

Supplemental Materials

Supplemental Table 1. Questionnaire

Q: “Reflecting back on when you were a child and were given an assignment to be completed during school vacation, how early did you usually finish the assignment?” (Procrastination)

1. Got it done right away.
2. Tended to get it done early, before the due date.
3. Worked on it daily up until the due date.
4. Tended to get it done toward the end.
5. Got it done at the last minute.

The responses were grouped into three categories; none (1-3), medium (4) and high (5).

Q: How much was your weight at the age of 20? (Weight at the age of 20)

_____ kg (Enter number)

Q: How many days do you work after 21:00 hours in a weekday? (Long working hours)

1. Never.
2. 1-2 days per week.
3. 3-4 days per week.
4. Almost all weekdays.

The responses were grouped into two categories; none (1,2) and yes (3,4).

Q: Do you have a past history of any serious illness/illnesses? (Past medical history)

1. Yes
2. No

If yes, what illness (illnesses) did you have?

_____ (Direct description)

Q: Are you currently under any medical treatment or medical follow-up? (Current medical history)

1. Yes
2. No

If yes, what illness (illnesses) do you have?

_____ (Direct description)

Q: What is the highest degree or level of education you have completed? (Education)

1. Elementary education
2. High school graduate
3. Junior collage graduate or technical collage graduate
4. Collage graduate
5. Master's degree or Ph.D

The responses were grouped into two categories; no higher education (1- 3) and college graduate or higher (4,5).

Q: What is your smoking status? (Smoking status)

1. I have never smoked.
2. I smoke.
3. I have quit smoking.

Q: How many days do you drink alcohol (sake [rice wine], shochu [distilled spirits], beer, wine or whisky, etc) in a week? (Alcohol consumption)

_____ day(s) (Enter number)

How much do you drink per day, in terms of glasses of refined sake? (A glass [180 ml] of refined sake is equivalent to medium bottle [500 ml] of beer, 110 ml of shochu (alcohol content 25 %), a glass [double, 60 ml] of whisky, and 2 glasses [240 ml] of wine)

1. < 1
2. ≥ 1 and < 2
3. ≥ 2 and < 3
4. ≥ 3

Q: Have you been exercising in free time over 30 minutes twice or more per week, for at least 1 year? (Leisure time physical activity)

1. Yes
2. No

Q: Do you walk for at least 1 hour everyday or have equivalent physical activities in your daily life? (Daily physical activity)

1. Yes
2. No

Q: How fast do you eat compared to others? (Eating speed)

1. Fast
2. Normal
3. Slower

The responses were grouped into two categories; fast (1) and not (2,3).

Q: Do you eat a late evening meal within 2 hours before bedtime on 3 days or more week? (Eating a late evening meal)

1. Yes
2. No

Q: Do you skip breakfast on 3 days or more per week? (Skipping breakfast)

1. Yes
2. No

Supplemental Table 2. Association of Procrastination and Work Environment with Adult Weight Gain over 5kg

	AWG5													
	All Participants (n=795)						White-collar Workers (n=515)				Blue-collar Workers (n=280)			
	Number of AWG5	Crude	Model 1a	Model 2b	Model 3a	Model 4b	Number of AWG5	Crude	Model 5c	Model 6d	Number of AWG5	Crude	Model 7a	Model 8b
Procrastination														
None	124/270	1	1	1	1	1	87/193	1	1	1	37/77	1	1	1
	-45.90%	(Reference)	(Reference)	(Reference)	(Reference)	(Reference)	-45.10%	(Reference)	(Reference)	(Reference)	-48.10%	(Reference)	(Reference)	(Reference)
Medium	147/323	1.02	0.99	0.99	0.69	0.66	102/205	1.21	1.15	1.17	45/118	0.67	0.67	0.66
	-45.50%	(0.73-1.41)	(0.71-1.38)	(0.71-1.38)	(0.38-1.24)	(0.37-1.20)	-49.80%	(0.81-1.79)	(0.77-1.71)	(0.78-1.74)	-38.10%	(0.37-1.19)	(0.37-1.20)	(0.36-1.19)
High	106/202	1.38+	1.36	1.37+	0.73	0.74	72/117	1.95**	1.89**	1.91**	34/85	0.72	0.69	0.7
	-52.50%	(0.95-1.99)	(0.93-1.97)	(0.94-2.01)	(0.39-1.38)	(0.39-1.39)	-61.50%	(1.22-3.11)	(1.18-3.02)	(1.18-3.07)	-40.00%	(0.39-1.34)	(0.37-1.30)	(0.36-1.34)
p for trend		0.107	0.13	0.12				0.007**	0.012*	0.011*		0.314	0.275	0.307
Work Environment														
Blue-collar	116/280	1	1	1	1	1								
	-41.40%	(Reference)	(Reference)	(Reference)	(Reference)	(Reference)								
White-collar	261/515	1.49**	1.72**	1.78**	1.08	1.09								
	-50.70%	(1.11-2.01)	(1.18-2.51)	(1.21-2.61)	(0.61-1.93)	(0.61-1.95)								
Interaction														
White-collar *Medium procrastination					1.66	1.76								
					(0.82-3.38)	(0.86-3.60)								
White-collar *High procrastination					2.59	2.62*								
					(1.18-5.68)	(1.19-5.79)								
AWG5: Adult Weight Gain over 5kg														
a Adjusted for age, education, long work hours and shift work.														
b Adjusted for age, education, long work hours, shift work, smoking, drinking and physical activity.														
c Adjusted for age, education and long work hours.														

Supplemental Table 3. Association of Procrastination and Work Environment with Obesity, Adult Weight Gain over 10kg and Metabolic Syndrome among white-collar workers without sales and service workers (n=440)

	Obesity				AWG10				MetS			
	Number of obesity	Crude	Model 1a	Model 2b	Number of AWG10	Crude	Model 5a	Model 6b	Number of MetS	Crude	Model 7a	Model 8b
Procrastination												
None	41/167	1	1	1	28/167	1	1	1	19/167	1	1	1
		-24.60% (Reference)	(Reference)	(Reference)		-16.80% (Reference)	(Reference)	(Reference)		-11.40% (Reference)	(Reference)	(Reference)
Medium	39/174	0.89	0.84	0.8	45/174	1.73*	1.59+	1.6+	29/174	1.56	1.47	1.45
		-22.40% (0.54-1.47)	(0.51-1.40)	(0.48-1.35)		-25.90% (1.02-2.94)	(0.93-2.72)	(0.93-2.76)		-16.70% (0.84-2.90)	(0.77-2.80)	(0.75-2.79)
High	29/99	1.27	1.21	1.16	28/99	1.96*	1.80+	1.83+	23/99	2.36*	2.25*	2.26*
		-29.30% (0.73-2.23)	(0.69-2.14)	(0.65-2.06)		-28.30% (1.08-3.56)	(0.98-3.31)	(0.98-3.39)		-23.20% (1.21-4.60)	(1.13-4.51)	(1.12-4.59)
p for trend		0.483	0.611	0.728		0.021*	0.049*	0.048*		0.012*	0.022*	0.024*
AWG10: Adult Weight Gain over 10kg; MetS: Metabolic Syndrome												
a Adjusted for age, education and long work hours.												
b Adjusted for age, education, long work hours, smoking, drinking and physical activity.												
†: p < 0.10; *: p < 0.05; **: p < 0.01.												

Supplemental Table 4. Association of Procrastination and Work Environment with Obesity, Adult Weight Gain over 10kg and Metabolic Syndrome adjusted for Skipping Breakfast

	Obesity									
	All Participants (n=795)				White-collar Workers (n=515)			Blue-collar Workers (n=280)		
	Number of obesity	Crude	Model 2a	Model 4a	Number of obesity	Crude	Model 6b	Number of obesity	Crude	Model 8a
Procrastination										
None	64/270	1	1	1	45/193	1	1	19/77	1	1
		-23.70%	(Reference)	(Reference)	(Reference)					
Medium	67/323	0.84	0.83	0.83	43/205	0.87	0.8	24/118	0.78	0.84
		-20.70%	(0.57-1.24)	(0.56-1.24)	(0.41-1.68)					
High	51/202	1.09	1.06	0.75	34/117	1.35	1.25	17/85	0.76	0.75
		-25.30%	(0.71-1.67)	(0.68-1.64)	(0.35-1.61)					
p for trend		0.777	0.517			0.341	0.534		0.477	0.48
Work Environment										
Blue-collar	60/280	1	1	1						
		-21.40%	(Reference)	(Reference)	(Reference)					
White-collar	122/515	1.14	1.36	1.17						
		-23.70%	(0.80-1.62)	(0.86-2.14)	(0.59-2.32)					
Interaction										
White-collar *Medium procrastination				0.98						
				(0.42-2.32)						
White-collar *High procrastination				1.69						
				(0.67-4.26)						
AWG10: Adult Weight Gain over 10kg; MetS: Metabolic Syndrome										
a Adjusted for age, education, long work hours, shift work, smoking, drinking, physical activity and skipping breakfast.										
b Adjusted for age, education, long work hours, smoking, drinking, physical activity and skipping breakfast.										
+: p < 0.10; *: p < 0.05; **: p < 0.01.										

Supplemental Table 4. Continued

AWG10									
All Participants (n=795)				White-collar Workers (n=515)			Blue-collar Workers (n=280)		
Number of AWG10	Crude	Model 2a	Model 4a	Number of AWG10	Crude	Model 6b	Number of AWG10	Crude	Model 8a
50/270	1	1	1	31/193	1	1	19/77	1	1
	-0.185 (Reference)	(Reference)	(Reference)		-0.161 (Reference)	(Reference)		-0.247 (Reference)	(Reference)
70/323	1.22	1.23	0.61	52/205	1.78*	1.63+	18/118	0.55	0.61
	-0.217 (0.81-1.83)	(0.81-1.86)	(0.29-1.28)		-0.254 (1.08-2.92)	(0.98-2.71)		-0.153 (0.27-1.13)	(0.28-1.32)
49/202	1.41	1.39	0.81	32/117	1.97*	1.81*	17/85	0.76	0.74
	-0.243 (0.90-2.20)	(0.88-2.20)	(0.38-1.73)		-0.274 (1.12-3.44)	(1.02-3.24)		-0.2 (0.36-1.60)	(0.33-1.67)
	0.128	0.159			0.013*	0.036*		0.481	0.473
54/280	1	1	1						
	-0.193 (Reference)	(Reference)	(Reference)						
115/515	1.2	1.34	0.71						
	-0.223 (0.84-1.73)	(0.84-2.12)	(0.35-1.44)						
			2.75*						
			(1.12-6.76)						
			2.25+						
			(0.87-5.85)						

Supplemental Table 4. Continued

MetS										
All Participants (n=795)				White-collar Workers (n=515)			Blue-collar Workers (n=280)			
Number of MetS	Crude	Model 2a	Model 4a	Number of MetS	Crude	Model 6b	Number of MetS	Crude	Model 8a	
37/270	1	1	1	22/193	1	1	15/77	1	1	
	-0.137 (Reference)	(Reference)	(Reference)		-0.114 (Reference)	(Reference)		-0.195 (Reference)	(Reference)	
50/323	1.15	1.1	0.62	35/205	1.6	1.47	15/118	0.6	0.64	
	-0.155 (0.73-1.83)	(0.68-1.77)	(0.28-1.41)		-0.171 (0.90-2.84)	(0.80-2.70)		-0.127 (0.28-1.32)	(0.28-1.49)	
36/202	1.37	1.22	0.39*	27/117	2.33**	2.26*	9/85	0.49	0.4+	
	-0.178 (0.83-2.25)	(0.72-2.08)	(0.15-1.00)		-0.231 (1.26-4.33)	(1.16-4.38)		-0.106 (0.20-1.19)	(0.15-1.07)	
	0.223	0.464			0.007**	0.017*		0.109	0.066 +	
39/280	1	1	1							
	-0.139 (Reference)	(Reference)	(Reference)							
84/515	1.2	1.5	0.66							
	-0.163 (0.80-1.82)	(0.88-2.54)	(0.29-1.47)							
			2.29							
			(0.83-6.34)							
			5.52**							
			(1.77-17.23)							