



(Dawood, 1985)  
( , 1996; Zhang & Li Wan Po, 1998).  
(指壓)

가 가  
(治癒力)  
( , 1988; , 1990; ,  
1996). 가  
(經穴)

(經絡) (激發) , (氣穴)  
,  
( , 1988; ,  
1990). , ,  
( , , 1991;  
, 1993).

가  
가

3. 가

- 가
- 1) (SP-6)  
가
- 가
- 2) (SP-6)  
가

(曲骨)

4.

- 1)  
(三陰交) 3  
(寸) (後緣) (
- , 1991), 가 가  
( ,  
1993).

2)

( , 1997).

3)

2.

( , 1999; , 1991).

1.

- 1) (SP-6)  
가  
가 가?
- 2) (SP-6)  
가 (曲骨)  
가 가?

Group	Time	Experimental group	Control group
Pretest		* Characteristics * Menstrual attitudes * Stress * Dysmenorrhea intensity * Skin temperature of CV2 acupoint	* Characteristics * Menstrual attitudes * Stress * Dysmenorrhea intensity * Skin temperature of CV2 acupoint
Treatment		SP-6 Acupressure (20min)	SP-6 touch (20min)
1st post test	Immediately	* Dysmenorrhea intensity	* Dysmenorrhea intensity
	after 30min	* Dysmenorrhea intensity * Skin temperature of CV2 acupoint	* Dysmenorrhea intensity * Skin temperature of CV2 acupoint
	after 1,2,3hr	* Dysmenorrhea intensity	* Dysmenorrhea intensity
	Menses 7day	* Skin temperature of CV2 acupoint	* Skin temperature of CV2 acupoint

<Fig 1> Research Design

2.

3.

1) 가 3 25-35 , 4 , , , ,  
 2) 1 (Visual 2) Johnson (1974) Visual  
 Analogue Scale : VAS) 4.0 Analogue Scale(VAS) 24  
 3) 4) 0 10 '가'  
 5) 0 ' 10 '가'  
 6) 가  
 7) 가  
 2 (Visual Analogue Scale : VAS) 4.0 (20℃)  
 3) (50-60%) 15 (Simson  
 28 , electric co., USA) (曲骨) 1

(°C) . 24  
( , 1999).

4)

Brooks-Gunn Ruble(1980)

Menstrual Attitudes Questionair

(1993)

5 30 5

2

가

Incentive

24

가

20

15

Cronbach's Alpha = .80

Cronbach's Alpha = .79

. 1

5)

2)

(1990)

8

80

가

20

10 (8 , 2 ) 1

120

가

가 2,081mmHg,

가 2,081mmHg

Lazarus

Dohrenwend

가

가

가

가

20-22°C,

50-60%

. 8  
, 가 ,

, 가

3)

7 2

.81).

.93

(Cronbach's α=

Cronbach's α=

(1) 1

가

30

4.

가

1

2002 3 5 8 31

가 3

가 가

가 2

(2) 2

7 2

1)

. 1

15

1

가

22 , 50kg

13

5. 6  
가
- 1) SAS Program  
2)  $\chi^2$ -test t-test 2)  
3) ANCOVA Bonferroni  
method

<Table 2>

1. 3)  
, 30  
1) 1, 2, 3  
5.30±1.31, 2.73±1.53, 30  
<Table 1> 2.23±1.50, 1 2.26±1.68, 2

<Table 1> Homogeneity test for characteristics of subjects between the experimental and control groups (N = 58)

Variables	Categories	Exp(n=30)	Cont(n=28)	$\chi^2$	p
		N(%)	N(%)		
Age(yrs)	19-20	9(30.1)	4(14.2)	8.48	0.58
	21-25	19(63.3)	19(67.9)		
	26-28	2(6.6)	5(17.8)		
Weight(kg)	40-45	3(10.3)	3(10.7)	20.56	0.24
	46-50	12(41.2)	8(28.5)		
	51-55	11(37.9)	13(46.4)		
	56-61	3(10.3)	4(14.3)		
Menarche(yrs)	9-12	15(50.0)	7(25.0)	8.05	0.15
	13-15	15(50.0)	21(75.0)		
Menstrual period(days)	4-5days	7(53.8)	9(56.3)	4.01	0.54
	6-8days	6(46.1)	7(43.7)		

Exp : Experimental group Cont : Control group  
\* p < .05

<Table 2> Homogeneity test for variables related to menstrual attitudes and stress between the experimental and control groups (N = 58)

Variables	Exp(n=30)	Cont(n=28)	t	p
	Mean ± SD	Mean ± SD		
Menstrual attitudes	57.07 ± 6.31	54.56 ± 6.05	1.46	0.14
Stress	341.53 ± 39.36	331.29 ± 49.27	0.64	0.52

Exp : Experimental group Cont : Control group  
p < .05

2.33±1.88, 3 2.36±1.90 34.71±0.64℃ 가  
 , 7  
 5.14±0.84, 4.21±1.47, 34.09±0.62℃ .  
 30 3.60±1.64, 1 3.75±1.66,  
 2 3.57±1.52, 3 3.50±1.47 30 (F=4.87, p=0.03)  
 가 가 “ 가  
 ANCOVA (F=18.50, .  
 p=0.000), 30 (F=12.29, p=0.004), 1  
 (F=12.37, p=0.004), 2 (F=8.04, p=0.032)  
 가 , 3  
 (F=6.66, p=0.063)  
 가 ( , 1994; , ,  
 가 , , , , 2002;  
 가 Pedron-Nuevo, Gonzalez-Unzaga, De Celis-  
 Carrillo, Reynoso-Isla & Dela Torre-Romeral,  
 4) 1998). , ,  
 34.09±0.93 가  
 ℃ , 30 35.01±0.67℃ ,  
 가 , 7  
 34.19±0.88℃ . 가 (Woods, 1985;  
 33.03±0.76℃ , 30 Banikarim & Chacko & Kelder, 2000; Wolf &  
 Schumann, 1999; Hillen, Grbavac, Johnston,

<Table 3> Comparison of dysmenorrhea between the experimental and control groups (N = 58)

Group Variables	Exp (n = 30)	Cont (n = 28)	ANCOVA F	p*
	Mean ±SD	Mean ±SD		
Dysmenorrhea intensity Before	5.30 ± 1.31	5.14 ± 0.84		
Immediately	2.73 ± 1.53	4.21 ± 1.47	18.50	0.000
after 30min	2.23 ± 1.50	3.60 ± 1.64	12.29	0.004
after 1hr	2.26 ± 1.68	3.75 ± 1.66	12.37	0.004
after 2hr	2.33 ± 1.88	3.57 ± 1.52	8.04	0.032
after 3hr	2.36 ± 1.90	3.50 ± 1.47	6.66	0.063

Exp : Experimental group Cont : Control group  
 p\* = Bonferroni method  
 p\* < .05

<Table 4> Comparison of Skin temperature of CV2 acupoint between the experimental and control groups (N = 58)

Group Variables	Exp (n = 30)	Cont (n = 28)	ANCOVA F	p
	Mean±SD	Mean±SD		
Skin temperature of CV2 acupoint(℃)				
Before	34.09±0.93	33.03±0.76		
After 30min	35.01±0.67	34.71±0.64	4.87	0.03
Menses 7day	34.19±0.88	34.09±0.62	0.16	0.68

Exp : Experimental group Cont : Control group  
 p < .05

Straton & Keogh, 1999; Coco, 1999).

가 10 20 20 (34.09±0.93℃), (34.64±0.88℃), 30  
 , (35.01±0.67℃)  
 가 가 , (33.03±0.76℃), (34.43±  
 0.78℃), 30 (34.71±0.64℃)  
 가 .  
 가 30  
 (F=4.87, p= 0.03)  
 가 가 .

(F = 18.50, p = 0.000), 30 (F = 12.29, 가  
 p=0.004), 1 (F = 12.37, p=0.004), 2 .  
 (F = 8.04, p=0.032) (2002) 6  
 가 3 (F = 6.66, p=0.063) 가 32.49℃ 33.65℃ 가  
 가 . Vicker(1996)  
 가 , , ,  
 가 가 .

(LI4) 가  
 (Naruse, 2000),  
 2001; , 2000) (足陽明胃經) (足三里) (手陽明  
 大腸經) (合谷)  
 ( , 2002).  
 가 가 가  
 96.7% 가 ( , 가  
 1994) (Zhang, 1990). (不通則痛) (不  
 가 . (榮則痛) (經筋)  
 (通暢) , (氣血)  
 (營養)  
 (肝·腎經) (皮部)

(皮膚) 가

1. 가 20
- 가 2 2

(經絡學說)

2.

(nonequivalent control group pretest-posttest design)

3.

2002 5 1 8 31  
2

30 , 28 58  
가

### References

(1993).  
 (1988). 完圖解指壓療法. : ( )  
 (2002).  
 (1999). , 5.  
 (1999). : &  
 (1999).  
 (1994).  
 - (Premenstrual Syndrome)  
 (2002).  
 , 8(1), 85-95.  
 (1995).  
 , 1(2), 191-207.  
 (1993).  
 ,  
 23(2), 224.  
 (1997). . *The Pharmacy Journal*, 8,  
 140-143.  
 (1999). 3 . :  
 (1996).  
 , 3(1), 31-40.  
 (1996).

1 20

, 30 , 1

, 2 , 3

Johnson(1974) Visual Analogue  
Scale(VAS)

(Simson electric co., USA)

(曲骨)

Brooks-

Gunn Ruble(1980) (Menstrual Attitudes  
Questionnaire)

(1990)

SAS

program 2-test, ANCOVA, Bonferroni  
method

가 1 : “

가 ” 가

가 2 : “

가 ” 가

가

가

가



- (2002). , 19(2).
- (1980).
- (1994). 120
- (1996).
- (1990).
- (1991).
- (2001). 20
- (2000). , cyclooxygenase-2
- (2002),
- , Elizabeth, Choi, (2001). Effects on labor pain for primipara women treated by SP-6 pressure, *Journal of Midwifery & Women's Health*
- (1991).
- : . *Korean Journal of Clinical Psychology*, 10(1), 137-158.
- (1999).
- (1991). 上. :
- (1985).
- Balbi, Musone, Menditto, Di Prisco, Cassese, D'Ajello, Ambrrosio & Cardonel. (2000). Influence of menstrual factors and dietary habits on menstrual pain in adolescence age. *European Journal of Obstetrics, Gynecology & Reproductive Biology*, 91(2), 143-148.
- Banikarim & Chacko & Kelder. (2000). Prevalence and impact of dysmenorrhea on Hispanic female adolescents. *Archives of Pediatrics & Adolescent Medicine*, 154(12), 1226-1229.
- Brooks-Gunn, J., & Ruble, D. (1980). The menstrual attitude Questionnaire. *Psychosomatic Medicine*, 42(5), 503-512.
- Coco. (1999). Primary dysmenorrhea. *American Family physician*, 60(2), 489-96.
- Davis & Westhoff, (2001). Primary dysmenorrhea in adolescent girls and treatment with oral contraceptives. *Journal of Pediatric & Adolescent Gynecology*, 14(1), 3-8.
- Dawood, M. Y. (1985). Dysmenorrhea. *Journal of Reproductive Medicine*. 30(3), Mar. 154-67.
- Deligeoroglou. (2000). Dysmenorrhea. *Annals of the New York Academy of sciences*, 900, 237-244.
- Helms, J. M. (1987). Acupuncture for the management of primary dysmenorrhea. *Obstetrics & Gynecology*, 69(1), 51-56.
- Hillen, Grbavac, Johnston, Straton & Keogh. (1999). Primary dysmenorrhea in young Western Australian women: prevalence, impact, and Knowledge of treatment. *Journal of Adolescent Health*, 25(1), 40-45.
- Johnson, J., Rice, V. (1974). Component of pain; Sensory and Distress. *Nursing Research*, 23, 203-209.
- Naruse, S. (2000). Chorioretinal blood flow changes following acupuncture between thumb and forefinger. *Japenese Journal of Ophthalmology*, 45(2), 205.
- Pedron-Nuevo, Gonzalez-Unzaga, De Celis-Carrillo, Reynoso-Isla & Dela. (1998). Incedence of dysmenorrhea and associated symptoms in women aged 12-24 years. *Gynecology Obstetricia de Mexico*, 66, Dec, 492-494.
- Romana, D. (2000). Transvaginal color doppler study of uterine blood flow in primary dysmenorrhea. *Acta Odstet Gynecol Scand*, 79, 1112-1116.

- Vicker, A. (1996). Regulating complementary medicine. Researchers into complementary therapy do not have to "sacrifice their therapeutic integrity". *Bmj*, 313(7061), 881-882.
- Wolf & Schumann. (1999). Dysmenorrhea. *Journal of the American Academy of Nursing Practitioners*, 11(3), 125-130.
- Woods, N. F., & Most, A. (1985). Major life events, daily stressors, and premenstrual symptoms. *Nursing Research*, 43, 263-268.
- Zhang & Li Wan Po. (1998). Efficacy of minor analgesics in primary dysmenorrhoea : a systematic review. *British Journal of Obstetrics & Gynaecology*, 105(7), 780-789.

- Abstract -

## Effects of SP-6 Acupressure on Dysmenorrhea and Skin Temperature at CV2 Acupoint of Low Abdomen in the Female College Students

*Jun, Eun Mi<sup>1)</sup>*

The purpose of this study was to identify effects of the SP-6 acupressure on dysmenorrhea, skin temperature at the CV2 acupoint. This study was a pretest-posttest study design with a nonequivalent control group.

Data were collected from May 1 to August 31, 2002. A total of 58 female students from two universities participated in the study. Among them, 30 female students were assigned as the experimental group and the other 28 students to the control group.

Both groups were pretested before the intervention for three variables, the degree of

dysmenorrhea, and skin temperature at the CV2 acupoint. Then, the SP-6 acupressure was provided for 20 minutes for students in the experimental group.

The instruments used in this study included the Visual Analogue Scale developed by Johnson(1974), skin thermometer by Simson Electric CO., Menstrual Attitudes Questionnaire Scale developed by Brooks-Gunn & Ruble(1980), and Stress scale developed by Chun and Kim (1990).

The data were analyzed with the SAS program using Chi-square test, t-test, and ANCOVA and Bonferroni method were used to determine significant differences between the two groups.

The results of this study are as follows;

1. There was a statistically significant difference in the intensity of dysmenorrhea after the intervention with the experimental group having a lower intensity than the control group.
2. There was a statistically significant difference in skin temperature at the CV2 acupoint 30min ( $F=4.87$ ,  $p=0.03$ ) after the intervention with the experimental group having a higher temperature.

In conclusion, the SP-6 acupressure has proved to be an effective nursing intervention to reduce dysmenorrhea. Therefore, it is recommended women suffering from dysmenorrhea use the SP-6 acupressure.

Key words : SP-6 acupressure, Female college student, Dysmenorrhea, CV2 acupoint, Skin temperature.

1) Part time instructor, Department of Nursing, Pochon CHA University