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## The Correlation between Depression and Physical Health in the Elderly

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### = ABSTRACT =

The purpose of this study was to identify the relationship between depression and physical health of the elderly and to provide fundamental data for programs which improve the health of this population.

The subjects were 168 elderly people(55 years and older) who resided at home in Taegu. They were surveyed by interview using a closed-ended questionnaire. The survey was done from September 16 to October 16 in 2000. The instruments used in this study were general characteristics, Short form Geriatric Depression Scale(SGDS), Barthel Index, Muscular skeletal symptoms scale, Northern Illinois University's Health Self Rating Scale. The data were analyzed by using descriptive statistics, t-test, ANOVA, Pearson Correlation Coefficient, multiple regression with SPSS PC 10.0 version for Windows.

The findings were as follows:

1. As compared 65-74 years elderly group, 75-84 years group was significantly higher score for depression( $F=3.17$ ,  $p=.026$ ). As compared elderly group who has own spouse, the group who has no own spouse was significantly higher score for depression( $t=-2.44$ ,  $p=.016$ ).
2. The aged who have more limitation of Activities of Daily Living(ADL)( $t=3.93$ ,  $p=.000$ ), pain of muscular skeletal symptoms( $F=5.33$ ,  $p=.002$ ) and poor perceived health state( $F=17.04$ ,  $p=.000$ ) showed the higher severity of depression than the aged who have not.
3. ADL correlated negatively with depression( $r=-.293$ ,  $p=.000$ ), pain of muscular skeletal symptoms correlated positively( $r=.251$ ,  $p=.001$ ), perceived health status correlated negatively( $r=-.522$ ,  $p=.000$ ).

4. The combination of perceived health status and ADL explained 29.1% of the variance of depression.

On the basis of the above findings the following recommendations are made;

- 1. Developing health programs is needed considering ADL, pain of muscular skeletal symptoms, perceived health status, demographic variables(age, spouse status) which have an significant effects on depression of the elderly.
- 2. In the following study, the use of the various scale is needed which reflects physical status of the elderly in home.

KEY WORDS: The elderly, Depression, Physical health, ADL, Muscular skeletal symptoms, Perceived health status

가  
가  
가 가  
65 (Kemp, 1985).  
2001 7.4% , 2020 13.2% ( , 1997; , 2001).  
가 가 ( , 1999).  
, 1986; , 1996),  
( , 1998). Netta(1983) 가 (disability days)  
가 ( , 1995; , 1999; , 2000). 가 (Hlatkey , 1986),  
(Feibel Springer, 1982) 가 (Macdonald , 1987).  
가 (Lewis, 1983).

10- 15%가

( ,

(1984)

80 50

45%

Zung

가

가

1991)

. Parmelee (1991) 598

가

Maruta (1989)

100

가

54

98%

가

. Williams Schulz(1988) 50

(ADL),

가 114

( ),

가

가 (r=0.41)가

가

가

가

가

1)

(Mossey Shapiro, 1982;

, 2000). 가 가

2)

3)

가 ( , 2000),

4)

가

가

( , 1984; Blazer, 1989; Blazer

, 1991; , 1992; Gallo , 1994).

가

1) 55

2-60%

2)

가

4

3) , 가 . Cronbach's  
4) =0.74 .  
2000 9 16 (muscular skeletal symptoms)  
10 16 가 .  
( ,  
가 , , 가 , , / , )  
. 가 .  
100% (2= , 1= ) 7  
30-40 . 7 14  
Sheikh 가  
Yesavage(1986)가 가 7 ( ,  
(Short form Geriatric Depression Scale:SGDS) , No symptom), 8-10 ( 가  
15 . , Mild), 11-13 ( 가 ,  
30 Brink (1982) Moderate), 14 ( , Severe)  
(Brink , 1982) .  
(Sheikh Yesavage, 1986) Cronbach's =0.97 .  
가 . SGDS (perceived health status)  
Northern Illinois University  
가 Health Self Rating Scale  
(1= , 0= 가  
) 0-15 5 . 1 ( ,  
가 ), 2 ( ), 3 ( ), 4  
. ( 가 ), 5 ( 가 )  
Sheikh Yesavage(1986) 가 가 .  
SGDS 6 가  
. 가  
(ADL) 가  
Barthel Index(Mahoney  
Barthel, 1965) . 가  
, , , 4 .  
3 SPSS WIN 10.0  
4 12 . 6-9 ( .  
가 , Poor) 10-12 ( 가 ( , )  
, Good) 가  
가 t-test ANOVA ,

Pearson Correlation Coefficient , 53.6% ‘ ’ .  
 ‘ ’가 58.7% ‘ ’  
 ‘ ’가 86.9% .

t-test ANOVA  
 ,  
 가 .

1. Table 1 . 75-84  
 65-74 가 45.2% 가 75-84 65-74 가  
 가 41.0% 가 71.4% (p<0.05) 가 가  
 28.6% 가 44% 가 (p<0.05).  
 ‘ ’가

Table 1. Comparison of Depression Scores by General Characteristics (N=168)

Characteristics	Categories	N(%)	Mean(SD)	t or F	p	Tukey
Age(years)	1. 55-64	7( 4.2)	7.29(3.73)	3.17	0.026	3>2
	2. 65-74	75(45.2)	6.29(3.35)			
	3. 75-84	68(41.0)	7.91(3.19)			
	4. 85	16( 9.6)	6.25(3.15)			
	No response	2( - )	-			
Sex	1. Male	48(28.6)	6.77(3.32)	-0.45	0.654	
	2. Female	120(71.4)	7.03(3.36)			
Religion	1. Buddhism	74(44.0)	7.19(3.25)	0.30	0.877	
	2. Christianity	29(17.3)	6.52(3.68)			
	3. Catholicism	16( 9.5)	7.06(3.64)			
	4. Confucianism	4( 2.4)	6.00(2.16 )			
	5. Atheism	45(26.8)	6.89(3.33)			
School education	1. Yes	90(53.6)	6.62(3.46)	-1.38	0.169	
	2. No	78(46.4)	7.34(3.18)			
Spouse	1. Yes	69(41.3)	6.22(3.04)	-2.44	0.016	2>1
	2. No	98(58.7)	7.49(3.46)			
	No response	1( - )	-			
Occupation	1. Yes	22(13.1)	5.86(3.44)	-1.60	0.121	
	2. No	146(86.9)	7.12(3.31)			

2. t-test ANOVA  
 Table 2 . (ADL) 가 (p<0.001).  
 ( 가 4 ) , 6-9  
 ( 가 ) 가 10-12 ( 가 3.  
 ) 가  
 (p<0.001). 11-13 Pearson correlation Coefficient  
 ( 가 ), 14 ( (r=-0.293, P=0.000),  
 ) 가 7 ( ) (r=0.251, p=0.001),  
 가 (p<0.01). 가 (r=-0.522, p=0.000)  
 ‘ , 6.0%, ‘ , 가 (Table 3).

Table 2. Comparison of depression scores by physical health

(n=168)				
Variables	N(%)	Mean(SD)	t or F	Tukey
<b>ADL</b>				
1. 6-9(Poor)	24(14.3)	9.33(3.19)	3.93	1>2
2. 10-12(Good)	144(85.7)	6.55(3.21)	(p=0.000)	
<b>Muscular skeletal symptoms</b>				
1. 7(No symptom)	29(17.3)	5.25(3.03)	5.33	3,4>1
2. 8-10(Mild)	10( 6.0)	5.10(2.23)	(p=0.002)	
3. 11-13(Moderate)	11( 6.5)	8.64(3.80)		
4. 14(Severe)	118(70.2)	7.36(3.27)		
<b>Perceived health status</b>				
1. Very poor	11( 6.5)	10.64(1.91)	17.04	1>3,4,5
2. Poor	54(32.1)	8.37(3.28)	(p=0.000)	2>4,5
3. Moderate	52(31.0)	7.04(2.64)		3>4
4. Good	41(24.4)	4.49(2.39)		
5. Very good	10( 6.0)	4.90(3.73)		

Table 3. Correlation between Physical Health and Depression

	ADL	Muscular skeletal symptoms	Perceived health status
Depression	-0.293 (p=0.000)	0.251 (p=0.001)	-0.522 (p=0.000)

4. 가, 가 (2000)

(Table 4). 29.1% 가 (Beta)가 ( , 1997; , 1998; , 1998; , 1999; , 2000)

-0.456 가 가 (Beta=-0.140) 가 .

가 .

가 .

1. 2. 가 (

75 84 가 65 74 ) , 가

가 (1984), Blazer (1991) 가 ADL

85 가 85 가

가 가 Blazer(1989), 가 (1996)

가 가 (1995) (1996)

Table 4. Multiple regression of depression by physical health

Variables	B	Beta	T	Sig T
Perceived health status	- 1.472	- .456	- 5.904	.000
ADL	- 1.328	- .140	- 1.995	.048

R<sup>2</sup>: 0.291.

(1998) 가 가 가 가 가

Williams Schulz(1988) 가 가 가 가 가

(2000) 가 가 가 가 가

(Craig Van Netta, (Mossey 1983; Harris , 1988) Shapiro, 1982) 가 가 가 가 가

Kennedy (1991) 가 가 가 가 가

70% 가 가 가 가 가

(Kemp, 1985) 가 가 가 가 가

( ) 가 가 가 가 가

(1998) 가 가 가 가 가

(Williams Schulz, 1988: Parmelee , 1991; Williamson Schulz, 1992; Cohen-Mansfield Marx, 1993; , 2000) 가 가 가 가 가

(r)가 0.230 0.288 가 가 가 가 가

0.251 가 가 가 가 가

(Ward , 1979; Maruta, 1989), 가 가 가 가 가

(Creed, 1990). 가 가 가 가 가

가 가 가 가 가

(1998) 55 가 가 가 가 가



가 , , (t=3.93, p=0.000).  
 가 , 11-13 ( 가 ), 14  
 168 . ( ) 가 7 ( )  
 2000 9 16 ) 가  
 10 16 (F=5.33, p=0.002).  
 가  
 가 (F=17.04, p=0.000).  
 3. (r=-0.293, p=0.000),  
 100% 가 (r=.251, p=0.001),  
 30-40 가 (r=-0.522, p=0.000)  
 가  
 가  
 (Short form Geriatric Depression Scale)(Sheikh  
 Yesavage, 1986), Barthel Index(Mahoney  
 Barthel, 1965) , ,  
 , ( ) ,  
 Northern Illinois University Health  
 Self Rating Scale  
 SPSS WIN 10.0  
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 가  
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 1. (F=3.17, p=0.026),  
 (t=- 2.44, p=0.016)  
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 75-84 65-74  
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 2. 2000; 26(4): 451-459  
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 6: 79-99

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 1998; 28(1): 148- 158
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10. . . . . 1997; 43
11. . . . .  
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