

Table 1. Descriptive characteristics of the participants by depressive patterns presented separately by the English Longitudinal Study of Ageing (ELSA) and the Japanese Gerontological Evaluation Study (JAGES)

	Non-case	Recovery	Onset	Repeated	All
ELSA (%) <sup>a</sup>	2155.79(74.59)	241.60(8.36)	248.03(8.58)	244.86(8.47)	3108
Sleep disturbance (%) <sup>a</sup>					
0 (least disturbed)	17.29	10.41	10.35	5.92	15.16
1	37.73	21.24	25.60	18.90	33.72
2	28.49	30.76	39.19	26.67	29.44
3 (most disturbed)	16.48	37.59	24.85	48.51	21.68
Men (%) <sup>a</sup>	49.53	30.00	37.86	31.12	45.34
Age (%) <sup>a</sup>					
65-69	32.95	28.46	27.51	23.21	31.28
70-74	29.40	26.83	24.79	24.48	28.38
75-79	19.10	18.88	19.84	18.85	19.12
80-84	11.17	14.57	16.10	18.41	12.49
85 and over	7.37	11.26	11.76	15.04	8.72
Partnered (%) <sup>a</sup>	67.07	45.65	59.15	38.98	62.22
ADL difficulties (%) <sup>a</sup>	9.78	22.47	17.79	35.76	13.72
Non-smokers (%) <sup>a</sup>	92.39	81.45	86.65	81.15	90.02
Non-drinkers (%) <sup>a</sup>	11.59	21.72	18.18	23.45	14.01
Income (decile) <sup>a</sup>					
1	6.39	7.77	8.24	11.58	7.10
2	12.27	19.42	15.14	11.72	13.07
3	12.56	17.56	12.70	14.50	13.15
4	12.67	12.04	16.33	13.19	12.97
5	11.11	17.26	9.69	17.43	12.04
6	10.24	8.34	12.77	10.87	10.35
7	9.96	6.72	9.41	10.20	9.66
8	9.59	6.88	8.66	4.35	8.84
9	9.19	2.35	3.40	3.35	7.62
10 (Most affluent)	6.02	1.60	3.65	2.80	5.18
JAGES (%)	5000(66.43)	577(7.67)	696(9.25)	1254(16.66)	7527
Sleep disturbance (%)					
0 (Least disturbed)	14.34	7.80	8.05	4.15	11.56
1	21.98	11.96	15.37	11.32	18.83
2	25.00	21.66	23.13	22.65	24.18
3 (Most disturbed)	38.68	58.58	53.45	61.88	45.44
Men (%)	51.54	53.90	54.31	50.96	51.88
Age (%)					
65-70	38.64	40.21	30.17	35.17	37.40
71-74	30.98	30.51	32.90	32.46	31.37
75-79	18.94	18.02	22.27	20.10	19.37
80-84	8.92	7.97	10.49	9.41	9.07
85-89	2.28	3.29	2.87	2.39	2.43
90 and over	0.24	0.00	1.29	0.48	0.36
Partnered (%)	79.18	76.26	75.00	70.26	77.08
ADL difficulties (%)	0.46	0.69	0.29	2.23	0.76
Non-smokers (%)	89.72	87.87	85.92	85.73	88.56
Non-drinkers (%)	57.62	62.56	59.63	65.07	59.43
Taking sleeping pills (%)	14.50	23.05	22.27	28.95	18.28
Income (decile)					

1 (Least affluent)	6.58	10.92	7.47	15.23	8.44
2	8.90	11.61	10.92	13.88	10.12
3	7.00	10.40	9.77	12.28	8.40
4	9.50	13.52	13.51	14.59	11.03
5	9.22	9.19	10.63	9.01	9.31
6	7.48	6.76	8.62	7.58	7.55
7	14.52	11.96	10.78	11.40	13.46
8	12.92	9.53	9.48	7.26	11.40
9	11.40	8.67	9.48	4.86	9.92
10 (Most affluent)	12.48	7.45	9.34	3.91	10.38

Abbreviations: ADL, Activities of Daily Living

<sup>a</sup>Weighted figures

Table 2. Multinomial logistic regression results (RRR with 95%CI) presented separately by the English Longitudinal Study of Ageing (ELSA) and the Japanese Gerontological Evaluation Study (JAGES)

	Non-case (ref)	Recovery Adjusted for Sex, Age	Fully Adjusted <sup>a</sup>	Onset Adjusted Sex, Age	Fully Adjusted <sup>a</sup>	Repeated Adjusted for Sex, Age	Fully Adjusted
ELSA (N=3108)							
Sleep disturbance 0 (=Least disturbed: Ref)	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1	1.00	0.98 (0.56-1.67)	0.99 (0.57-1.72)	1.16 (0.72-1.89)	1.16 (0.72-1.88)	1.54 (0.82-2.91)	1.49 (0.78-2.83)
2	1.00	1.77 (1.06-2.97)	1.78 (1.04-3.04)	2.31 (1.45-3.69)	2.31 (1.45-3.68)	2.80 (1.51-5.19)	2.60 (1.39-4.88)
3 (=most disturbed)	1.00	3.56 (2.11-6.00)	3.42 (1.98-5.90)	2.47 (1.51-4.05)	2.37 (1.44-3.90)	8.50 (4.67-15.48)	7.24 (3.91-13.40)
JAGES(N=7527)							
Sleep disturbance 0 (=Least disturbed: Ref)	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1	1.00	0.99 (0.67-1.45)	1.03 (0.69-1.52)	1.24 (0.88-1.74)	1.25 (0.89-1.76)	1.78 (1.27-2.47)	1.87 (1.34-2.63)
2	1.00	1.59 (1.11-2.27)	1.62 (1.13-2.31)	1.65 (1.20-2.26)	1.66 (1.20-2.29)	3.16 (2.30-4.27)	3.22 (2.34-4.41)
3 (=most disturbed)	1.00	2.82 (2.04-3.90)	2.71 (1.95-3.75)	2.50 (1.86-3.36)	2.41 (1.79-3.25)	5.57 (4.15-7.47)	5.16 (3.82-6.98)

Abbreviations: RRR, Relative Related Ratio; CI, Confidence Interval

<sup>a</sup> Adjusted for sex, age, income, partnership status, physical functioning (ADL) and current drinking and smoking status. For JAGES, use of sleep medication was additionally included.

Notes: Estimates for ELSA are weighted.

Table 3. Probability<sup>a</sup> of each depressive pattern with 95% CI by sleep disturbance presented separately by the English Longitudinal Study of Ageing (ELSA) and the Japanese Gerontological Evaluation Study (JAGES)

	Non-case	Recovered	Onset	Repeated
<b>ELSA (N=3108)</b>				
Sleep disturbance				
0	0.84 (0.80-0.88)	0.06 (0.03-0.09)	0.06 (0.04-0.08)	0.04 (0.02-0.06)
1	0.82 (0.80-0.85)	0.06 (0.04-0.07)	0.07 (0.05-0.08)	0.05 (0.04-0.07)
2	0.72 (0.69-0.75)	0.09 (0.07-0.11)	0.11 (0.09-0.14)	0.08 (0.06-0.09)
3	0.61 (0.57-0.65)	0.13 (0.10-0.16)	0.10 (0.07-0.12)	0.16 (0.13-0.19)
<b>JAGES (N=7527)</b>				
Sleep disturbance				
0	0.81 (0.79-0.84)	0.05 (0.04-0.07)	0.07 (0.05-0.08)	0.06 (0.05-0.08)
1	0.76 (0.74-0.79)	0.05 (0.04-0.06)	0.08 (0.06- 0.09)	0.11 (0.09-0.13)
2	0.68 (0.66-0.70)	0.07 (0.06- 0.08)	0.09 (0.08- 0.10)	0.16 (0.15-0.18)
3	0.58 (0.56-0.60)	0.10 (0.09-0.11)	0.11 (0.10- 0.12)	0.21 (0.20-0.23)

<sup>a</sup> Estimates are based on the fully adjusted model.