

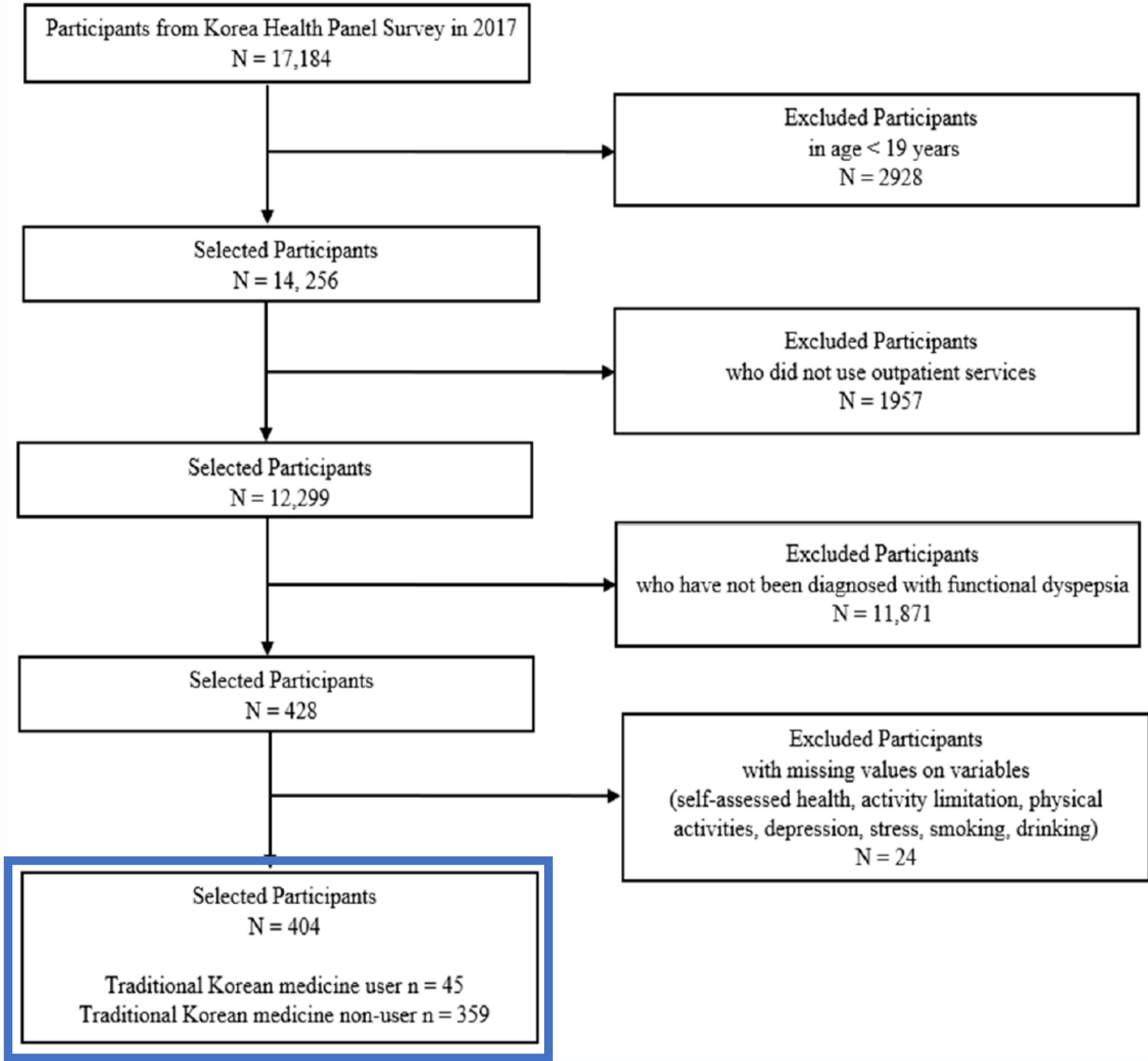
[Introduction/Objectives]

- Functional dyspepsia (FD) significantly reduces the quality of life, and Korean medicine treatment, including herbal medicine acupuncture, has been frequently used in the clinical setting.
- We aimed **to analyze the factors affecting Korean medicine health care (KMHC) use for FD.**

[Methods]

- Data from **the Korea Health Panel Survey 2017** were analyzed.
- Individuals **aged > 19 years** who were **diagnosed with FD** and used **outpatient care** were included.
- Multiple logistic regression analyses were performed to investigate the association of predisposing, enabling, and need factors with KMHC use for FD, based on Andersen’s behavioral model.
- The best subsets of factors affecting KMHC use for FD were selected using a stepwise procedure.

Variables	Crude		Adjusted 1		Adjusted 2		Adjusted 3	
	OR (95% CI)	p-Value	OR (95% CI)	p-Value	OR (95% CI)	p-Value	OR (95% CI)	p-Value
Predisposing factors								
Sex								
Men	1		1		1		1	
Women	1.8 (0.86–3.76)	0.12	1.78 (0.82–3.88)	0.15	1.86 (0.79–4.39)	0.16	1.82 (0.47–7.01)	0.38
Age (years)								
19–34	1		1		1		1	
35–49	0.5 (0.18–1.39)	0.18	0.44 (0.15–1.31)	0.14	0.39 (0.13–1.22)	0.11	0.42 (0.11–1.55)	0.19
50–64	0.51 (0.19–1.35)	0.16	0.52 (0.18–1.52)	0.23	0.4 (0.12–1.3)	0.13	0.26 (0.06–1.1)	0.07
65 or older	0.14 (0.05–0.4)	<0.001	0.19 (0.05–0.7)	<0.05	0.23 (0.05–1.1)	0.07	0.14 (0.02–0.93)	<0.05
Education								
Elementary or below	1		1		1		1	
Middle/high school	2.73 (1.14–6.52)	<0.05	1.7 (0.6–4.79)	0.31	1.53 (0.51–4.53)	0.45	1.98 (0.58–6.83)	0.28
College or above	4.33 (1.66–11.26)	<0.01	1.98 (0.56–7.03)	0.29	1.74 (0.46–6.55)	0.41	2.38 (0.54–10.43)	0.25
Region								
Seoul/Gyeonggi/Incheon	1		1		1		1	
Gangwon	0.76 (0.21–2.72)	0.67	0.98 (0.26–3.69)	0.97	0.85 (0.21–3.45)	0.82	0.94 (0.21–4.16)	0.93
Daejeon/Chungcheong/Sejong	0.77 (0.29–2.02)	0.59	1.22 (0.44–3.4)	0.70	1.48 (0.5–4.35)	0.48	1.36 (0.41–4.53)	0.61
Gwangju/Jeolla/Jeju	0.35 (0.08–1.57)	0.17	0.49 (0.11–2.28)	0.37	0.55 (0.11–2.66)	0.46	0.44 (0.08–2.46)	0.35
Busan/Daegu/Ulsan/Gyeongsang	1.76 (0.85–3.66)	0.13	2.29 (1.06–4.92)	<0.05	2.53 (1.14–5.61)	<0.05	2.45 (1.02–5.88)	<0.05
Enabling factors								
Household income								
1st quintile (lowest)	1				1		1	
2nd quintile	2.02 (0.49–8.32)	0.33			1.15 (0.23–5.62)	0.87	1.11 (0.2–6.27)	0.91
3rd quintile	5.22 (1.38–19.76)	<0.05			3 (0.62–14.61)	0.17	2.72 (0.5–14.77)	0.25
4th quintile	6.55 (1.81–23.68)	<0.01			2.98 (0.56–15.99)	0.20	3.13 (0.51–19.16)	0.22
5th quintile (highest)	8.36 (2.25–31.07)	<0.01			4.19 (0.73–23.87)	0.11	4 (0.6–26.45)	0.15
Employment status								
Unemployed	1				1		1	
Employed	1.85 (0.96–3.55)	0.07			0.97 (0.43–2.19)	0.95	0.89 (0.37–2.18)	0.80
Self-employed	1.14 (0.37–3.55)	0.82			2.2 (0.6–8.11)	0.24	1.85 (0.42–8.11)	0.42
Health insurance type								
Employee health insurance	1				1		1	
Local-subscriber health insurance	0.74 (0.32–1.74)	0.49			1 (0.39–2.61)	0.99	0.95 (0.34–2.71)	0.93
Medical aid or others	0.21 (0.03–1.55)	0.13			0.44 (0.05–3.97)	0.46	0.3 (0.03–3.51)	0.34
Private health insurance								
No	1				1		1	
Yes	3.74 (1.54–9.06)	<0.01			2.09 (0.72–6.06)	0.17	3.41 (1.02–11.42)	<0.05
Number of household members								
1	1				1		1	
2	0.91 (0.33–2.48)	0.85			0.65 (0.2–2.14)	0.48	0.53 (0.14–1.91)	0.33
3	1.31 (0.43–4.02)	0.64			0.32 (0.08–1.3)	0.11	0.26 (0.05–1.22)	0.09
4 or more	1.77 (0.66–4.73)	0.26			0.35 (0.09–1.28)	0.11	0.28 (0.07–1.17)	0.08
Need factor								
Disability								
No	1						1	
Yes	0.48 (0.11–2.05)	0.32					1.19 (0.17–8.2)	0.86
Self-assessed health								
Poor	1						1	
Fair	1.06 (0.44–2.58)	0.90					0.72 (0.23–2.26)	0.57
Good	2.11 (0.89–5.01)	0.09					1.07 (0.32–3.53)	0.92
Number of chronic diseases								
0	1						1	
1	0.47 (0.2–1.1)	0.08					0.98 (0.34–2.88)	0.98
2	0.51 (0.22–1.19)	0.12					1.71 (0.49–6.03)	0.40
3 or more	0.28 (0.1–0.78)	<0.01					0.94 (0.22–4.03)	0.93
Depressed mood								
No	1						1	
Yes	1.25 (0.42–3.76)	0.69					2.39 (0.56–10.16)	0.24
Stress								
Never or rarely	1						1	
Sometimes	0.33 (0.08–1.42)	0.14					0.26 (0.05–1.37)	0.11
Frequently or always	1.86 (0.72–4.83)	0.20					3.26 (0.85–12.51)	0.09
BMI (kg/m2)								
<18.5	1						1	
18.5–22.9	1.54 (0.34–7.03)	0.58					1.35 (0.22–8.18)	0.74
23.0–24.9	0.89 (0.18–4.38)	0.88					0.87 (0.13–5.97)	0.88
25.0–29.9	0.94 (0.18–4.88)	0.94					1.07 (0.15–7.52)	0.95
≥30	1.19 (0.09–15.03)	0.89					0.96 (0.03–27)	0.98
Smoking								
Never smoked	1						1	
Quit smoking	0.41 (0.14–1.19)	0.10					1.46 (0.24–8.96)	0.68
Smoking	0.69 (0.2–2.37)	0.56					1 (0.14–7.13)	0.99
Drinking								
Never drunk	1						1	
Monthly or less	0.74 (0.35–1.57)	0.44					0.56 (0.22–1.46)	0.24
2 to 4 times a month	1.33 (0.58–3.02)	0.50					0.63 (0.21–1.9)	0.41
2 times a week or more	0.42 (0.12–1.49)	0.18					0.28 (0.05–1.47)	0.13
Physical activities								
Not at all	1						1	
Once a week or more	1.3 (0.69–2.48)	0.42					0.69 (0.31–1.56)	0.38
Mean GVIF			1.161		1.291		1.547	



[Results]

- Participants aged 65 years or older were less likely to use KMHC to treat FD than those **aged 19 to 34 years** (odds ratio (OR), 0.14; 95% confidence interval (CI), 0.02–0.93).
- Residents of Busan, Daegu, Ulsan, or Gyeongsang** tended to use more KMHC to treat FD than those of Seoul, Gyeonggi, or Incheon (OR, 2.45; 95% CI, 1.02–5.88).
- Participants with private health insurance** were more likely to use KMHC to treat FD than those without private health insurance (OR, 3.41; 95% CI,1.02–11.42).
- The prediction model of KMHC use for FD selected **sex, age, private health insurance, and stress as the best subset of factors** (AUC, 0.709; 95% CI, 0.637–0.781).

Model	Factor	Selected Variables	Mean GVIF	AUC (95% CI)	AIC
Model 1	Predisposing	Sex, Age, Region	1.022	0.701 (0.626–0.777)	273.127
Model 2	Predisposing + Enabling	Sex, Age, Region, Private health insurance	1.088	0.696 (0.623–0.768)	272.558
Model 3	Predisposing + Enabling + Need	Sex, Age, Private health insurance, Stress	1.138	0.709 (0.637–0.781)	264.762

[Conclusion]

- Participants aged 65 years or older were less likely to use KMHC to treat FD than those aged 19 to 34 years.
- Participants with private health insurance were more likely to use KMHC to treat FD than those without private health insurance.
- Frequently or always stressed participants were more likely to use KMHC to treat FD, although this relationship was not statistically significant.

[Notice]
The study was published in a journal, **Healthcare (Basel)**.
The following QR code will allow you to access the full text.

