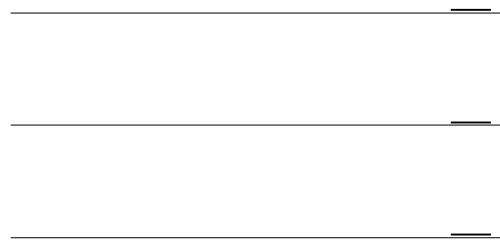


**65**

**65**

**2001 6**



90

가

· 가  
農心

가

가

가

가

5

30

가

2001 6

.....		
.	.....	1
1.	.....	1
2.	.....	5
3.	가 .....	6
.	.....	7
1.	.....	7
2.	.....	7
3.	.....	10
4.	.....	11
5.	.....	12
.	.....	14
1.	.....	14
2.	.....	17
3.	.....	17
4.	LOTCA-G IADL .....	18
5.	IADL .....	28
6.	IADL .....	30
.	.....	34
1.	.....	34
2.	.....	39

3.	.....	42
.	.....	43
	.....	46
	.....	55
	.....	58

1.	.....	9
2.	.....	15
3. LOTCA-G	.....	17
4. IADL	.....	17
5.	LOTCA-G .....	20
6.	IADL .....	22
7.	가 LOTCA-G .....	24
8.	가 IADL .....	25
9. LOTCA-G IADL	1 .....	27
10. LOTCA-G IADL	2 .....	27
11. IADL	( ) ..	29
12. IADL	1 ( ) .....	31
13. IADL	2 ( ) .....	31
14. IADL	3 ( ) .....	33
15. IADL	4 ( ) .....	33

1. Modified Barthel Index .....	55
2. LOTCA-G SCORING SHEET .....	56
3. ....	57



. ..... 10

가  
 LOTCA-G battery Lawton ·  
 Brody IADL 가  
 ( ), ( ), ( )  
 65 70 , 가  
 가 가 . 2001 4 5  
 4 29 25 .  
 LOTCA-G , Lawton Brody IADL  
 t ,

1. LOTCA-G IADL  
 74 가 80 , 75-79 85 가  
 . 가 가, 가  
 2 가 3 , 가  
 LOTCA-G IADL 가 .  
 LOTCA-G 30

가 20 , IADL 30  
가 10 . 가  
LOTCA-G 가 .  
2. 가 , 가 ,  
LOTCA-G  
(p<0.001), (visuomotor organization),  
(orientation), (memory), (perception), (thinking  
operation), (praxis), (attention/ concentration) .  
가 (p<0.05),  
. , , ,  
, (p<0.05).  
3. 가 , 가 , IADL  
IADL  
(p<0.001), , , , , ,  
, , . 가 ,  
(p<0.01), , ,  
, , (p<0.05).  
4. (LOTCA-G) (IADL)  
(p<0.001).  
가 , , ,  
, , (p<0.01),  
, , ,  
(p<0.05). , , , ,

, (p<0.05), ,  
, , , ,  
(p<0.01).  
(p<0.05), ,  
(p<0.01). ,  
(p<0.01),  
(p<0.001). IADL , , ,  
, , , (p<0.001).

5. IADL

가 ,  
IADL , IADL  
, ,  
. , IADL 가 ,  
.

6. IADL

LOTCA-G

, (p<0.05),  
(p<0.001).  
(p<0.05),  
(p>0.05).  
, (p<0.05),

, (p<0.05).  
, (p<0.001),  
,  
(p<0.05).

가 , 가  
가  
가 .  
가 , , , ,  
, , .

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1.

가  
 가 1960  
 가  
 가  
 가  
 가  
 ( , 1997).  
 가  
 7%( ) 14%( ) 가 115 ,  
 75 , 45 , 26  
 22 2022 가  
 ( , 2000).

가 .

가 .

가 .

가 ,

가 , 가

가 .

가

가 ,

가 (

, 1997). 가 (

) . 가

(Ashworth , 1994). 가

가

( , 1995 ; Kai , 1991).

( , 1995).

가

(Activity of Daily Living: ADL) 가

, ,  
 , , , ,  
 (Kemp Mithchell, 1992)  
 ,  
 (AOTA, 1994).  
 , 가  
 가  
 .  
 ( , 1995). (quality  
 of life) " " " " "  
 가 ADL ,  
 ADL  
 (芳賀 博 , 1989).  
 가 가 ,  
 , , ,  
 가 ,  
 , 가 (Instrumental Activity of  
 Daily Living: IADL) ,  
 (Kempen Suurmeijer, 1990).

Lawton Brody(1969)  
 IADL , , ,



, , , , 8가 .  
 ,  
 (Najenson , 1984). ,  
 (organizaion),  
 (problem solving), , ,  
 가 (Wheatley, 1995). 가  
 (Itzkovich , 1993)  
 (Siev , 1986).  
 . 가  
 (Tsai , 1983), (Neistadt, 1993)  
 (Edamans Lincoln, 1990; Titus , 1991), (1990)  
 (self care activity)  
 , (body scheme) (constructional  
 apraxia) 가 ,  
 (visual perception) 가  
 .  
 (Cermak  
 , 1995) 가  
 가  
 ( , 1987).  
 가 ADL( )

가  
가

IADL( ) 가가

가

2.

가

가

가

**3. 가**

1)

가 .

2)

가

.

3)

가

.

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1.

65

70

. ( ), ( ), ( )

3 1 , 가

.

2001 4 5 4 29 25 ,

가

가, .

가 ,

.

가 , 가 Modified Bathel Index(MBI)

100 90 .

2.

가

가 ( 1).

, , 가 , , , ,

, , .

Katz (1989)

LOTCA-G(Lowenstein Occupational Therapy Cognitive Assessment for Geriatric Population) , (orientation), (perception), (praxis), (visuomotor organization), (thinking operation), (memory), (attention/concentration) 가 . LOTCA-G LOTCA(Lowenstein Occupational Therapy Cognitive Assessment)

LOTCA version

LOTCA-G . 1)

2)

3)

4) 가

Katz(1995) LOTCA-G version original LOTCA version

가 Lawton Brody(1969)가

IADL(Instrumental Activities of Daily Living) 8

1.

---

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1 : 2 :

3 : 4 :

1 : 2 :

3 : 4 :

1 : 2 :

3 : 4 :

5 : 6 :

7 : 8 :

1 : 2 : 3 :

1 : ( )

2 : 3 :

4 : 5 :

1 : 2 : 가

3 : 4 :

1 : 2 :

가

(LOTCA-G )

24 - 104

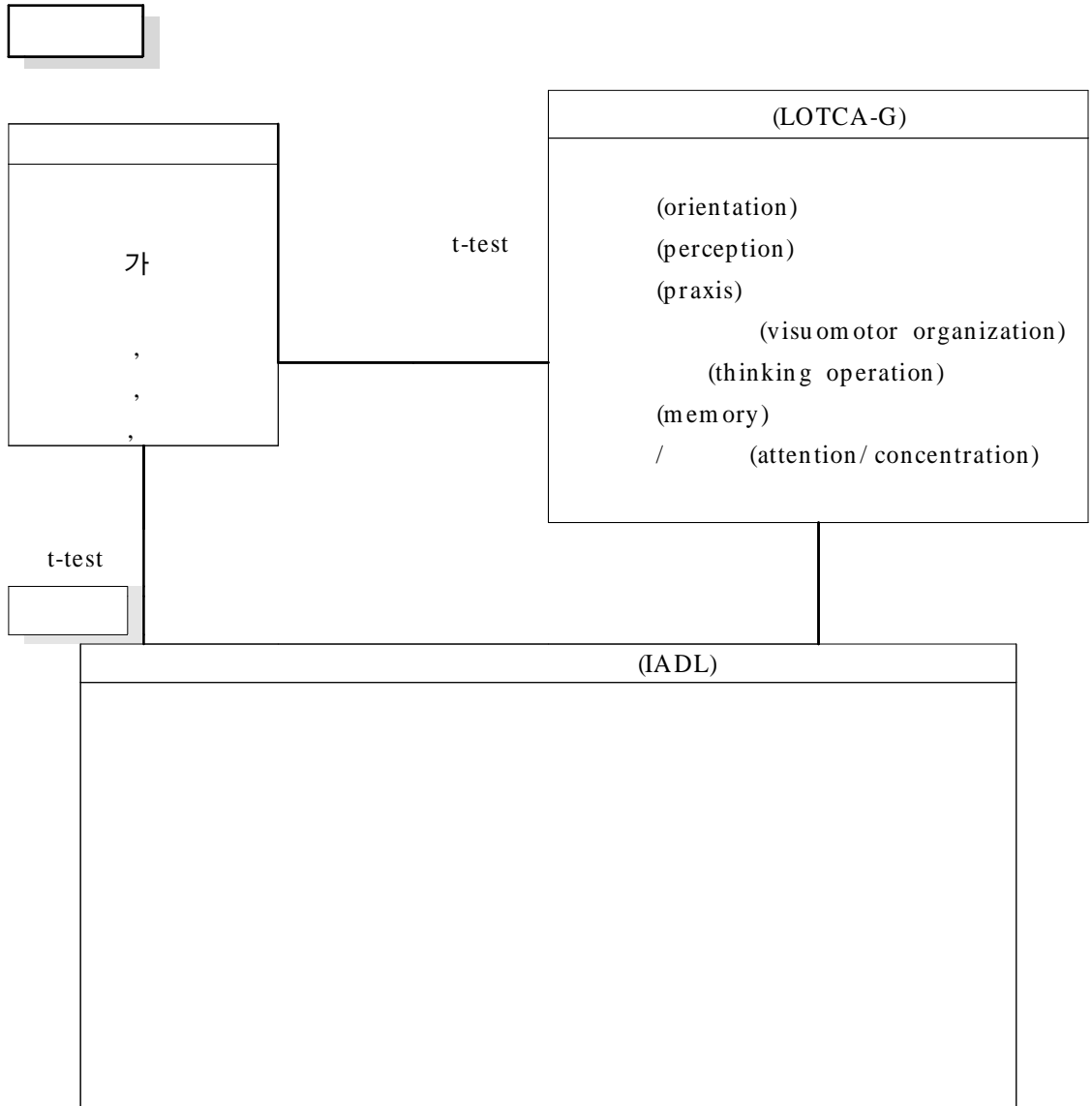
(Lawton Brody )

0 - 17

---

3.

, SAS



4.

, SAS(Statistical Analysis System) .  
, , , .  
,  
t .  
, 가 , 가 ,  
. .  
, 가  
.



5.

1)

, , 가 , , , , , , , .

2)

가  
 (BADL) 가 Modified Barthel Index .  
 Barthel Index 1965 Mahoney Barthel  
 가  
 가 .  
 ( , 1987). - 가  
 0.89, 가 0.95 (Granger , 1979) ,  
 Modified Barthel Index . 10가  
 5 . 1 가 “  
 가” 5 “ ” .  
 가 100 90 , 2  
 가 ( 1).

3)

가  
 가 LOTCA-G(Lowenstein  
 Occupational Therapy Cognitive Assessment for Geriatric Population)  
 . LOTCA-G Katz (1989) , ,

가  
 (orientation), (perception), (praxis),  
 (visuomotor organization), (thinking operation),  
 (memory), (attention/ concentration) 7가  
 , 가 24  
 . 24 가 0.82-0.97 .  
 (perception) Cronbach alpha 0.87 ,  
 (visuomotor organization) Cronbach alpha  
 0.95, (thinking operation) Cronbach alpha 0.85  
 , 0.89 . LOTCA-G  
 104 1 , 8 ,  
 20-30 2-3 가  
 가 ( 2).

4) 가  
 Lawton Brody가 IADL(Instrumental  
 Activities of Daily Living) 8 가 가 , IADL  
 17 0 , 4  
 , , , , , ,  
 , , ( 3).

•

1.

70 75.6  
65 , 90 . 가 가 49 가  
21 2 . 가  
8 3.9 가 8 , 1 12 , 2  
50 . 51 (72.9%) 가  
, 가 39.1% 가 .  
230,000 1 100 .  
58.6%가 , 20%가 ( ) ,  
12.9%가 . 35 (50%)  
가 , 가 32 (45.7%), 가 26  
(37.1%), 12 (17.1%) .  
가 33 (47.1%) 가 , , , , ,  
( 2).

2.

	( )	(%)
	=75.6	=6.9
65-69	12	17.1
70-74	27	38.6
75-79	11	15.7
80-85	10	14.3
85	10	14.3
	21	30
	49	70
가	=3.9	=1.7
0( )	8	11.4
1	12	17.1
2	50	71.4
	21	30
	30	42.9
	6	8.6
	13	18.6
	8	11.6
	27	39.1
	17	24.6
	17	24.6
	=23	=22
10	12	17.1
10-20	23	32.9
20-30	14	20.0
30	21	30.0

	41	58.6
	9	12.9
	14	20
	4	5.7
	2	2.9
	35	50
가	13	18.6
	13	18.6
	9	12.9
	32	45.71
	26	37.1
	12	17.1
	33	47.1
	7	10
	1	1.4
	4	5.7
	8	11.4
	5	7.1
	12	17.1
	70	100

## 2.

LOTCA-G 가 73 가 7 , 74-83 7 ,  
84-93 12 , 94-99 25 , 100 24 92.6  
( 3).

### 3. LOTCA-G

	( )	(%)
73	7	10
74-83	7	10
84-93	12	17.1
94-99	25	28.6
100	24	34.3
	70	100.0

## 3.

Lawton Brody 7 가 7 ,  
8-12 13 , 13-15 21 , 16 29 13.56  
( 4).

### 4. IADL

	( )	(%)
7	7	10
8-12	13	18.6
13-15	21	30
16	29	41.5
	70	100.0

#### 4. LOTCA- G IADL

##### 1) LOTCA-G

LOTCA-G ,  
 , 가 , , , 가  
 . Tukey's studentized range  
 가 , 74 가  
 80 , 75-79 85 가 . 가  
 , 가 가 2 가 3 ,  
 가 가 .  
 30  
 가 20 가 , 가  
 가 ( 5).

##### 2) IADL

IADL ,  
 , 가 , , ,  
 . Tukey's studentized range 가  
 , 74 가 80 ,  
 75-79 85 가 . 가  
 , 가 가 2 가 3 ,





## 5.

## LOTCA-G

		(n=70)			t/ F	Tukey
64-69	<sup>1)</sup>	12	99.75	2.86	14.46***	1>4,5
70-74	<sup>2)</sup>	27	97.59	6.82		2>4,5
75-79	<sup>3)</sup>	11	92.00	7.64		3>5
80-84	<sup>4)</sup>	10	86.10	11.51		
85	<sup>5)</sup>	10	77.90	11.92		
		21	98.05	6.05	3.63***	
		49	90.31	11.74		
가						
0( )	<sup>1)</sup>	8	98.63	2.67	4.99**	
2	<sup>2)</sup>	12	98.92	3.68		2>3
3	<sup>3)</sup>	50	90.16	11.92		
	<sup>1)</sup>	21	80.24	11.20	29.18***	1<2,3,4
	<sup>2)</sup>	30	97.00	4.98		
	<sup>3)</sup>	6	98.00	4.15		
	<sup>4)</sup>	13	100.08	4.29		
		8	95.88	9.23	0.92	
		27	92.56	11.67		
		17	94.65	10.61		
		17	89.35	11.03		
		1	90.00			
10	<sup>1)</sup>	12	88.06	12.86	4.60*	1<4
10-20	<sup>2)</sup>	23	88.58	12.33		2<4
20-30	<sup>3)</sup>	14	96.00	6.99		
30	<sup>4)</sup>	21	98.50	6.29		

	1)	41	88.51	11.66	4.29**	1<3
	2)	9	97.67	10.12		
	3)	14	99.14	3.61		
	4)	4	96.50	5.20		
	5)	2	101.00	0.00		
가	1)	35	88.09	11.95	5**	1>3,4
	2)	13	95.69	8.87		
	3)	13	97.00	8.40		
	4)	9	99.56	2.65		
		32	92.66	10.44	0.63	
		26	93.96	11.83		
		12	89.67	10.43		
		33	91.30	10.55	1.47	
		7	91.43	13.06		
		1	101.00			
		4	98.75	6.65		
		8	100.88	3.44		
		5	87.20	14.94		
		12	91.00	11.78		

---

\* p < 0.05    \*\* p < 0.01    \*\*\* p < 0.001

6. IADL

		(n=70)			t/ F	Tukey	
가	64-69	<sup>1)</sup> 12	15.92	2.27	16.70****	1>4,5	
	70-74	<sup>2)</sup> 27	15.33	1.75		2>4,5	
	75-79	<sup>3)</sup> 11	13.36	2.58		3>5	
	80-84	<sup>4)</sup> 10	11.00	3.30			
	85	<sup>5)</sup> 10	8.70	3.95			
			21	15.38	2.20	3.59***	
			49	12.78	3.81		
		0( )	<sup>1)</sup> 8	15.13	2.64	6.20*	
		2	<sup>2)</sup> 12	16.17	1.47		2>3
		3	<sup>3)</sup> 50	12.68	3.73		
			<sup>1)</sup> 21	10.14	4.22	15.19***	1<2,3,4
			<sup>2)</sup> 30	14.57	2.13		
			<sup>3)</sup> 6	15.67	1.21		
			<sup>4)</sup> 13	15.77	1.69		
		8	14.25	4.77	0.51		
		27	13.00	3.65			
		17	14.24	3.35			
		17	13.35	3.43			
		1					
	10	<sup>1)</sup> 12	12.06	4.22	3.14**	1<4	
	10-20	<sup>2)</sup> 23	12.63	3.74			
	20-30	<sup>3)</sup> 14	14.56	2.38			
	30	<sup>4)</sup> 21	15.13	3.16			

	1)	41	12.68	4.02	1.86
	2)	9	13.78	3.83	
	3)	14	15.00	1.66	
	4)	4	15.75	0.96	
	5)	2	16.00	1.41	
가	1)	35	12.49	3.75	2.44
	2)	13	14.54	3.99	
	3)	13	14.15	3.11	
	4)	9	15.44	1.59	
		32	13.41	3.73	0.12
		26	13.54	3.71	
		12	14.00	3.25	
		33	13.09	3.77	1.15
		7	13.43	4.20	
		1	16.00		
		4	16.50	1.00	
		8	15.38	2.00	
		5	12.00	3.87	
		12	13.17	3.76	

---

\* p < 0.05    \*\*p < 0.01    \*\*\* p < 0.001

3) , 가 , LOTCA-G

가 , 가 ,  
 LOTCA-G .  
 (p<0.001),  
 , , , , , ,  
 . 가 (p<0.05),  
 . , , , ,  
 (p<0.05)( 7).

7. 가	LOTCA-G		
	가		
OR	-0.57454***	-0.09928	0.30462*
PER	-0.52024***	-0.17951	0.20506
P	-0.43598***	-0.11302	0.14472
VMO	-0.62466***	-0.19699	0.38188**
TO	-0.49116***	-0.24401*	0.45975***
M	-0.52982***	-0.06509	0.3115**
AC	-0.34526***	-0.13952	0.24051*
LOTCA-G	-0.67232***	-0.19602	0.41296***

\* p < 0.05 \*\* p < 0.01 \*\*\* p < 0.001

OR : Orientation( ), PER : Perception( ), P : Praxis( )  
 VMO : Visuomotor Organization ( ), TO : Thinking Operation(  
 ), M : Memory( ), AC : Attention/ Concentration( / )

4) , 가 , IADL

가 , 가 ,  
 IADL .  
 IADL (p<0.001),  
 , , , , , , , , ,  
 . 가 ,  
 (p<0.01), , , , , ,  
 (p<0.05)( 8).

8. 가	IADL		
	가		
	-0.55736***	-0.1039	0.35549**
	-0.4227***	-0.09795	0.36209**
	-0.63029***	-0.31461**	0.33664**
	-0.59976***	-0.41985***	0.41112***
	-0.49406***	-0.19378	0.12102
	-0.49638***	-0.01507	0.16388
	-0.3378***	-0.0898	0.15109
	-0.4246***	-0.1364	0.27443*
IADL	-0.71056***	-0.2457*	0.3897***

\* p < 0.05 \*\* p < 0.01 \*\*\* p < 0.001

5) LOTCA-G IADL

(IADL) (LOTCA-G) (p<0.001).  
 가 ,  
 , , , ,  
 (p<0.01), , ,  
 , (p<0.05). ,  
 , , , ,  
 (p<0.05), , , ,  
 , (p<0.01)( 9).  
 (p<0.05),  
 ,  
 (p<0.01). , (p<0.01),  
 (p<0.001).  
 IADL , , , , , ,  
 (p<0.001)( 10).

9. LOTCA-G IADL

1

OR	0.84065***	0.38132**	0.52542***	0.51064***
PER	0.64541***	0.23159	0.32976	0.37306**
P	0.347**	0.15266	0.28181*	0.17307
VMO	0.67977***	0.41491***	0.47328***	0.44918***
TO	0.57485***	0.55881***	0.52125***	0.43467***
M	0.62325***	0.30507*	0.37797**	0.45187***
AC	0.6919***	0.21943	0.45484***	0.40371***
LOTCA-G	0.80155***	0.45993***	0.54672***	0.52935***

\* p < 0.05 \*\* p < 0.01 \*\*\* p < 0.001

10. LOTCA-G IADL

2

	IADL				
OR	0.44619***	0.62666***	0.52751***	0.76117***	0.82698***
PER	0.28332*	0.43058***	0.15847	0.39839***	0.53626***
P	0.45713***	0.4212***	0.18678	0.43043***	0.44696***
VMO	0.32981	0.41093***	0.45893***	0.67457***	0.68223***
TO	0.371**	0.4531***	0.36005**	0.51135***	0.66508***
M	0.34596**	0.55884***	0.06172	0.51133***	0.62873***
AC	0.24824*	0.37644**	0.03071	0.54263***	0.5678***
LOTCA-G	0.42933***	0.57543***	0.40028***	0.72059***	0.80559***

\* p < 0.05 \*\* p < 0.01 \*\*\* p < 0.001

OR : Orientation( ), PER : Perception( ), P : Praxis( )

MO : Visuomotor Organization( ), TO : Thinking Operation( ), M : Memory( ), AC : Attention/ Concentration( / )



## 5. IADL

1)

IADL

가

IADL

IADL

87%

IADL

,

가

( 11).

IADL

## 11. IADL

( )

			t
	15.766	9.858	1.599
	-0.190	0.054	-3.488**
가	-0.212	0.158	-1.340
	0.473	0.283	1.672
	-0.005	0.014	-0.388
	-0.959	0.798	-1.202
	-0.610	0.927	-1.737
	1.179	0.943	1.250
	0.013	1.450	0.009
가	-1.545	0.869	-1.779
	-1.037	0.803	-1.291
	0.627	1.160	0.541
	-0.856	0.570	-1.502
	1.341	0.772	1.737
OR	0.952	0.193	4.927***
PER	-0.141	0.239	-0.591
P	-0.094	0.422	-0.224
VMO	-0.109	0.088	-1.242
TO	0.607	0.174	3.479**
M	0.141	0.140	1.010
AC	0.227	0.678	0.336
	R <sup>2</sup> =0.872	F=16.74	

\* p &lt; 0.05 \*\* p &lt; 0.01 \*\*\* p &lt; 0.001

OR : Orientation( ), PER : Perception( ), P : Praxis( )

VMO : Visuomotor Organization( ), TO : Thinking Operation( ), M : Memory( ), AC : Attention/ Concentration( / )

## 6. IADL

IADL

LOTCA-G

1)

( $p < 0.05$ ) ( 12).

2)

( $p < 0.001$ ) ( 12).

3)

( $p < 0.05$ ) ( 13).

4)

( $p > 0.05$ ) ( 13).

## 12. IADL

1 ( )

	t			t		
	-2.879	1.341	-2.15*	2.043	1.767	1.16
OR	0.226	0.037	6.16**	0.044	0.048	0.92
PER	0.101	0.046	2.19*	-0.061	0.061	-1.00
P	-0.145	0.080	-1.82	-0.115	0.105	-1.09
VMO	0.004	0.016	0.26	0.002	0.021	0.08
TO	0.008	0.031	0.27	0.141	0.041	3.48***
M	0.034	0.024	1.40	0.022	0.032	0.69
AC	0.150	0.119	1.26	0.070	0.156	-0.45
	R <sup>2</sup> =0.784 F=32.1			R <sup>2</sup> =0.350 F=4.77		

\* p &lt; 0.05 \*\* p &lt; 0.01 \*\*\* p &lt; 0.001

## 13. IADL

2 ( )

	t			t		
	-0.043	1.697	-0.03	1.964	3.170	0.62
OR	0.076	0.046	1.65	0.144	0.087	1.66
PER	-0.056	0.058	-0.95	0.013	0.109	0.12
P	-0.014	0.101	-0.14	-0.255	0.189	-1.35
VMO	-0.007	0.020	-0.34	0.018	0.038	0.47
TO	0.094	0.039	2.41*	0.061	0.073	0.83
M	-0.005	0.031	-0.15	0.088	0.058	1.52
AC	0.229	0.150	1.53	0.008	0.281	0.03
	R <sup>2</sup> =0.372 F=5.24			R <sup>2</sup> =0.334 F=4.43		

\* p &lt; 0.05 \*\* p &lt; 0.01 \*\*\* p &lt; 0.001

OR : Orientation( ), PER : Perception( ), P : Praxis( )

VMO : Visuomotor Organization( ), TO : Thinking Operation( ), M : Memory( ), AC : Attention/ Concentration( / )

5)

( $p < 0.05$ ) ( 14).

6)

( $p < 0.05$ ) ( 14).

7)

( $p < 0.001$ ) ( 15).

8)

( $p < 0.05$ ) ( 15).

14. IADL 3 ( )

				( )		
			t			t
	-3.657	1.999	-1.83	-7.749	2.954	-2.62*
OR	0.116	0.055	2.12*	0.319	0.081	3.96***
PER	0.024	0.069	0.34	0.132	0.102	1.30
P	0.307	0.119	2.58*	0.255	0.176	1.45
VMO	-0.025	0.024	-1.06	-0.060	0.035	-1.70
TO	-0.048	0.046	1.04	0.067	0.068	0.99
M	0.23	0.037	0.62	0.127	0.054	2.35*
AC	-0.172	0.177	-0.97	-0.462	0.262	-1.77
	R <sup>2</sup> =0.314 F=4.06			R <sup>2</sup> =0.518 F=9.5		

\* p < 0.05 \*\* p < 0.01 \*\*\* p < 0.001

15. IADL 4 ( )

				( )		
			t			t
	0.730	0.716	1.02	-0.657	1.876	-0.35
OR	0.100	0.020	5.11***	0.201	0.051	3.93***
PER	-0.009	0.025	-0.38	-0.107	0.064	-1.66
P	-0.024	0.043	-0.57	0.050	0.112	0.45
VMO	-0.014	0.009	1.62	0.052	0.022	2.33*
TO	0.005	0.016	0.31	-0.020	0.043	-0.47
M	-0.018	0.013	-1.38	0.041	0.034	1.21
AC	-0.222	0.063	-3.50***	0.063	0.166	0.38
	R <sup>2</sup> =0.508 F=9.15			R <sup>2</sup> =0.634 F=15.36		

\* p < 0.05 \*\* p < 0.01 \*\*\* p < 0.001

OR : Orientation( ), PER : Perception( ), P : Praxis( )

VMO : Visualmotor Organization( ), TO : Thinking Operation( ), M : Memory( ), AC : Attention/ Concentration( / )

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1.

가  
 ,  
 가 ( , 1997). 가 ( , 1986), (Hunt, 1979), (Report, 1986), (Ferm, 1974 ; Little, 1986 ; Pfeffer , 1982) 가 가 (Kalkas, 1985). Katz (Allen, 1985 ; Katz, 1994 ; , 1991 ; , 1987). 가 가 (Aron , 1986). Halstead-Reiten Battery Luria-Nebraska Battery 가 (Askenasy , 1988 ; Katz , 1989). Mini-Mental Status Examination(MMSE) Cognitive Capacity Screening Examination(CCSE) (single summed score) 가 가

(63%)(Aron , 1986 ; Lee , 1987 ; Ralph , 1987),

53.0% 43.0% (Pfeffer E, 1986).

가

(Aron , 1986 ; Lee , 1987 ; Ralph , 1987).

LOTCA-G(Lowenstein

Occupational Therapy Cognitive Assessment for Geriatric Population) battery

1974 Lowenstein

가 (Cermak ,

1995 ; Itzkovich , 1990 ; Katz , 1989) Luria Piaget

가 , (Inhelder Piaget,

1964 ; Golden, 1984). 가

가

가

( , 1997). LOTCA-G

battery

가

. LOTCA-G battery

. LOTCA-G battery

가 가 ,

(Katz , 1989) .



LOTCA-G battery (orientation), (perception), (praxis),  
 (visuomotor organization), (thinking operation),  
 (memory), (attention/ concentration) 7가  
 24 .  
 0.82-0.97 0.89  
 (Katz , 1989).

,  
 (Lezak, 1995),

LOTCA-G .  
 가 ,  
 가  
 , 가

(Itzkovich , 1990 ; Luria, 1973). LOTCA-G

,  
 ,  
 LOTCA-G  
 (copying), (drawing) (building) (assembling)  
 가 .

,  
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. Piaget  
 (Betty , 1996), LOTCA-G battery .

LOTCA-G battery 가 20 가

,

가

가 .

가 가 가

. 1985 Rowe

,

. Kai (1991)

,

가 , .

1988 Koyano

가 , Stone Murtaugh(1990)

가 가 .

가

가가 .

가 가 Katz Index,

Klein-bell, Barthel Index Functional

Independence Measure . 가 가

가 Katz Index ( , 1996). Katz Index

“ ”, “ ”, “ ”, “ ”, “ ”, “ ”,

“ ” (Katz , 1963).

가

(Kidd Yoshida, 1995). Kidd Yoshida(1995)  
 1950 50 가 .  
 가 1960 1  
 1970 4 , 1980 13 가 .

( , 1996).

가

가

가

가

( , 1995 ; Spector , 1987).

가가

가

( , 1995).

Lawton Brody(1969)가

IADL(Instrumental

Activities of Daily Living) 가

가 .

가

. IADL 가 8가

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, 가

, ( )

( , 1988)

가

가

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## 2.

65

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Spector(1987)

가

가가

가

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가

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Allen(1985)

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(Siev , 1986).

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(1991)

,

(1997)

가

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가

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(2000)

,

가

. Katz (1989)

,

가 .

LOTCA-G 가 (r = -0.672,

p<0.001), , 가 , 가

2 LOTCA-G 가 (1996)

, , 가 가

(1992) 가 , ,

가 가 2 .

(1995) (1996) 가

가 (1997)

,

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, , 가 가 가 2 ,

가 .

(2000), (1993) (1992)

, 가 가

.

가

,

가 . 가

가 2 가 가

가

(1991) 가 가



Bernspang (1989)

3.

가 ,  
 . LOTCA-G IADL  
 , IADL  
 가 ,  
 가 LOTCA-G  
 가 LOTCA-G  
 IADL 가

65

가

LOTCA-G battery Lawton · Brody

IADL 8

2001 4 5 4 29

( ),

( ), ( )

3

1 , 가

65

70

1.

LOTCA-G

IADL

74

가 80

, 75-79

85

가

가

가,

가

2

가 3

가

LOTCA-G

IADL

가

LOTCA-G

30

가 20

, IADL

30



가 10 . 가

LOTCA-G 가 .

2. 가 , 가 ,

LOTCA-G

( $p < 0.001$ ), 가 ( $p < 0.05$ ),

, , , ,

( $p < 0.05$ ).

3. 가 , 가 , IADL

IADL ( $p < 0.001$ ),

가 , ( $p < 0.01$ ), ,

, , , ( $p < 0.05$ ).

4. (LOTCA-G) (IADL)

( $p < 0.001$ ).

( $p < 0.01$ ), ,

, , ( $p < 0.05$ ).

( $p < 0.05$ ),

( $p < 0.01$ ),

( $p < 0.05$ ), ( $p < 0.01$ ),

, ( $p < 0.01$ ),

( $p < 0.001$ ). IADL , , , ,

, , ( $p < 0.001$ ).

5. IADL

,

IADL , IADL  
, , .  
, ,  
, IADL 가 .  
6. IADL LOTCA-G  
, ,  
, (p<0.05) ,  
(p<0.05) . ,  
(p<0.05) , (p<0.05) ,  
, (p<0.001) ,  
, (p<0.05)  
, ,  
(p>0.05).

가 , 가  
가  
가 .  
가 , , ,  
, , , .

, , .

. 1999; 32(1): 65-71

, , , , . Modified Barthel Index

Modified Lambeth Disability Screening Questionnaire

가. 1995; 19: 559-571

, , , , , .

. 1997; 21(6): 1124-1133

, , .

가.

1991; 15(3): 295-308

. , 2000

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1995

, , .

1987; 11(2): 258-265

가  
1987; 11(1): 10-21

199-214  
1996; 29(2):

1992; 19(1): 87-99

1996

1991

1987; 20(2): 287-299

1997

, 1997: 653

2000; 25(1): 65-83

2000; 8(1) 93-102

1990; 14(1): 121-127

1988; 18(1): 70-79

1993; 13(2): 84-97

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## 1. Modified Barthel Index

가					
1.	0	1	3	4	5
2.	0	1	3	4	5
3.	0	2	5	8	10
4.	0	2	5	8	10
5.	0	2	5	8	10
6.	0	2	5	8	10
7.	0	2	5	8	10
8.	0	2	5	8	10
9.	0	1	8	12	15
	0	3	3	4	5
10. /	0	3	8	12	15

: \_\_\_\_\_

## 2. LOTCA-G SCORING SHEET

<b>LOTCA-G™ SCORING SHEET</b>		
<b>Orientation</b>		
Orientation for Place	1 2 3 4 5 6 7 8	
Orientation for Time	1 2 3 4 5 6 7 8	
<b>Perception</b>		
Visual Identification of Objects	1 2 3 4	
Visual Identification of Shapes	1 2 3 4	
Overlapping Figures	1 2 3 4	
Object Constancy	1 2 3 4	
Spatial Perception		
a. Directions on body	1 2 3 4	
b. Directions in front	1 2 3 4	
c. Spatial Relations	1 2 3 4	
<b>Praxis</b>		
Motor limitation	1 2 3 4	
Utilization of Objects	1 2 3 4	
Symbolic Actions	1 2 3 4	
<b>Visuomotor Organization</b>		
Copy Geometric Forms	1 2 3 4	
Two Dimensional Model	1 2 3 4	
Pegboard Construction	1 2 3 4	
Block Design	1 2 3 4	
Reproduction of a Puzzle	1 2 3 4	
Drawing a Clock	1 2 3 4	
<b>Thinking Operations</b>		
Categorization	1 2 3 4	
Pictorial Sequence	1 2 3 4	
<b>Memory</b>		
A Famous Personality	1 2 3 4	
A Personal Possession	1 2 3 4	
Everyday Objects	1 2 3 4	
<b>Attention/ Concentration</b>	1 2 3 4	
Length of time :	Sessions : 1	2+

3.

	1	. ( )	1	1
	2	.	1	1
	3	.	1	1
	4	.	0	0
	1	.	1	1
	2	.	0	0
	3	가 .	0	0
	4	.	0	0
	1	, , .		1
	2	가 .		0
	3	, . .		0
	4	( )		0
	1	. ( 가 )		1
	2	, 가 .		1
	3	, 가		1
	4	가 .		1
	5	가 .		0
	1	. ( )		1
	2	- , .		1
	3	.		0
	1	.	1	1
	2	.	1	1
	3	.	1	1
	4	가 .	0	0
	5	.	0	0
	1	.	1	1
	2	.	0	0
	3	.	0	0
	1	.	1	1
	2	가 .	1	1
	3	.	0	0
Total ( 10 / 17 )				

**= ABSTRACT =**

Correlation between Cognitive Perceptual  
Performance and Instrumental Activities of Daily  
Living in Women over the Age of 65

Hyeon-sook Rhee  
Graduate School of  
Health Science and Management  
Yonsei University

( Directed by Professor Chang-il Park, M.D., Ph. D.)

The purpose of this study was to evaluate the cognitive perceptual performance in relation to the instrumental activities of daily living in Korean elderly women living in Seoul, Pundang, and Kwang-ju county.

From April 5, 2001 to April 29, seventy elderly women were selected as subjects for this study. To evaluate the cognitive perceptual performance, LOTCA-G battery was employed while IADL by Lawton

and Brody was used to evaluate the instrumental activities of daily living.

T-test, ANOVA, correlation analysis, and multiple regression analysis were used to analyze the accumulated data and the results are as follows;

1. From evaluating the scores of demographic characteristics in relation to LOTCA-G and IADL, subjects under the age of 74 demonstrated a higher score than those above the age of 80, and likewise, subjects between the ages of 75-79 demonstrated a higher score compared to those above the age of 85. For subjects with spouse, subjects living with 2 people demonstrated a higher score than those living with more than 3 people. The standard of education was higher score in subjects that had received education in comparison to those that received no education. Subjects receiving an average allowance of less than 200,000won per month showed a lower score than that of subjects receiving more than 300,000won per month. Subjects who enjoy leisure activities demonstrated a higher score than subjects who only visit the senior citizens club.

2. Of the demographic characteristics, continuous variable in age, the number of family members, and allowances demonstrated a negative correlation with the items of LOTCA-G ( $p < 0.001$ ). The order of correlation coefficient showed visuomotor organization, orientation,



memory, perception, thinking operation, praxis, and concentration. The number of family members demonstrated no other correlation with the rest of the variable except for a negative correlation with thinking operation ( $p < 0.05$ ). Allowances had a positive correlation with thinking operation, orientation, memory, visuomotor organization, and concentration ( $p < 0.05$ ).

3. When demographic characteristics, continuous variable in age, number of family members, and allowances were compared with IADL, age demonstrated a negative correlation to all the items of IADL ( $p < 0.001$ ). The order of correlation coefficient showed food preparation, house keeping, ability to use the telephone, laundry, shopping, mode of transportation, ability to handle finances and responsibility for one's own medication. The number of family members demonstrated a positive correlation with house keeping and food preparation ( $p < 0.01$ ), while allowances demonstrated a positive correlation with house keeping, shopping, ability to use the telephone, food preparation and ability to handle finances ( $p < 0.05$ ).

4. The total cognitive perceptual performance score (LOTCA-G) and the total instrumental activities of daily living score (IADL) generally demonstrated a high correlation ( $p < 0.001$ ). From observing the correlation of each items, the ability to use the telephone demonstrated a positive correlation with orientation, concentration, visuomotor organization, perception, memory, thinking operation and praxis

( $p < 0.01$ ), while shopping demonstrated a positive correlation with thinking operation, visuomotor organization, orientation and memory ( $p < 0.05$ ). Food preparation demonstrated a positive correlation with orientation, thinking operation, visuomotor organization, concentration, memory and praxis ( $p < 0.05$ ), while house keeping had a positive correlation with orientation, memory, visuomotor organization, thinking operation, concentration and perception ( $p < 0.01$ ). Laundry demonstrated a positive correlation with all of the items except visuomotor organization ( $p < 0.05$ ), while the mode of transportation demonstrated a positive correlation with all of the items including orientation and memory ( $p < 0.01$ ). Responsibility for one's own medication demonstrated a positive correlation with orientation and thinking operation ( $p < 0.01$ ), and the ability to handle finances demonstrated a positive correlation with orientation and all of the items ( $p < 0.001$ ). The total IADL score demonstrated a positive correlation with orientation, visuomotor organization, thinking operation, memory, concentration, perception and praxis ( $p < 0.001$ ).

5. To find the causes which affect the performance score of IADL, an independent variable along with a variable from the demographic characteristics with significant correlation were set as subtests while a dependant variable was set as the performance score of IADL. When multiple regression analysis was carried out, the variable which significantly affected the performance score of IADL were age,

orientation and thinking operation. This suggests that when the values of other variable are equal, when subjects are younger, and when orientation scores and the thinking operation scores are higher, the performance score of IADL will be high.

6. When multiple regression analysis was carried out to find the subtests of LOTCA-G which significantly affects the subtests of IADL, orientation and perception were the items found to positively affect the ability to use the phone ( $p < 0.05$ ), while thinking operation was demonstrated to positively affected the performance score of shopping ( $p < 0.001$ ). Furthermore, thinking operation was found to positively affect the performance score of food preparation ( $p < 0.05$ ) but no items were found to affect the performance score of house keeping ( $p > 0.05$ ). Orientation and praxis positively affected the performance score of doing the laundry ( $p < 0.05$ ), while orientation and memory demonstrated to positively affect the mode of transportation score ( $p < 0.05$ ). Orientation and concentration positively affected the performance score of taking one's own medication ( $p < 0.001$ ), while orientation and visuomotor organization was found to positively affect the ability to handle finances ( $p < 0.05$ ).

From the results of this study, cognitive perceptual performance was found to be significantly correlated with the instrumental activities of daily living skills. In particular, orientation and thinking operation, which are the items of cognitive perceptual performance affected the

instrumental activities of daily living the most. Thus, orientation, perception, visuomotor organization, thinking operation, memory, praxis, concentration and cognitive perceptual performance need to improve not only so elderly women may live independently in the community but so as to offer them a high standard of living.