

Relationship of Andropause Syndrome to Quality of Life in Middle-aged male in South Korea: Family Bond as a Mediator



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Purpose

- This study aimed to identify the connection between andropause syndrome and quality of life, and mediation effect of family bond in middle-aged male in South Korea.

Methods

- Design:** A Descriptive Research.
- Subjects:** From March 10 to 31, 2021, data were collected by self-report questionnaires from 135 middle-aged male
- Instrument:** Questionnaire – Quality of life, Andropause syndrome, Family bond
- Data analysis:** The data analysis was performed using the PASW(SPSS) 25.0 program, and included t-test, ANOVA, Pearson's correlation, multiple regression and a simple mediation model applying the PROCESS macro with 95% bias-corrected bootstrap confidence interval (5,000 bootstrap resampling)

Results (1)

- The factors affecting health-related quality of life were andropause syndrome ($\beta=-10.65$, $p<.001$), number of children ($\beta=-5.52$, $p<.001$), health status ($\beta=5.17$, $p=.006$), family bond ($\beta=3.85$, $p=.019$) and alcohol status ($\beta=3.73$, $p=.045$), these factors explained 50% ($F=16.02$, $p<.001$).
- Family bond has a mediating effect between andropause syndrome and medication health-related quality of life (indirect effect=-4.07, 95% Boot confidence interval=-6.53~-1.97).

Results (2)

Table 1. Factors Influencing Quality of Life (N=135)

Variables	Step I					Step II				
	B	SE	β	t	p	B	SE	β	t	p
Constant	102.29	3.25		31.43	<.001	61.13	7.16		8.53	<.001
Number of Children [†]	-7.19	1.87	-.30	-3.84	<.001	-5.52	1.56	-.23	-3.53	.001
Education ^{††}	-2.87	1.84	-.13	-1.56	.122	-2.62	1.53	-.11	-1.72	.089
Income ^{†††}	0.74	2.48	.02	.30	.766	2.56	2.10	.08	1.22	.226
Alcohol Status ^{††††}	2.49	2.22	.09	1.12	.265	3.73	1.84	.13	2.03	.045
Health Status ^{†††††}	-8.63	2.17	-.33	-3.99	<.001	-5.17	1.84	-.20	-2.81	.006
Disease ^{††††††}	-3.43	1.98	-.14	-1.74	.085	-1.63	1.65	-.07	-.99	.326
Andropause Syndrome						-10.65	1.62	-.46	6.55	<.001
Family bond						3.85	1.62	.16	2.37	.019

F=7.46 ($p<.001$), $R^2=.26$

F=16.02 ($p<.001$), $R^2=.50$

F change=31.18 ($p<.001$), $\Delta R^2=.24$

[†]Reference group= ≥ 2 ; ^{††}Reference group=Bachelor; ^{†††}Reference group= <300 ; ^{††††}Reference group=Yes; ^{†††††}Reference group=Good; ^{††††††}Reference group=No; B=unstandardized estimates; S.E=standardized error; β =standardized estimates.

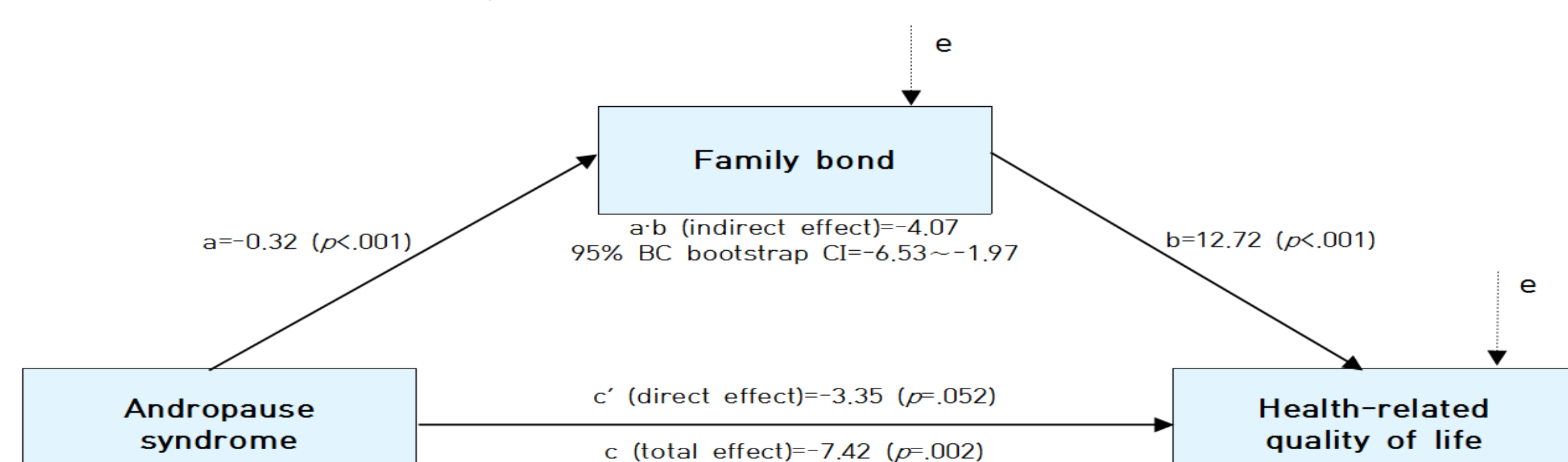


Figure 1. Statistical relationships for simple mediation model among Andropause syndrome, family bond, and quality of life while controlling for general characteristic variables

Results (2)

Table 2. Differences of QOL and Andropause Syndrome by general characteristics (N=135)

Characteristics	Classification	Quality of life			Andropause syndrome		χ^2 (p)
		N (%)	M \pm SD	F/t (p) Scheffe	Yes 96 (71.1) N (%)	No 39 (28.9) N (%)	
Age	40~49 ^a	75 (55.6)	94.39 \pm 9.57	1.20 (.302)	50 (52.1)	25 (64.1)	1.94 (.379)
	50~59 ^b	53 (39.3)	95.36 \pm 12.06		40 (41.7)	13 (33.3)	
	≥ 60 ^c	7 (7.0)	88.71 \pm 10.24		6 (6.3)	1 (2.6)	
	(M \pm SD)	(49.22 \pm 5.94)					
Marriage Status	Married ^a	128 (94.8)	94.45 \pm 10.67	0.03 (.993)	91 (94.8)	37 (94.9)	1.11 (.774)
	Seperation ^b	5 (3.7)	95.40 \pm 13.96		3 (3.2)	2 (5.1)	
	Bereavement ^c	1 (0.7)	92.00 \pm 0.00		1 (1)	0 (0)	
	Single ^d	1 (0.7)	95.00 \pm 0.00		1 (1)	0 (0)	
Number of Children	0 ^a	11 (8.1)	92.82 \pm 12.22	5.67 (.004) b<c	8 (8.3)	3 (7.7)	0.06 (.969)
	1 ^b	26 (19.3)	88.65 \pm 10.62		18 (18.8)	8 (20.5)	
	≥ 2 ^c	98 (72.6)	96.20 \pm 10.01		70 (72.9)	28 (71.8)	
Education	High school diplom ^a	42 (31.1)	92.31 \pm 8.39	1.59 (.044)	27 (28.1)	15 (38.5)	1.38 (.240)
	Bachelor ^b	93 (68.9)	95.45 \pm 11.46		69 (71.9)	24 (61.5)	
Religion	Yes	60 (44.4)	93.30 \pm 11.84	1.15 (.254)	47 (49.0)	28 (71.8)	5.86 (.016)
	No	75 (55.6)	95.41 \pm 9.60		49 (51.0)	11 (28.2)	
Types of Occupation	Service industry ^a	15 (11.1)	94.53 \pm 5.33	2.07 (.062)	11 (11.5)	4 (10.3)	2.84 (.828)
	Administrative position ^b	27 (20.0)	93.22 \pm 10.00		22 (22.9)	5 (12.8)	
	Professional job ^c	23 (17.0)	99.52 \pm 8.77		14 (14.6)	9 (23.1)	
	Office job ^d	29 (21.5)	96.10 \pm 12.82		20 (20.8)	9 (23.1)	
	Blue collar ^e	29 (21.5)	91.86 \pm 10.34		20 (20.8)	9 (23.1)	
	Not employed ^f	4 (3.0)	84.25 \pm 12.92		3 (3.1)	1 (2.6)	
	Etc ^g	8 (5.9)	92.75 \pm 12.57		6 (6.3)	2 (5.1)	
Income (10,000Won/Month)	<300 ^a	19 (14.1)	92.89 \pm 11.80	5.20 (.002) b>c	8 (8.3)	11 (28.2)	9.506 (.011)
	300~399 ^b	37 (27.4)	90.22 \pm 9.44		28 (29.2)	9 (23.1)	
	≥ 400 ^c	79 (58.6)	85.74 \pm 10.36		60 (62.5)	19 (48.7)	
Smoking Status	Yes	52 (38.5)	93.30 \pm 7.95	1.00 (.316)	55 (57.3)	28 (71.8)	2.463 (.117)
	No	83 (61.5)	95.20 \pm 12.05		41 (42.7)	11 (28.2)	
Alcohol Status	Yes	113 (83.7)	94.84 \pm 10.03	-0.93 (.036)	81 (84.4)	32 (82.1)	0.11 (.740)
	No	22 (16.3)	92.54 \pm 13.57		15 (15.6)	7 (17.9)	
Health Status	Bad ^a	13 (9.6)	85.54 \pm 9.03	13.03 (<.001) a>b,c	12 (12.5)	1 (2.6)	6.61 (.037)
	Average ^b	93 (68.9)	93.56 \pm 9.15		68 (70.8)	25 (64.1)	
	Good ^c	29 (21.5)	101.41 \pm 12.03		16 (16.7)	13 (33.3)	
Disease	Yes	35 (25.9)	89.46 \pm 9.77	-3.35 (.001)	29 (30.2)	6 (15.4)	3.17 (.075)
	No	100 (74.1)	96.23 \pm 0.45		67 (69.8)	33 (84.6)	

M=mean; SD=standard deviation.

Conclusion & Discussion

- The findings of this study indicate that andropause syndrome in middle-aged male in South Korea affects the health-related quality of life through family bond.
- Therefore, in order to improve the quality of life of middle-aged male in South Korea, it is necessary to provide programs that can improve family bond along with physical and mental intervention programs to alleviate andropause syndrome.

Key words

Quality of life; Middle-aged; Male; Andropause; Family relations