Supplemental Table 1. 20-items of the Centers for Epidemiologic Studies-Depression Scale (CES-D)

- 1. I was bothered by things that usually don't bother me.
- 2. I did not feel like eating; my appetite was poor
- 3. I felt that I could not shake off the blues even with help from my family or friends.
- 4. I had trouble keeping my mind on what I was doing.
- 5. I was happy.
- 6. I felt depressed.
- 7. I felt that everything I did was an effort.
- 8. I felt hopeful about the future.
- 9. I thought my life had been a failure.
- 10. I felt I was just as good as other people
- 11. My sleep was restless. I had a lot of trouble getting to sleep.
- 12. I felt fearful.
- 13. I talked less than usual.
- 14. I felt lonely.
- 15. I enjoyed life.
- 16. People were unfriendly.
- 17. I had crying spells.
- 18. I felt sad.
- 19. I felt that people disliked me.
- 20. I could not get going.

Supplemental Table 2. Questions for measuring positive and negative social support

Ask to the following questions on feeling about the people around you.

## <Positive social support>

- 1. There is a person whom I can confide in
- 2. There is a person who always care or worry about me
- 3. There is a person whom I can discuss with when I have important or difficult matters
- 4. There is a person who nurses me and give a help in housework when I am ill
- 5. There is a person who gives or lends it when I need something
- 6. There is a person who takes a time for me and help with housework whenever I request

## <Negative social support>

- 1. There is a person who object to or meddle with what I do
- 2. There is a person who blames me for all the problems I have
- 3. There is a person who forgets or ignores me
- 4. There is a person who gives you unwanted help and make me uncomfortable
- 5. There is a person who is indifferent to me and my affair
- 6. There is a person who turns down most of the time when I ask help

Supplemental table 3. Chi-square correlation test between positive and negative social support

		Positive support					
		Level 1		Level 2		Level 3	
		$\chi^2(P)$	Phi	$\chi^2$ (P)	Phi	χ <sup>2</sup> (P)	Phi
Negative support	Level 1	299.1(p<0.001)	-0.12	92.3(p<0.001)	0.07	273.7(p<0.001)	0.11
	Level 2	443.2(p<0.001)	-0.15	236.1(p<0.001)	0.11	202.5(p<0.001)	0.10
	Level 3	783.0(p<0.001)	0.19	347.5(p<0.001)	-0.13	474.5(p<0.001)	-0.15

Supplemental table 4. Association of other covariates and depressive symptom score (from Model 6 in Table 2)  $\frac{1}{2}$ 

	Coeff.	S.E.
Currently married/co-residing		
Never married	0.46	0.29
Separated/divorced	2.09***	0.25
Widowed	1.11***	0.22
Others	-0.90	1.16
40≤age<50(yrs)		
50≤age<60	-0.20*	0.10
60≤age<70	-0.84***	0.14
Male		
Female	0.74***	0.11
Non-manual		
Service and sales workers	0.24	0.15
Manual	-0.18	0.16
Armed forces occupation	-1.98	1.28
Housewives	0.63***	0.15
Unemployed	0.32	0.20
Others	-0.50	0.64
Primary school or below		
High school graduate	-0.56***	0.13
College degree	-0.80***	0.18
Graduate school or higher	-1.17***	0.27

\*:p <0.05, \*\*: p<0.01, \*\*\* :p<0.001