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1.

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Kim, 1999).

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, 65

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Brown, Shin, Luc & Subak, 2001).

(Ouslander, Kane & Abrams, 1982. Tobin & Brocklehurst, 1986, Wetle et al, 1995).

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2001 9 12

2002 2 4

가

가

Kang(1996)

, Kim, G (1997)

가

1994

『

. Lee, Seo Park(1994)

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2

60

85.9%가 가

가

65

2000 7% (337)

가

2010 10%, 2020 13.2% (690)

가 ,

가 2025

(MOHW, 2000).

가

가

5

2.

10

(Kim, Kanagawa

& Nishimura, 1999; Kim, 2001).

1)

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3)

4)

1980

, Vetter,

Jones Victor(1988) 70

14.0%,

5)

5.0%

, Tomas, Plymat, Blannin

Meader(1980) 65

10%

3.

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1/3

1)

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60

C

Kim, Rhee, Kim

Chon(1997)

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9.2%가 3

2)

:

, 60.3%

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(ICS, International Continence Society)

가 (1976).

2)

1 가

1.

가

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가

가 1

가

2.

Flaherty (2001)

C 24388(1999) ,
6.01% (KNSO, 2000: C).

10 가 가 5

3)

(Keller, 1999)

가 6 1
0 , 가

가

60
000 6 8 2
C 2 5

4)

(Jackson, 1996) , Bristol 가

298

3.

5)

Bristol (Jackson, 1996)

(Kim Y.H. personal communication, May 9, 2000).

4.

1)

SPSS Win 10.0

1) (64%) 107 (36%) 58.0kg 1.97 Kim (2001) 1.75 6 25.7%

2) 5.23 1.4 (KNSO, 2000)

3) 14.6% 가 9 가 가 2 가 37.7% 가 Circadian rhythm

1. 가 가 1/4 가 6 가

<Table 1>

60 93 71.4 가 191

<Table 1> Demographic and Urinary Characteristics N = 298

Item	Category	Total N (%)
Demographic characteristics		
Sex	Man	107 (36.0)
	Woman	191 (64.0)
Age	Mean \pm SD	71.4 \pm 7.7
Weight	Mean \pm SD	58.0 \pm 10.5
Comorbidity	Mean \pm SD	1.97 \pm 0.94
Parity (n = 186)	Mean \pm SD	5.23 \pm 2.22
Menopause age (n = 170)	Mean \pm SD	48.93 \pm 4.59
Sleep time (hrs)		
	below 4	13 (4.3)
	5 \times <6	64 (21.4)
	6 \times <8	83 (27.8)
	8 \times <10	111 (37.1)
	10 \times	20 (6.7)
Urinary characteristics		
Voiding Frequency during day time†		
	under 3 times	47 (15.9)
	4-8 times	205 (69.5)
	9 times & over	43 (14.6)
Nocturia†		
	under 2 times	182 (62.3)
	2 times & over	110 (37.7)

†No respondent was excluded.

2.

17% (52) , Vetter (14%)가 (3%) (1988) 70 14.0% Diokono, Brock, Brown Herzog (1986) 60 , 13,912 18.9%

<Table 2> (t = 7.84, p = .000) , (χ^2 = 9.47, p = .002), (χ^2 = 18.34, p = .000)

Roe & Doll (1999, 2000) Gravira (2000) 가 (χ^2 = 10.65, p = 0.001) (χ^2 = 4.04, p = 0.046) Kim (1997) Miller (1995) 가

<Table 2> Difference in the Incidence by Age, Sex, Voiding Pattern, & Chronic Health Status

Variables	Categories	Continent (n = 247) N (%)	Incontinent (n = 52) N (%)	t or χ^2	p
Age	Mean \pm SD	71.1 \pm 8.0	71.5 \pm 7.5	7.84	.000
Weight	Mean \pm SD	62.8 \pm 10.6	55.4 \pm 8.8	1.19	.200
Sex	Man	98 (33.0)	9 (3.0)	9.47	.002
	Woman	148 (50.0)	43 (14.0)		
Voiding pattern	Fx during day time			18.34	.001
	under 3 times		2 (1.0)		
	4-8 times		34 (11.0)		
	9 times		16 (5.0)		
Chronic Disease	DM	present	41 (13.7)	0.22	.784
		not	206 (68.9)		
	RA	present	116 (38.8)	1.69	.304
		not	131 (43.8)		
	CVA	present	15 (5.0)	0.29	.702
		not	232 (77.6)		
	HT	present	92 (30.8)	4.04	.046
		not	155 (51.8)		
	Heart Dz	present	41 (13.7)	10.65	.001
		not	206 (68.9)		
	Fracture	present	58 (19.4)	1.13	.478
		not	189 (63.2)		
	Prostate hypertrophy	present	23 (7.7)	0.77	.399
		not	224 (74.9)		
	Kidney Dz	present	24 (8.1)	0.29	.751
		not	221 (74.4)		
	Eye pain	present	87 (29.1)	2.47	.087
		not	160 (53.5)		
	Ear pain	present	26 (8.7)	2.70	.083
		not	221 (73.9)		
	Head pain	present	78 (26.1)	1.60	.408
		not	169 (56.5)		
Chronic Symptom	Leg pain	present	137 (46.0)	1.61	.446
		not	109 (36.6)		
	Lumbar pain	present	132 (44.1)	3.79	.057
		not	115 (38.5)		
	Respiration difficulty	present	36 (12.0)	9.67	.002
		not	211 (70.6)		
	Digestive disorder	present	67 (22.5)	2.75	.252
		not	179 (60.1)		
	Fatigue	present	117 (39.4)	2.43	.298
		not	128 (43.1)		
	Constipation	present	61 (20.4)	3.77	.052
		not	186 (62.2)		
	Sleep disorder	present	55 (18.4)	2.35	.125
		not	192 (64.2)		

가

($\chi^2 = 9.67$, $p = 0.002$)

가

가

($\chi^2 = 12.02$, $p = 0.000$),($\chi^2 = 6.55$, $p = 0.010$),($\chi^2 = 6.69$, $p = 0.010$)

가
($\chi^2 = 25.09$, $p = 0.000$), ($\chi^2 = 24.69$, $p = 0.000$), ($\chi^2 = 19.89$, $p = 0.000$), ($\chi^2 = 3.41$, $p = 0.042$)
가
2.2% 「
25.5%가 「
Nakanishi (1999) 1,318 10% 「
가
가
가 20%

<Table 3>.

가
4.
3.
1)
4.55 (± 1.55)
<Table 4>
45% 가
Keller(1999) 가

<Table 3> Knowledge concerning Urinary Incontinence

N = 278

Items	Correct Answer N (%)
1. UI occurs also in young person	6(2.2)
2. UI occurs when sneezing, coughing or running	19(6.8)
3. UI can be treated	50(18.0)
4. UI can be prevented	57(20.5)
5. UI occurs only in the elderly	71(25.5)
6. To improve the symptom of UI, it is better to drink 1500 M and over of water	43(15.5)
7. If urine loss occurs before arrive the rest room, it is also UI	26(9.4)
8. If voiding at out of chamber stool due to functional disability, it is also UI	6(2.2)

<Table 4> The Incontinence types and Urologic Characteristics in Incontinent

Variables	Category	N	Percentage
Incontinence type	Stress UI	17	33.0
	Urgent UI	23	45.0
	Mixed UI	11	22.0
	below 4 times	2	2.1
Voiding pattern	4-8 times/day	34	69.6
	9 & over times/day	16	28.3
	one & more/day	19	41.0
Wet Episodes	one & more/week	22	48.0
	one & more/month	5	11.0
	day time only	22	48.0
	night time only	8	17.0
	day & night all	16	35.0

(Kitagawa, 1993). 「가 28.6% 가 , 4-8 69.6% 「 가 94% 가 「 가 28.3% 30%, 「가 , 「 가 24% < 5> 가 41.0% , 가 48.0% 가 35.0%, 가 17.0% 52%가 3) 52 가 <Table 6> 가 2) 「 가 83.7%가 < 5> , 「 가 (65.0%) 「

<Table 5> The Provoking and Triggering Factors of UI

n = 33

Item	N	Valid Percentage
Provoking factors	delivery	9 25.7
	uterus problem	2 5.7
	old age	10 28.6
	common cold	6 17.1
	muscle weakness	1 2.9
	arthritis	1 2.9
	others	4 11.4
Triggering factors*	light running	8 24.0
	sneezing & coughing	31 94.0
	lifting up heavy thing	8 24.0
	laughing loudly	10 30.0
	standing from the seat	8 24.0

* items with multiple responses

<Table 6> The Specific Problems related to UI

Specific Problem	None N (%)	Sometimes N (%)	Often N (%)	Always N (%)	Total N (%)
Urgent use of the rest room	7 (16.3)	18 (41.8)	12 (27.9)	6 (14.0)	36 (83.7)
Residual urine	15 (35.0)	18 (41.9)	8 (18.6)	2 (4.5)	28 (65.0)
Leakage before arriving	16 (36.4)	18 (40.9)	8 (18.2)	2 (4.5)	28 (63.6)
Pain at lower abdomen	19 (45.2)	19 (45.2)	3 (7.1)	1 (2.4)	23 (54.8)
Weak urine stream	24 (55.8)	9 (20.9)	3 (7.0)	7 (16.3)	19 (44.2)
Strain to continue	25 (58.1)	8 (18.6)	5 (11.6)	5 (11.6)	18 (41.9)
Lost urine to change the wear	26 (66.7)	6 (15.4)	6 (15.4)	1 (2.5)	13 (33.3)
Intermittent during voiding	29 (67.4)	8 (18.6)	3 (7.0)	3 (7.0)	14 (32.6)
Strain to start	31 (72.1)	8 (18.6)	1 (2.3)	3 (7.0)	12 (27.9)

Respondents with no answer was excluded.

<Table 8> The Effect of Incontinence on The Daily life

Effects	Frequency	Percentage
Frequent use of the rest room	30	66.7
Avoid the place not be able to access the rest room with ease	12	26.7
Drink with small amount	9	20.0
Depressed	6	13.3
Stop the current exercise	4	8.9
Sorrow	3	6.7
Dislike to meet others	1	2.2
Dislike to be with their spouse	0	0
Others	1	2.2

가 4) ($\chi^2 = 10.65$, $p = 0.002$) ($\chi^2 = 3.90$, $p = 0.034$) ,

가 Kim, Kanagawa Saito 가 가 40.9% 가 ($\chi^2 = 9.67$, $p = 0.002$)

가 가

5) 가 2.2% 가 10% 가 20% 가 25.5% 가

6) 45%, 33%, 22% 가 41.0% 48.0% 가 48%, 가 17.0% 가

7) 가 88.6% 가 85%, 가 78.6% 가 37.5%

1) 가 14.6%, 2 37.7%

2) 17% (52) , (14%)가 (3%)

3) , (t=7.84, $p = .000$) , ($\chi^2 = 9.47$, $p = .002$), ($\chi^2 = 18.34$, $p = .000$)

1) 1, 3

가 .

2)

가 .

3)

가

4)

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- Abstract -
- ### Prevalence of Urinary Incontinence and Other Urologic Symptoms in a Community Residing Elderly People*
- Kim, Jeung-Im **
- Purpose: The purpose of this study was to measure the prevalence of urinary incontinence (UI), urologic symptoms, chronic health problems they have, and to explore whether the differences in incidence of UI were by age, sex, voiding pattern, and chronic health problems.
-
- * This research was supported by the Research Fund of Soonchunhyang University
 ** Full time Instructor. Department of Nursing, Soonchunhyang University.

Method: 298 subject were selected, age range from 60 to 94 years residing in one city, in republic of Korea. Data was collected presence of UI, urologic symptoms, chronic health problems, knowledge, and the discomfort with incontinent. Collected data was analyzed with frequency, percentage, t-test, and χ^2 -test. Result: The results of this study are as follows: 1. Mean age was 71.4 years. Prevalent rate of UI was 17.0%, woman showed more than man. 2. UI incidence was significant in age ($t=7.84$, $p=.000$), sex ($\chi^2=9.47$, $p=.002$), and voiding frequency ($\chi^2=18.34$, $p=.000$). Also, UI incidence was significant relationship with chronic health problem of heart disease ($\chi^2=10.65$, $p=0.001$), hypertension ($\chi^2=4.04$, $p=0.046$) and respiratory problem ($\chi^2=9.67$, $p=0.002$). 3. The UI was grouped into urgent

incontinence (45%), stress incontinence (33%), and combined (22%). UI occurred during the daytime 48% and 17% at night. 4. Only 9.8 % of the UI seek advice and/or treatment for their symptoms, almost 90 % remained untreated due to lack of knowledge or improper information. 5. The discomforts due to their UI was no significant difference in their condition, the urgent use of the rest room, leaking urine, and nocturia. Conclusion: This study suggests that 1 year and 3 year follow-up study is needed to compare health status of UI. Also suggests intervention study for urologic discomfort of incontinent and behavioral education for the elderly are needed.

Key words : Urinary Incontinence, The Elderly