

**Characteristics of health lifestyle patterns by the  
quantification method**

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= Abstract =

The purpose of this study was to investigate the relation between health behavior patterns and demographic, socio-economic characteristics, health status, health information in Korea. The quantification method through canonical correlation analysis was conducted to the data from Korea National Health Survey in 1995, which consisted of 5,805 persons.

The health lifestyle patterns were quantified as good diet lifestyle, passive lifestyle to the negative direction and drinker lifestyle, smoker lifestyle, hedonic lifestyle and fitness lifestyle to the positive direction. The covariate were related to health lifestyle patterns in the order of sex, age, marital status, occupation, health information, economic status, level of physical labour, health status. Characteristics of male, age below 50, married, blue colored worker, no health information, low in economic status, heavy level of physical labour, and poor in health status were positively related to drinker lifestyle, smoker lifestyle, hedonic lifestyle, fitness lifestyle sequentially.

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Key word : Health lifestyle pattern, Health behavior, Quantification method, Canonical correlation, Clustering

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가 lifestyle analysis( psychographics) (Mitchell, 1983; Weinstein, 1987; Wells, 1974). (segmentation) segment , , segment (Lefebvre , 1988).

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(Good diet lifestyle), (Fitness lifestyle), (Passive lifestyle), (Drinker lifestyle), (Smoker lifestyle) (Hedonic lifestyle) 6 ( , 1997).

1/5( :21%, :23%) (Patterson, 1994).

.<Table 1>.

<Table 1> Comparison of health lifestyle patterns between Korean and U.S. adults

Lifestyle	Korean adults (%)	U.S. adults (%)
Health promotion lifestyle	-	10.4
Good diet lifestyle	32.9	24.5
Fitness lifestyle	7.2	17.2
Passive lifestyle	39.1	24.8
Drinker lifestyle	1.1	5.2
Smoking lifestyle	17.2	15.6
Hedonic lifestyle	2.5	2.3
Survey population	5,805	5,484

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 (Cluster Solution) F , R<sup>2</sup> Cubic Clustering  
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 <Table 2>.

<Table 2> Description of health lifestyles used in this study

Health Lifestyle	Description of Variables
Good diet lifestyle	Good diet/Very Sedentary/1.4 drinks per month/1.0 cigarette per day
Fitness lifestyle	Poor diet/Very active/5.9 drinks per month/4.6 cigarettes per day
Passive lifestyle	Poor diet/Very Sedentary/2.5 drinks per month/0.6 cigarette per day
Drinker lifestyle	Fair diet/Moderate activity/20.5 drinks per month/16.7 cigarettes per day
Smoking lifestyle	Poor diet/Sedentary/9.6 drinks per month/20.4 cigarettes per day
Hedonic lifestyle	Poor diet/Sedentary/79.8 drinks per month/15.6 cigarettes per day

<Table 3>

<Table 3> Variables used in the analysis

Variable Name	Description of Variables	Measurement		
<i>Lifestyle Cluster</i>				
	major characteristics of health behavior based on the measurements of cigarette consumption, alcohol consumption, physical activity and diet quality	1 good diet lifestyle 2 fitness lifestyle 3 passive lifestyle 4 drinker lifestyle 5 smoker lifestyle 6 hedonic lifestyle		
<i>Demographic Variables</i>				
Age	period of life	years		
Sex	sex	1 male	2 female	
Marital status	present marital status	1 unmarried	2 married	3 others
<i>Socioeconomic Variables:</i>				
Education	education year	1 0	2 1-12 years	3 > 12 years
Occupation	job by Korean Classification of Vocation	1 white colored worker	2 blue colored worker	3 others
Economic status	perceived living-status	1 low	2 middle	3 high
The level of labour	usual level of physical labour	1 light	2 moderate	3 heavy
<i>Health Status :</i>				
Health status	self assessed health status	1 poor	2 moderate	3 good
Chronic disease	chronic-ill conditions	1 no	2 yes	
BMI	body mass index based on the self reported height and weight	1 less than 25 kg/m <sup>2</sup>	2 over 25 kg/m <sup>2</sup>	
<i>Health Concern</i>				
Health information	attention to health information	1 no	2 yes	

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Variables	Clusters						
	Good Diet Lifestyle	Fitness Lifestyle	Passive Lifestyle	Drinker Lifestyle	Smoker Lifestyle	Hedonic Lifestyle	
Age(years) (±SD)	42.77 (15.16)	36.31 (13.73)	37.46 (14.97)	43.08 (13.08)	40.40 (12.57)	44.32 (13.16)	
Female(%)	74.11	39.66	69.26	4.84	7.50	7.43	
Marital status (% of the married)	68.87	63.22	62.84	70.97	73.30	75.00	
<b>Socioeconomic characteristics</b>							
Education(%with college)	14.95	25.96	18.28	6.45	20.50	14.86	
Occupation (% with White colored worker)	10.85	18.03	12.77	9.68	17.70	10.81	
Economic status (% of below average)	32.83	24.76	30.98	45.16	32.73	41.89	
The level of labour (% with high level)	30.51	26.92	27.63	56.45	35.47	44.90	
<b>Health status</b>							
Health status (% of the poor-perceived)	24.80	9.64	18.81	20.97	14.79	19.86	
Chronic disease (% of having the disease)	35.12	25.48	26.64	24.19	25.30	26.35	
BMI (% of over 25 value)	11.19	16.07	14.01	15.52	15.73	24.81	
<b>Health concern</b>							
Health information (% of having the source)	89.42	93.07	89.12	80.36	88.60	83.46	
Total(%)	1,908 (32.9)	416 (7.2)	2,271 (39.1)	62 (1.1)	1,000 (17.2)	148 (2.5)	

<Table 4> Demographic & socioeconomic characteristics of Korean health lifestyles

Variables	Clusters						
	Good Diet Lifestyle	Fitness Lifestyle	Passive Lifestyle	Drinker Lifestyle	Smoker Lifestyle	Hedonic Lifestyle	
<b>Demographic characteristics</b>							
Age(years) (±SD)	42.77 (15.16)	36.31 (13.73)	37.46 (14.97)	43.08 (13.08)	40.40 (12.57)	44.32 (13.16)	
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<Table 4>

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<Table 5> Axis for health lifestyles and its characteristics by canonical correlation analysis

Axis	Squared canonical coefficient	Eigenvalues	Proportion	Cumulative
1	0.2886	0.4057	0.8615	0.8615
2	0.0293	0.0302	0.0641	0.9256
3	0.0230	0.0235	0.0499	0.9755
4	0.0086	0.0087	0.0184	0.9939
5	0.0028	0.0029	0.0061	1.0000

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<Table 6>.

<Table 6> Quantified values of health lifestyles as dependent variable

Variable	Quantified Values
Smoking Lifestyle	0.9937
Good diet Lifestyle	-0.3525
Passive Lifestyle	-0.277
Drinker Lifestyle	1.0516
Fitness Lifestyle	0.2398
Hedonic Lifestyle	0.9655

<Table 7>

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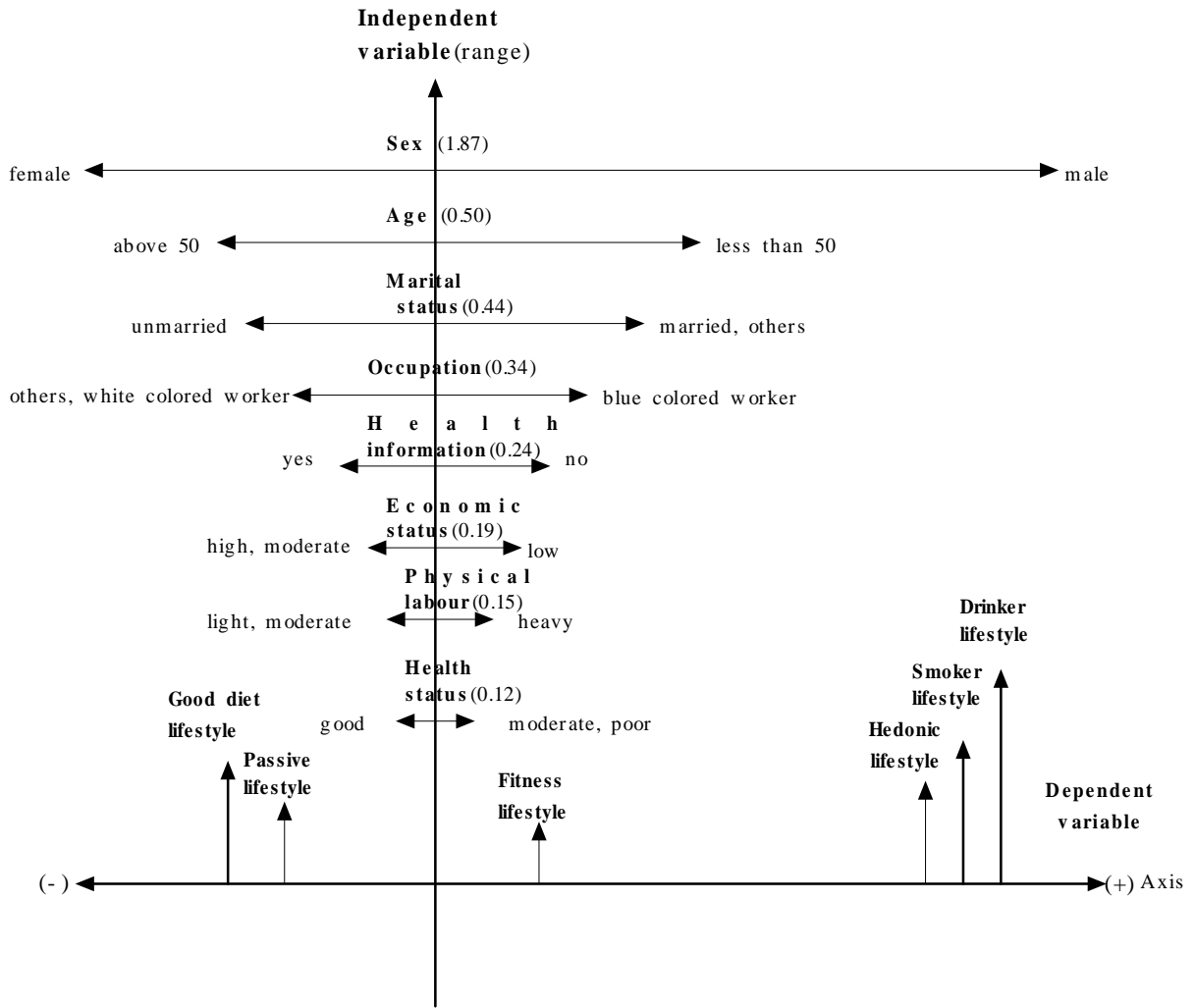
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<Figure 1>

<Table 7> Quantified values and ranges of independent variables by canonical correlation analysis

Variable	Category	Quantified Values	Range
Sex	Male	1.0418	1.8659
	Female	-0.8241	
Age	30 yrs	0.0935	0.4968
	30 - 39 yrs	0.1342	
	40 - 49 yrs	0.03	
	50 - 59 yrs	-0.1272	
	60 yrs	-0.3626	
Education year	0 yr	-0.0142	0.0165
	1 - 12 yrs	0.0023	
	12 yrs	-0.0002	
Marital status	Unmarried	-0.1844	0.4376
	Married	0.0187	
	Others	0.2532	
Occupation	White colored worker	-0.1149	0.3407
	Blue colored worker	0.1629	
	Others	-0.1778	
Economic status	Low	0.089	0.1939
	Middle	-0.0351	
	High	-0.1049	
The level of labour	Light	-0.0238	0.1456
	Moderate	-0.0606	
	Heavy	0.085	
Health status	Good	-0.0166	0.1213
	Moderate	0.1047	
	Poor	0.0152	
Chronic disease	No	-0.0082	0.0283
	Yes	0.0201	
BMI	25	-0.0117	0.0845
	25	0.0728	
Health information	No	0.2164	0.2426
	Yes	-0.0262	





〈Figure 1〉 Schematization for relation between health lifestyles and its characteristics by canonical correlation analysis

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