



Correction to: Caregiver Burden and Work Productivity Among Japanese Working Family Caregivers of People with Dementia

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The authors have noted that the number of participants in the final sample should be 377, rather than 379. In this correction, the two mistaken cases were removed and analyses were repeated with 377 cases. This resulted in changes to the reported standard partial regression coefficients (β) of the main effect of caregiver burden on presenteeism. Also, Cronbach's alpha coefficients for job demands and job control measures were inadvertently misreported. Cronbach's alpha coefficients were actually 0.78 for job demands and 0.83 for job control.

Among the respondents, 377 (3.3%) participants fulfilled the sample inclusion criteria (male = 272, female = 105). As a correction, 72.1% of the samples were men and 67.6% were married. The standard partial regression coefficients (β) of the main effect of caregiver burden on presenteeism in model 1 in the Results section should be 0.235 instead of 0.232.

The authors have modified Tables 1, 2, 3, and 4 and Fig. 1 to reflect new analyses (see electronic supplementary material). Major conclusions of this study remain unchanged.

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Table 1 The number of the email invitations to the web-based survey, the respondents to the web-based survey, and the participants who met the inclusion criteria

Age	Email invitations to the web-based survey	Respondents to the web-based survey	Participants (respondents meeting inclusion criteria)	Percentage of respondents meeting inclusion criteria
20–29	4505	813	18	2.2
30–39	8117	2166	69	3.2
40–49	10,997	3425	95	2.8
50–59	9903	3461	120	3.5
60–69	3583	1448	71	4.9
≥ 70	362	157	4	2.5

Table 2 Characteristics of the study participants ($n = 377$)

	Mean	(SD)	<i>n</i>	%
Caregivers				
Sex				
Male			272	72.1
Female			105	27.9
Age (years)	48.86	(11.32)		
Marital status				
Married			255	67.6
Single (including divorced and bereaved)			122	32.4
Education				
Less than vocational school			82	21.8
Vocational school or above			295	78.2
Caregiver burden (J-ZBI-8*)	13.32	(8.04)		
Caregiving time (h/day)	2.14	(2.90)		
Duration of caregiving (months)	53.39	(46.42)		
Type of caregiver				
Primary caregiver			127	33.7
Secondary caregiver			250	66.3
Living arrangements				
Lives with care recipient			170	45.1
Lives separately from care recipient			207	54.9
Night care situation				
Yes			241	63.9
No			136	36.1
Job characteristics (subscales of BJSQ [†])				
Job demands	8.19	(2.16)		
Job control	8.68	(2.12)		
Supervisor support	7.09	(2.55)		
Coworker support	7.31	(2.30)		
Working days per week	4.88	(1.01)		
Work productivity (subscales of WPAI-GH [‡])				
Absenteeism	7.92	(17.52)		
Presenteeism	35.49	(23.66)		
Overall work impairment	40.03	(26.09)		
Care recipient				
Sex				
Male			163	43.2
Female			214	56.8
Health status [¶]				
Yes			304	80.6
No			73	19.4

*The short version of the Japanese version of the Zarit Caregiver Burden Interview

[†]Brief Job Stress Questionnaire

[‡]Work Productivity and Activity Impairment Questionnaire: General Health

[¶]Receiving treatment other than for dementia

Table 3 Correlations between caregiver burden, work productivity, care situation, job characteristics, and demographic characteristics (*n* = 377)

	1	2	3	4	5	6	7	8	9
1 Caregiver burden (<i>J</i> -ZBI-8 ^f)	0.04								
2 Absenteeism	0.25	**							
3 Presenteeism	0.22	**	**						
4 Overall work impairment		0.14	**						
5 Care situation		0.54	**	0.90	**				
6 Caregiving time (h/day)	0.15	**	-0.07	0.02	-0.02				
7 Duration of caregiving (month)	0.00	0.16	**	-0.03	0.05	*			
8 Type of caregiver	0.21	**	0.20	**	0.09	**			
9 Living arrangements	0.14	**	0.15	**	0.12	**	0.08		
10 Night care situation	0.18	**	0.18	**	0.19	**	0.38	**	
11 Care recipient sex	-0.05		-0.18	**	0.06	*	0.14	**	0.07
12 Care recipient health status ^g	0.06	0.13	*	0.08	0.11	*	-0.08	**	-0.05
13 Job characteristics					0.11	*	0.14	**	0.11
14 Job demands (subscales of BJSQ ^h)	0.05	0.24	**	0.26	**	0.05	0.04	0.07	0.21
15 Job control (subscales of BJSQ ^h)	-0.03	0.04	**	-0.18	*	0.06	0.01	-0.03	0.09
16 Supervisor support (subscales of BJSQ ^h)	0.00	0.32	**	-0.01	*	0.03	0.07	0.03	0.17
17 Coworker support (subscales of BJSQ ^h)	-0.03	0.26	**	-0.07	*	0.05	0.06	-0.03	0.27
18 Working days per week	0.02	-0.25	**	0.09	-0.05	0.00	-0.09	-0.09	0.01
19 Demographic characteristics									
20 Caregiver sex	-0.08	-0.01	-0.08	-0.06	-0.06	-0.03	0.01	-0.15	**
21 Age (years)	-0.02	-0.15	**	-0.19	**	0.05	0.05	-0.06	-0.16
22 Marital status	0.00	0.05	-0.06	-0.03	-0.19	**	-0.06	-0.21	**
23 Education	0.02	-0.20	**	-0.08	0.10	*	0.01	-0.05	-0.02
24 Work productivity (subscales of WPAI-GH ⁱ)									
25 Work productivity	0.10								
26 Care situation	0.11								
27 Job characteristics	0.12								
28 Demographic characteristics	0.13								
29 Caregiver sex	0.14								
30 Age (years)	0.15								
31 Marital status	0.16								
32 Education	0.17								
33 Work productivity	0.18								
34 Care situation	0.19								
35 Job characteristics	0.20								
36 Demographic characteristics	0.21								
37 Caregiver sex	0.22								
38 Age (years)	0.23								
39 Marital status	0.24								
40 Education	0.25								
41 Work productivity	0.26								
42 Care situation	0.27								
43 Job characteristics	0.28								
44 Demographic characteristics	0.29								
45 Caregiver sex	0.30								
46 Age (years)	0.31								
47 Marital status	0.32								
48 Education	0.33								
49 Work productivity	0.34								
50 Care situation	0.35								
51 Job characteristics	0.36								
52 Demographic characteristics	0.37								
53 Caregiver sex	0.38								
54 Age (years)	0.39								
55 Marital status	0.40								
56 Education	0.41								
57 Work productivity	0.42								
58 Care situation	0.43								
59 Job characteristics	0.44								
60 Demographic characteristics	0.45								
61 Caregiver sex	0.46								
62 Age (years)	0.47								
63 Marital status	0.48								
64 Education	0.49								
65 Work productivity	0.50								
66 Care situation	0.51								
67 Job characteristics	0.52								
68 Demographic characteristics	0.53								
69 Caregiver sex	0.54								
70 Age (years)	0.55								
71 Marital status	0.56								
72 Education	0.57								
73 Work productivity	0.58								
74 Care situation	0.59								
75 Job characteristics	0.60								
76 Demographic characteristics	0.61								
77 Caregiver sex	0.62								
78 Age (years)	0.63								
79 Marital status	0.64								
80 Education	0.65								
81 Work productivity	0.66								
82 Care situation	0.67								
83 Job characteristics	0.68								
84 Demographic characteristics	0.69								
85 Caregiver sex	0.70								
86 Age (years)	0.71								
87 Marital status	0.72								
88 Education	0.73								
89 Work productivity	0.74								
90 Care situation	0.75								
91 Job characteristics	0.76								
92 Demographic characteristics	0.77								
93 Caregiver sex	0.78								
94 Age (years)	0.79								
95 Marital status	0.80								
96 Education	0.81								
97 Work productivity	0.82								
98 Care situation	0.83								
99 Job characteristics	0.84								
100 Demographic characteristics	0.85								
101 Caregiver sex	0.86								
102 Age (years)	0.87								
103 Marital status	0.88								
104 Education	0.89								
105 Work productivity	0.90								
106 Care situation	0.91								
107 Job characteristics	0.92								
108 Demographic characteristics	0.93								
109 Caregiver sex	0.94								
110 Age (years)	0.95								
111 Marital status	0.96								
112 Education	0.97								
113 Work productivity	0.98								
114 Care situation	0.99								
115 Job characteristics	1.00								
116 Demographic characteristics									
117 Caregiver sex									
118 Age (years)									
119 Marital status									
120 Education									
121 Work productivity									
122 Care situation									
123 Job characteristics									
124 Demographic characteristics									
125 Caregiver sex									
126 Age (years)									
127 Marital status									
128 Education									
129 Work productivity									
130 Care situation									
131 Job characteristics									
132 Demographic characteristics									
133 Caregiver sex									
134 Age (years)									
135 Marital status									
136 Education									
137 Work productivity									
138 Care situation									
139 Job characteristics									
140 Demographic characteristics									
141 Caregiver sex									
142 Age (years)									
143 Marital status									
144 Education									
145 Work productivity									
146 Care situation									
147 Job characteristics									
148 Demographic characteristics									
149 Caregiver sex									
150 Age (years)									
151 Marital status									
152 Education									
153 Work productivity									
154 Care situation									
155 Job characteristics									
156 Demographic characteristics									
157 Caregiver sex									
158 Age (years)									
159 Marital status									
160 Education									
161 Work productivity									
162 Care situation									
163 Job characteristics									
164 Demographic characteristics									
165 Caregiver sex									
166 Age (years)									
167 Marital status									
168 Education									
169 Work productivity									
170 Care situation									
171 Job characteristics									
172 Demographic characteristics									
173 Caregiver sex									
174 Age (years)									
175 Marital status									

Table 3 (continued)

	10	11	12	13	14	15	16	17	18	19
Job characteristics										
12	-0.18	** 0.14	**							
13	0.07	0.01	0.01							
14	-0.04	0.13	*	** 0.29	**					
15	-0.05	0.10	0.22	** 0.30	** 0.76	**				
16	-0.06	-0.07	0.10	* 0.04	-0.14	** -0.10				
Demographic characteristics										
17	0.28	** -0.04	0.00	0.02	0.01	0.05	-0.09			
18	0.09	-0.02	-0.28	** 0.03	-0.15	** -0.15	** -0.11	*	-0.18	**
19	0.03	-0.12	* -0.03	0.08	0.15	** 0.10	-0.12	*	-0.14	**
20	-0.04	-0.01	0.00	0.08	-0.02	-0.03	0.16	** -0.06	-0.03	0.03

Pearson's product-moment correlation coefficient was used

* $p < 0.05$, ** $p < 0.01$

† The short version of the Japanese version of the Zarit Caregiver Burden Interview

‡ Work Productivity and Activity Impairment Questionnaire: General Health

¶ Receiving treatment other than for dementia

§ Brief Job Stress Questionnaire

Table 4 Association between caregiver burden and work productivity (each subscale of WPAI-GH[†]) among employed family caregivers of people with dementia: hierarchical multiple regression analysis results (*n* = 377)

Variable	Absenteeism			Presenteeism			Overall work impairment		
	Standard partial regression coefficients (β)			Standard partial regression coefficients (β)			Standard partial regression coefficients (β)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Demographic characteristics									
Caregiver sex ^a	0.022	-0.006	-0.020	-0.058	-0.050	-0.040	-0.016	-0.024	-0.023
Age (years)	-0.159 **	-0.103 *	-0.100	-0.118 *	-0.061	-0.057	-0.157 **	-0.088	-0.082
Marital status ^b	0.127 *	0.045	0.041	-0.038	-0.037	-0.041	0.028	-0.009	-0.012
Education ^c	-0.180 **	-0.149 **	-0.148 **	-0.001	-0.005	0.015	-0.076	-0.056	-0.048
Care situation									
Caregiver burden (J-ZBI-8 [‡])	-0.023	-0.011	-0.003	0.235 **	0.218 **	0.222 **	0.179 **	0.170 **	0.181 **
Caregiving time (h/day)	-0.096	-0.061	-0.059	0.000	0.008	-0.001	-0.052	-0.030	-0.039
Duration of caregiving (months)	0.118 *	0.115 *	0.116 *	-0.026	-0.027	-0.022	0.033	0.030	0.033
Type of caregiver ^d	0.157 **	0.134 **	0.133 **	-0.067	-0.058	-0.055	0.005	0.002	0.003
Living arrangements ^e	0.096	0.051	0.037	-0.008	-0.028	-0.034	0.069	0.031	0.017
Night care situation ^f	0.105 *	0.068	0.062	0.074	0.085	0.075	0.115 *	0.108 *	0.096
Care recipient sex ^a	-0.142 **	-0.135 **	-0.123 *	-0.097	-0.061	-0.073	-0.145 **	-0.113 *	-0.114 *
Care recipient health status ^f	0.096 *	0.034	0.037	0.054	0.039	0.037	0.092	0.052	0.054
Job characteristics									
Job demands (subscales of BJSQ [¶])		0.141 **	0.137 **		0.218 **	0.195 **		0.246 **	0.224 **
Job control (subscales of BJSQ [¶])		0.003	-0.003		-0.151 **	-0.135 **		-0.114 *	-0.108 *
Supervisor support (subscales of BJSQ [¶])		0.223 **	0.204 **		0.103	0.092		0.171 *	0.156 *
Coworker support (subscales of BJSQ [¶])		-0.039	-0.029		-0.168 *	-0.142		-0.152 *	-0.127
Working days per week		-0.206 **	-0.199 **		0.036	0.021		-0.075	-0.079
Interaction (caregiver burden × job characteristics)									
Caregiver burden × job demands			-0.024			0.084			0.042
Caregiver burden × job control			-0.019			-0.074			-0.078
Caregiver burden × supervisor support			0.075			0.145			0.144
Caregiver burden × coworker support			-0.028			-0.189 *			-0.172 *
Caregiver burden × working days per week			0.089			-0.048			0.006
<i>R</i> ²	0.192 **	0.289 **	0.298 **	0.111 **	0.188 **	0.212 **	0.148 **	0.225 **	0.242 **
Adjusted <i>R</i> ²	0.166 **	0.256 **	0.254 **	0.082 **	0.149 **	0.163 **	0.120 **	0.188 **	0.195 **
ΔR^2	0.192 **	0.097 **	0.009 **	0.111 **	0.076 **	0.024 **	0.148 **	0.077 **	0.017 **

p* < 0.05, *p* < 0.01

[†] Work Productivity and Activity Impairment Questionnaire-General Health

[‡]The short version of the Japanese version of the Zarit Caregiver Burden Interview

[¶]Brief Job Stress Questionnaire

^a Male = 0, Female = 1

^b Married = 1, Single (including divorced and bereaved) = 0

^c Vocational school or above = 1, Less than vocational school = 0

^d Primary caregiver = 1, Secondary caregiver = 0

^e Lives with care recipient = 1, Lives separately from care recipient = 0

^f Yes = 1, No = 0

Fig. 1 Simple slope data plots of the caregiver burden \times coworker support interaction for presenteeism (a) and for overall work impairment (b)

