



Original Article

Effects of Self - Hand Massage with Aroma Oil on Daily Cigarette Use, Smoking Craving and Depression of Female High School Student Smokers*

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Abstract

Purpose: The purpose was to test the effects of self-hand massage with aroma oil on daily cigarette use, smoking craving, and depression of female high school student smokers who are attempting to quit smoking. **Method:** A convenience sampling of a non-equivalent control group time series was used. Female high school student smokers were assigned either to smoking cessation lecture only or to an intervention that involved a smoking cessation lecture and self -hand massage with aroma oil for 4 weeks. Lavender, Peppermint, and Bergamotte essence oils were used for massage. **Result:** There was a significant change in daily cigarette use and depression between the groups at three different times. **Conclusion:** It is promising that self-hand massage with aroma oil can be an effective adjunctive to decrease daily cigarette use and depression of female

high school student smokers who are attempting to quit smoking.

Key words : Self -hand massage, Aroma oil, Daily cigarette use, Smoking craving, Depression

2004		7.5%	2003
0.7%	가	1991	2.4%
			3
			가
			1997
			35.3%
2003	22.1%	2004	15.9%

(Korean Association of Smoking and Health, 2005).

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* 2005 : 2006. 3. 24 1 : 2006. 4. 28 2 : 2006. 5. 29 3 : 2006. 6. 5 : 2006. 6. 9

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1, 2
 (Kim, 1999), 가 ,
 , ,
 (Budd & Preston, 2001),
 32.7% 60.7% (Korean 가 가
 Association of Smoking and Health, 2003) 가 ,
 가 ,
 가
 가 가 1.
 가 , , , , , , 가 가
 , , , .
 (Marks, Stitzel, & Collins, 1985).
 가 ,
 가 (Korean Association
 of Smoking and Health, 2003).
 (Kim, M. S., & Kim, A. G., 2001)
 가 (Kim, Kim, Kim, & Baik, 2. 가
 2001). 가 :
 가 (Hall, 가 30 , 가
 Munoz, & Reus, 1994). Choi(1999) 3%
 1 4
 가 ,
 ,
 .
 가 : Hernandez-Rief, Field Hart(1999)가 5
 craving scale
 가 : Radloff(1977) Chon Rhee(1992)
 20 CES-D(Center for
 (Townsend, DuChene, Epidemiologic Scale)
 Morgan, & Browner, 1991),
 가 1.
 (Lee, Park, & Kwon, 2003), Rose Behm(1994)
 가 ,
 30

	Before intervention	Inter-vention	1 week later	Inter-vention	2 weeks later	Inter-vention	3 weeks later	Inter-vention	4 weeks later	Follow - up (8 weeks later)
Experimental	E1	X	E2	X	E3	X	E4	X	E5	E6
Control	C1		C2		C3		C4		C5	C6

X: Self-hand massage with aroma oil

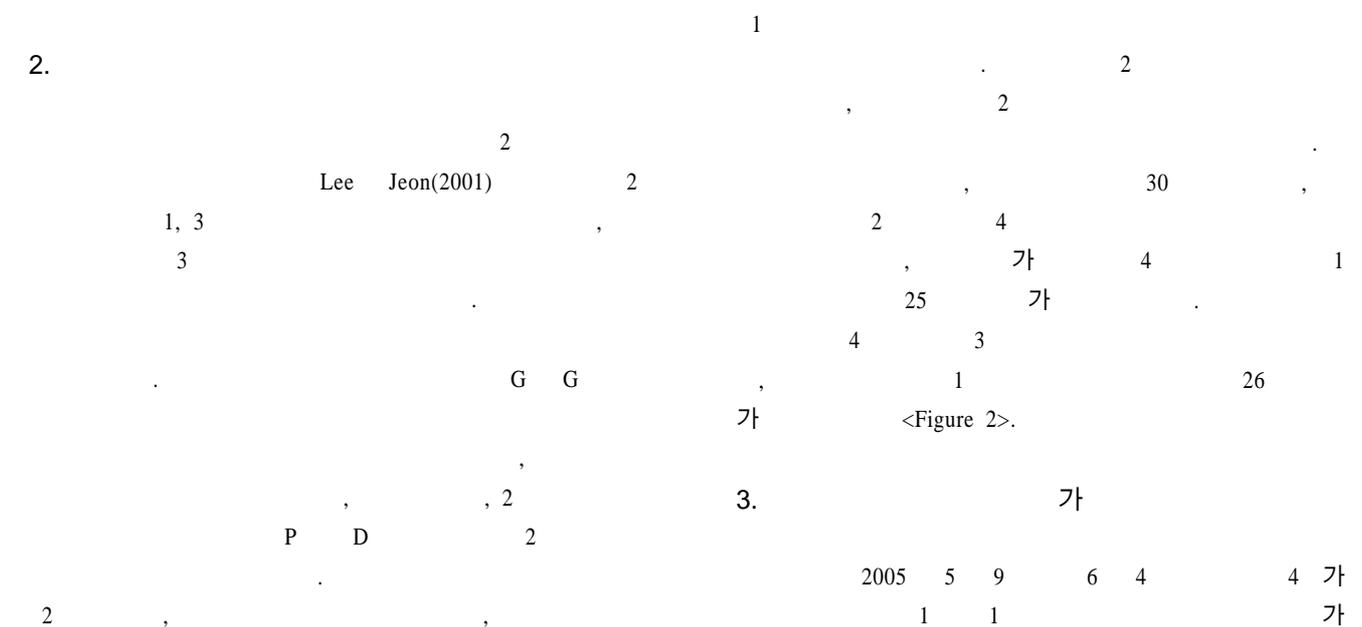
E1, E5 E6, C1, C5, C6: Daily cigarette use, Smoking craving, Depression

E2, E3 E4, C2, C3, C4: Daily cigarette use, Smoking craving

<Figure 1> Research design



<Figure 1>.



<Figure 2> Flow chart for study process

60 < . < craving scale
 > 가 30 1 =
 . 30 , 2 = , 3 =
 가 4 = , 5 =
 가
 가 4
 가 (Hernandez-Rief et al., 1999)
 가 Hernandez-Rief (1999)
 가 , , 1 3
 가
 가 1
 가 3%
 Snyder, Egan
 Burns(1995)가
 2 30 5 가
 가 ,
 , 가

3)
 Radloff(1977) Chon Rhee(1992)
 20 CES-D
 (7), (4), (7),
 (2) 4
 20
 ' (0), ' (1), ' (2), ' (3
) , 0 60
 가 가
 16 가
 (Craig & Van Natta, 1978). Chon Rhee(1992)가
 Cronbach's α .89 ,
 Cronbach's α .84

5.
 SPSS 12.0 WIN
 •
 • χ^2 test t-test
 •
 (Repeated Measures ANOVA)

<Table 1>

<Table 1> Self - hand massage with aroma oil

Day	Contents	Minutes
1	• Lecture: Health impacts of smoking • Pledging not to smoke • Self-hand massage practice	60
2 ~ 28	• Self-hand massage with aroma oil (1 time per a day) • Recording smoking diary	5

1.
 “ ” 가 28%,
 23.1% , , 가 36%, 53.8% 가
 .
 1.94 , 2.1 ,
 4.32 , 4 ,
 3.92 , 3.77
 <Table 2>.

4.
 1)
 2)
 Hernandez-Rief (1999) 5

<Table 3>.

<Table 2> Homogeneity test of the smoking - related variables

	Intervention Group(n=25)	Control Group(n=26)	t / X ²	p
	M ± SD	M ± SD		
Smoking years	1.94(1.40)	2.10(1.51)	-.39	.70
Cessation attempts	4.32(2.79)	4.00(1.74)	.49	.32
Nicotine dependency(score)	3.92(1.93)	3.77(1.79)	.29	.84

<Table 3> Homogeneity test of the outcome variables

	Intervention Group(n=25)	Control Group(n=26)	t	p
	M(SD)	M(SD)		
Daily cigarette use	11.32 (6.44)	11.88 (4.43)	-.37	0.72
Smoking craving(score)	1.76 (.83)	1.69 (1.12)	.24	0.81
Depression(score)	23.20 (8.48)	24.38 (7.20)	-.54	0.60

2. 가

1) 1가

1가 : ‘

1가

(F=12.9, p<.001)

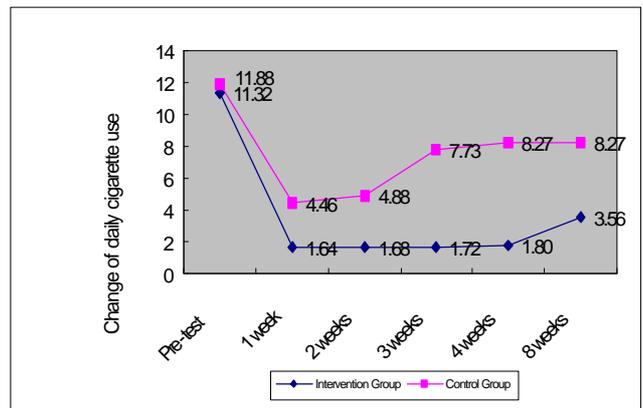
(F=12.1, p<.001)

가

가

가 1

<Table 4>.



<Figure 3> Change of daily cigarette use between intervention and control group

(F=1.12, p=0.275)

가

(F=7.88, p<.001)

가

가

가 2

<Table 5>.

<Table 4> Difference of the daily cigarette use between intervention and control group

Source	SS	df	MS	F	p
Between groups					
Group	1205.87	1	1205.87	12.90	.001
Error	4582.36	49	93.52		
Within-subject					
Time	2513.76	5	502.75	12.13	.000
Time×group	314.70	5	1162.94	1.52	.185
Error	10156.1	245	502.75		

<Table 5> Difference of the smoking craving between intervention and control group

Source	SS	df	MS	F	p
Between groups					
Group	2.56	1	2.56	1.12	.275
Error	103.10	49	2.10		
Within-subject					
Time	34.12	5	6.82	7.88	.000
Time×group	2.86	5	.57	.66	.655
Error	212.15	245	.87		

11.32

1 1.64 , 2 1.68 , 3 1.72 , 4

1.8 가, 8 3.56

가 , 11.88

1 4.46 , 2 4.88 가, 3

7.73 , 4 8.27 가 , 8

8.27 4 가 <Figure 3>.

2) 2가

2가 : ‘

가

2가

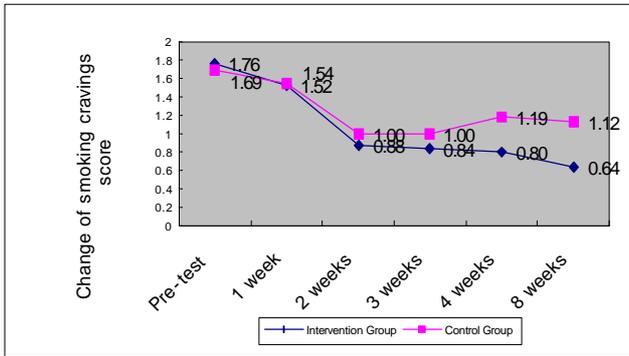
1.76

1 1.52 , 2 0.88 , 3 0.84 , 4 0.8

, 8 0.64 .

1.69 1 1.54 가 , 2 3

1 가 4 1.19 8
1.12 <Figure 4>.



<Figure 4> Change of smoking cravings score between intervention and control group

4 18.1 가, 8 23.2
21.9 , 8 19.1
22.5 24.4 4
<Figure 5>.
23.2
4 18.1 가, 8 19.1
21.9 , 8 22.5 24.4 4
<Figure 5>.

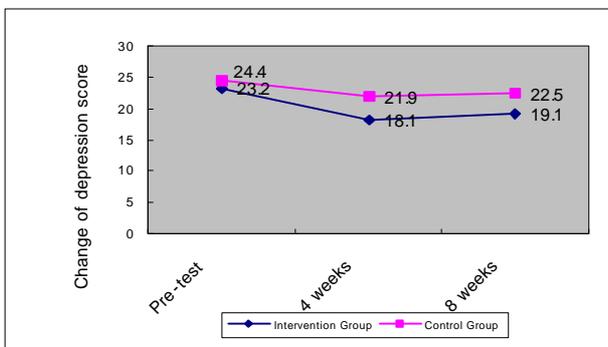
3) 3가
3가 : ‘
가 :
3가
(F=5.29, p<.05) 가 ,
(F=10.9, p<.001) 가 .
가
가 3 <Table 6>.

<Table 6> Difference of depression score between intervention and control group

Source	SS	df	MS	F	p
Between groups					
Group	300.31	1	300.31	5.29	.03
Error	2780.01	49	56.74		
Within-subject					
Time	406.38	2	203.19	10.93	.00
Time×group	50.64	2	25.32	1.36	.26
Error	1821.74	98	18.59		

가 , 가 ,
(Hall et al., 1994).
가
가
4 가 4
가 16
4
(Hernandez-Rief et al., 1999)
가
23 4

(Lee, 2004)
가
Hernandez-Rief (1999)
, Hernandez-Rief (1999)
가
가 5 1.76 Hernandez-Rief
(1999) 4.3
가 3.92
7
가
1.94
가 가
(Teneggi et al., 2002),



<Figure 5> Change of depression score between intervention and control group

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