

Preoperative Anxiety among Patients Who Were about to Receive Uterine Dilatation and Curettage

Chutima Roomruangwong MD*,
Sookjaroen Tangwongchai MD*, Aurasa Chokchainon MSc (Mental Health)**

* Department of Psychiatry, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

** Obstetrics/Gynecology Operation Department, Rajavithi Hospital, Bangkok, Thailand

Background: From our clinical experience, preoperative anxiety are quite common among women who were about to receive uterine dilatation and curettage (D&C). However, these conditions have not yet been studied. The authors aimed to examine the prevalence of anxiety as well as the underlying specific concerns among this group of patients.

Material and Method: The authors assessed preoperative anxiety in 383 women who were about to receive D&C by using the Hospital Anxiety and Depression Scale and questionnaires to assess specific concern toward this operation.

Results: Prevalence of preoperative anxiety was 23.2%. Among the pregnant subjects, preoperative anxiety was associated with concern over being approached in lithotomy position and concern with the procedure. For the non-pregnant subjects, high preoperative pain score, marital status, having no medical expense reimbursement, distrust in medical personnel, concern over being approached in lithotomy position, and intra-operative pain are associated with anxiety.

Conclusion: Preoperative anxiety is quite common among this group of patients. Understanding the underlying specific concern of women who are about to receive D&C will help medical personnel to provide more effective management strategies in making the patients more comfortable.

Keywords: Preoperative, Anxiety, Depression, Dilatation and curettage

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Surgery-related anxiety is somewhat widely accepted as a normal response in pre-operative patients⁽¹⁻³⁾. Research has demonstrated that waiting for surgery or invasive procedures is stressful^(2,4-7) and anxiety provokes and affects both physiological (e.g. tachycardia, hypertension, elevated temperature, sweating, nausea and a heightened sense of touch, smell or hearing⁽³⁾) and psychological parameters⁽⁸⁾ (e.g. increased tension, apprehension, nervousness and aggression⁽⁹⁾). Many patients experience substantial anxiety before operation⁽¹⁰⁻¹³⁾, and this is reported to affect 60 to 80% of surgical patients^(13,14), especially women^(12,15), patients without previous surgical experiences⁽¹²⁾, and those who were waiting for major surgery or invasive procedures^(2,4-7). Levels of anxiety are found to be higher in patients during the pre-operative stage of an approaching surgical procedure. Many factors have been demonstrated to be related to higher levels of anxiety; the impending,

unknown elements that follow a surgical procedure, lack of knowledge about an anticipated surgical procedure, and uncertainty of postoperative results and expectations^(16,17). There are many specific types of concern related to anxiety (e.g. anesthesia, operation procedure, pre- and post-operative pain, and unconsciousness)⁽¹⁸⁻²⁴⁾, which may cause patients to refuse planned surgery⁽²³⁾, and also worsen their perception of pain, increase requirements for post-operative analgesia, and decrease overall satisfaction with perioperative care^(12,25-27). Reducing preoperative anxiety may improve surgical outcome, shorten hospital stay, and minimize lifestyle disruption⁽²⁸⁾.

Dilatation and curettage (D&C) literally refers to the dilation (opening) of the cervix and surgical removal of the contents of the uterus. It can be used both as a diagnostic (i.e. to diagnose the conditions by collecting tissue samples for biopsy) and a therapeutic gynecological procedure (i.e. to treat irregular or heavy uterine bleeding, and to evacuate of retained products of conception or remove any tissue leftover from spontaneous abortion). Although this procedure is not classified as a major operation, it is somewhat invasive a procedure which involves uncertainty of

Correspondence to:

Roomruangwong C, Department of Psychiatry, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand.

Phone: 0-2256-4298

E-mail: chutima.room@gmail.com

postoperative results, pain, and loss. Patients who are going to receive D&C are expected to have at least some degree of anxiety. However, to the best of the authors' knowledge, pre-operative anxiety in this group of patients has not been studied. Therefore, the objective of the present study was to examine the prevalence and predictors of pre-operative anxiety in this group of patients.

Material and Method

The authors studied a cross-sectional sample of 383 women recruited between December 2006 and March 2007 (the sample size was calculated by using a formula $Z_{\alpha/2}^2 pq/d^2$, using $p = 0.475^{(29)}$, and $d = 0.05$). Women were eligible for the present study if they were: 1) sent to receive D&C procedure at the operation room either for elective or for emergency D&C; 2) 18 years of age or older, and 3) able to read and write in the Thai language. Exclusion criteria included patients with current medical condition(s) that impeded their level of consciousness or their ability to answer the questionnaires. These patients were excluded by well-trained interviewers who worked as professional nurses in the Obstetric/Gynecology Operation Department. Of 385 patients screened, 383 met the eligibility criteria (mean age 38.1, SD = 11.9), and were included in the analysis. From these, two patients were excluded, one was younger than 18, and another had severe medical conditions with impairment of consciousness. The present study was approved by the Ethics Committee of Rajavithi Hospital and written informed consent was obtained from all subjects.

During the waiting period for the operation (standard 30 min), the subjects were asked to complete questionnaires to obtain demographic information, and medical, gynecology, and psychosocial histories. They also completed self-rating questionnaires measuring anxiety (the Hospital Anxiety and Depression Scale, Thai-HADS⁽³⁰⁾), level of social support (the Personal Resource Questionnaire, PRQ-Part II⁽³¹⁾), and the authors' 16-item questionnaire for assessment of their specific concern toward the operation. (The questionnaire has been designed by interviewing patients who were about to receive D&C, validated by five experts, and has already been trialed in 40 patients.) After completion of all questionnaires by each subject, the authors also reviewed their chart for relevant clinical data (e.g. diagnosis, indications, emergency, or elective surgery).

The data were analyzed using SPSS for Windows version 17.0. Descriptive statistics included

means and standard deviations (SD) and percentages where appropriate. Initially, univariate analyses were performed to assess potential differences between anxious and non-anxious subjects. Chi-square test was used to examine the association between anxiety and various categorical variables. Student's t-test was used to compare groups on variables including age and pain score. Significance different was set at $p < 0.05$. Variables that were significantly associated with pre-operative anxiety in univariate analysis (with $p < 0.05$) were further examined by using multivariate logistic regression analysis (were present as adjusted odd ratios with 95% confidence interval).

Results

There were 383 patients (162 with pregnant and 221 non-pregnant) recruited in the present study with the mean age of 38.1 ± 11.9 years (28.04 ± 6.79 years among pregnant subjects and 45.52 ± 9.13 years among non-pregnant subjects). Most of these patients were married (70.2%), they had received education of primary or secondary school (72.6%), and had medical expense reimbursement for the visit (64.2%). Regarding medical information, most of the patients had no underlying physical and psychiatric illness (75.5% and 95.5%, respectively), and had no experience with uterine curettage (76.2%).

Among the 162 pregnant subjects, 75 were present with incomplete abortion, 37 with a dead fetus in utero, 25 with blighted ovum, 14 with missed abortion, nine with molar pregnancy, one with postpartum hemorrhage, and one with retained placenta. Among the 221 non-pregnant subjects, 136 were present with abnormal uterine bleeding, 24 with uterine myoma, 12 with corpus cancer, 29 with hypermenorrhea, 10 with endometrium hyperplasia, seven with adenomyosis, and three with an ovarian tumor. Two hundred one patients (52.5%) received emergency uterine curettage, whereas 182 (47.5%) elective curettage.

The mean \pm SD of preoperative pain score was 3.06 ± 0.15 (4.13 ± 3.18 among pregnant subjects and 2.28 ± 2.66 among non-pregnant subjects). The perception of social support was 63.59 ± 14.04 , (64.03 ± 13.39 among pregnant subjects and 63.28 ± 14.53 among non-pregnant subjects). Most patients (95.5%) trusted their medical personnel. However, 19 (5.0%) were unfamiliar with them and 32 (8.3%) were concerned over being neglected by the medical personnel. Regarding their specific concern about the operation, 147 (38.4%) perceived D&C as a

life-threatening event, 148 (38.6%) were concerned about the D&C procedure, 86 (22.5%) about anesthesia, 44 (11.5%) about receiving IV fluid, 193 (50.4%) about intra-operative pain, 165 (43.1%) about postoperative pain, 135 (35.2%) feared medical devices, 76 (19.8%) were concerned about infertility due to D&C, 156 (40.7%) were concerned over being approached in the lithotomy position, 56 (14.6%) were discomfort with the atmosphere in the operation room, and 147 (38.4%) were concerned about cancer.

Using the HADS cut-off of 11 or more, resulted in 89 patients (23.2%) categorized into the "anxiety group" (26.5% in pregnant group, and 20.8% in non-pregnant group). Univariate analysis revealed that among the pregnant group, anxious subjects tended to have no experience with D&C ($\chi^2 = 5.645$, $p = 0.016$), perceived curettage as a life-threatening event ($\chi^2 = 6.267$, $p = 0.023$), felt discomfort with the atmosphere in the operation room ($\chi^2 = 9.553$, $p = 0.004$), feared medical devices ($\chi^2 = 13.689$, $p = 0.000$), had specific concern over being approached in the lithotomy position ($\chi^2 = 17.293$, $p = 0.000$), about being neglected by medical personnel ($\chi^2 = 10.238$, $p = 0.003$), were concerned about intra-operative ($\chi^2 = 7.451$, $p = 0.006$), and post-operative pain ($\chi^2 = 10.801$, $p = 0.001$), D&C procedure ($\chi^2 = 16.609$, $p = 0.000$), anesthesia ($\chi^2 = 7.044$, $p = 0.015$), and infertility from D&C procedure ($\chi^2 = 10.082$, $p = 0.002$). Regarding the non-pregnant group, anxious subjects tended to have higher preoperative pain score ($t = -2.996$, $df = 219$, $p = 0.003$), were more likely to have separate/divorced or widow marital status ($\chi^2 = 14.467$, $p = 0.001$), had no medical expense reimbursement for this visit ($\chi^2 = 4.983$, $p = 0.037$), had no experience with D&C ($\chi^2 = 4.043$, $p = 0.047$), had discomfort with the atmosphere in the operation room ($\chi^2 = 16.570$, $p = 0.000$), and feared medical devices ($\chi^2 = 11.890$, $p = 0.001$), perceived curettage as a life-threatening event ($\chi^2 = 5.691$, $p = 0.034$), and perceived low level of social support as measured by PRQ-part II ($\chi^2 = 13.744$, $p = 0.001$). Moreover, they were less likely to trust their medical personnel ($\chi^2 = 11.968$, $p = 0.003$), had specific concern over being approached in lithotomy position ($\chi^2 = 24.708$, $p = 0.000$), being neglected by medical personnel ($\chi^2 = 5.413$, $p = 0.035$), receiving IV fluid ($\chi^2 = 15.592$, $p = 0.000$), intra-operative ($\chi^2 = 18.003$, $p = 0.000$), and post-operative pain ($\chi^2 = 11.069$, $p = 0.001$), concern for D&C procedure ($\chi^2 = 13.167$, $p = 0.001$), anesthesia ($\chi^2 = 14.347$, $p = 0.001$), and infertility from D&C procedure ($\chi^2 = 7.991$, $p = 0.012$) (Table 1).

The logistic regression analysis revealed that pregnant subjects who had concern over being approached in the lithotomy position and concern about the D&C procedure, and non-pregnant subjects with a higher preoperative pain score, being single/separate/divorced/ or widow marital status, having no medical expense reimbursement, feeling distrust in medical personnel, having concern over being approached in the lithotomy position, and concern about intra-operative pain were at greater risk of being anxious (Table 2).

Discussion

The present study found that 23.2% of the subjects who were waiting for a uterine curettage procedure were experiencing preoperative anxiety. Two factors were significantly associated with preoperative anxiety among the pregnant group, including concern for being approached in the lithotomy position and concerned about the D&C procedure. Regarding the non-pregnant group, those who had a higher preoperative pain score, had separate/divorced/widow marital status, had no medical expense reimbursement, distrusted medical personnel, concerned for being approach in the lithotomy position, and concerned about intra-operative pain were at greater risk of anxiety. The authors did not find a relationship between preoperative anxiety and age, education level, socioeconomic status, reason for referral, and type of operation.

The prevalence of preoperative anxiety in the present study is somewhat lower than those of other's studies, even although the data were analyzed on the basis of more homogenous groupings (pregnant and non-pregnant group)^(13,14). This may be due to the differences in population, instruments, as well as cutoff score used to define anxious groups, and the D&C procedure might not be subjectively recognized as a major surgical procedure. The association between anxiety and higher pre-operative pain score has been mentioned in several studies⁽³²⁻³⁵⁾ (however, most of those studies had found the relationship with postoperative pain). Anxiety has been shown to have a positive relationship with pain and have the ability to predict pain severity^(34,36-38). It decreases pain sensitivity and increases the perception of pain⁽³⁹⁾. Regarding social support, it has also been demonstrated to have a negative association with anxiety⁽⁴⁰⁾.

Regarding the medical expense reimbursement system in Thailand, the government would have a responsibility for medical expenses, if the patients had

Table 1. Factors associated with preoperative anxiety

	Patients' characteristic (n = 383)			Pregnant group (n = 162)			Non-pregnant group (n = 221)		
	Non-anxious group (n = 119) mean ± SD or n (%)	Anxious group (n = 43) mean ± SD or n (%)	X ² or t test	p-value	Non-anxious group (n = 175) mean ± SD or n (%)	Anxious group (n = 46) mean ± SD or n (%)	X ² or t test	p-value	
Age (years)	28.54 ± 6.79	26.65 ± 6.65	1.576	0.117	45.98 ± 8.61	43.76 ± 10.82	1.468	0.143	
Preoperative pain score	3.98 ± 3.19	4.56 ± 3.14	-1.017	0.311	2.01 ± 2.49	3.30 ± 3.03	-2.996	0.003**	
Marital status			0.372	0.830			14.467	0.001**	
Single	15 (71.4)	6 (28.6)			20 (83.3)	4 (16.7)			
Married	91 (74.6)	31 (25.4)			125 (85.0)	22 (15.0)			
Separated, divorced, widow	13 (68.4)	6 (31.6)			30 (60.0)	20 (40.0)			
Level of education			0.042	1.000			0.189	0.741	
Lower than secondary school	38 (74.5)	13 (25.5)			85 (77.9)	24 (22.1)			
Monthly income ≤ 10,000 THB	53 (71.6)	21 (28.4)	0.235	0.4628	60 (72.3)	23 (27.7)	3.835	0.060	
No medical expense reimbursement	45 (69.2)	20 (30.8)	0.994	0.366	40 (69.0)	18 (31.0)	4.983	0.037*	
Previous experience of D&C	24 (92.3)	2 (7.7)	5.645	0.016*	57 (87.7)	8 (12.3)	4.043	0.047*	
History of bleeding per vagina	79 (74.5)	27 (25.5)	0.181	0.710	91 (77.1)	27 (22.9)	0.656	0.507	
Type of operation			0.768	0.529			0.497	0.602	
Elective operation	30 (78.9)	8 (21.1)			112 (77.8)	32 (22.2)			
Emergency operation	89 (71.8)	35 (28.2)			63 (81.8)	14 (18.2)			
Reason for D&C			3.495	0.068			3.992	0.061	
For diagnostic purposes	39 (65.0)	21 (35.0)			63 (72.4)	24 (27.6)			
For therapeutic purposes	80 (78.4)	22 (21.6)			112 (83.6)	22 (16.4)			
History of physical illness(s)	14 (93.3)	1 (6.7)	3.350	0.120	67 (84.8)	12 (15.2)	2.360	0.166	
History of psychiatric illness(s)	3 (75.0)	1 (25.0)	0.005	1.000	10 (66.7)	5 (33.3)	1.530	0.319	
Trusted in medical personnel	114 (74.0)	40 (26.0)	0.518	0.439	172 (81.1)	40 (18.9)	11.968	0.003**	
Perceived curettage as a life-threatening event	24 (58.5)	17 (41.5)	6.267	0.023*	21 (63.6)	12 (36.4)	5.691	0.034*	
Specific concerns for									
Being approached in a lithotomy position	53 (60.2)	35 (39.8)	17.293	0.000**	40 (58.8)	28 (41.2)	24.708	0.000**	
The atmosphere in operation room	14 (50.0)	14 (50.0)	9.553	0.004**	14 (50.0)	14 (50.0)	16.570	0.000**	

USS 1: about 30-33 THB

* p < 0.05, ** p < 0.01

Table 1. (cont.)

Patients' characteristic (n = 383)	Pregnant group (n = 162)			Non-pregnant group (n = 221)		
	Non-anxious group (n = 119) mean ± SD or n (%)	Anxious group (n = 43) mean ± SD or n (%)	X ² or t test p-value	Non-anxious group (n = 175) mean ± SD or n (%)	Anxious group (n = 46) mean ± SD or n (%)	X ² or t test p-value
Specific concerns for						
Feeling unfamiliar with the medical personnel	6 (50.0)	6 (50.0)	3.657 0.084	6 (85.7)	1 (14.3)	0.187 1.000
Being neglected from medical personnel	10 (45.5)	12 (54.5)	10.238 0.003**	5 (50.0)	5 (50.0)	5.413 0.035*
Being received IV fluid	14 (58.3)	10 (41.7)	3.305 0.082	9 (45.0)	11 (55.0)	15.592 0.000**
Intra-operative pain	66 (66.0)	34 (34.0)	7.451 0.006**	61 (65.6)	32 (34.4)	18.003 0.000**
Post-operative pain	51 (62.2)	31 (37.8)	10.801 0.001**	56 (67.5)	27 (32.5)	11.069 0.001**
Medical devices	44 (59.5)	30 (40.5)	13.689 0.000**	39 (63.9)	22 (36.1)	11.890 0.001**
D&C procedure	51 (60.0)	34 (40.0)	16.609 0.000**	40 (63.5)	23 (36.5)	13.167 0.001**
Anesthesia	25 (58.1)	18 (41.9)	7.044 0.015*	25 (58.1)	18 (41.9)	14.347 0.001**
Being infertile due to D&C	39 (60.0)	26 (40.0)	10.082 0.002**	5 (45.5)	6 (54.5)	7.991 0.012**
Having a cancer	39 (65.0)	21 (35.0)	3.495 0.068	63 (72.4)	24 (27.6)	3.992 0.061
Perception of social support			3.064 0.216			13.744 0.001**
Low	11 (57.9)	8 (42.1)		21 (56.8)	16 (43.2)	
Moderate	84 (74.3)	29 (25.7)		119 (84.4)	22 (15.6)	
High	24 (80.0)	6 (20.0)		35 (81.4)	8 (18.6)	

US\$ 1: about 30-33 THB

* p < 0.05, ** p < 0.01

Table 2. Logistic regression analysis for the factors associated with preoperative anxiety

Factors	Adjusted OR	95% CI	p-value
Pregnant group			
Concerned for being approached in a lithotomy position	3.447	1.378-8.622	0.008
Concerned for D&C procedure	3.100	1.274-7.539	0.013
Non-pregnant group			
Preoperative pain score	1.244	1.083-1.430	0.002
Marital status	2.744	1.335-5.641	0.009
No medical expense reimbursement	2.576	1.073-6.186	0.034
Trusted in medical personnel	0.060	0.010-0.360	0.002
Concerned for being approached in a lithotomy position	5.049	2.097-12.161	0.000
Concerned for intra-operative pain	2.470	1.259-4.842	0.009

utilized the healthcare services at a particular hospital in their native habitat⁽⁴¹⁾. However, some patients, who were not currently residing in their native habitat, chose to be responsible for their own medical costs. Since the patients who have no medical expense reimbursement in the present study had not always had a low income, anxiety in these patients may come from “unpredictability” to the extent they have to pay for the costs of a service⁽⁴²⁾. Regarding specific concern about this operation, lithotomy position has also been demonstrated to be amongst the anxiety-provoking and physically uncomfortable position, especially, among young women^(43,44). The most common reasons were fear of pain, embarrassment about undressing and about personal cleanliness⁽⁴⁵⁾.

Moderate levels of anxiety were beneficial to patients, however, as it prepares themselves for stressful surgery and a post-operative pain. Too little or too high anxiety were considered to be maladaptive and to have a negative effect on surgical recovery⁽³²⁾. Too high anxiety level sensitizes the patients to noxious stimuli, making their pain more acute⁽³²⁾. Early detection and prompt intervention in the patients who are at risk for anxiety may help the patients to have better operative outcome and recovery.

To the best of the authors’ knowledge, this is the first study that examines preoperative anxiety and explores various aspects of specific concern among women who were about to receive D&C. However, the present study has certain limitations. It is based on subjects in only one large tertiary hospital in the capital of Thailand, which might not represent the general population nationwide. Moreover, the present study was conducted in heterogeneous groups of subjects (both elective and emergency cases) with various reasons of referral for D&C (both for diagnostic and therapeutic purposes). Therefore, it may be difficult to apply the results to any specific group of patients. Moreover, the waiting period might be less than 30 min in some subjects who had emergency conditions. The interviewer might have to shorten the interview period in those subjects, which may affect the quality of interview. However, as in the exclusion criteria, the subjects who had severe medical condition(s) that impeded their level of consciousness or their ability to answer the questionnaires would be excluded from the present study. Future research is needed in a specific population and the authors suggest development of a holistic preoperative intervention/strategies for the patients who are at risk for anxiety.

Potential conflicts of interest

None.

References

1. Taylor-Loughran AE, O’Brien M, LaChapelle R, Rangel S. Defining characteristics of nursing diagnoses fear and anxiety: a validation study. *Applied Nursing Research* 1989; 2: 178-86.
2. Leach M, Zernike W, Tanner S. How anxious are surgical patients? *ACORN Journal* 2000; 13: 29-35.
3. Pritchard MJ. Identifying and assessing anxiety in pre-operative patients. *Nurs Stand* 2009; 23: 35-40.
4. Swindale JE. The nurse’s role in giving pre-operative information to reduce anxiety in patients admitted to hospital for elective minor surgery. *J Adv Nurs* 1989; 14: 899-905.
5. Brown SM. Quantitative measurement of anxiety in patients undergoing surgery for renal calculus disease. *J Adv Nurs* 1990; 15: 962-70.
6. Moerman N, van Dam FS, Muller MJ, Oosting H. The Amsterdam Preoperative Anxiety and Information Scale (APAIS). *Anesth Analg* 1996; 82: 445-51.
7. Calvin RL, Lane PL. Perioperative uncertainty and state anxiety of orthopaedic surgical patients. *Orthop Nurs* 1999; 18: 61-6.
8. Markland D, Hardy L. Anxiety, relaxation and anaesthesia for day-case surgery. *Br J Clin Psychol* 1993; 32 (Pt 4): 493-504.
9. Cooke M, Chaboyer W, Hiratos MA. Music and its effect on anxiety in short waiting periods: a critical appraisal. *J Clin Nurs* 2005; 14: 145-55.
10. Johnston M. Anxiety in surgical patients. *Psychol Med* 1980; 10: 145-52.
11. Domar AD, Everett LL, Keller MG. Preoperative anxiety: is it a predictable entity? *Anesth Analg* 1989; 69: 763-7.
12. Badner NH, Nielson WR, Munk S, Kwiatkowska C, Gelb AW. Preoperative anxiety: detection and contributing factors. *Can J Anaesth* 1990; 37: 444-7.
13. Norris W, Baird WL. Pre-operative anxiety: a study of the incidence and aetiology. *Br J Anaesth* 1967; 39: 503-9.
14. Shevde K, Panagopoulos G. A survey of 800 patients’ knowledge, attitudes, and concerns regarding anesthesia. *Anesth Analg* 1991; 73: 190-8.
15. Vingerhoets G. Perioperative anxiety and

- depression in open-heart surgery. *Psychosomatics* 1998; 39: 30-7.
16. Montgomery GH, Bovbjerg DH. Presurgery distress and specific response expectancies predict postsurgery outcomes in surgery patients confronting breast cancer. *Health Psychol* 2004; 23: 381-7.
 17. Palmer JA. Decreasing anxiety through patient education. *Plast Surg Nurs* 2007; 27: 215-20.
 18. Mitchell M. Patients' perceptions of pre-operative preparation for day surgery. *J Adv Nurs* 1997; 26: 356-63.
 19. Mitchell MJ. Psychological preparation for patients undergoing day surgery. *Ambul Surg* 2000; 8: 19-29.
 20. Egbert LD, Battit GE, Welch CE, Bartlett MK. Reduction of post-operative pain by encouragement and instruction of patients. *N Engl J Med* 1964; 270: 825-7.
 21. Ramsay MA. A survey of pre-operative fear. *Anaesthesia* 1972; 27: 396-402.
 22. Male CG. Anxiety in day surgery patients. *Br J Anaesth* 1981; 53: 663P.
 23. McCleane GJ, Cooper R. The nature of pre-operative anxiety. *Anaesthesia* 1990; 45: 153-5.
 24. Mitchell M. Patient anxiety and modern elective surgery: a literature review. *J Clin Nurs* 2003; 12: 806-15.
 25. Ip HY, Abrishami A, Peng PW, Wong J, Chung F. Predictors of postoperative pain and analgesic consumption: a qualitative systematic review. *Anesthesiology* 2009; 111: 657-77.
 26. Thomas T, Robinson C, Champion D, McKell M, Pell M. Prediction and assessment of the severity of post-operative pain and of satisfaction with management. *Pain* 1998; 75: 177-85.
 27. Mathews A, Ridgeway V. Personality and surgical recovery: a review. *Br J Clin Psychol* 1981; 20: 243-60.
 28. Lee A, Chui PT, Gin T. Educating patients about anesthesia: a systematic review of randomized controlled trials of media-based interventions. *Anesth Analg* 2003; 96: 1424-31.
 29. Ashok PW, Hamoda H, Flett GM, Kidd A, Fitzmaurice A, Templeton A. Psychological sequelae of medical and surgical abortion at 10-13 weeks gestation. *Acta Obstet Gynecol Scand* 2005; 84: 761-6.
 30. Nilchaikovit T, Lortrakul M, Phisansuthideth U. Development of Thai version of hospital anxiety and depression scale in cancer patients. *J Psychiatr Assoc Thai* 1996; 41: 18-30.
 31. Brandt PA, Weinert C. The PRQ—a social support measure. *Nurs Res* 1981; 30: 277-80.
 32. Janis IL. Psychological stress: psychoanalytic and behavioral studies of surgical patients. New York: Wiley; 1958.
 33. Bruegel MA. Relationship of preoperative anxiety to perception of postoperative pain. *Nurs Res* 1971; 20: 26-31.
 34. Kain ZN, Sevarino F, Alexander GM, Pincus S, Mayes LC. Preoperative anxiety and postoperative pain in women undergoing hysterectomy. A repeated-measures design. *J Psychosom Res* 2000; 49: 417-22.
 35. Thomas V, Heath M, Rose D, Flory P. Psychological characteristics and the effectiveness of patient-controlled analgesia. *Br J Anaesth* 1995; 74: 271-6.
 36. Ploghaus A, Narain C, Beckmann CF, Clare S, Bantick S, Wise R, et al. Exacerbation of pain by anxiety is associated with activity in a hippocampal network. *J Neurosci* 2001; 21: 9896-903.
 37. Sternbach RA. Pain: a psychophysiological analysis. New York: Academic Press; 1968.
 38. Melzack R. The puzzle of pain. New York: Basic Books; 1973.
 39. Malow RM. The effects of induced anxiety on pain perception: a signal detection analysis. *Pain* 1981; 11: 397-405.
 40. de Medeiros VC, Peniche AC. The influence of anxiety in coping strategies used during the pre-operative period. *Rev Esc Enferm USP* 2006; 40: 86-92.
 41. National Health Security Office, Thailand. National health security act B.E.2545 (A.D.2002) [database on the Internet]. 2002 [cited 2011 Jun 25]. Available from: http://www.nhso.go.th/eng/index_main.jsp#
 42. Walters V, Charles N. "I just cope from day to day": unpredictability and anxiety in the lives of women. *Soc Sci Med* 1997; 45: 1729-39.
 43. Millstein SG, Adler NE, Irwin CE Jr. Sources of anxiety about pelvic examinations among adolescent females. *J Adolesc Health Care* 1984; 5: 105-11.
 44. Hamilton MS, Dodge EF. Pelvic examination: patient safety and comfort. *JOGN Nurs* 1981; 10: 344-5.

ภาวะวิตกกังวลก่อนการผ่าตัดในผู้ป่วยที่รอเข้ารับการชูดมดลูก

ชุตติมา หุ่่มเรื่องวงษ์, สุขเจริญ ตั้งวงษ์ไชย, อรสา โชคชัยนันท์

วัตถุประสงค์: เพื่อจะศึกษาถึงความชุกของภาวะวิตกกังวลก่อนการผ่าตัด รวมทั้งปัจจัยที่มาของความกังวลในผู้ป่วยที่ถูกส่งมาเข้ารับการชูดมดลูก

แบบวิจัย: เป็นการศึกษาเชิงพรรณนา ณ จุดเวลาใดเวลาหนึ่ง (cross-sectional descriptive study)

วัสดุและวิธีการ: ผู้นิพนธ์ได้ทำการศึกษากภาวะวิตกกังวลก่อนการผ่าตัดในผู้ป่วยหญิง 383 รายที่ถูกส่งมาเข้ารับการชูดมดลูก ณ ห้องผ่าตัดของกลุ่มงานสูติศาสตร์ โรงพยาบาลราชวิถี โดยใช้เครื่องมือ แบบสอบถาม *the Hospital Anxiety and Depression Scale* ฉบับภาษาไทย และแบบสอบถามความกังวลที่จำเพาะเกี่ยวกับการชูดมดลูกครั้งนี้ ในช่วงที่ผู้ป่วยกำลังรอเข้าห้องผ่าตัด

ผลการศึกษา: พบผู้ป่วยหญิงที่ถูกส่งมาชูดมดลูกจำนวน 89 รายที่มีภาวะวิตกกังวลก่อนการผ่าตัด คิดเป็นร้อยละ 23.2 โดยในผู้ป่วยที่ถูกส่งมารับการชูดมดลูกด้วยข้อบ่งชี้ทางสูติศาสตร์ พบว่าปัจจัยที่มีความเกี่ยวข้องกับภาวะวิตกกังวลก่อนการผ่าตัดอย่างมีนัยสำคัญทางสถิติได้แก่ ความรู้สึกลำบากใจในการเข้ารับการชูดมดลูกในท่าชันขาหยั่ง และความกังวลเกี่ยวกับขั้นตอนการชูดมดลูก สำหรับผู้ป่วยที่ถูกส่งมารับการชูดมดลูกด้วยข้อบ่งชี้ทางนรีเวช พบว่าปัจจัยที่มีความเกี่ยวข้องกับภาวะวิตกกังวลก่อนการผ่าตัดอย่างมีนัยสำคัญทางสถิติได้แก่ การมีคะแนนค่าความปวดสูงในช่วงก่อนชูดมดลูก สถานภาพสมรส ไม่สามารถเบิกค่าใช้จ่ายในการรักษาพยาบาลได้ รู้สึกไม่ไวใจบุคลากรทางการแพทย์ที่ให้บริการ รู้สึกลำบากใจในการเข้ารับการชูดมดลูกในท่าชันขาหยั่ง และความกังวลเกี่ยวกับอาการปวดในช่วงขณะชูดมดลูก

สรุป: ภาวะวิตกกังวลก่อนผ่าตัด ในผู้ป่วยที่รอรับการชูดมดลูก เป็นภาวะที่พบค่อนข้างบ่อยในเวชปฏิบัติ การเข้าใจถึงความกังวลที่จำเพาะในผู้ป่วยกลุ่มนี้ จะช่วยให้บุคลากรทางการแพทย์สามารถจัดหาวิธีการช่วยเหลือที่ตรงกับความกังวลของผู้ป่วย เพื่อให้ผู้ป่วยรู้สึกสะดวกสบายมากขึ้นในการผ่าตัด