

Attitudes, Beliefs, and Expectations of Gynecological Patients toward Postoperative Pain and Its Management [□]

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Objective: To examine the attitudes, beliefs, and expectations of gynecological patients regarding postoperative pain and management.

Material and Method: A prospective study performed in 112 patients undergoing major gynecological surgery, using a preoperative questionnaire regarding expectations toward postoperative pain and management and a postoperative questionnaire regarding actual pain experience, attitudes, and beliefs about pain and management.

Results: The majority expected (92%) and experienced (89%) postoperative pain at moderate to very severe levels. The median visual analog scales (VAS) of expected and maximum experienced pain were 6.4 and 6.6, respectively. Ninety-eight percent reported at least moderate pain relief from the analgesics administered. Ninety-two percent were satisfied with their pain management. A significant number held misconceptions about postoperative pain and its management.

Conclusion: Patients should be preoperatively advised regarding postoperative pain and management. Misunderstandings should be corrected to improve the quality and adequacy of postoperative pain management.

Keywords: Attitudes, Beliefs, Expectations, Postoperative pain, Postoperative pain management

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Postoperative pain control is a top-priority basic human right⁽¹⁾. However, many studies have found suboptimal postoperative pain management and many patients experience substantial pain⁽²⁻⁷⁾, including children⁽⁸⁾.

Inadequate postoperative pain relief causes various systematic adverse consequences resulting in significant morbidity, mortality, and psychological distress^(9,10). Effective pain control reduces morbidity⁽¹¹⁾ and length of hospital stay. Postoperative pain intensity has been found as the most prominent predictive factor for the development of chronic pain⁽¹²⁾.

Besides pharmacological and non-pharmacological interventions, patients' attitudes, beliefs, and expectations may play a significant role in immediate postoperative pain experiences⁽⁹⁾ and feelings regarding the adequacy of pain management⁽¹³⁾. The present study aimed to evaluate patients' thoughts and expectations about postoperative pain and management, and to utilize the results to improve the understanding, preoperative preparation, and postoperative pain relief of future patients.

Material and Method

The present study was conducted in the tertiary-care academic medical school in the southern part of Thailand. The protocol was approved by the faculty ethics committee, and each patient signed an informed consent prior to participation.

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All patients scheduled for an elective gynecological exploratory laparotomy during the study period (January 2005 - June 2005) were included; excluded were patients unable to communicate or who required admission to an ICU.

According to a previous publication on expected and experienced pain by Apfelbaum JL, et al⁽⁴⁾, 75% of their studied patients expected the occurrence of postoperative pain while 86% of them experienced moderate to extreme postoperative pain. Considering these figures, the authors calculated that the sample size needed for comparing expected and actual experienced pain in the authors' proposed study was 108 patients, based on a confidence interval of 95% with a power of 80%. The authors included 112 patients for the present study.

The evening prior to their scheduled operation, each patient was asked to complete a preoperative questionnaire including demographics, diagnosis, the patient's expectations regarding postoperative pain and requirement for analgesics and expected degree of pain relief from analgesics. A second questionnaire was completed by the patients 24-72 hours postoperatively and surveyed the patient's actual experiences with postoperative pain and management. The main outcomes of the present study were the expected and experienced visual analog scales (VAS) obtained from the preoperative and postoperative periods, respectively.

Demographic characteristics were described as percentages, median, mean, standard deviation and range while pain levels were measured with continuous visual analog scale (VAS 0-10) and categorical intensity scores defined as very mild, mild, moderate, severe, and very severe.

Data were recorded in Epidata 2.1 and analyzed using Stata 7.0 (Stata Corporation, Texas, USA). The correlation between expected and experienced VAS was calculated using correlation coefficient, with statistical significance at $p < 0.05$.

Results

Patients' demographic data

The mean age of 112 patients was 45 years old (range 19-82). The majority had an education of grade 4 (30%) or a bachelor degree (27%). The diagnoses of myoma uteri and ovarian cancer accounted for 21% and 20%, respectively. Forty-five percent underwent total abdominal hysterectomy with unilateral/bilateral salpingo-oophorectomy. The mean duration of surgery was 162 minutes. General anesthesia was

conducted in 97% of the patients with 3% having combined epidurogeneral anesthesia. Postoperative pain was managed by continuous intravenous opioid infusion (73%), patient-controlled analgesia (16%), continuous epidural infusion with a mixture of local anesthetic and opioid (3%), and as-needed administration of intravenous opioids (8%).

Pain expectations

Of the 112 patients, 93% expected postoperative pain. Expected pain measured by visual analog scale showed an average VAS of 6.4, and by levels of pain intensity presented that 8%, 36%, 39%, and 16% expected mild, moderate, severe, and very severe pain, respectively.

The patients estimated they would request analgesics when the VAS reached 5.6, with 5%, 3%, 44%, 36%, and 12% predicting they would require analgesics when pain levels were very mild, mild, moderate, severe, and very severe, respectively.

Pain experiences

One hundred and ten patients reported postoperative pain, with a median maximum VAS of 6.6; 2%, 9%, 40%, 28%, and 21% reported pain at very mild, mild, moderate, severe, and very severe levels, respectively. The median value of the average experienced VAS was 5.3. Very mild, mild, moderate, severe, and very severe levels of average experienced pain were reported by 5%, 15%, 55%, 22%, and 3%, respectively.

The median value of the VAS at which patients requested analgesics was 5.6, with 11%, 41%,

Table 1. Reasons for satisfaction with postoperative pain management (n = 111)

Reasons	%
Believed that postoperative pain was inevitable	71.2
Expected postoperative pain would be more severe than what was actually experienced	49.6
Understanding the reasons for the postoperative pain	37.8
Knowing that postoperative pain was improving with time	51.4
Had experienced more severe pain	20.7
Wanted to please health care providers	7.2

Table 2. The patients' attitudes and beliefs toward postoperative pain and management (n = 112)

Sentences	Strongly disagree (%)	Disagree (%)	Unsure (%)	Agree (%)	Strongly agree (%)
Pain normally occurs after surgery	0	1.8	0	60.7	37.5
Postoperative pain improves as time passes by	2.7	5.4	3.6	68.8	19.6
Analgesics cannot relieve pain	24.1	67.9	2.7	5.4	0
Good patients should avoid talking about pain	3.6	41.4	7.2	40.5	7.2
Analgesics should be saved in case pain gets worse	3.6	21.6	0.9	55	18.9
Increased pain is a sign that the disease has gotten worse	9.9	38.7	15.3	30.6	5.4
Patients can easily get addicted to analgesics	5.4	44.6	21.4	25	3.6
It is easier to tolerate pain than the side effects of analgesics	3.6	38.4	14.3	39.3	4.5

42%, and 6% reporting mild, moderate, severe, and very severe pain levels at that time, respectively.

Forty-six percent reported that their pain disturbed their sleep, however most did not want stronger analgesics (85%) or more frequent administrations (88%).

One percent of the patients were not satisfied with pain management, but no reasons were given for their dissatisfaction. The rest were satisfied and rated their reasons (Table 1). Patients' attitudes and beliefs regarding postoperative pain and management are shown in Table 2.

Correlation of expected and experienced pain

The expected pain measured by VAS was significantly correlated with the experienced pain with a correlation coefficient of 0.25 (p = 0.01), as shown in Fig. 1. Fig. 2 shows significant correlation between the expected and experienced VAS requiring analgesic. The correlation coefficient was 0.23 (p = 0.02).

Forty-two percent reported that the levels of expected and experienced pain were identical. Of those who reported that the levels of expected and experienced pain were different, 71% had less pain than expected, while 29% had more.

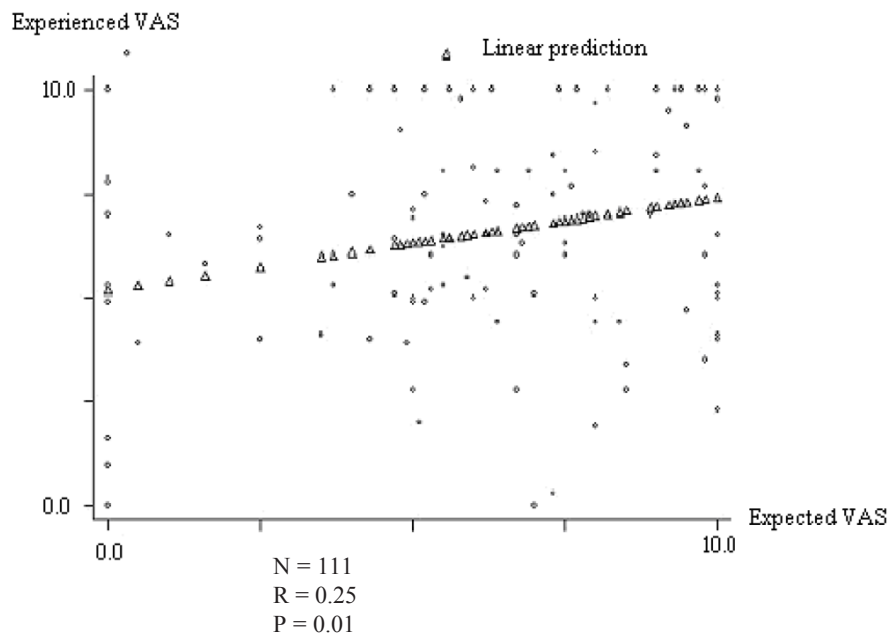


Fig. 1 Correlation between expected and experienced VAS

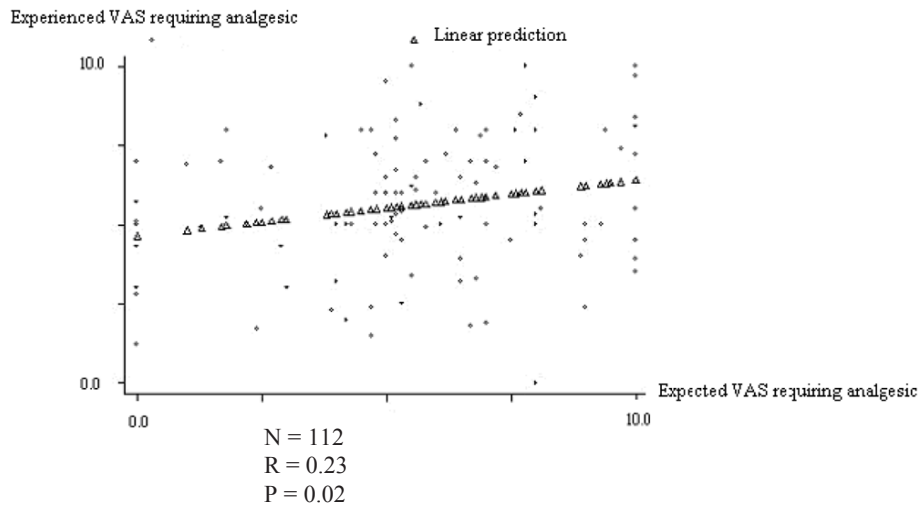


Fig. 2 Correlation between expected and experienced VAS requiring analgesic

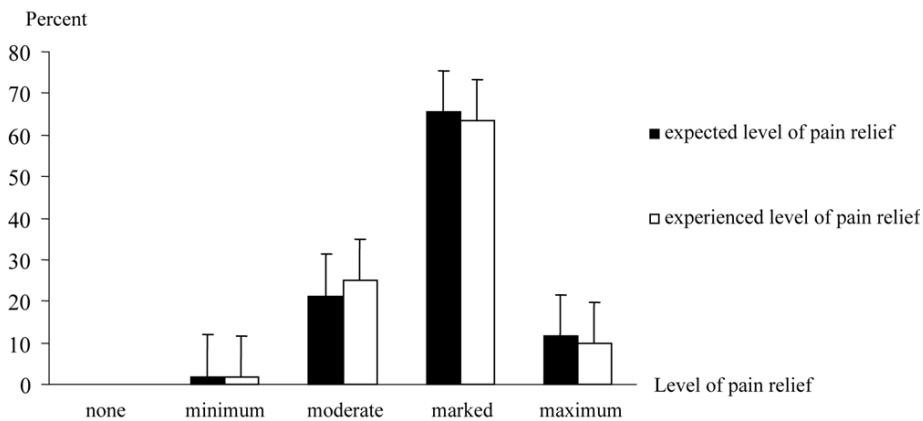


Fig. 3 Comparison between expected and experienced levels of pain relief (percent)

The expected and experienced levels of pain relief are shown in Fig. 3.

Discussion

The present survey found that studied Thai gynecological patients undergoing a major laparotomy expected and experienced postoperative pain. The majority were satisfied with the postoperative pain management provided. However, many of them held misconceptions regarding postoperative pain and its management, which may associate with cultural factors. This leads to a concern in order to establish an education about postoperative pain and its management as a part of preoperative preparation.

Postoperative pain is predictable and has been reported as the primary fear of surgical patients⁽³⁾ and used as a reason to postpone surgery⁽⁴⁾. Despite an awareness that pain is the fifth vital sign⁽¹⁴⁾ and acute pain management guidelines have been established^(3,4,6), adequate pain relief is still unachieved in many cases^(2,5).

It is the right of all patients to receive good care and the responsibility of all healthcare givers to deliver such care⁽¹⁵⁾. Insufficient pain management is unethical⁽¹⁴⁾. Nowadays hospital accreditation is crucial, and resource utilization⁽⁵⁾, patient pain, complications, and satisfaction are important indicators of quality of care⁽¹⁶⁾.

Attitudes, beliefs, characteristics, background, and previous experiences have a significant effect on the immediate pain experience⁽⁹⁾, and the expression, analgesic requirements, and perceived adequacy of pain control⁽¹³⁾.

Many patients report pain at an unacceptable rate of occurrence and intensity⁽⁶⁾ and continue to anticipate postoperative pain and accept it as unavoidable or even essential⁽¹³⁾. Patients generally expect to experience moderate to severe postoperative pain, and experienced pain has been found to be similar to expected pain⁽¹⁷⁾.

A significant number of the presented patients expected and experienced intense postoperative pain with the correlation between the expected and experienced VAS. Though it showed statistically significant correlation, the correlation coefficient is not high (0.23-0.25). It is actually not well correlated. The number is higher than that found in a previous survey by Warfield CA and Kahn CH⁽³⁾. However, most of the presented patients did not want more or stronger analgesics, indicating that even they had significant pain, their pain control was considerable.

Although the presented patients predominantly had moderate to very severe pain, more than 1/3 of 112 patients predicted they would have more severe pain than what they actually experienced. Donovan BD also found that half of the patients in his study who expected to experience postoperative pain had less pain than expected⁽⁷⁾.

Almost all of the presented patients were satisfied with their pain management, which is similar to previous studies^(4,6,7,16,17). This may indicate that from the patients' perspective, pain relief provided was not as dreadful as pain measurements recommended⁽¹⁷⁾. Although patient satisfaction is an important indicator for quality of service⁽⁹⁾, over-reliance on such subjective measurements can erroneously lead to incorrect conclusions of adequate postoperative pain control⁽¹⁸⁾ and conceal a need for improvement⁽⁷⁾. Interpreting satisfaction is challenging and sophisticated because it is multifactorial⁽⁶⁾ and should not be used as a single entity to evaluate quality⁽¹⁹⁾. In addition, one must consider that a certain "staff-pleasing-factor" is unavoidable in any hospitals⁽¹⁷⁾, and although only a small minority of the presented patients indicated that their answers were affected by their desire to please the medical staff, such behavior must be noted because it can lead to patient-related inadequate pain management. Power differences of medical staff in certain cultures can have an impact on how patients report

satisfaction⁽¹⁸⁾.

The large majority of the presented patients agreed or strongly agreed that postoperative pain was inevitable, in agreement with previous studies^(3,17). One tenth were unsure and disagreed that their postoperative pain was decreasing with time. The authors feel that patients should be advised that according to the nature of tissue healing, pain is supposed to lessen with time, which should at least decrease patients' worries. Only a very small minority of the patients agreed with the statement in the questionnaire that analgesics cannot relieve pain, and this misunderstanding should be further explored to elucidate the reasons - for instance, the patients may have an incorrect concept or have been poorly informed regarding available analgesics and techniques, or they may have received inadequate analgesia when required at this or a previous time. The authors think it is necessary to inform patients about analgesic efficacy and their own responsibility to let healthcare givers know when they have pain or if analgesics given are suboptimal. Almost half of the presented patients agreed or strongly agreed that good patients should avoid talking about pain, markedly different from a study by Warfield CA and Kahn CH in which 93% of patients considered it acceptable to complain about postoperative pain⁽³⁾. This may partly be explained by Thai culture, which teaches patients to remain silent and not bother caregivers who are busy with servicing many people. Hobara M. found that cultural traditions influenced pain expression⁽²⁰⁾. Ethnicity has been shown to influence experimental pain⁽²¹⁾. Ethnicity and race have been demonstrated to affect patients' preferences for initial care by specialists⁽²²⁾. Racial differences have also been found to play a role in pain reports, opioid use⁽²³⁾, and coping strategies⁽²⁴⁾ in chronic pain patients. The authors view this misconception as a leading problem requiring correction. For whatever reasons, if patients do not alert caregivers when they have pain, this lessens their opportunity to receive adequate pain control, especially when pain management is based on an as-needed basis.

Furthermore, 3/4 of the presented patients agreed or strongly agreed that analgesics should be saved until their pain got worse. This idea can also contribute to poorly managed pain, particularly when analgesics are administered on an as-required basis. Patients should be clearly instructed that they should request analgesics whenever they need them and there is no benefit in waiting until pain is very severe. Patients should specifically be instructed to request

additional analgesics before participating in activities likely to increase pain such as rehabilitation.

More than 1/3 of the patients agreed that increased pain was an indicator that their disease was getting worse, which may partially increase their reluctance to report pain or ask for analgesics. Although a majority of the presented patients disagreed with the questionnaire statement that patients could get addicted to analgesics easily, still a significant number of them agreed. This misunderstanding is widespread and often leads patients to refuse to request or receive analgesics. Beaugard L, et al reported that 62% of their participants believed they could easily become addicted to analgesics⁽¹⁹⁾. Patients should be clearly told that when opioids are utilized for medical purposes over a short period of time, the chance of addiction is rare, and there are no known medical studies in which such a thing has been reported. Almost half of the presented patients agreed or strongly agreed that pain was easier to tolerate than analgesic side effects, which was also found in a previous study⁽¹⁹⁾. This concern may predispose patients to accept suboptimal relief - and this can give us a useful insight to improve pain management. Healthcare givers should select analgesics for each patient carefully, and closely monitor the patient to be quickly aware and manage if any analgesic side effects occur. Some side effects such as vomiting may aggravate pain and disturb sleep, while drowsiness may interfere with early mobilization. It has been reported that people show diverse reactions to different side effects and are ready to compromise pain relief to reduce distressing or severe side effects, but to different levels⁽²⁵⁾. Multimodal analgesia can provide adequate pain control while minimizing undesirable side effects⁽²⁶⁾.

It should be noted that the present survey was conducted in Thai gynecological patients in one tertiary-care academic medical school, and this sample may not represent the population at large, with other pain conditions or from other cultural backgrounds. However, the results do strongly indicate that patients' attitudes, beliefs, and expectations should be taken into account when caregivers consider the management of postoperative pain. More sophisticated and large-scale studies to explore the effects of patients' thoughts and the effect of cultural contexts on postoperative pain and its management would be most useful in providing further information in this important area.

Conclusion

The present survey found that the majority

of patients expected and truly experienced pain at moderate to very severe levels, but almost all were satisfied with the pain relief provided. A considerable number of the presented patients held various misunderstandings concerning pain and management. This might have predisposed them to avoid asking for a stronger analgesic or more frequent administrations. Patients are crucial participants in their own pain relief. Offering education to patients and shaping their attitudes and beliefs are essential components of effective postoperative pain management.

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ทัศนคติ ความเชื่อ และความคาดหวังของผู้ป่วยนรีเวชต่อความปวดภายหลังการผ่าตัดและการระงับปวด

ศศิกานต์ นิมมานรัชต์, ทิพวรรณ เลียบสี้อตระกูล, ธิดา เอื้อกฤดาธิการ, วิรัตน์ วศินวงศ์

วัตถุประสงค์: เพื่อศึกษาทัศนคติ ความเชื่อ และความคาดหวังของผู้ป่วยนรีเวชต่อความปวดภายหลังการผ่าตัดและการระงับปวด

วัสดุและวิธีการ: เป็นการศึกษาแบบไปข้างหน้าในผู้ป่วยนรีเวช 112 ราย โดยใช้แบบสอบถามก่อนการผ่าตัด เพื่อเก็บข้อมูลเกี่ยวกับความคาดหวังต่อความปวดภายหลังการผ่าตัดและการระงับปวด และใช้แบบสอบถามหลังการผ่าตัด เพื่อเก็บข้อมูลเกี่ยวกับประสบการณ์ความปวด ทัศนคติ และความเชื่อเกี่ยวกับความปวดและการระงับปวด

ผลการศึกษา: ผู้ป่วยร้อยละ 92 คาดว่าจะมีความปวดภายหลังการผ่าตัดในระดับรุนแรงปานกลางถึงมาก ในขณะที่ผู้ป่วย ร้อยละ 89 มีความปวดภายหลังการผ่าตัดในระดับรุนแรงปานกลางถึงมาก คะแนนความปวดสูงสุดเฉลี่ยที่คาดไว้และที่ประสบจริง เท่ากับ 6.4 และ 6.6 คะแนนตามลำดับ ผู้ป่วยร้อยละ 98 ได้ผลการระงับปวดตั้งแต่ระดับปานกลางขึ้นไป ผู้ป่วยร้อยละ 92 มีความพึงพอใจต่อการระงับปวดที่ได้รับ ผู้ป่วยจำนวนมากมีความเข้าใจที่คลาดเคลื่อนต่อความปวดและการระงับปวด

สรุป: ผู้ป่วยควรได้รับคำแนะนำเกี่ยวกับความปวดภายหลังการผ่าตัดและการระงับปวดตั้งแต่ก่อนการผ่าตัด ควรมีการแก้ไขความเข้าใจที่คลาดเคลื่อนของผู้ป่วยเพื่อให้การระงับปวดภายหลังการผ่าตัดครบถ้วนและมีคุณภาพที่ดีขึ้น
