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가

1)

2) . 3)

2

1.

10.8%, 7.9% 가  
(Park, Lee, Kim et al., 1996).

가 가

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1 , 2 ,

(Son, 1999).

4가

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가

가  
Jeong (1993)

Kim, Yoon,  
8.2% 가  
, Kim(1999)

49.0%

1

가

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가

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가

(Gu, 1994).

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가 2

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가 (Yoon, 1999).

2

가

가 (Gu, Yoo & Eum, 1994)

1971

10

(Jun, 1996)가

1.41%,

0.42%

(Yoon,

가

1999), 1993

1)

(R04-2002-000-20024-0)

2) 가

3) 가

03. 7.21

( E-mail : cspark@catholic.ac.kr)

03. 8.8

03. 9.8

가 19 가 3 ,  
 2 가 2 19  
 2. Cronbach's alpha .93

가 4.  
 가  
 1) 가  
 2) 가  
 3) 가 5.

SAS (version 6.12)  
 가  
 chi-square test unpaired t-test  
 1. 가 Pearson  
 correlation coefficient

가  
 2. 1.

2002 8 2003 7  
 C 2  
 2 87 , 가 56.7% ,  
 114 , 201 43.3% 52.4 , 49.8  
 23.8kg/m<sup>2</sup> ,  
 3. 23.9kg/m<sup>2</sup> 9.3  
 , 7.9 8.4% ,  
 가 8.6% , 186.9mg/dl,  
 198.6mg/dl  
 , 가 36.7% , 30.9% <Table 1>

8 3 , 2  
 2. 가  
 가 0.2  
 1.5 (t = 6.20, p = 0.0001).  
 Piette, Kraemer, Weinberger McPhee(2001) , 가

<Table 1> Characteristics by gender

	Female(N= 114)	Male(N=87)	t/ <sup>2</sup>	p
	Mean (SD)	Mean (SD)		
Age(years)	52.4(12.7)	49.8(11.1)	1.39	.16
BMI(kg/m <sup>2</sup> )	23.8( 3.4)	23.9( 2.9)	.11	.91
Duration of Diabetes (years)	9.3( 8.2)	7.9( 7.6)	1.17	.24
HbA1c(%)	8.4( 1.9)	8.6( 2.6)	.44	.65
Fasting Blood Glucose(mg/ dl)	186.9(102.0)	198.6(93.6)	.70	.48
Total Insulin injection(%)	36.7	30.9	.79	.37

BMI = Body mass index HbA1c = Glycosylates hemoglobin

<Table 2> Self care by gender

Self care(days/week)	Female(N= 114)	Male(N=87)	t	p
	Mean (SD)	Mean (SD)		
Medication	5.9(2.0)	5.5(2.4)	1.18	.23
Diet	2.7(2.8)	2.6(2.7)	.37	.70
Exercise	2.9(2.8)	2.8(2.7)	.34	.72
Foot wash	6.6(1.2)	6.2(1.7)	1.61	.10
Foot injury check	5.3(2.8)	4.8(2.9)	1.22	.22
Alcohol drinking frequency	.2( .5)	1.5(1.9)	6.20	.0001
Hypoglycemia preparation	3.2( .3)	3.1( .3)	.57	.56
Insulin injection	6.1(2.1)	6.4(1.5)	.54	.58

<Table 2>.

<Table 3> Physical symptom by gender

Physical symptom	Female	Male	<sup>2</sup>	p
	N(%)	N(%)		
Frequent urination at night	51(42.5)	45(47.9)	.61	.43
Painful urination	5( 4.2)	9( 9.6)	2.46	.11
Increased thirst	60(50.0)	42(44.7)	.59	.44
Dry mouth	57(47.9)	44(46.8)	.02	.87
Nausea or vomiting	33(27.5)	14(14.9)	4.89	.02
Morning headaches	45(37.5)	21(22.3)	5.67	.01
Night sweats	31(26.1)	24(25.5)	.01	.93
Lightheadedness	65(54.6)	32(34.0)	8.96	.003
Weakness	59(49.6)	33(35.5)	4.22	.04
Intense hunger	36(30.5)	24(25.8)	.56	.45
Frequent cramps in the legs	50(42.0)	33(35.1)	1.05	.30
Rash or itchy skin	26(21.9)	16(17.0)	.77	.38
Pain in the heart	44(37.0)	22(23.4)	4.52	.03
Shortness of breath with light exercise	46(38.7)	33(35.1)	.28	.59
Swollen ankles	31(26.5)	20(21.3)	.77	.38
Pain in the back	68(56.7)	34(36.6)	8.48	.004
Constant coughing	27(22.7)	19(20.4)	.15	.69
Stiffness in any joint or muscle	52(43.7)	17(18.1)	15.73	.001
Getting very tired in a short time	95(79.8)	64(68.1)	3.82	.05

3. 가  
 27.5% 14.9% , 가  
 37.5% 22.3% .  
 가 54.6% 34.0% , 가  
 49.6% 35.5% .  
 가 37.0% 23.4% ,  
 가 56.7% 36.6% .  
 가 43.7% 18.1% ,  
 가 79.8% 68.1% .  
 가  
 가  
 가 (r = -.30, p = .001).  
 가 가  
 가 (r = .21, p = .05) <Table 3>.  
 4. 가  
 4>.

<Table 4> Correlation between total physical symptom number and self-care frequency in the male and female subjects

Self-care Frequency(days/ week)	Physical symptom number r(P)	
	Female (N= 114)	Male(N=87)
Medication	-.15(.11)	-.04(.69)
Diet	.04(.63)	.03(.76)
Exercise	-.30(.001)	-.04(.65)
Foot wash	-.06(.50)	.17(.09)
Foot injury Check	.02(.76)	.06(.57)
Alcohol drinking Frequency	.04(.61)	-.20(.06)
Hypoglycemia Preparation	.09(.34)	.21(.05)
Insulin injection	.23(.17)	.18(.38)

(Kang Nam St. Mary's Hospital Diabetes Class, 1999).

56.7%,  
43.3% 가  
(Kim et al., 1993; Lee, 1999)  
가 . 52.4 , 49.8  
, 9.3 , 7.9  
, 40 가  
, 8.4%, 8.6%,  
, 186.9mg/dl,  
198.6mg/dl 가  
가 가 ( ), ( ),  
가 가 ( ).  
가 가  
가 가 가  
가 가 가  
가  
(The Diabetes Control and Complications Trial Research Group, 1993; Ohkubo et al., 1995; UKPDS, 1998) 가  
3 가  
가  
가 Chun  
(1999) 가 가 가 가

가 1.5 (t = 6.20, p = 0.0001).

가

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가 (r = -.30, p = .001).

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8

Piette(2000)

19

가 chi-square test

unpaired t-test

Pearson correlation coefficient

가 56.7%, 43.3%

52.4%

49.8 23.8

kg/m<sup>2</sup>, 23.9kg/m<sup>2</sup>

9.3, 7.9

8.4%, 8.6%

186.9mg/dl, 198.6mg/dl

36.7%

30.9%

가 0.2

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- Abstract -

### Self-care and Physical Symptom by Gender in Korean Type2 Diabetic Patients<sup>1)</sup>

Kim, Hee Seung<sup>2)</sup> · Park, Chai Soon<sup>2)</sup>

**Purpose:** The purpose of this study was to investigate the self-care and the physical symptom and to analyse the correlation between self-care and physical symptom in type2 diabetic patients. **Method:** 201 Participants were recruited from the endocrinology outpatient department of a tertiary care hospital in an

1) This work was supported by grant No.(R04-2002-000-20024-0) from the Basic Research Program of the Korea Science & Engineering Foundation.

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urban city. The data were collected by self report self-care and physical symptom questionnaire. **Results:** The alcohol drinking frequency was lower in female than in male patients. The frequency of nausea or vomiting, morning headaches, lightheadedness, weakness, pain in the heart, pain in the back, stiffness in any join or muscle, and getting very tired in a short time were higher in female than in male diabetic patients. The exercise frequency was

negatively correlated with physical symptom in female patients. **Conclusion:** The alcohol drinking frequency was lower in female than in male patients. The female patients had more physical symptoms than the male patients. The exercise frequency was negatively correlated with physical symptom in female patients.

Key words : Type 2 diabetes, Self-care,  
Physical symptom