

: , (SIP), , ,

,
*

** . *** . **** . *****

가

7

1.

가 (Shaw et al., 1996).
65 30%

, 5 1 ,

4 1

10

(National Statistical Office, 1995).

가

80%

(Kim,

(Elward & Larson, 1992).

1998),

(Ro & Kim, 1995),

가

(Caves, 1998).

1997

23.4%가

1

(National Statistical

Office, 1997),

가

, , ,
, , ,

가

(Blumenthal et

al., 1989; Lavie & Milani, 1997).

가

, , ,

* 1999

(KRF-99-042-F00152)

**

, (kjajune@sch.ac.kr)

**** 가

2001 5 25

2001 6 12

2001 10 9

가 가 , 6
(Ponser, 1992),

가 (10),

. (6) ,

가 , .

, 6

, 6

, 6

1.

, 가 (motivation) () ()

(Song, 1997), 가 가 6

가

4-6 2.

8-12

4-6

(Edmunds,

1991).

1

가 , 1 (10) , 6

가 , 3

6

Cohen

power analysis

medium effect

가

size(f = .25)

power 80%

53

(motivation)

70

(Borenstein, Rothstein, &

Cohen, 1997).

14 , 29 , 21 64

64

가 (Ford, 1992). 가 .

2.

3.

1) : 가 1

(5),

(30), (10)

4) : 10

50% ()

, 40-50 4 ,

1,500-2,000 가 6 4

50kg 80-

100kcal .

, ,

, 2 1

가

가 , , ,

, 1 가

, 1 가

, , ,

, 5

가 ,

10

가

가

2) :

(282) .

3) : 4.

3

1)

- 가) :
 , ,
 4가
 (Song & Lee, 2000).
 28 (1)
 (4) 4
 가 가
 가
 (Song & Lee, 2000),
 .74
 (Song & Lee, 2001).
 Cronbach's alpha .75
) :
 Walker, Volkan,
 Sherist & Pender(1987)가 Health
 Promoting Lifestyle Profile(HPLP)
 ,
 , , , 5
 25
 ' (1) ' (4)
 가 가
 .72 (Song &
 Lee, 2001).
 Cronbach's alpha .80
) : Cleveland Parma
 Cardiac Rehabilitation Center
 (AHA, 1996)
 checklist
 (, , 가 ,), (,
 (Cholesterol, HDL/ LDL, Triglyceride),
 (BMI HWR), , (,
 , ,) 가
 0-80
 가
 0 (0-10), 1 (10-20)
 4 (40-50), 5 (50
) 10 6
- 가 .
) (Sickness Impact Profile) :
 Bergner, Bobbitt, Carter & Gilson
 (1981) /
 Sickness Impact Profile(SIP)
 /
 .
 136 12 3
 (가 , , ,
) 4 (,
 , , ,),
 (, 가 , ,
 ,) 가
 (scoring value) (0-100)
 가
 가
 11
 . SIP
 가 ,
 .88-.92 가 (de Bruin,
 Buys, de Witte, & Diederiks, 1994).
 2)
 6
 10 6
 가 8 (Ng & Tam,
 2000) 12 (Ades, Maloney, Savage, &
 Carhart, 1999) 가 ,
 가 6
 (Edmunds, 1991;
 Oldridge & Steiner, 1990).
 64 , 10
 6 , ,
 , 3
 .
 (, , , ,)
 (cholesterol, triglyceride, HDL, LDL,
 glucose)
 8

가 baseline 76 (SD = 6.6) 64
3 78%
40% ,
가
1 가
3)
가) , 15%
) , 10 6 , 80% 가
repeated measure
ANOVA (Table 1).
2.
1.
6
, 10 6
, 3 <Table 2> .

<Table 1> Demographic Characteristics of the subjects

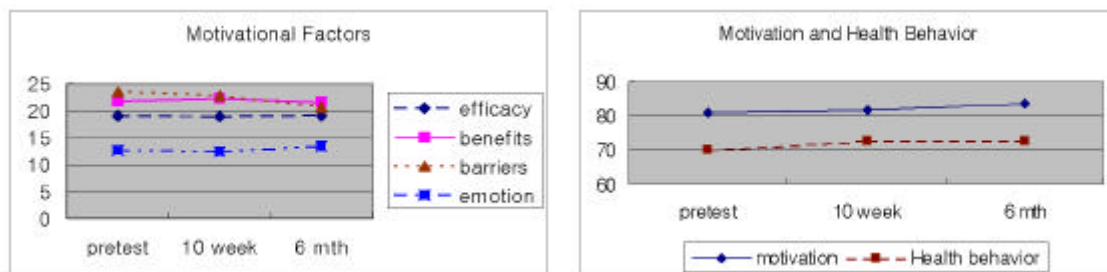
Characteristics	Sites	Site1 (N=14)	Site2(N=29)	Site3 (N=21)	Total(N=64)	F	p
		M (SD) (range)	M (SD) (range)	M (SD) (range)	M (SD) (range)		
Age		75 (6.7) (65-85)	76 (5.9) (70-90)	77 (5.9) (67-90)	76 (6.1) (65-90)	0.76	.469
Resident duration at Institution		10.1 (2.1) (7-17)	37.93 (41.3) (1-165)	73.62 (73.4) (12-338)	43.05 (54.8) (1-338)	6.96	.002
		Freq(%)	Freq(%)	Freq(%)	Freq(%)	χ^2	p
Education						3.14	.533
	none	10 (71.4)	21 (72.4)	19 (90.5)	51 (78.5)		
	elementary	3 (21.4)	5 (17.2)	1 (4.8)	9 (13.8)		
	over middle	1 (7.1)	3 (10.3)	1 (4.8)	5 (7.7)		
Chronic disease						24.46	.000
	none	1 (7.7)	12 (54.5)	2 (9.5)	15 (26.3)		
	cardiac related	11 (84.6)	3 (13.6)	9 (42.9)	23 (40.4)		
	others	1 (7.7)	7 (31.8)	10 (47.6)	19 (33.3)		
Admission history						2.37	.305
	none	11 (78.6)	24 (82.8)	20 (95.2)	55 (84.6)		
	yes	3 (21.4)	5 (17.2)	1 (4.8)	10 (15.4)		
Religion						45.22	.000
	Protestant	1 (7.7)	18 (62.1)	2 (9.5)	21 (32.8)		
	Catholic	12 (92.3)	1 (3.4)	18 (85.7)	32 (50.0)		
	Others	0 (0)	10 (34.5)	1 (4.8)	11 (17.2)		
Support from Religion						8.67	.076
	none	2 (14.3)	11 (37.9)	1 (4.8)	15 (23.1)		
	sometimes	3 (21.4)	6 (20.7)	6 (28.6)	15 (23.1)		
	always	9 (64.3)	12 (41.4)	14 (66.7)	35 (53.8)		

note: Freq (frequency), M (mean), SD (standard deviation)

<Table 2> Effects of motivation enhancing program on Motivation and Health behaviors at baseline, 10 weeks, and 6 months (N = 64)

Variables (Item)	baseline	10 weeks	6 months	F ^a	p
	Mean (SD)	Mean (SD)	Mean (SD)		
Self efficacy (6)	19.0 (2.4)	18.9 (2.0)	19.1 (2.1)	0.21	.811
Perceived benefits (7)	21.8 (2.4)	22.3 (2.0)	21.6 (1.3)	4.52	.015
Perceived barriers (10)	23.5 (5.3)	22.8 (5.5)	20.7 (2.0)	10.78	.000
Emotional salience (5)	12.6 (2.0)	12.4 (1.9)	13.4 (1.3)	6.42	.003
Total Motivation (28)	80.5 (6.5)	81.9 (5.9)	83.5 (5.1)	6.87	.002
Healthy Lifestyle (25)	69.9 (7.6)	72.7 (5.7)	72.8 (6.9)	6.77	.002

a F values of multivariate tests by repeated ANOVA



<Figure 1> Effects of motivation enhancing program on Motivation and Health behaviors

(self-efficacy), , 10 가 10
 (perceived benefits), 6 .
 (perceived barriers),
 (emotional salience) 4가 3.
 가 가
 ,
 가 6

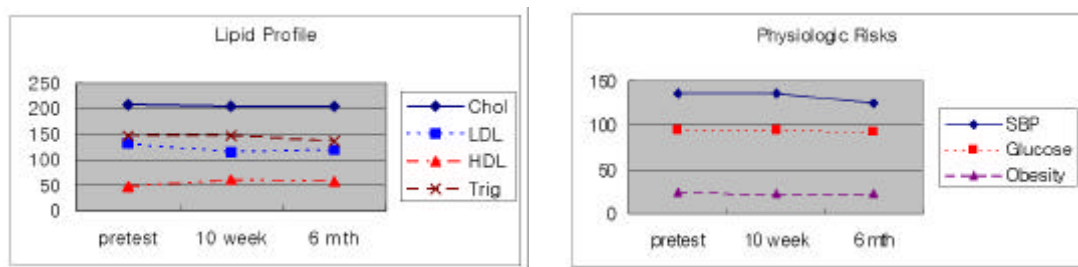
<Table 3>

(item M = 3.16) 가
 (item M = 3.11), (item M = 2.52) 가 가 0 80
 (item M = 2.35) 가
 , , ,
 , 21.8 가 가
 가 - 70 (2.8) 가 가
 6 10 6
 가 가 6
 가 , (HDL)
 (Figure 1). (LDL)
 10 6
 가 10 6

<Table 3> Effects of motivation enhancing program on Cardiovascular risk factors at baseline, 10 weeks, and 6 months (N = 64)

Risk Factors	baseline	10 weeks	6 months	F ^a	p
	Mean (SD)	Mean (SD)	Mean (SD)		
Systolic BP	135.0 (21.7)	136.4 (22.8)	125.1 (17.6)	13.08	.00
Diastolic BP	82.2 (12.2)	82.6 (13.4)	77.7 (9.8)	5.78	.00
Cholesterol	207.6 (32.8)	204.5 (33.1)	203.7 (33.0)	1.43	.24
LDL-Cholesterol	131.0 (33.4)	114.4 (28.1)	118.5 (30.3)	15.47	.00
HDL-Cholesterol	47.3 (16.1)	60.6 (18.2)	57.9 (23.4)	11.30	.00
Triglyceride	146.2 (59.9)	147.2 (68.3)	136.1 (53.4)	2.35	.10
Glucose	94.6 (40.6)	93.5 (28.5)	92.6 (21.2)	0.17	.83
Obesity	23.5 (4.0)	23.0 (3.9)	23.3 (3.8)	22.03	.00
Smoking habit	0.6 (1.3)	0.6 (1.3)	0.6 (1.2)	0.33	.56
Inactivity	3.7 (0.9)	1.1 (1.2)	1.0 (1.3)	125.48	.00
Stress	2.2 (1.1)	2.0 (1.1)	1.5 (1.1)	8.67	.00
Total risk factor score	21.8 (4.6)	18.7 (4.3)	17.7 (4.5)	39.75	.00

a F values of multivariate tests by repeated ANOVA



<Figure 2> Effects of motivation enhancing program on cardiovascular risk factors

10 가 11% 가 (M = 19.9) 가 (M = 8.8) (M = 14.3) (SIP) 10 , 6 (p < .000).

4. SIP 가 100% (, ,) . <Table 4> 10 10 (가 , 6 가 (, ,) 가 SIP 11.0(SD= 6.9) 100% (p < .05). 가

Barry Eathorne(1994)

6

(Song & Lee, 2000)

Grove Spier(1999)

가 (,), 가

3.2

가

(Bandura, 1997; Barke, & Nicholas, 1990; Muhlenkamp, & Sayles, 1986).

(verbal persuasion)

(vicarious experience)

21.8

2

(Song & Lee, 2000) 22.5

(Allison & Keller, 2000).

(Kim, 1996), Lavie Milani(1997) 3

40%

(Jeon & Choe, 1996; Lee, 1999)

(Blumenthal et al., 1989; Stevenson & Topp, 1990; Shin & Choi, 1996), 10

(Oldridge & Stoedefalke, 1984)

(Terpstra, deWitte, & Diederiks, 1992)

가 , 6

Cauley, Kriska, LaPortem Sandler, & Pambianco(1987)

가

가 6

가

6

10

(Cauley et al., 1987), 10

가

가

6

64

가 , 6 .

가 (Morgan, 1994; Landers & Petruzzello, 1994) . 1.

(Stevenson & Topp, 3 76

1990) 54 90 . 78.5%가

Kang(1997) 6 , 6 , 70%

가 , 1

가 Jeon Choe 15% .

(1996) 12 2. 6

가 가 , 가 .

80.7 (SD= 6.5) 81.9 (10), 83.5 (6)

가 가 ,

가 가

6

가 3. 21.8 가

(Song, 1997). 6 18.7 (10),

17.7 (6)

10

6 (Triglyceride)

80%가

4. (SIP)

가 11.0 (SD= 6.9) , 가

가 가 . 6

SIP

가

6 , 가 , 가 ,

, 10 , 6

가

10 6

3

가
가 . , 6
가
10
6 80%가
.
가
.
가
.
가

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- Abstract -

Effects of Motivation-Enhancing Program on Health Behaviors, Cardiovascular Risk factors, and Functional status for Institutionalized Elderly Women*

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Ro, You-Ja ****. Kim, Chun-Gill *****

Purpose: This study was to compare changes in health behaviors, motivational factors, cardiovascular risk factors, and functional status (SIP) after implementing the 6-month motivation-enhancing program to institutionalized elderly women.

Methods: Sixty-four elderly women participated. Face to face interviews with blood sampling and anthropometric assessment were conducted at the pretest, 10 weeks and 6 months during the program.

Results:

1. The program participants showed significant better health behaviors over 6 months. The motivational level was also significantly improved especially for perceived benefits, perceived burden and emotional salience.
2. The mean of cardiovascular risk factors for participants was 21.8 at the level of low to moderate risk. After completing the program risk score was significantly decreased to 18.7 weeks, and further to 17.7 at 6 months. Significant reduction was also found in HDL LDL-cholesterol levels, blood pressure, obesity, inactivity, and stress.
3. The functional status (SIP) was 11% at baseline and significantly changed in positive direction at 10 weeks (M=9.3) and at 6 months (M=6.3). The significant improvement was also found in physical and psychosocial dimensions and sleep/rest dimension.

Conclusion: The motivation enhancing program was effective to reduce cardiovascular risks and to improve the functional status of institutionalized elderly women by motivating them to perform better health behaviors.

Key words : Risk factor,
Sickness Impact Profile(SIP),
Motivation, Aged, Exercise

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