

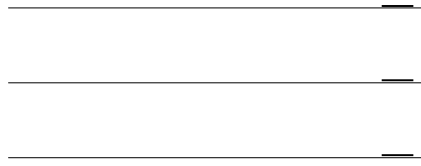
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190 (, 2000).

500 (Hurrell , 1998).

Northwestern National Life Insurance (1991)

70%가

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(Seward, 1997; , 1997; Niedhammer , 1998;

, 2000).

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20%

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(Gordly , 2000).

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Karasek (Job
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10 94

2% (JCQ's user's project summary, 1995).

(, , ,)

(Clarvit, 1988; Harlow , 1991,1995,1996; Shortridge, 1995; Schenker
, 1997; Fenster . 1999; Gordly , 2000)

(Florack , 1993, Brett , 1997; Fenster , 1997, Hedegaard,
1999; Figa-Talamanca , 2000)

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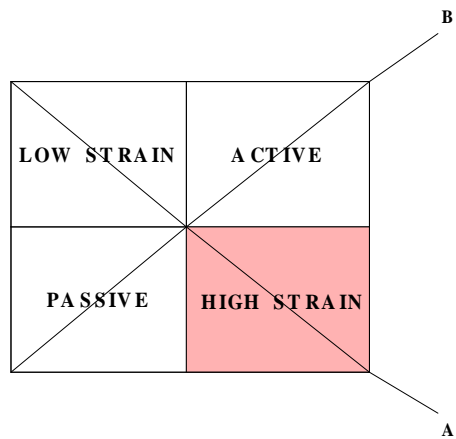
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Seward(1997) “ () ” . 가 가 (Simple Explanatory Model), - (Person-Environmental Fit Model), (Job Strain Model) McLean 가 , 가 , 가 (Seward, 1997). 1979 Karasek (psychological job demand) (decision latitude), (social support) 가 가 가 , 가 가 가

(high strain) , ,
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 (Seward, 1997; Quine, 1998).

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1.

2001년 5월 21일부터 6월 7일까지 8주간 실시된 설문조사 결과, 총 200명 중 150명(75%)가 응답하였다. 이 중 80명(53.3%)은 남성이고, 70명(46.7%)은 여성이었다. 평균 연령은 24.7세였다.

2.

본 연구는 Karasek (1985)의 직무-스트레스 이론을 바탕으로 (skill discretion) 6, (decision authority) 5, (psychological job demand) 5, 8, 4 Likert 1-4

$$\begin{aligned}
 & \text{(Skill Discretion) : } [Q1+Q3+Q4+Q5+Q6+(5-Q2)] \times 2 \\
 & \text{(Decision Authority) : } [Q7+Q9+(5-Q8)] \times 4 \\
 & \text{(Decision Latitude) = } \quad \quad \quad + \quad \quad \quad \\
 & \text{(Psychological Job Demands) : } [(Q10+Q11) \times 3 + (15- \\
 & (Q12+Q13+Q14)) \times 2] \\
 & \text{(Supervisor Social Support) : } [Q15+Q16+Q17+Q18] \\
 & \text{(Coworker Social Support) : } [Q19+Q20+Q21+Q22] \\
 & \text{(Social Support) : } \quad \quad \quad + \quad \quad \quad
 \end{aligned}$$

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26.4 30.7
93 (77.5%) 27
(22.5%) 55 (43.3%), 72 (56.7%)
가
1 (0.8%)
2 (1.7%), 가 1 (0.8%)
63 (49.6%)
79 (65.8%)
0.6 0.8
1.6 1.5
18 (14.2%) 4
(3.3%) (2).

2.	(%),	±
()	26.4 ± 5.12	30.7 ± 5.64
	93 (77.5)	55 (43.3)
	27 (22.5)	72 (56.7)
	4 (3.3)	18 (14.2)
	116 (96.7)	109 (85.8)
	2 (1.7)	0 (0)
	117 (97.5)	126 (99.2)
	1 (0.8)	1 (0.8)
	79 (65.8)	63 (49.6)
	41 (34.2)	64 (50.4)
	13 (10.8)	22 (17.3)
	107 (89.2)	105 (82.7)
(/)	1.5 ± 1.47	1.6 ± 1.11
(/)	0.8 ± 1.01	0.6 ± 0.96
(/)	1.5 ± 1.60	0.6 ± 0.96

2.

127 가
 21 (17.5%)
 99 . 94
 (78.3%) 3 .
 8.7
 가 2.0 , 가 6.5 ,
 가 0.3 . 8.6 ,
 6.3 , 가 2.1 ,
 가 0.2 . 144
 139 (3).

3. (%) , ±

()	4.1 ± 4.51	6.3 ± 4.85
	8.6 ± 0.76	8.7 ± 1.25
	6.3 ± 1.73	2.0 ± 2.25
	2.1 ± 1.79	6.5 ± 2.52
	0.2 ± 0.46	0.3 ± 0.73
()	139 ± 43.2	144 ± 59.0
	21 (17.5)	127 (100)
	99 (82.5)	0 (0)

가

26.2 , 23.2 .
 67.1 , 57.5 .
 24.1 20.4 (4).

4.

	24	12-44	27	12-38
	58	34-84	66	28-92
	20	8-32	24	15-36

3.

60 (47.2%), 34 (28.3%) ,
 1 가 28 , 2 가 27 , 3
 가 3 , 4 가 2 , 1 9 , 2 13 .
 1 2 .
 13 , 17 ,
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 108 (85%) ‘ ’ 83

(69.2%) ‘ , .
 61 (48%) ‘
 , 64 (53.3%) ‘ , .
 31.4 32.0 .
 5.1 5.8 (

5).

5.	(%),	±
	32.05 ± 10.83	31.44 ± 14.08
	5.80 ± 4.08	5.12 ± 1.20
	64 (53.3)	61 (48)
	56 (46.7)	66 (52)
	83 (69.2)	108 (85)
	37 (30.8)	19 (15)
	0.29 ± 0.65	0.78 ± 0.97
	0.03 ± 0.20	0.02 ± 0.12
	0.06 ± 0.40	0.14 ± 0.47
	0.05 ± 0.38	0.17 ± 0.47
	0.19 ± 0.49	0.38 ± 0.67
	0.1 ± 0.32	0.38 ± 0.62

4.

가 29.1 가 27.3
 가 . ,
 ,
 , , (6).

6.	(%),	±	P
	29.05 ± 5.73	27.26 ± 5.86	0.04*
	0.78 ± 1.01	0.80 ± 1.01	0.87
	1.14 ± 1.42	1.39 ± 1.61	0.27
	1.58 ± 1.21	1.69 ± 1.62	0.64
	111(75.0)	37(25.0)	0.36
	80(80.8)	19(19.2)	
	29(82.9)	6(17.1)	0.53
	162(76.4)	50(23.6)	
	109(76.8)	33(23.2)	0.92
	82(78.1)	23(21.9)	
	72(76.6)	22(23.4)	0.95
	119(77.8)	34(22.2)	
	141.0 ± 52.49	144.1 ± 50.21	0.68
	8.67 ± 1.08	8.85 ± 0.88	0.23
	3.82 ± 2.88	5.16 ± 3.04	0.002**
	4.66 ± 3.03	3.57 ± 3.31	0.02*

*: p<0.05, **: p<0.01.

가 27.5 가
 28.8 , ,
 , ,
 (8).

8.	(%),	±	P
	27.55 ± 4.90	28.83 ± 5.93	0.22
	0.75 ± 0.97	0.97 ± 1.20	0.23
	1.15 ± 1.43	1.47 ± 1.66	0.23
	1.58 ± 1.29	1.77 ± 1.43	0.41
	127(85.8)	21(14.2)	0.97
	84(84.9)	15(15.1)	
	31(88.6)	4(11.4)	0.75
	180(84.9)	32(15.1)	
	120(84.5)	22(15.5)	0.76
	91(86.7)	14(13.3)	
	77(81.9)	17(18.1)	0.29
	134(87.6)	19(12.4)	
	141.6 ± 57.53	141.7 ± 51.03	0.99
	8.66 ± 1.06	9.00 ± 0.86	0.07
	4.17 ± 2.95	3.86 ± 3.05	0.55
	4.30 ± 3.11	5.08 ± 3.19	0.16

*: p<0.05, **: p<0.01

가 27.9

, 가 29.3
 ,
 (9).

9.	(%),	±	P
	27.95 ± 4.81	29.36 ± 6.60	0.05*
	0.92 ± 1.09	0.63 ± 0.90	0.02*
	1.44 ± 1.55	0.95 ± 1.33	0.007**
	1.79 ± 1.35	1.42 ± 1.25	0.02*
	80(54.1)	68(45.9)	0.23
	45(45.5)	54(54.5)	
	18(51.4)	17(48.6)	1.00
	107(50.5)	105(49.5)	
	80(56.3)	62(43.7)	0.04*
	45(42.9)	60(57.1)	
	47(50.0)	47(50.0)	0.98
	78(51.0)	75(49.0)	
	139.2 ± 47.56	144.3 ± 56.08	0.44
	8.76 ± 0.83	8.66 ± 1.22	0.47
	4.21 ± 3.06	4.04 ± 2.87	0.64
	4.34 ± 3.26	4.49 ± 2.99	0.71

*: p<0.05, **: p<0.01

가 (10, 11).

10.	(%)	±	P	
		28.58 ± 5.82	32.50 ± 1.29	0.002**
		0.77 ± 1.01	1.50 ± 1.00	0.15
		1.17 ± 1.45	2.75 ± 1.50	0.03*
		1.60 ± 1.32	2.25 ± 0.95	0.32
		148(100.0)	0(0.0)	0.02*
		95(96.0)	4(4.0)	
		34(97.1)	1(2.9)	0.45
		209(98.6)	3(1.4)	
		138(97.2)	4(2.8)	0.13
		105(100.0)	0(0.0)	
		90(95.7)	4(4.3)	0.02*
		153(100.0)	0(0.0)	
		141.5 ± 52.15	150.0 ± 37.41	0.74
		8.71 ± 1.05	8.50 ± 0.57	0.68
		4.11 ± 2.97	4.75 ± 2.98	0.67
		4.42 ± 3.13	3.75 ± 2.75	0.66

*: p<0.05, **: p<0.01

11.	(%),	±	P
	28.23 ± 5.72	33.15 ± 4.86	0.0003**
	0.79 ± 0.99	0.65 ± 1.26	0.53
	1.23 ± 1.48	0.70 ± 1.12	0.11
	1.59 ± 1.30	1.85 ± 1.49	0.40
	148(100.0)	0(0.0)	0.001**
	78(79.6)	20(20.4)	
	31(88.6)	4(11.4)	0.50
	195(92.4)	16(7.6)	
	133(94.3)	8(5.7)	0.16
	93(88.6)	12(11.4)	
	75(80.7)	18(19.3)	0.001**
	151(98.7)	2(1.3)	
	139.9 ± 51.41	159.3 ± 55.07	0.10
	8.74 ± 0.89	8.35 ± 2.10	0.41
	4.27 ± 2.93	2.25 ± 2.65	0.003**
	4.28 ± 3.10	6.10 ± 2.91	0.01*

*: p<0.05, **: p<0.01

13.		(%)
		P
100(97.1)	3(2.9)	1.00
139(96.5)	5(3.4)	
114(96.6)	4(3.4)	1.00
125(96.9)	4(3.1)	
113(95.0)	6(5.0)	0.15
126(98.4)	2(1.6)	

14.		(%)
		P
87(84.5)	16(15.5)	0.85
124(86.1)	20(13.9)	
102(86.4)	16(13.6)	0.80
109(84.5)	20(15.5)	
100(84.0)	19(16.0)	0.67
111(86.7)	17(13.3)	

15.		(%)
		P
56(54.4)	47(45.6)	0.38
69(47.9)	75(52.1)	
55(46.6)	63(53.4)	0.28
70(54.3)	59(45.7)	
60(50.4)	59(49.6)	1.00
65(50.8)	63(49.2)	

16.		(%)
		P
103(100.0)	0(0.0)	0.14
140(97.2)	4(2.8)	
117(99.1)	1(0.9)	0.62
126(97.7)	3(2.3)	
118(99.2)	1(0.8)	0.62
125(97.7)	3(2.3)	

4.11 (95% , 0.96- 17.62) 가
 0.15 (95% , 0.02-0.81)
 (18).

18.

1.26	0.95	0.92	0.85	0.87	1.02
1.10	1.26*	1.11	1.38	3.20	1.22
1.06	0.45	1.42	0.81	0.00	0.12
0.87	1.48	1.13	0.58	999.0	0.64
1.20	1.06	1.39	2.28*	0.03	1.03
1.16*	1.00	0.93	1.29	1.52	0.87
1.02	0.89	1.09	1.75	999.0	4.11*
1.01	0.66	0.79	0.89	1.04	0.81
1.01	1.05	1.20	2.69	29.31	0.15*

*: p<0.05, **: p<0.01

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 (Gordley , 2000)
 3 가
 (Fenster, 1999) 가 ,
 (36), 가(8
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 (Hatch , 1999).
 가 (Clavit, 1988; Nagata
 , 1986) .

가 가 가 가 .

가

(Chrousos , 1992,1998)

가 가

가

가 가

가 가 가

가

(Fenster, 1995)

가 .

Schenker (1997)

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(Saurel-Cubizolles , 1985; McDonald , 1988; Ahlborg,

1995)가

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(recall bias)

가

(biomarker)

가

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(, ,) 가 Karasek

120 127

2001 5 21 6 7

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. 가 2.28 (95% , 1.17-4.43) 가 1.16

(95% , 1.02- 1.31) 가 .

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(95% , 0.96- 17.62) 가 가

0.15 (95% , 0.02-0.81) .

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1996; 29(2):295-308

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1996; 8(3): 570-577

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1999; 38(5): 1026-1037

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1999; 38(6): 1335-1350

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1991; 3(2): 209-215

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1999; 11(1): 95-105

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- Abstract -

**Effect of Job Stress on Menstrual
Function and Pregnancy Outcome
in Female Workers**

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Department of Occupational Health

Graduate School of Health Science and Management

Yonsei University

(Directed by Professor Jonguk, Won, M.D., M.PH.)

This study was carried out to evaluate the relation of job stress to alterations of menstrual function (regularity, length of menses, cycle length, and dysmenorrhea) and outcome of pregnancy (preterm delivery and spontaneous abortion) of female nurses and officers.

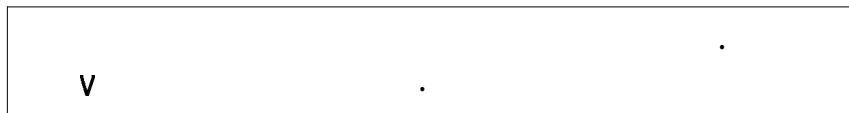
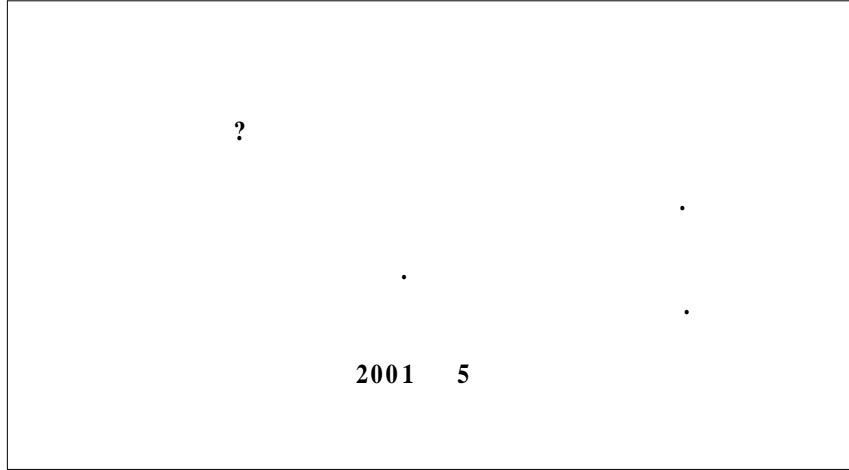
Job content questionnaire by Karasek was administered to 200 female nurses and 150 officers in May 21, 2001 to June 7, 2001. Univariate analyses (χ^2 test and t test) were performed to examine the relationship of general and job related characteristics to their menstrual

disorders and pregnancy outcome. Logistic regression analyses showed that job stress was not associated with menstrual regularity, length of menses, cycle length, dysmenorrhea, and preterm delivery. While psychological job demand was more likely to increased risk of spontaneous abortion (OR : 4.11, 95% CI : 0.96-17.62), social support was more likely to decreased risk of spontaneous abortion (OR : 0.15, 95% CI: 0.02-0.81).

This study suggests that stress management intervention strategy at worksite should be considered to prevent menstrual disorders and adverse outcome of pregnancy of female workers.

Key words ; job stress, menstrual function, pregnancy outcome

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5. (12) : _____

6. _____

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7-1. _____

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10. : (가)

10-1. () : _____ /

10-2. () : _____

11. :

11-1. () : (_____)

11-2. () 1 : _____

12. ?

('0') _____

13. ?

14. 가 ?

15. (20-30 2-3 (, ,
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	가				
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1. ?

2. ?
(가 가)-----

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5. ('0') ?
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