These two meanings of pain are similar with the meaning give by pain Javanese patients. However, it is quite interesting that Batak patients described pain as a tiring experience. This perhaps means not only physically tiring, but also psychologically tiring. They felt tired when they were in pain. The physically tiring experience may be due the to response of Batak patients to pain. They responded to pain by yelling, getting angry or crying, which uses up their energy. The more the pain they got, the more tired they were. In addition, the psychologically tiring experience may be due to temporary changes in their life because of the surgical procedure and the effect of hospitalization. While Javanese patients perceived pain as a test from Allah (God), Batak patients considered pain as a problem. This may be due to the influence of pain to their life activities and the interruption to the happiness of their life.

Many ethnic groups have their own beliefs to define the pain they experience. A study conducted by Kosko and Flaskerud (1987) showed different findings in Mexican-American patients, they believed that pain was a punishment from God, bad luck or a hot-cold imbalance. Moreover, Villarruel and de Montelllano (1992) found that Aztec and Maya patients interpreted their pain as pain should be endured stoically and God predetermined pain. Another study by Villarruel (1995) found quite similar findings in

her study. She found that Mexican-American patients perceived pain as an encompassing experience of suffering and stoicism is expected and esteemed.

1.5 Behavioral dimensions

The behavioral dimensions of postoperative pain are related to the way patients respond to pain. Behavioral dimensions are related to what extent the pain interfered with general activity, walking ability, sleep, relations with other people, and medication taken by the patients. In relation to this dimension, Javanese patients with postoperative pain scored high for general activity and walking ability and moderate for sleep, and relations with other people whereas Batak patients scored high for four above areas. This finding indicated that pain with postoperative patients often had serious negative consequences for patients' activities. These findings supported the study of Wells (2000). She studied pain interference in cancer patients and found interference with sleep, walking ability, and relations with other people. Similarly, another study found that reporting moderate or severe pain in cancer patients was correlated with interference with various aspects of function, particularly general activity (68%) and work (62%) (Partenoy, Komblith & Wong, 1997). But this explanation was contradictory with some other studies, which found that patients with joint replacements surgery reported that pain did not interfere with general activity (16%), walking ability (15%), sleep (1%) and relations with other people (9%) (Neitzel, Miller, Shephard & Belgrade, 1999).

It was found that Batak patients reported significantly be more interfered with general activity than Javanese patients. This difference may be related to intensity of pain they had experienced, which Batak patients had higher score for worst pain than Javanese

patients. This may also be related to their cultural beliefs about pain in which Batak patients considered pain as a problem or tiring experience, while Javanese patients perceived it as a test from Allah and should be accepted. This difference influences the way they responded to pain.

This study also found that Javanese and Batak patients received various pain medications. Tramadol Hcl 100 mg and Tramadol Hcl 50 mg was the most common medicine prescribed by physician to help the Javanese patients relieving the postoperative pain. Seventy one percent Javanese patients took Tramadol Hcl 100 mg and 28.6 % took Tramadol Hcl 50 mg, while 83.3% Batak patients took Tramadol Hcl 100 mg and 16.6% took Tramadol Hcl 50 mg to relieve their pain.

1.6 Socio-cultural dimension

In relation to the sociocultural dimension of pain experience, patients mentioned their cultural beliefs/practices about pain. The findings indicated that Javanese patients and Batak patients demonstrated different responses when having postoperative pain even though the pain intensity and the pain interference they had experienced were not significantly different. It occurred because of different cultural background. Batak people mostly communicated their pain or suffering by yelling with a loud voice. They also cry to get attention from others. Yelling or crying doesn't mean that they are weak, but they need help. Because they are encouraged to communicate their problem; thus they are more expressive in communicating their pain. In contrast, Javanese people are encouraged to be patient when facing a problems; thus they tried to ignore the pain, complain as little as possible, and behave stoically.

From the interviews subject, Batak and Javanese patients reported responding to pain differently. Javanese patients demonstrated stoically responses. They tried to ignore it or not to complain of having pain. They demonstrated that they were patient enough to deal with pain. In Javanese society, people are taught not to complain of pain from childhood. The concept of “nrimo” (acceptance) for something that happens in their life is widely known to Javanese people. This concept has a strong influence in their daily life and the way they face problems.

When they were in pain, they tried to divert the painful feeling by performing religious activities. They believed that pain is a test from God, and they must show their patience. This response is consistent with their strong patient character, calm, and having high tolerance to pain. Javanese culture also value acceptance of destiny and high tolerance to suffering (Riyadi, 1994). They believed that their destiny now is in pain. As Muslims, they are not encouraged to complain. This response also can be seen in other ethnic groups in which stoicism is an expected and accepted response to pain. The acceptance of pain as part of life and as God’s will is expressed by hiding or enduring the pain. These are supported by study of Juarez, Ferrel, and Borneman (1998) on influence of culture on cancer pain management in Hispanic patient. They found that subjects in their study reported they endured the pain because they were taught to believe in God and not question this will.

In contrast, Batak patients responded to pain differently. They responded in such a way in order to get attention from others, especially nurses, from whom they received treatment to relieve their pain. They cried and yelled. They also complained of having

pain and got angry. Anger had been found to be associated with greater post-operative pain in individuals undergoing surgery (Voulgari et al., 1990 as cited in Bruehl et al., 2002). These responses had a clear purpose. They wanted other people to know that they have a problem and then wanted others to help them to deal with the problem. Batak people were widely known as extrovert people. They will speak forward what they want to say or how they feel. Therefore, they are more expressive in communicating their pain.

Similar to another study, it was found that there were significant differences in pain experience when compared among Irish, Italian, Jewish, and old Americans. The Irish patients showed little emotion with pain, de-emphasized the pain, and withdrew socially when experiencing pain, Italian patients were expressive in their pain and preferred to be accompanied with others when in pain and they tended to request immediate pain relief. The Jewish patients expressed their pain through crying, moaning, and complaining, and differently between the old American was precise in defining pain, displayed little emotion, and preferred to withdraw socially when in pain (Zborowski, 1969 as cited in Beymer, 1998). In contrast, a study by Neil (1993) was found that the pain response was not significantly different among Irish, Italian, Yankee, and Black patients.

The above discussion was based on the findings that there were significant differences on pain intensity scores and pain interference scores between Javanese and Batak patients whether these differences were from embedding in different ethnic groups or being in different religions may be questioned. As the majority of Batak patients was Christian (61.7%), therefore an additional analysis was conducted to examine whether

religion contributed to this difference. The finding revealed that there was no difference in pain intensity scores and pain interference scores between Muslim Batak and Christian Batak. These findings support the notion that the differences in pain experience can come from other cultural environment between the two ethnic groups not a religion per se.