



Original Article

# A Study on Women's Fatigue and Sleeping Disturbance

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## Abstract

**Purpose:** This study was to identify the relationship between fatigue and sleep disturbance in adult women so as to provide basic data for developing a women's health promotion program and nursing intervention. **Method:** A convenience sample of 184 women who visited a Well-baby clinic at P city Maternal child center during October in 2004 was obtained. Data was collected by self-administered questionnaires. **Results:** The Subjects' mean age was 36.87 years and 70% were employed and had more education than high school. The mean level of fatigue was 56.65, mean sleeping hours were 6.54, and time until falling asleep was 17.58 minutes. Scores of fatigue differed by subject's age, level of education, and menstruation status. In addition, sleeping hours differed by age, occupation status, and income level. There were significant low levels of correlation between fatigue and sleeping hours ( $r=-.16$ ) and getting up too early ( $r=-.15$ ). **Conclusion:** This study concludes that fatigue and sleeping patterns have a significant relationship.

Key words : Fatigue, Sleeping disturbance

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 1987 74  
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 (Song, 1997)  
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1990). 가 , 1) : , , 가 (Im, 1995). (Urdang & Swallow, 1983) , 1988 가 가 , (Ferler, 2) : (Korean Nurse Association, 1995) , Shin, 1991; Pickard-Holly, 1991). 1/3 , Choi, Song Choi (1997) 가 가 (Kim, 1987) 1. 연구 설계 (Fuller & Schaller-Ayers, 2000). 2. 연구 대상 및 자료수집 방법 P Walker(1999) 187 3 Walker, McGown, Jantos 184 Anson(1997) 가 2004 10 1 10 30 Kim(2000) 가 3. 연구 도구 1) 1988 가 1. 연구의 목적 10 , 10 , 10 30 “ ” 1 , “가 ” 2 , “ ” 3 , “ ” 4 , 가 1) 30 120 가 2) 3) .94 Cronbach's =.95 4) 5) 2) NIH가 2. 용어 정의 Honolulu Heart Program Sleep Study Shin (1997) 가

2, 가, 가, 가 3

4. 자료분석 방법

SPSS WIN 10.0

t-test, ANOVA  
Pearson Correlation Coefficients

5. 연구의 제한점

가 .  
1. 대상자의 제 특성  
( ) 36.9±9.73 22 -63

<Table 1> Characteristics of the study subjects (N=184)

| Characteristics          | Category      | Frequency(%) | Mean ± SD |
|--------------------------|---------------|--------------|-----------|
| Age(year)                | >29           | 44(23.9)     | 36.9±9.72 |
|                          | 30-39         | 65(35.4)     |           |
|                          | 40-49         | 56(30.4)     |           |
|                          | <50           | 19(10.3)     |           |
| Occupation               | Yes           | 120(65.2)    |           |
|                          | No            | 64(34.8)     |           |
| Education level          | Elementary    | 8( 4.3)      |           |
|                          | Middle school | 12( 6.5)     |           |
|                          | High school   | 64(34.8)     |           |
|                          | College       | 100(54.4)    |           |
| Economics(monthly (Won)) | <1,000 K      | 36(19.36)    |           |
|                          | 1,000-1,999 K | 78(42.4)     |           |
|                          | 2,000-2,999 K | 15( 8.2)     |           |
|                          | No response   | 64(34.8)     |           |
| Menstruation             | Premenopause  | 171(92.7)    |           |
|                          | Postmenopause | 13( 7.1)     |           |
| Number of family         | <2            | 46(25.0)     | 3.3±1.28  |
|                          | 3-5           | 134(72.8)    |           |
|                          | 6-7           | 4( 2.2)      |           |

, 30 가 35.4% .  
120 (65.2%) , 가 164 (89.2%)  
가, 가 3  
(62%) . 200 가 114  
, 가 134 (72.8%) 3-5  
가 <Table 1>.

2. 대상자의 피로와 수면장애

56.7±13.08 ( 30, 97) , 6.5±  
1.10 ( 4, 10),  
17.6±12.21 ( 1, 60)  
가 46 (20.1%)  
가 37 (20.1%) <Table 2>.

<Table 2> Degree of fatigue and sleeping disturbance (N=184)

| Characteristics                   | Category | N (%)     | Mean ±SD   | Range |
|-----------------------------------|----------|-----------|------------|-------|
| Mean sleeping time(hour)          | <5       | 8( 4.3)   | 6.5± 1.10  | 4-10  |
|                                   | 5-6      | 76(41.3)  |            |       |
|                                   | 6-7      | 66(35.9)  |            |       |
|                                   | 7-8      | 29(15.8)  |            |       |
|                                   | >8       | 5( 2.7)   |            |       |
| Time until go sleeping(min)       | <10      | 85(46.2)  | 17.6±12.21 | 1-60  |
|                                   | 11-20    | 41(22.3)  |            |       |
|                                   | 21-30    | 51(27.7)  |            |       |
|                                   | >30      | 7( 3.8)   |            |       |
| Difficult to sleep                | Yes      | 30(16.30) |            |       |
|                                   | No       | 154(83.7) |            |       |
| Difficult to sleep after awakened | Yes      | 46(25.0)  |            |       |
|                                   | No       | 138(75.0) |            |       |
| Get up too early                  | Yes      | 37(20.1)  |            |       |
|                                   | No       | 147(79.9) |            |       |
| Fatigue total score               | 30-50    | 61(33.2)  | 56.7±13.08 | 30-97 |
|                                   | 50-70    | 99(53.8)  |            |       |
|                                   | 70-90    | 22(10.9)  |            |       |
|                                   | >90      | 2( 1.1)   |            |       |

3. 대상자의 제 특성에 따른 피로정도

(F=3.051, p=.030), (F=2.893, p=.037),  
(t=6.34, p=.013) 가  
가 , 가  
<Table 3>.

<Table 3> Degree of fatigue by subject's characteristics (N=184)

| Characteristics          | Category      | Mean ±SD   | F or t | p   |
|--------------------------|---------------|------------|--------|-----|
| Age(year)                | <29           | 60.9±12.31 | 3.05   | .03 |
|                          | 30-39         | 55.6±10.97 |        |     |
|                          | 40-49         | 55.3±15.26 |        |     |
|                          | >50           | 51.4±12.70 |        |     |
| Occupation               | Yes           | 56.2±12.01 | 3.85   | .05 |
|                          | No            | 57.7±15.12 |        |     |
| Education level          | Elementary    | 44.2±11.28 | 2.89   | .04 |
|                          | Middle school | 52.9±17.81 |        |     |
|                          | High school   | 57.0±14.15 |        |     |
|                          | College       | 57.3±11.45 |        |     |
| Economics(monthly (Won)) | <1,000 K      | 55.9±12.81 | .09    | .91 |
|                          | 1,000-1,999 K | 56.1±11.06 |        |     |
|                          | >2,000 K      | 56.8±14.95 |        |     |
| Menstruation status      | Premenopause  | 56.9±13.01 | 6.34   | .01 |
|                          | Postmenopause | 47.6±11.74 |        |     |

4. 대상자의 제 특성에 따른 수면장애

(F=2.63, p=.05), (t=3.299, p<.001), (F=7.150, p<.001) 가 , 가 40

<Table 4> Degree of sleeping by subject's characteristics (N=184)

| Characteristics      | Category      | Mean sleeping time | Time until go sleeping |
|----------------------|---------------|--------------------|------------------------|
|                      |               | Mean ±SD           | Mean ±SD               |
| Age(year)            | >29           | 6.7±1.12           | 18.9±12.04             |
|                      | 30-39         | 6.8±0.99           | 15.5±10.51             |
|                      | 40-49         | 6.3±1.11           | 18.9±13.04             |
|                      | <50           | 6.3±1.26           | 17.3±14.98             |
|                      | F             | 2.63*              | 1.00                   |
| Occupation           | Yes           | 6.4±1.05           | 17.4±12.56             |
|                      | No            | 6.9±1.12           | 18.0±11.59             |
|                      | t             | 3.30**             | .34                    |
| Education level      | Elementary    | 6.6±1.38           | 17.9±19.64             |
|                      | Middle school | 6.0±1.29           | 22.7±16.40             |
|                      | High school   | 6.4±1.04           | 18.2±10.80             |
|                      | College       | 6.7±1.09           | 16.6±11.83             |
|                      | F             | 1.56               | .97                    |
| Monthly Income (Won) | <1,000 K      | 6.1±1.38           | 17.6±13.34             |
|                      | 1,000-1,999 K | 6.6±.90            | 17.2±12.00             |
|                      | >2,000 K      | 6.9±1.11           | 17.9±11.56             |
|                      | F             | 7.15**             | .04                    |
| Menstruation         | Premenopause  | 6.6±1.07           | 17.6±11.79             |
|                      | Postmenopause | 6.4±1.50           | 17.7±17.38             |
|                      | t             | .16                | -.03                   |

\*<.05 \*\*<.001

가 <Table 4>.

5. 대상자의 피로와 수면장애와의 상관관계

(r=-.156, p<.05), (r=-.146, p<.05)

가

<Table 5>.

<Table 5> Relationship between fatigue and sleeping disturbance (N=184)

| Variable                          | Fatigue r |
|-----------------------------------|-----------|
| Mean sleeping time                | -.076     |
| Time until go sleeping            | .128      |
| Difficult to sleep                | -.156*    |
| Difficult to sleep after awakened | -.136     |
| Get up too early                  | -.146*    |

\* p<.05

6. 대상자의 피로 원인과 피로조절 행위

10%

<Table 6>.

<Table 6> Cause of fatigue (N=184)

| Characteristics                              | Frequency(%) |
|--|--------------|
| Physical weakness due to disease             | 167(11.8)    |
| Heavy working                                | 165(11.6)    |
| Unskilled labor                              | 161(11.4)    |
| Physical disturbance and anxiety about body  | 161(11.4)    |
| Bad environment                              | 160(11.3)    |
| Irregular life style                         | 141( 9.9)    |
| Heavy responsibility                         | 132( 9.3)    |
| Disturbance of interpersonal relationship    | 126( 8.9)    |
| Decreased work desire due to heavy household | 112( 7.9)    |
| Sleep deficiency                             | 93( 6.6)     |

\* Multiple response

92 (43.6%), 30 (14.2%), 23 (10.9%), 가 19 (9.0%), 17 (8.1%)

<Table 7>.



56.7±13.08 ,  
 6.5±1.10 , 17.6±12.21  
 가 , ,  
 ,  
 (r=-.156, p=.05) ,  
 (r=-.146, p=.05)  
 가 ,  
 가

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