

## Supplementary Material

# Relationship between the Well-Being of Elderly Men and Cohabiting with Women Who Have Had Experience as a Health Promotion Volunteer in Japan: A Cross-Sectional Study

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**Table S1.** Association between cohabiting women's experience as a health promotion volunteer and low functional capacity (12 points or less) in the study population ( $n = 2247$ ).

Experience as Health Promotion Volunteer of Cohabiting Woman	Outcome / Study Population (%)		Model 1 <sup>a</sup>		Model 2 <sup>b</sup>		Model 3 <sup>c</sup>	
			PR (95% CI) <sup>d</sup>	<i>p</i> -Value	PR (95% CI)	<i>p</i> -Value	PR (95% CI)	<i>p</i> -Value
<b>Presence of experience</b>								
Not experienced	457	/ 885 (51.6%)	1.00		1.00		1.00	
Experienced	656	/ 1362 (48.2%)	0.91 (0.84 – 0.99)	0.04	0.92 (0.85 – 1.01)	0.07	0.94 (0.87 – 1.02)	0.14
<b>Years since experience</b>								
Not experienced	457	/ 885 (51.6%)	1.00		1.00		1.00	
Experienced: 0–19 years	268	/ 572 (46.9%)	0.94 (0.84 – 1.04)	0.23	0.95 (0.85 – 1.06)	0.37	0.97 (0.87 – 1.07)	0.52
: 20–39 years	301	/ 639 (47.1%)	0.87 (0.78 – 0.97)	0.01	0.88 (0.79 – 0.98)	0.02	0.90 (0.81 – 1.00)	0.04
: 40 years or more	52	/ 85 (61.2%)	1.05 (0.87 – 1.27)	0.58	1.07 (0.88 – 1.29)	0.50	1.09 (0.90 – 1.31)	0.37
: no response	35	/ 66 (53.0%)	0.97 (0.77 – 1.23)	0.83	0.95 (0.75 – 1.19)	0.64	0.92 (0.74 – 1.16)	0.50
<b>Leadership role</b>								
Not experienced	457	/ 885 (51.6%)	1.00		1.00		1.00	
Experienced: no	474	/ 985 (48.1%)	0.92 (0.84 – 1.01)	0.07	0.93 (0.85 – 1.01)	0.10	0.94 (0.86 – 1.03)	0.17
: yes	128	/ 267 (47.9%)	0.91 (0.79 – 1.05)	0.19	0.94 (0.82 – 1.08)	0.41	0.97 (0.84 – 1.11)	0.62
: no response	54	/ 110 (49.1%)	0.88 (0.72 – 1.08)	0.21	0.86 (0.71 – 1.05)	0.15	0.89 (0.73 – 1.08)	0.23
<b>Satisfaction with the experience</b>								
Not experienced	457	/ 885 (51.6%)	1.00		1.00		1.00	
Experienced: low	80	/ 152 (52.6%)	1.02 (0.86 – 1.20)	0.84	1.02 (0.87 – 1.19)	0.85	1.00 (0.86 – 1.17)	0.97
: medium	413	/ 842 (49.0%)	0.93 (0.85 – 1.02)	0.13	0.94 (0.86 – 1.04)	0.22	0.96 (0.88 – 1.05)	0.39
: high	138	/ 311 (44.4%)	0.84 (0.73 – 0.96)	0.01	0.85 (0.74 – 0.98)	0.03	0.88 (0.76 – 1.01)	0.06

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: no response	25	/	57	(43.9%)	0.81	(0.60	–	1.10)	0.18	0.80	(0.60	–	1.07)	0.14	0.80	(0.60	–	1.07)	0.13
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PR, prevalence ratio; CI, confidence interval. \* This table shows the results for low functional capacity when the cutoff value was changed to 12 points or less. <sup>a</sup> Model 1. Adjusted for age (continuous). <sup>b</sup> Model 2. Adjusted for age (continuous), educational attainment, and equivalent household income. <sup>c</sup> Model 3. Adjusted for age (continuous), educational attainment, equivalent household income, history of major diseases, exercise habits, consciousness of healthy eating habits, current drinking, and current smoking. <sup>d</sup> Adjusted PR and 95% CI were estimated by modified Poisson regression analysis.

**Table S2.** Associations between cohabiting women's experience as a health promotion volunteer and both outcomes in the study population when narrowing the age of cohabiting women.

Experience as Health Promotion Volunteer of Cohabiting Woman	[Model 3 for Outcome 1] <sup>a</sup> Low Functional Capacity ( <i>n</i> = 1928)				[Model 3 for Outcome 2] Depressive Symptoms ( <i>n</i> = 1986)			
	PR (95% CI) <sup>b</sup>		<i>p</i> -Value		PR (95% CI)		<i>p</i> -Value	
<b>Presence of experience</b>								
Not experienced	1.00				1.00			
Experienced	1.03	(0.86 – 1.23)		0.75	0.86	(0.74 – 1.01)		0.06
<b>Years since experience</b>								
Not experienced	1.00				1.00			
Experienced: 0–19 years	1.13	(0.89 – 1.42)		0.31	0.82	(0.66 – 1.02)		0.08
: 20–39 years	1.02	(0.82 – 1.26)		0.89	0.92	(0.76 – 1.11)		0.37
: 40 years or more	0.71	(0.40 – 1.23)		0.22	0.83	(0.55 – 1.28)		0.41
: no response	0.87	(0.57 – 1.35)		0.54	0.73	(0.47 – 1.15)		0.18
<b>Leadership role</b>								
Not experienced	1.00				1.00			
Experienced: no	1.07	(0.89 – 1.29)		0.49	0.86	(0.72 – 1.02)		0.08
: yes	0.95	(0.68 – 1.33)		0.76	0.92	(0.69 – 1.21)		0.54
: no response	0.86	(0.57 – 1.31)		0.48	0.78	(0.54 – 1.15)		0.21
<b>Satisfaction with the experience</b>								
Not experienced	1.00				1.00			
Experienced: low	1.31	(0.97 – 1.77)		0.08	0.79	(0.57 – 1.10)		0.17
: medium	1.08	(0.89 – 1.31)		0.45	0.89	(0.75 – 1.07)		0.22
: high	0.81	(0.59 – 1.12)		0.21	0.83	(0.64 – 1.07)		0.15
: no response	0.73	(0.42 – 1.27)		0.27	0.80	(0.49 – 1.31)		0.37

PR, prevalence ratio; CI, confidence interval. <sup>a</sup> This table shows the results for low functional capacity and depressive symptoms when narrowing the age of cohabiting women to more than plus or minus 5 years old in Model 3. <sup>a</sup> Model 3. Adjusted for age (continuous), educational attainment, equivalent household income, history of major diseases, exercise habits, consciousness of healthy eating habits, current drinking, and current smoking. <sup>b</sup> Adjusted PR and 95% CI were estimated by modified Poisson regression analysis.

**Table S3.** Associations between cohabiting women's experience as a health promotion volunteer and both outcomes in the study population when not limiting the age of cohabiting women.

Experience as Health Promotion Volunteer of Cohabiting Woman	[Model 3 for Outcome 1] <sup>a</sup> Low Functional Capacity (n = 2261)				[Model 3 for Outcome 2] Depressive Symptoms (n = 2330)			
	PR (95% CI) <sup>b</sup>			p-Value	PR (95% CI)			p-Value
<b>Presence of experience</b>								
Not experienced	1.00				1.00			
Experienced	1.03	(0.87 – 1.22)		0.72	0.85	(0.74 – 0.98)		0.03
<b>Years since experience</b>								
Not experienced	1.00				1.00			
Experienced: 0–19 years	1.13	(0.91 – 1.40)		0.28	0.82	(0.67 – 1.00)		0.05
: 20–39 years	1.01	(0.83 – 1.24)		0.90	0.90	(0.76 – 1.07)		0.23
: 40 years or more	0.87	(0.56 – 1.36)		0.54	0.87	(0.61 – 1.24)		0.44
: no response	0.78	(0.50 – 1.22)		0.27	0.64	(0.40 – 1.01)		0.06
<b>Leadership role</b>								
Not experienced	1.00				1.00			
Experienced: no	1.07	(0.89 – 1.27)		0.48	0.86	(0.74 – 1.01)		0.06
: yes	0.91	(0.67 – 1.23)		0.54	0.85	(0.66 – 1.09)		0.20
: no response	0.99	(0.69 – 1.42)		0.95	0.75	(0.54 – 1.06)		0.10
<b>Satisfaction with the experience</b>								
Not experienced	1.00				1.00			
Experienced: low	1.33	(1.00 – 1.77)		0.05	0.86	(0.65 – 1.15)		0.31
: medium	1.08	(0.90 – 1.30)		0.39	0.88	(0.75 – 1.04)		0.14
: high	0.81	(0.60 – 1.10)		0.18	0.79	(0.62 – 1.00)		0.06
: no response	0.62	(0.35 – 1.11)		0.11	0.68	(0.41 – 1.13)		0.14

PR, prevalence ratio; CI, confidence interval. \* This table shows the results for low functional capacity and depressive symptoms when not limiting the age of cohabiting women in Model 3. <sup>a</sup> Model 3. Adjusted for age (continuous), educational attainment, equivalent household income, history of major diseases, exercise habits, consciousness of healthy eating habits, current drinking, and current smoking. <sup>b</sup> Adjusted PR and 95% CI were estimated by modified Poisson regression analysis.

**Table S4.** Associations between cohabiting women's experience as a health promotion volunteer and depressive symptoms in the study population when limiting the health status of cohabiting women to not having depressive symptoms ( $n = 1670$ ).

Experience as Health Promotion Volunteer of Cohabiting Woman	Outcome / Study Population (%)			Model 3 <sup>a</sup>		
				PR (95% CI)		<i>p</i> -Value
<b>Presence of experience</b>						
Not experienced	122	/	629	(19.4%)	1.00	
Experienced	183	/	1041	(17.6%)	0.86	(0.71 – 1.05)
<b>Years since experience</b>						
Not experienced	122	/	629	(19.4%)	1.00	
Experienced: 0–19 years	74	/	459	(16.1%)	0.88	(0.68 – 1.14)
: 20–39 years	90	/	485	(18.6%)	0.87	(0.68 – 1.10)
: 40 years or more	14	/	64	(21.9%)	0.90	(0.54 – 1.51)
: no response	5	/	33	(15.2%)	0.60	(0.31 – 1.18)
<b>Leadership role</b>						
Not experienced	122	/	629	(19.4%)	1.00	
Experienced: no	132	/	749	(17.6%)	0.86	(0.70 – 1.07)
: yes	40	/	230	(17.4%)	0.89	(0.64 – 1.23)
: no response	11	/	62	(17.7%)	0.80	(0.46 – 1.37)
<b>Satisfaction with the experience</b>						
Not experienced	122	/	629	(19.4%)	1.00	
Experienced: low	17	/	101	(16.8%)	0.77	(0.50 – 1.19)
: medium	118	/	652	(18.1%)	0.89	(0.72 – 1.12)
: high	44	/	260	(16.9%)	0.86	(0.63 – 1.16)
: no response	4	/	28	(14.3%)	0.64	(0.30 – 1.39)

PR, prevalence ratio; CI, confidence interval. \* This table shows the results for depressive symptoms when limiting the health status of cohabiting women to not having depressive symptoms in Model 3. <sup>a</sup> Model 3. Adjusted for age (continuous), educational attainment, equivalent household income, history of major diseases, exercise habits, consciousness of healthy eating habits, current drinking, and current smoking. <sup>b</sup> Adjusted PR and 95% CI were estimated by modified Poisson regression analysis.

