



#631 EXAMINATION OF FACTORS AFFECTING MENSTRUAL PAIN SEVERITY

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Introduction

Pelvic pain is defined as a persistent cyclical or non-cyclical pain, lasting at least 6 months and strong enough to interfere with daily life activities.(1) Women may report menstrual pain, a cyclical pelvic pain associated with menstruation. Menstrual pain almost invariably occurs in women with ovulatory cycles and usually appears within a year after menarche. Menstrual pain is associated with various physical symptoms, and these symptoms typically occur several hours before or after the onset of menstruation and last for 24-48 hours. The pain is usually cramping and most commonly seen as lower abdominal pain and lower back pain. Lower abdominal pain is usually described as pain in the lower back or legs. (2) Menstrual pain is caused by myometrial activity resulting in uterine ischemia. During uterine ischemia, anaerobic metabolites accumulate in the uterus and stimulate small-size type-C pain neurons. This myometrial activity is also modulated and augmented by prostaglandin synthesis.(3) Multiple other factors may play a role in the perception and the severity of the pain. Therefore, the aim of this study was to determine the factors affecting the severity of menstrual pain.



Methods

- ✓ This was a descriptive study which included 380 women aged over 18 years and with complaint of menstrual pain in the majority of menstrual cycles.
- ✓ The severity of pain was assessed by 0-10 cm Visual Analogue Scale (VAS) anchored at 0= no pain and 10 cm= unbearable pain.
- ✓ Demographic, physical and menstrual characteristics and detailed medical histories of the all individuals were recorded.
- ✓ Subjects' health related quality of life (QOL), physical activity levels, psychological status and anxiety level were assessed with "Menstruation Symptom Scale", "Nottingham Health Profile", "International Physical Activity Questionnaire-Short Form", "Beck Depression Inventory" and "State-Trait Anxiety Inventory", respectively.
- ✓ Descriptive statistics of variables were presented as means and standard deviations. In order to describe factors affecting menstrual pain severity, backward logistic regression was used. A p-value of 0.15 was used as the entry criterion whereas a p-value of 0.05 was considered as the threshold for a variable in order to stay in the model.

Results

380 women with a mean age of 22.13±4.09 years and body mass index of 21.52±3.02 kg/m² were enrolled in the study. The average VAS score was 6.02±2.67 cm. Factors including age, body mass index, family history (yes/no), marital status, level of anxiety, depression and physical activity and quality of life score which were thought to affect menstrual pain severity were included in the linear regression analysis. After entering first step on analysis, family history, anxiety level, quality of life score, physical activity level and BMI remained as significant predictors of menstrual pain severity.

Table 1: Linear regression analysis of predictive factors of menstrual pain severity (n=380)

	Variables Entered	B	Standard Error	βeta	t	p
Menstrual pain severity (Dependent variable)	family history	-0.861	0.271	-0.159	-3.173	0.002*
	STAI	0.023	0.014	0.091	1.713	0.087*
	NHP	0.229	0.101	0.121	2.264	0.024*
	IPAQ	-0.100	0.000	0.085	1.686	0.093*
	BMI	-0.098	0.046	-0.110	-2.143	0.033*

STAI: State-Trait Anxiety Inventory, NHP: Nottingham Health Profile, IPAQ: International Physical Activity Questionnaire-Short Form, BMI: Body mass index, B: unstandardized coefficient, t: statistic, *p<0.15.

Interpretation of Results

According to the results of the present study, the menstrual pain severity was found to be 0.87 times higher in subjects who has positive family history. It was determined that 1 unit increase in anxiety score increased menstrual pain severity approximately 0.02 cm and each decrease in QOL score of the individuals increased menstrual pain severity by 0.23 cm. It was also determined that each increase in the score of physical activity level and body mass index resulted in a decrease of 0.1 cm in menstrual pain severity.

Conclusions

Menstrual pain is a common pelvic pain complaint with prevalence rates between 50% and 91% in women. Therefore, it is very important to determine the factors affecting the severity and perception of menstrual pain in order to evaluate and treat dysmenorrheic women, effectively. **Based on the results of the present study, family history, level of anxiety and physical activity, quality of life and body composition seems to be important factors for researchers and clinicians interested in menstrual pain.**

References

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