

Further information on the Malaise Inventory

The Malaise Inventory is comprised of 24 self-completion items covering emotional and somatic symptoms and is intended to measure psychological distress (Rutter, 1970). The Malaise Inventory was derived from the Cornell Medical Index Health Questionnaire, which was comprised of 195 self-completion items (Brodman et al., 1949). Each item in the Malaise Inventory has the response options yes or no.

How are you feeling generally...

1. Do you often have backache?
2. Do you feel tired most of the time?
3. Do you often feel miserable or depressed?
4. Do you often have bad headaches?
5. Do you often get worried about things?
6. Do you usually have great difficulty in falling or staying asleep?
7. Do you usually wake unnecessarily early in the morning?
8. Do you wear yourself out worrying about your health?
9. Do you often get in a violent rage?
10. Do people often annoy and irritate you?
11. Have you at times had twitching of the face, head or shoulders?
12. Do you often suddenly become scared for no good reason?
13. Are you scared to be alone when there are no friends near you?
14. Are you easily upset or irritated?
15. Are you frightened of going out alone or of meeting people?
16. Are you constantly keyed up and jittery?
17. Do you suffer from indigestion?
18. Do you suffer from an upset stomach?
19. Is your appetite poor?
20. Does every little thing get on your nerves and wear you out?
21. Does your heart often race like mad?
22. Do you often have bad pains in your eyes?
23. Are you troubled with rheumatism or fibrositis?
24. Have you ever had a nervous breakdown?

The Malaise Inventory has a good level of internal consistency and its validity is robust across different population groups (Rodgers et al., 1999). Consequently it has been widely used in population studies.

References

- Brodman, K., Erdmann, A., Lorge, I., Wolff, H., Broadbent, T., 1949. The Cornell Medical Index. An adjunct to medical interview. *J. Am. Med. Assoc.* 140, 530–534.
- Rodgers, B., Pickles, A., Power, C., Collishaw, S., Maughan, B., 1999. Validity of the malaise inventory in general population samples. *Soc. Psychiatry Psychiatr. Epidemiol.* 34, 333–341.
- Rutter, M., 1970. *Education, health and behaviour*. Longman, Harlow.

Multiple imputation syntax

The multiple imputation procedure was conducted in Stata. Syntax used is as follows:

```
mi set flong
mi register regular sex
mi register imputed crp4use12 fib4use vwf4use momgsage ///
    overcrowd sclass0 momedu momsmok parity ///
    brfd birthweight edu ///
    socclass malaise alcohol smok PA bmi42 childcare7 ///
    childcare11 childcare16 physineg7 physineg11 ///
    offender7 offender11 offender16 parsep7 parsep11 ///
    parsep16 mentalill7 mentalill11 mentalill16 ///
    alcohol7 conflict7
mi impute chained ///
    (pmm, knn(2)) crp4use12 fib4use vwf4use birthweight malaise bmi42 ///
    (logit) childcare* physineg* offender* parsep* mentalill* alcohol7
    overcrowd ///
    momedu alcohol PA conflict7 ///
    (truncreg, ll(8) ul(48)) momgsage ///
    (ologit) sclass0 edu socclass ///
    (mlogit) momsmok parity brfd smok, add(20) dots noisily augment
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Supplementary table: Investigating components of ACE score with mid-life inflammation

	%	CRP		Fibrinogen		vWF	
		Crude association % difference (95% CI)	Adj. for confounders % difference (95% CI)	Crude association % difference (95% CI)	Adj. for confounders % difference (95% CI)	Crude association % difference (95% CI)	Adj. for confounders % difference (95% CI)
Care placement	3.6	4.18 (-9.30, 19.65)	-5.01 (-17.32, 9.13)	4.61 (1.98, 7.30)	2.83 (0.23, 5.49)	0.38 (-3.73, 4.66)	-1.40 (-5.47, 2.84)
Physical neglect	6.2	19.98 (7.44, 33.97)	10.23 (-1.36, 23.18)	4.51 (2.48, 6.58)	2.87 (0.83, 4.94)	5.01 (1.66, 8.48)	3.04 (-0.29, 6.53)
Offending	7.5	27.23 (15.07, 40.67)	16.81 (5.49, 29.34)	5.09 (3.22, 6.99)	3.65 (1.79, 5.54)	3.57 (0.45, 6.79)	1.51 (-1.63, 4.74)
Parental separation	13.1	14.24 (5.60, 23.58)	9.60 (1.30, 18.58)	2.19 (0.75, 3.64)	1.42 (0.001, 2.86)	-0.29 (-2.49, 2.11)	-1.35 (-3.61, 0.97)
Mental illness	6.0	11.03 (-1.30, 24.89)	5.93 (-5.78, 19.10)	3.00 (0.86, 5.18)	2.10 (-0.01, 4.25)	5.87 (2.38, 9.49)	4.63 (1.15, 8.23)
Domestic conflict	1.7	14.25 (-9.87, 44.83)	7.34 (-15.22, 35.92)	4.30 (-0.01, 8.81)	3.21 (-1.03, 7.65)	-5.73 (-12.35, 1.39)	-6.43 (-13.04, 0.69)
Alcohol misuse	1.0	-10.72 (-32.89, 18.76)	-20.63 (-40.65, 6.13)	3.13 (-2.04, 8.57)	1.08 (-4.08, 6.53)	6.13 (-3.17, 16.33)	2.96 (-6.20, 13.01)

NB each component refers to ever having experienced that adversity at any point in childhood (0-16 years). As alcohol misuse and domestic conflict were only available at age 7 the estimates show relationships between those adversities by age 7 and mid-life inflammation.