



Original Article

Factors Influencing Health Promoting Behaviors of University Students using Pender's Model

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Pender

1)

1)

Abstract

Purpose: The purpose of this study was to supply basic data for a health promoting program and to elevate the level of it by examining whether university students' health promoting behaviors were related to health perception, health concept, self-esteem, perceived benefits of action, perceived barriers of action, perceived self-efficacy, activity-related affect, social support, preference, prior related behavior, and a plan for action. **Method:** Subjects were 192 university students in K city. Data collection method was a structured questionnaire. Data was analyzed using descriptive statistics, t-test, ANOVA, Pearson's correlation, and stepwise multiple regression. **Result:** The most powerful predictor was previous related behavior (36%). Altogether previous related behavior, health status, a plan for action, perceived self-efficacy and number of admissions were proven to account for 57% of health promoting behaviors. **Conclusion:** It suggested that prior related behavior, health status, a plan for action, perceived self-efficacy, and number of admissions should be considered when developing a students' health promoting program.

Key words : Health behavior, Health status, Self-efficacy, University students

가 , , 가 (World Health Organization, 1997).

가 (Regina & Alice, 2005).

가 (Kim, 1995). 1995

: 2006. 3. 6 1 : 2006. 4. 11 2 : 2006. 4. 14 3 : 2006. 6. 5 : 2006. 6. 9

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가 (Lee, Park, & Park, 1996).

가 (Jun, 1997; Kim, Kim, & Park, 2001; Ryu, Kwon, & Lee, 2001)

가 , Ryu (2001)

, Kim (2001) , Lee(1997)

, Im(1999)

가 (Ryu et al., 2001)

(Jun, 1997; Lee, 1997; Regina & Alice, 2005)

가

Pender(1996)

가 K K 192

가 3.

Pender

1) 가 (Ware, 1976) Ware(1976)가 32 5 “ ” 1 “ ” 5 가



20
Cronbach's α 가 .85, .79 .

2) 가 (Pender, 1996)
Laffrey(1986)가
" 16 4 " " 1
" 4 가
Cronbach's α 가 .78, .85 .

6)
(Bandura, 1986) Sherer (1982)
" 17 5
" 5
가
20
Cronbach's α 가 .78, .85 .

7)
(Pender, 1999), Pender(1999)가
" 12 5 " " 1
" 5 가
Cronbach's α
20 가 .89, .85 .

3)
(Taft, 1985) Rosenberg(1965)
" 10 4 " 가
" 1 " 4 가
가
20
Cronbach's α 가 .75, .74 .

8)
(Kahn & Antonucci, 1980)
Park(1985) " 24 4
" 1 " " 4
가 가
20
Cronbach's α 가 .98, .96 .

4)
(Pender, 1996) Pender
(1999)가 " " 1 "
" 5 가
20
Cronbach's α 가 .80,
.87 .

9)
가
(Pender, 1999) Pender(1999)가
" 9 " 1 ,
0 가 가
20
Cronbach's α 가 .78, .77
.80 .

5)
(Pender, 1996)
Pender(1996)가 " 10 " 5 가
" 1 " " 5 가
20
Cronbach's α 가 .84,
.80 .

10)
(Pender, 1999) Pender(1999)가
" 9 " 1 ,
0 가 가
20
Cronbach's α 가 .78, .77
.80 .

6
가 (Pender, 1999)
Pender(1999)가 . 7 4
“ ” 1 “ ” 4
가 가
20
Cronbach's α 가 .74,
.75

11)

(Pender, 1999) Pender
(1999)가 . 7 4
“ ” 1 “ ” 4
가 가
20
Cronbach's α 가 .81, .88
1.

12)

(Pender, 1996), Pender(1996)가
52 4 “
” 1 “ ” 4
가 가
6
20
가 .86, .91
Cronbach's α

4.

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, K , ,

가

15-25

5.

SPSS Win 12.0 Program

t-test, ANOVA ,
Scheffe' Post-hoc procedure , ,
Pearson's correlation analysis ,

Cronbach's α

1.

<Table 1>.

19	27	21.3	21	가
60.5%(115)				74.0%
(142)	1-2	51.8%(99)		
	가	58.1%(112)		
			10	89.5%(172)
		55.8%(106)		
		81.0%(153)	가	
11.1				
78.6%(151)	가			1.4
				70.7%
(117)	1			1
		36.2%(43)		
		75.4%(132)		
	가			74.1%(138)

2.

<Table 1> General characteristics of the subjects

(N=192)			
Characteristics	Classification	f(%)	Mean
Age(years)	≥21	115(60.5)	21.3
	≤22	77(39.5)	
Sex	Male	50(26.0)	
	Female	142(74.0)	
Grade	1-2	99(51.8)	
	3-4	93(48.2)	
Religion	Yes	112(58.1)	
	No	80(41.9)	
Economic status	High	20(10.5)	
	Medium-Low	172(89.5)	
Monthly income (won)	<100,000	168(88.0)	
	≥100,000	23(12.0)	
Health status	Good	106(55.8)	
	Bad	84(44.2)	
Duration of disease (months)	0	153(81.0)	11.1
	<60	26(13.7)	
Admission frequency	0	151(78.6)	1.4
	≥1	40(21.4)	
Exercise frequency/week	0	75(39.3)	1.83
	≥1	117(70.7)	
Duration of exercise (minutes)	≤30	39(33.6)	
	31-60	35(30.2)	
	≥60	43(36.2)	
Smoking	Yes	60(24.6)	
	No	132(75.4)	
Drinking	Rare	14(8.1)	
	Often	138(74.1)	
	Frequent	40(17.8)	

가 2.87 가
2.33 가 .

<Table 2> Degree of health promoting behavior and related research variables (N=192)

Variables	Mean(SD)	Range
Health perception	3.10(.28)	1-5
Health concept	3.04(.33)	1-4
Self-esteem	2.55(.38)	1-4
Perceived benefits	3.98(.63)	1-5
Perceived barriers	3.01(.59)	1-5
Perceived self-efficacy	3.02(.44)	1-5
Activity-related affect	2.77(.41)	1-5
Social support	3.56(.61)	1-5
Preference	.37(.21)	0-1
Previous related behavior	2.53(.47)	1-4
A plan for action	1.66(.44)	1-3
Health promoting behavior	2.56(.33)	1-4
Spiritual growth	2.83(.43)	1-4
Responsibility	2.33(.45)	1-4
Diet	2.47(.43)	1-4
Exercise	2.42(.55)	1-4
Interpersonal relationship	2.87(.43)	1-4
Stress management	2.63(.45)	1-4

3.

<Table 3>.

(F=3.27, p=.04), (t=3.92, p=.00),

3.10

3.04

가

2.55

가

1

30

가

3.98

3.01

3.02

가

2.77

가

3.56

0.37

가

2.53

1.66

2.56

<Table 4>.

(r=.47, p=.00), (r=.26, p=.00), (r=.20, p=.01), (r=.26, p=.00), (r=.33, p=.00), (r=.20,

<Table 3> Difference of health promoting behavior by general characteristics (N=192)

Characteristics	Classification	Mean(SD)	t or F score	p
Age(years)	≥21	2.57(.32)	1.62	.11
	≤22	2.44(.48)		
Sex	Male	2.54(.40)	.30	.59
	Female	2.57(.31)		
Grade	1-2	2.59(.31)	1.12	.27
	3-4	2.53(.36)		
Religion	Yes	2.55(.32)	.12	.73
	No	2.57(.35)		
Economic status	High	2.62(.46)	.91	.37
	Medium-Low	2.55(.32)		
Monthly income (won)	<100,000	2.55(.33)	-1.32	.19
	≥100,000	2.65(.39)		
Health status	Good	2.64(.33)	3.92	.00
	Bad	2.46(.32)		
Duration of disease (months)	0	2.57(.32)	1.32	.19
	<60	2.40(.59)		
Admission(times)	0	2.54(.34)	-1.80	.07
	≥1	2.64(.31)		
Exercise weekly (times)	0	2.55(.33)	-.44	.66
	≥ 1	2.58(.31)		
Duration of exercise (minutes)	≤30	2.55(.33)A	3.27	.04
	31-60	2.58(.31)		
	≥60	2.72(.32)B		
Smoking	Yes	2.58(.32)	1.54	.13
	No	2.35(.37)		
Drinking	Rare	2.84(.31)	.734	.48
	Often	2.58(.42)		
	Frequent	2.52(.33)		

p=.01), (r=.34, p=.00),
 (r=.14, p=.04), (r=.59, p=.00),
 (r=.22, p=.00)

가 , 가 ,
 가 , 가 ,
 가 , 가 ,
 가 ,
 (r=-.06, p=.40)
 5.
 <Table 5>
 가
 12%, 4%, 36%,
 2% 5 가
 57%

<Table 4> Correlation of the scores between health promoting behavior and research variables (N=192)

Variables	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12
X1	1.00											
X2	.32***	1.00										
X3	.33***	.17*	1.00									
X4	.17*	.12	.10	1.00								
X5	-.14	-.11	-.26***	.24***	1.00							
X6	.33***	.21**	.43***	.06	-.30***	1.00						
X7	-.03	.01	-.07	-.15*	-.05	-.06	1.00					
X8	.20**	.13	.27***	.51***	.12	.14*	-.18*	1.00				
X9	.12	.01	-.06	.06	.14*	-.08	-.07	.07	1.00			
X10	.34***	.17*	.14	.20**	.00	.20**	-.08	.27***	.06	1.00		
X11	.16*	.04	-.01	-.01	.06	-.07	.08	.01	.22**	.15*	1.00	
X12	.47***	.26***	.20**	.26***	.06	.33***	.20**	.34***	.14*	.59***	.22**	1.00

* p<.05, ** p<.01, *** p<.001
 X1: Health perception X2: Health concept X3: Self-esteem X4: Perceived benefits of action X5: Perceived barriers of action
 X6: Perceived self-efficacy X7: Activity-related affect X8: Social support X9: Preference X10: Previous related behavior
 X11: A plan for action X12: Health promoting behavior

<Table 5> Influencing factors in health promoting behavior of subjects

(N=192)

Variables	R	R ²	Change amount	R ²	t	p
Previous related behavior	.34	.60	.36	.36	6.40	.00
Health status	.15	.69	.12	.48	4.68	.00
A plan for action	.17	.72	.04	.52	3.08	.00
Perceived self-efficacy	.15	.74	.03	.55	2.71	.01
Number of admission	.06	.76	.02	.57	2.31	.02

(1996)가 253

1.

, , Jun (2002)
 , Ryu (2001) ,
 Jun(1997) 가
 2.56
 Lee Han(1996) 2.56 , Lee(1996), Ryu (2001)
 Lee(1996) 2.52 , Lee(1997) 2.50 , Jun(1997) 2.49
 Ryu (2001) 2.16 Regina Alice(2005)가 (Duffy, 1993; Jun, 2001)
 2.30 가
 . Park, Lee, Park Chang(1999)
 4.0 (1-5) 가
 가 .
 가 2.87 가
 2.33 , Jun,
 Kim Cho(2002), Jun(1997) 가 가 ,
 가 가
 Lee(1997) Huh,
 Chung Yeoum(1998) 가 가 .

2.

가
 가 , 1 ,
 30 ,
 가 ,
 가 .
 Lee Han(1996), Lee(1997)가 가 .
 ,
 가 Lee Jun(1997) D 350 ,

Han(1996) Lee(1997) Lee 가 (Kim, 1995)
 가 가
 가
 (Burton, Steinwachs & German, 1995)
 Pender 가
 Ryu (2001) K 282
 가 가 가 (Huh et al., 1998) 가 가 가
 Kim (2001), Im(1999), Jun (2002) Lee(1996)가 가
 Kim (2001) 가 Lee(1996) Im(1999), 가 가 가
 가 가 가 가 가
 가 가 가 가 가
 36%, 12%, 4%,
 3% 2% 5 가
 57% 가
 Kim (2001) Pender
 45.1% , Im(1999)
 59.0%
 가 . Park (2000)

Ware(1976)

가
가
Pender(1996)
2.56
(t=3.92, p<.001), (F=3.27, p<.05)
가
36%, 12%,
4%, 3% 2%
가 57%
가
가
가
가
가
가
가

가
가

References

Bandura, A. (1986). *Social foundation of thought and action: A social cognitive theory*. Englewood Cliff: Prentice-Hall.

Burton, L. C., Steinwachs, D. M., & German, P. S. (1995). Preventive services for the elderly: Would coverage affect utilization and costs under medicare? *American J Pub Health*, 85, 378-391.

Duffy, M. E. (1993). Determinants of health-promoting lifestyles in order persons. *Image: J Nurs Scholarship*, 25(1), 23-28.

Huh, E. H., Chung, Y. K., & Yeoum, S. G. (1998). A study on the relations between a health promoting daily lifestyle and self-efficiency in university students. *J Korean Soc School Health*, 11(2), 203-215.

Im, M. Y. (1999). *Determinants of health promoting behavior of college students in Korea*. Unpublished doctoral dissertation, Yonsei University, Seoul.

Jun, M. Y., Kim, M. H., & Cho, J. M. (2002). Predicts of health promoting lifestyles in Korean undergraduate students. *J Korean Soc Health Edu Prom*, 19(2), 1-13.

Jun, J. Y. (1997). A study on the performance of health promoting behavior in college students. *J Korea Comm Health Nurs Acad Society*, 11(1), 26-38.

Kahn, R. L., & Antonucci, T. C. (1980). *Convoys over the life-course: Attachment, roles and social support*. In P. B. Baltes & G. Brim(eds). *Life-span development and behavior*(253-83). NY: Academic Press.

Kim, A. K. (1995). An inquiry into subjectivity of health behavior among young Korean adults. *Korean Nurs*, 34(1), 50-54.

Kim, J. H., Kim, S. J., & Park, Y. H. (2001). Factors influencing health promoting behavior of women college students. *J Korean Acad Adult Nurs*, 13(3), 431-440.

Laffrey, S. C. (1986). Development of a health conception scale. *Res Nurs Health*, 9, 107-113.

Lee, H. J. (1997). Relationship between the health promoting behavior and social support of college students. *J Kyungdong College*, 6, 587-606.

Lee, J. K., & Han, A. K. (1996). A study on the relationship between social support, self-esteem and health promoting behavior among nursing students. *J Korean Acad Adult Nurs*, 8(1), 55-68.

Lee, S. H. (1996). A study of influencing variables of health promotion behaviors of college students. *Korean Central J*

- Med*, 61(12), 981-994.
- Lee, S. J., Park, E. S., & Park, Y. J. (1996). Determinants of health promoting behavior of middle aged women in Korea. *J Korean Acad Nurs*, 26(2), 320-336.
- Park, J. W. (1985). *A study to development a scale of social support*. Unpublished doctoral dissertation, Yonsei University, Seoul.
- Park, Y. J., Lee, S. J., Park, E. S., Ryu, H. S., Lee, J. W., & Chang, S. O. (2000). A meta-analysis of explanatory variables of health promotion behavior. *J Korean Acad Nurs*, 30(4), 836-846.
- Park, Y. J., Lee, S. J., Park, E. S., & Chang, S. O. (1999). A prediction model for health promoting behavior of the Korean Elderly. *J Korean Acad Nurs*, 29(2), 281-292.
- Pender, N. J. (1996). *Health promotion in nursing practice(3rd ed)*. Standford: Appleton & Lange.
- Pender, N. J. (1999, June). *Health promotion and nursing*. Paper presented at Korea University Institute of Nursing Research, International Nursing Conference, Seoul.
- Regina, L. T. Lee, & Alice, J. T. Yuen Loke (2005). Health-promoting behaviors and psychosocial well-being of university students in Hong-Kong. *Public Health Nurs*, 22(3), 209-220.
- Rosenberg, M. (1965). *Society and the adolescent self image*. Princeton: Princeton University press.
- Ryu, E. J., Kwon, Y. M., & Lee, K. S. (2001). A study on psychosocial well-being and health promoting lifestyle practices of university students. *J Korean Soc Health Educ Prom*, 18(1), 49-60.
- Sherer, M. S., Maddux, J. E., Mercadante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The self-efficacy scale: Construction and validation. *Psychol rep*, 51, 663-671.
- Taft, L. B. (1985). Self-esteem in later life: A nursing perspective. *Adv Nurs Sci*, 8(1), 77-84.
- Ware, J. E. Jr. (1976). Scales for measuring general health perceptions. *Health Serv Res*, 11, 396-415.
- World Health Organization (1997). *Coming of age: From facts to action for adolescent sexual and reproductive health*. Geneva: Author.