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	II.	3
	III.	5
	IV.	5
	V.	5
	가.	5
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	(1)	6
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	(3)	6
	(4)	7
	(5)	7
	VI.	8
	1.	8
	2.	, ,	9
	3.	,	12
	4.	..	12
	5.	13
	6.	15
	VII.	16
	VIII.	19
	IX.	20
	X.	24

1.	8
2.	10
3.	11
4.	11
5.	14

80

100

(Global Assessment of Recent Stress Scale)

(Stress Response Inventory) ,

(Coping Scale)

(Pain Discomfort Scale)

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6 - 8

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9,

10,

11,12,

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(pain intensity)

(pain affect)

14,15
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II.

1.

80 100 .
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 18 , 65
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 . 100 ,
 20 80 .
 18 65
 43 6
 가 57 100
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(1)

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GARS(global assessment of recent stress) ¹⁶ ¹⁷
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가 0 , 9
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¹⁷.

(2) (Stress Response Inventory)

¹⁸ 39 .
가 1 가 ,
, , , , , 7
“ ” “ ” 5
가 .

(3) (Coping Scale)

가 Falkman
Lazarus ¹⁹ .
50 8 , (confrontive
coping), (distancing), (self- controlling),
(seeking social support), (accepting responsibility), -
(escape- avoidance), (planful problem- solving),
가(positive reappraisal) . “

” “ ” 5 가 .

(4) (Pain Discomfort Scale)

Jensen Pain Discomfort Scale(PDS)²⁰

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 , 10 , 50

Cronbach's 0.747 , - r 0.872

(p=0.000) . “ ” “ ” 5
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(5)

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Student t- .

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, Pearson .

III.

1.

Table 1

Table 1. Sociodemographic characteristics of backache patients and controls

	Backache patients N=80(%)	Normal control N=100(%)	statistics	df	p
Age(years) Mean \pm S.D.	31.7 \pm 11.4	32.0 \pm 9.2	t=0.19	178	.85
Sex			$\chi^2=0.29$	1	.59
Male	32(40.0)	44(44.0)			
Female	48(60.0)	56(56.0)			
Education(years) Mean \pm S.D.	14.7 \pm 2.8	14.5 \pm 2.2	t=- 0.63	178	.53
Income(1,000won/month)	333.8 \pm 103.7	335.0 \pm 105.8	t=0.08	178	.94
Marriage			$\chi^2=1.40$	1	.24
Married	32(40.0)	48(48.0)			
Single	44(55.0)	48(48.0)			
Occupation			$\chi^2=0.49$	2	.78
Professional	22(27.5)	26(26.0)			
Nonprofessional	21(26.3)	31(31.0)			
Absent	37(46.3)	43(43.0)			
Religion			$\chi^2=0.54$	1	.46
Yes	38(47.5)	42(42.0)			
No	42(52.5)	58(58.0)			
Duration of illness(months) Mean \pm S.D.	48.8 \pm 58.2				

S.D. : Standard deviation

2.

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(Table 2).

(Table 3).

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(17.7 ± 7.2 vs. 16.2 ± 3.4 , $t=1.721$, $df=178$, $p=0.088$).

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($F=4.79$, $df=2$, $p=0.009$)

가($F=7.38$, $df=2$, $p=0.001$) 가 .

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(Table 4).

Table 2. Comparison of perceived stressors between backache patients and normal controls

	Backache patients (N=80) Mean \pm S.D.	Normal controls (N=100) Mean \pm S.D.	t	df	p
Work/Job/School	3.8 \pm 2.1	3.1 \pm 1.7	2.50	178	.01
Interpersonal	3.0 \pm 2.1	2.0 \pm 1.4	2.08	178	.04
Changes in relationship	2.2 \pm 2.6	1.9 \pm 1.1	2.04	178	.04
Sickness/Injury	3.2 \pm 2.2	1.8 \pm 1.2	5.16	178	.00
Financial	2.5 \pm 1.8	2.4 \pm 1.2	.40	178	.69
Unusual happenings	1.8 \pm 1.8	1.9 \pm 1.3	-.70	178	.47
Changes/No changes in routine	2.0 \pm 1.3	2.3 \pm 1.4	-1.61	178	.11
Total	18.4 \pm 7.5	15.6 \pm 6.6	2.61	178	.01

N : Number

S.D. : Standard deviation

Table 3. Comparison of stress responses between backache patients and normal controls

	Backache patients (N=80) Mean \pm S.D.	Normal controls (N=100) Mean \pm S.D.	t	df	p
Tension	3.9 \pm 2.9	3.4 \pm 2.4	1.2	177	.22
Aggression	2.0 \pm 3.0	1.6 \pm 1.8	1.1	177	.27
Somatization	1.8 \pm 1.7	2.2 \pm 1.9	- 1.7	178	.09
Anger	4.2 \pm 3.3	3.7 \pm 2.5	1.2	178	.22
Depression	5.6 \pm 4.3	4.8 \pm 3.4	1.4	177	.17
Fatigue	5.3 \pm 2.9	4.3 \pm 2.2	2.6	178	.01
Frustration	5.8 \pm 4.5	5.2 \pm 3.9	1.1	178	.28
Total	28.6 \pm 17.9	25.3 \pm 15.3	1.2	175	.11

t : Student's t-test

S.D. : Standard deviation

Table 4. Comparison of coping strategies between backache patients and normal controls

	Backache patients N=80 Mean \pm S.D.	Normal control N=100 Mean \pm S.D.	t	df	p
Confrontation	8.1 \pm 3.4	7.6 \pm 2.9	.97	178	.34
Distancing	6.4 \pm 2.6	6.3 \pm 2.7	.08	178	.94
Self control	10.6 \pm 4.9	9.9 \pm 3.9	1.01	178	.31
Seeking social support	11.2 \pm 4.6	10.1 \pm 3.3	1.71	178	.09
Acceptance	6.6 \pm 3.1	6.1 \pm 2.8	.98	178	.33
Escape avoidance	6.5 \pm 4.1	7.1 \pm 3.7	- .96	178	.34
Planful problem solving	10.7 \pm 5.4	9.1 \pm 4.1	2.13	178	.03
Positive reappraisal	13.2 \pm 5.7	10.7 \pm 4.2	3.24	178	.00

t : Student's t-test

3.

($r=0.43$, $p<0.01$)

($r=0.15$, $p>0.05$)

($r=0.46$, $p<0.01$), ($r=0.41$, $p<0.01$),

($r=0.35$, $p<0.01$), ($r=0.21$, $p<0.05$)

($r=0.38$, $p<0.01$)

($r=0.63$, $p<0.01$), ($r=0.61$, $p<0.01$), ($r=0.51$, $p<0.01$), ($r=0.27$, $p<0.05$)

($r=0.47$, $p<0.01$)

($r=0.43$, $p<0.01$), ($r=0.49$, $p<0.01$), ($r=0.34$, $p<0.01$),

($r=0.39$, $p<0.01$), ($r=0.44$, $p<0.01$), ($r=0.26$, $p<0.01$),

($r=0.44$, $p<0.01$) ($r=0.48$, $p<0.01$)

($r=-0.21$ 0.14 , $p>0.05$),

($r=0.41$, $p<0.01$)

4.

(18.5 ± 6.0 vs. 18.3 ± 8.4 , $t=0.13$, $df=78$, $p=0.89$), ($r=-0.07$, $p>0.05$), ($r=-0.14$, $p>0.05$),

($r=0.11$, $p>0.05$) ($r=0.06$, $p>0.05$)

(16.6 ± 7.6 vs. 14.8 ± 5.7 , $t=1.31$, $df=98$, $p=0.19$), ($r=0.17$, $p>0.05$),
 ($r=-0.06$, $p>0.05$),
 ($r=-0.26$, $p<0.01$)

(24.5 ± 18.3 vs. 31.3 ± 17.2 , $t=-1.69$, $df=78$, $p=0.10$), ($r=-0.16$,
 $p>0.05$), ($r=-0.17$, $p>0.05$), ($r=-0.12$, $p>0.05$),
 ($r=-0.02$, $p>0.05$)

가 (24.4 ± 16.6 vs. 26.1 ± 14.3 ,
 $t=-0.51$, $df=95$, $p=0.61$), ($r=0.05$, $p>0.05$), ($r=-0.12$,
 $p>0.05$), ($r=-0.22$,
 $p<0.05$)

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(Table 5).

Table 5. The relationship between sociodemographic variables and coping strategies

	Patients/Normal controls				
	Age	Sex	Education	Income	Duration of illness
	r	t (df)	r	r	r
Confrontive coping	-.15/-.14	.78(78)/-.47(98)	.01/.14	.14/-.08	.04
Distancing	-.09/.08	1.71(78)/-2.14(98)*	-.25*/.09	-.01/-.10	-.12
Self controlling	.04/.03	-.66(78)/-2.71(98)*	-.05/.11	.16/-.09	.19
Seeking social support	.13/-.03	-.17(78)/-1.50(98)	.08/.07	.21*/-.12	.19
Accepting responsibility	.03/.05	2.12(78)*/- .92(98)	.05/.09	.04/-.20*	.15
Escape avoidance	-.47**/-.15	1.72(78)/.07(98)	-.30**/-.11	-.24*/-.06	-.16
Planful problem solving	.18/.00	-.36(78)/-1.58(98)	.13/.20*	.11/-.13	.09
Positive reappraisal	-.10/-.03	1.18(78)/-1.85(95)	.12/.16	.02/-.08	-.03

* : $p < 0.05$, ** : $p < 0.01$,

r : Pearson correlation

t : Student's t-test

6.

($r=0.33$, $p<.01$)

($r=0.25$, $p<.05$)

. (18.5 ± 6.5 vs. 17.2

± 7.7 , $t=0.79$, $df=78$, $p=0.43$), ($r=0.05$, $p>0.05$), ($r=-0.04$,
 $p>0.05$)

. ($r=-0.16$, $p>0.05$), (15.8 ± 3.2 vs. 16.5 ± 3.6 ,

$t=-0.93$, $df=98$, $p=0.35$), ($r=-0.05$, $p>0.05$), ($r=-0.16$,
 $p>0.05$)

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Rosenstiel Keefe²¹

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1. Tan SY. Cognitive and cognitive-behavioral methods for pain control: a selective review. *Pain* **1982;12:201- 28.**
2. Copp LA. The spectrum of suffering. *Amer J Nurs* **1974;74:491- 5.**
3. Holroyd KA, Tobin DL, Penzien DB, Holm JE, Hursey KG, Rogers L. et al. Coping strategies and recurrent tension headache: a comparison between headache and headache-free groups, presented at the annual meeting of the Biofeedback Society of America, Denver, CO, **1983.**
4. Weickgenant AL, Slater MA, Patterson TL, Atkinson JH, Grant I, Garfin SR. Coping activities in chronic low back pain; relationship with depression. *Pain* **1993;53:115- 23.**
5. Jenson MP, Turner JA, Romano JM, Karoly P. Coping with chronic pain; a critical review of the literature. *Pain* **1991;47:249- 283.**
6. Turk DC, Meichenbaum D, Genest M. Pain and behavioral medicine; a cognitive-behavioral perspective. Guilford Press: New York; **1983.**
7. Parker JA, Smarr KL, Buescher KL, Phillips LR, Frank RG, Beck

8. Hanson RW, Gerber KE. Coping with chronic pain; a guide to patient self management. Guilford Press: New York; 1990.
9. , . . 1988;27:685-92.
10. , . . 1988;27:140-50.
11. , . . 1991;30:358-64.
12. , . , . 1992;31:587-94.
13. , , . . 1998;37:243-9.
14. Gracely RH, McGrath P, Dubner R. Ratio scales of sensory and affective verbal pain descriptors. Pain 1978;5:5-18.
15. Jensen MP, Karoly P, O'Riordan EF, Bland F, Burns RS. The subjective experience of acute pain: an assessment of the utility of

- 10 indices. Clin J Pain **1989;5:153- 159.**
16. Linn MW. A global assessment of recent stress scale. Int J Psychiatry Med **1985;15:47- 59.**
17. , . 가
 . **2000;8(2):201- 211.**
18. , , .
2000;39:707- 719.
19. Folkman S, Lazarus RS, Gruen RJ, DeLongis A. Appraisal, coping, health status, and psychological symptoms. J Pers Soc Psychol **1986;50:571- 9.**
20. Jensen MP, Karoly P. Assessing the affective component of chronic pain: Development of the pain discomfort scale. J Psychoso Res **1991;35:149- 154.**
21. Rosenstiel AK, Keefe FJ. The use of coping strategies in chronic low back pain patients: relationship to patient characteristics and current adjustment. Pain **1983;17:33- 44.**
22. Brown GK, Nicassio PM, Wallston KA. Pain coping strategies and depression in rheumatoid arthritis. J Consult Clin Psychol

1989;57:652- 657.

23. Keefe FJ, Caldwell DS, Queen KT, Gil KM, Martinez S, Crisson JE, et al. Pain coping strategies in osteoarthritis patients. J Consult Clin Psychol **1987;55:208- 212.**
24. Astrid L, Wolfgang S, Martin K, Gerhard R, Wolhelm K, Michael O, et al. The impact of stressful life events on exacerbation of chronic low back pain. J Psychoso Res **1998;44:555- 563.**

Abstract

The relationship between perceived stress and coping strategies in patients with chronic low back pain

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(Directed by Professor Kyung Bong Koh)

The object of this study was to investigate the relationship between coping strategies and perceived stress or pain discomfort in patients with chronic low back pain. 80 patients with chronic low back pain and 100 normal controls participated in this study.

Global assessment of recent stress(GARS) scale and Stress Response Inventory(SRI) were used to measure perception for stressors and stress responses. Coping scale and pain discomfort scale were used to measure coping strategies and pain perception.

Scores of perceived stress related to work or job, interpersonal relationship, changes in relationship, sickness or illness and the total scores on the GARS scale were significantly higher in those with chronic low back pain than normal controls. Scores of the SRI fatigue subscale scored significantly higher in those with chronic low back pain than normal controls. No significant difference was found on total

scores of the pain discomfort scale between those with chronic low back pain and normal controls. The patients with chronic low back pain scored significantly higher on planful problem solving and positive reappraisal than normal controls.

In the patients, pain perception had significant positive correlations with total scores of the SRI and scores of stress perception related to illness or injury. Coping strategies used by the patients showed significant correlations with age or the level of education. Significant difference was also found in accepting responsibilities between male subjects and females. However, no significant correlations were found between coping strategies and perceived stressors, stress responses or pain perception.

The results suggest that patients with chronic low back pain were more likely to use more active coping strategies than normal controls, though the former had more perception for stressors than the latter. It was also found that coping strategies used by the patients were more influenced by sociodemographic factors than perceived stressors, stress responses or pain perception.

Key words : chronic low back pain, perceived stressor, stress response, coping strategies, pain perception