

THE LANCET Psychiatry

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: Mars B, Heron J, Klonsky ED, et al. Predictors of future suicide attempt among adolescents with suicidal thoughts or non-suicidal self-harm: a population-based birth cohort study. *Lancet Psychiatry* 2019; published online March 14. [http://dx.doi.org/10.1016/S2215-0366\(19\)30030-6](http://dx.doi.org/10.1016/S2215-0366(19)30030-6).

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eTable 1: Comparison of those with complete and incomplete data on suicide attempts at 21 years (Comparison amongst those with suicidal thoughts at baseline, N=456)

Variable	Description	N	Complete data on suicide attempts n=310	Incomplete data on suicide attempts n=146	P value ^a
Child sex	Male	123	80 (25.8%)	43 (29.5%)	0.413
	Female	333	230 (74.2%)	103 (70.6%)	
Parity	First born	199	131 (43.0%)	68(48.9%)	0.384
	Second born	171	119 (39.0%)	52 (37.4%)	
	Third born plus	74	55 (18.0%)	19 (13.7%)	
Home overcrowding	≤1 person/room	424	293 (97.7%)	131(94.9%)	0.130
	>1 person/room	14	7 (2.3%)	7 (5.1%)	
Maternal education	Degree	94	69 (22.3%)	25 (18.5%)	0.377
	A level	121	89 (28.8%)	32 (23.7%)	
	O level	150	100 (32.4%)	50 (37.0%)	
	< O level	79	51 (16.5%)	28 (20.7%)	
Equivalentised household income	1 st quintile	104	71 (25.0%)	33 (25.0%)	0.114
	2 nd quintile	94	72 (25.4%)	22 (16.7%)	
	3 rd quintile	89	62 (21.8%)	27 (20.5%)	
	4 th quintile	70	46 (16.2%)	24 (18.2%)	
	5 th quintile	59	33 (11.6%)	26 (19.7%)	
Parental social class	Professional/managerial	278	197 (66.3%)	81 (61.8%)	0.369
	other	150	100 (33.7%)	50 (38.2%)	

^a Chi-Square test of the association between missing data and categorical exposures
Numbers vary due to missing data

eTable 2: Comparison of those with complete and incomplete data on suicide attempts at 21 years (Comparison amongst those with non-suicidal self-harm at baseline, N=569)

Variable	Description	N	Complete data on suicide attempts n=380	Incomplete data on suicide attempts n=189	P value ^a
Child sex	Male	116	69 (18.2%)	47 (24.9%)	0.061
	Female	453	311 (81.8%)	142 (75.1%)	
Parity	First born	265	182 (49.4%)	83(44.9%)	0.579
	Second born	214	139 (37.8%)	75 (40.5%)	
	Third born plus	74	47 (12.8%)	27 (36.5%)	
Home overcrowding	≤1 person/room	533	360 (97.8%)	173(96.1%)	0.248
	>1 person/room	15	8 (2.2%)	7 (3.9%)	
Maternal education	Degree	133	91 (24.3%)	42 (23.3%)	0.898
	A level	131	91 (24.3%)	40 (22.2%)	
	O level	204	134 (35.7%)	70 (38.9%)	
	< O level	87	59 (15.7%)	28 (15.6%)	
Equivalentised household income	1 st quintile	130	86 (24.8%)	44 (25.4%)	0.449
	2 nd quintile	117	85 (24.5%)	32 (18.5%)	
	3 rd quintile	113	70 (20.2%)	43 (24.9%)	
	4 th quintile	90	62 (17.9%)	28 (16.2%)	
	5 th quintile	70	44 (12.7%)	26 (15.0%)	
Parental social class	Professional/managerial	349	239 (65.8%)	110(64.7%)	0.797
	other	184	124 (34.2%)	60 (35.3%)	

^a Chi-Square test of the association between missing data and categorical exposures
Numbers vary due to missing data

eTable 3: Comparison of responders and non-responders to the self-harm questionnaire at 16 years by key demographic variables (Comparison amongst those invited to participate in the age 16 year questionnaire, N=9,370)

Variable	Description	N	No data on suicidal thoughts and attempts ^a	Data on suicidal thoughts and attempts	P value ^b
Child sex	Male	4,628	2,672 (58.1%)	1,956 (41.0%)	<0.001
	Female	4,742	1,956 (41.9%)	2,816 (59.0%)	
Parity	First born	4,060	1,789 (41.5%)	2,271 (48.8%)	<0.001
	Second born	3,199	1,571 (36.5%)	1,628 (35.0%)	
	Third born plus	1,700	948 (22.0%)	752 (16.2%)	
Home overcrowding	≤1 person/room	8,434	3,994 (93.1%)	4,440 (96.6%)	<0.001
	>1 person/room	453	296 (6.9%)	157 (3.4%)	
Maternal education	Degree	1,306	365 (8.7%)	941 (20.2%)	<0.001
	A level	2,206	906 (21.5%)	1,300 (28.0%)	
	O level	3,106	1,561 (37.0%)	1,545 (33.2%)	
	< O level	2,246	1,383 (32.8%)	863 (18.6%)	
Equivalised household income	1 st quintile	1,724	599 (16.7%)	1,125 (25.9%)	<0.001
	2 nd quintile	1,657	651 (18.2%)	1,006 (23.1%)	
	3 rd quintile	1,612	753 (21.0%)	859 (19.8%)	
	4 th quintile	1,519	762 (21.3%)	757 (17.4%)	
	5 th quintile	1,417	818 (22.8%)	599 (13.8%)	
Parental social class	Professional/managerial	4,870	1,979 (50.6%)	2,891 (64.9%)	<0.001
	other	3,499	1,933 (49.4%)	1,566 (35.1%)	

^a Includes those who were sent but did not return the self-harm questionnaire, and those who returned the questionnaire but did not respond to the suicidal thoughts or attempts items

^b Chi-Square test of the association between missing data and categorical exposures

Numbers vary due to missing data

eTable 4: Predictors of incident suicide attempts amongst those with suicidal thoughts at baseline: Comparison of complete case and imputed data

Exposure	Complete case n=310		Imputed sample n=456	
	Adjusted for sex and SES OR (95% CI)	P value	Adjusted for sex and SES OR (95% CI)	P value
Female sex	0.85 (0.37, 1.96)	0.698	1.01 (0.47, 2.18)	0.975
Psychosocial variables				
IQ	0.91 (0.58, 1.42)	0.678	0.92 (0.60, 1.42)	0.716
Executive function				
<i>Updating</i>	0.89 (0.57, 1.39)	0.616	0.94 (0.64, 1.37)	0.742
<i>Attentional-switching</i>	1.08 (0.74, 1.58)	0.700	0.99 (0.68, 1.45)	0.968
<i>Attentional-control</i>	1.36 (0.85, 2.18)	0.203	1.11 (0.81, 1.51)	0.528
Impulsivity	0.88 (0.60, 1.31)	0.537	0.80 (0.56, 1.15)	0.228
Sensation-seeking				
<i>Arnett intensity subscale</i>	1.12 (0.76, 1.66)	0.555	1.20 (0.85, 1.70)	0.290
<i>Arnett novelty subscale</i>	1.13 (0.77, 1.66)	0.539	1.27 (0.88, 1.82)	0.201
Big-5 personality dimensions				
<i>Extraversion</i>	0.84 (0.53, 1.32)	0.981	1.00 (0.68, 1.47)	0.992
<i>Agreeableness</i>	1.08 (0.65, 1.78)	0.776	1.08 (0.73, 1.59)	0.693
<i>Conscientiousness</i>	1.01 (0.64, 1.58)	0.981	0.90 (0.59, 1.38)	0.639
<i>Emotional stability</i>	0.96 (0.60, 1.54)	0.874	0.91 (0.60, 1.38)	0.657
<i>Intellect/openness</i>	1.56 (0.95, 2.54)	0.076	1.62 (1.06, 2.46)	0.025
Family self-harm	2.46 (1.02, 5.93)	0.045	2.03 (0.93, 4.44)	0.076
Friend self-harm	1.77 (0.79, 3.98)	0.166	1.85 (0.93, 3.69)	0.081
Life events	0.80 (0.55, 1.19)	0.271	0.90 (0.65, 1.24)	0.511
Early adversity	0.81 (0.32, 2.09)	0.668	0.75 (0.31, 1.81)	0.513
Body dissatisfaction	0.94 (0.41, 2.15)	0.880	0.95 (0.45, 1.98)	0.883
Sleep problems				
<i>Waking in the night</i>	1.14 (0.47, 2.73)	0.776	1.05 (0.51, 2.18)	0.895
<i>Insufficient sleep</i>	0.47 (0.19, 1.12)	0.088	0.59 (0.25, 1.39)	0.224
Psychiatric/mental health variables				
Any DAWBA diagnosis	1.07 (0.28, 4.10)	0.927	1.12 (0.35, 3.63)	0.844
Hopelessness	2.20 (0.99, 4.87)	0.052	1.65 (0.85, 3.18)	0.137
Depressive symptoms	1.11 (0.74, 1.65)	0.612	1.06 (0.74, 1.51)	0.754
Substance use				
<i>Alcohol, heavy drinking</i>	1.37 (0.49, 3.81)	0.543	1.11 (0.43, 2.83)	0.830
<i>Cannabis, at least occasional use</i>	2.99 (1.01, 8.81)	0.047	2.61 (1.11, 6.14)	0.029
<i>Smoking, at least weekly</i>	1.85 (0.54, 6.42)	0.330	1.70 (0.58, 4.97)	0.333
<i>Illicit drug use (post year)</i>	3.45 (1.29, 9.24)	0.014	2.47 (1.02, 5.96)	0.045
Suicidal plans	1.58 (0.49, 5.11)	0.448	1.15 (0.39, 3.41)	0.800
NSSH	3.73 (1.71, 8.12)	0.001	2.78 (1.35, 5.74)	0.006
NSSH frequency				
<i>Not in the last year</i>	(reference)	0.561	(reference)	0.517
<i>1-5 times</i>	0.59 (0.16, 2.14)		0.53 (0.18, 1.58)	
<i>6+ times</i>	1.26 (0.32, 5.00)		0.92 (0.26, 3.26)	
NSSH method used during most recent self-harm episode				
<i>Cutting</i>	(reference)	0.049	(reference)	0.107
<i>Other</i>	0.29 (0.05, 1.59)		0.44 (0.11, 1.83)	
<i>Multiple methods</i>	0.14 (0.02, 1.25)		0.15 (0.02, 1.16)	

NSSH: non-suicidal self-harm

The number of individuals with missing data was 0 for gender; 58 for IQ; 60 for updating; 69 for attentional switching; 52 for attentional control; 66 for impulsivity; 5 for sensation seeking; 74 for extraversion; 77 for agreeableness; 81 for conscientiousness; 84 for emotional stability; 78 for intellect/openness; 37 for family self-harm; 0 for friend self-harm; 0 for life events; 115 for adversity; 74 for body dissatisfaction; 110 for waking in

the night; 90 for insufficient sleep; 74 for psychiatric disorder; 15 for hopelessness; 4 for depressive symptoms; 81 for alcohol; 77 for cannabis; 106 for smoking; 84 for illicit drug use; 29 for suicidal plans; 0 for NSSH

eTable 5: Predictors of incident suicide attempts amongst those with non-suicidal self-harm at baseline: Comparison of complete case and imputed data

Exposure	Complete case n=380		Imputed sample n=569	
	Adjusted for sex and SES OR (95% CI)	P value	Adjusted for sex and SES OR (95% CI)	P value
Female sex	0.68 (0.30, 1.54)	0.354	0.82 (0.39, 1.72)	0.596
Psychosocial variables				
IQ	1.03 (0.69, 1.53)	0.892	0.99 (0.67, 1.46)	0.944
Executive function				
<i>Updating</i>	0.90 (0.61, 1.32)	0.583	0.90 (0.64, 1.27)	0.552
<i>Attentional-switching</i>	0.96 (0.66, 1.40)	0.836	0.98 (0.65, 1.48)	0.931
<i>Attentional-control</i>	0.94 (0.66, 1.33)	0.715	1.02 (0.74, 1.42)	0.886
Impulsivity	1.04 (0.71, 1.52)	0.836	0.92 (0.64, 1.34)	0.670
Sensation-seeking				
<i>Arnett intensity subscale</i>	0.92 (0.65, 1.31)	0.652	0.97 (0.72, 1.31)	0.848
<i>Arnett novelty subscale</i>	0.97 (0.70, 1.36)	0.862	1.06 (0.79, 1.40)	0.711
Big-5 personality dimensions				
<i>Extraversion</i>	0.58 (0.39, 0.87)	0.008	0.71 (0.49, 1.03)	0.068
<i>Agreeableness</i>	1.01 (0.69, 1.49)	0.943	1.04 (0.73, 1.47)	0.837
<i>Conscientiousness</i>	1.01 (0.69, 1.48)	0.970	0.95 (0.70, 1.31)	0.773
<i>Emotional stability</i>	0.84 (0.57, 1.25)	0.397	0.79 (0.53, 1.17)	0.237
<i>Intellect/openness</i>	1.12 (0.77, 1.63)	0.545	1.25 (0.87, 1.81)	0.221
Family self-harm	1.68 (0.75, 3.76)	0.206	1.42 (0.66, 3.05)	0.364
Friend self-harm	0.96 (0.45, 2.06)	0.924	0.97 (0.50, 1.89)	0.936
Life events	0.98 (0.70, 1.36)	0.887	1.09 (0.80, 1.49)	0.573
Early adversity	0.92 (0.38, 2.21)	0.853	1.14 (0.56, 2.35)	0.712
Body dissatisfaction	0.66 (0.32, 1.36)	0.257	0.63 (0.33, 1.23)	0.176
Sleep problems				
<i>Waking in the night</i>	2.06 (0.92, 4.58)	0.077	1.91 (0.95, 3.84)	0.069
<i>Insufficient sleep</i>	1.87 (0.90, 3.89)	0.094	1.97 (1.02, 3.81)	0.043
Psychiatric/mental health variables				
Any DAWBA diagnosis	0.62 (0.13, 2.89)	0.547	0.54 (0.13, 2.30)	0.403
Hopelessness	1.27 (0.61, 2.66)	0.525	1.20 (0.60, 2.40)	0.603
Depressive symptoms	0.98 (0.71, 1.37)	0.923	1.00 (0.73, 1.38)	0.996
Substance use				
<i>Alcohol, heavy drinking</i>	0.80 (0.35, 1.82)	0.591	0.77 (0.38, 1.54)	0.452
<i>Cannabis, at least occasional use</i>	2.30 (1.01, 5.23)	0.047	2.14 (1.04, 4.41)	0.038
<i>Smoking, at least weekly</i>	1.98 (0.73, 5.38)	0.178	2.07 (0.83, 5.13)	0.116
<i>illicit drug use (past year)</i>	2.39 (1.11, 5.18)	0.026	2.17 (1.10, 4.27)	0.025
Suicidal plans	2.18 (0.56, 8.56)	0.263	2.25 (0.62, 8.12)	0.215
NSSH frequency				
<i>Not in the last year</i>	(reference)	0.711	(reference)	0.599
<i>1-5 times</i>	1.03 (0.49, 2.16)		0.83 (0.44, 1.58)	
<i>6+ times</i>	1.46 (0.59, 3.64)		1.29 (0.57, 2.92)	
NSSH method used during most recent self-harm episode				
<i>Cutting</i>	(reference)	0.191	(reference)	0.554
<i>Other</i>	0.47 (0.16, 1.42)		0.67 (0.27, 1.65)	
<i>More than one</i>	0.42 (0.10, 1.85)		0.66 (0.22, 1.99)	

NSSH: non-suicidal self-harm

The number of individuals with missing data was 0 for gender; 56 for IQ; 59 for updating; 75 for attentional switching; 64 for attentional control; 72 for impulsivity; 4 for intensity seeking; 9 for novelty seeking; 82 for extraversion; 83 for agreeableness; 84 for conscientiousness; 89 for emotional stability; 87 for intellect/openness; 37 for family self-harm; 3 for friend self-harm; 0 for life events; 136 for adversity; 50 for body dissatisfaction; 113 for waking in the night; 103 for insufficient sleep; 74 for psychiatric disorder; 17 for hopelessness; 2 for depressive symptoms; 80 for alcohol; 75 for cannabis; 121 for smoking; 86 for illicit drug use; 2 for suicidal plans; 5 for NSSH frequency; 4 for NSSH method.

eTable 6: Description of risk factors in the subsample with no suicidal thoughts or attempts at age 16 years: complete case sample

Exposure (age of assessment)	Number (%) or Mean (SD)
	n=2283
Female sex, (%)	57.16%
Psychosocial variables	
Total IQ (age 8, mean (SD))	109.3 (15.86)
Executive function, mean (SD)	
<i>Updating</i>	13.4 (2.94)
<i>Attentional-switching</i>	11.1 (15.10)
<i>Attentional-control</i>	16.9 (5.28)
Impulsivity, mean (SD)	13.7 (2.54)
Sensation-seeking, mean (SD)	
<i>Arnett intensity subscale</i>	25.5 (4.43)
<i>Arnett novelty subscale</i>	25.7 (4.28)
Big-5 personality dimensions, mean (SD)	
<i>Extraversion</i>	34.8 (6.97)
<i>Agreeableness</i>	38.5 (4.97)
<i>Conscientiousness</i>	33.1 (5.77)
<i>Emotional stability</i>	33.0 (6.27)
<i>Intellect/openness</i>	36.4 (5.47)
Family self-harm, (%)	5.76%
Friend self-harm, (%)	30.5%
Life events, mean (SD)	2.6 (1.89)
Early adversity, (%)	24.4%
Body dissatisfaction, (%)	28.5%
Sleep problems, (%)	
<i>Waking in the night</i>	38.5%
<i>Insufficient sleep</i>	31.8%
Psychiatric/mental health variables	
Any DAWBA diagnosis, (%)	2.6%
Hopelessness, (%)	9.2%
Depressive symptoms, mean (SD)	4.3 (4.13)
Substance use, (%)	
<i>Alcohol, heavy drinking</i>	15.2%
<i>Cannabis, at least occasional use</i>	5.3%
<i>Smoking, at least weekly</i>	5.1%
<i>illicit drug use (post year)</i>	7.5%
Suicidal plans, (%)	0%

Sample includes 2283 with data on suicidal thoughts and non-suicidal self-harm at 16 years, and suicidal attempts at age 21 years

The number of individuals with missing data was 0 for gender; 372 for IQ; 411 for updating; 438 for attentional switching; 416 for attentional control; 447 for impulsivity; 58 for intensity seeking; 55 for novelty seeking; 483 for extraversion; 521 for agreeableness; 573 for conscientiousness; 532 for emotional stability; 515 for intellect/openness; 199 for family self-harm; 10 for friend self-harm; 2 for life events; 852 for adversity; 292 for body dissatisfaction; 670 for waking in the night; 606 for insufficient sleep; 481 for psychiatric disorder; 81 for hopelessness; 43 for depressive symptoms; 547 for alcohol; 502 for cannabis; 746 for smoking; 580 for illicit drug use; 0 for suicidal plans

eTable 7: Predictors of incident suicide attempts amongst those with non-suicidal self-harm at baseline: Sensitivity analysis removing those who reported having self-poisoned on the most recent self-harm occasion

Exposure	Complete case n=380	
	Adjusted for sex and SES OR (95% CI)	P value
Female sex	0.67 (0.29, 1.53)	0.338
Psychosocial variables		
IQ	1.07 (0.71, 1.62)	0.736
Executive function		
<i>Updating</i>	0.95 (0.65, 1.38)	0.779
<i>Attentional-switching</i>	0.93 (0.62, 1.41)	0.746
<i>Attentional-control</i>	0.96 (0.67, 1.37)	0.816
Impulsivity	1.00 (0.69, 1.46)	0.995
Sensation-seeking		
<i>Arnett intensity subscale</i>	0.91 (0.64, 1.29)	0.593
<i>Arnett novelty subscale</i>	1.02 (0.72, 1.43)	0.919
Big-5 personality dimensions		
<i>Extraversion</i>	0.60 (0.40, 0.89)	0.012
<i>Agreeableness</i>	1.01 (0.68, 1.50)	0.951
<i>Conscientiousness</i>	0.97 (0.66, 1.42)	0.861
<i>Emotional stability</i>	0.88 (0.60, 1.32)	0.550
<i>Intellect/openness</i>	1.17 (0.80, 1.71)	0.428
Family self-harm	1.80 (0.80, 4.05)	0.157
Friend self-harm	1.08 (0.49, 2.39)	0.835
Life events	1.00 (0.72, 1.40)	0.999
Early adversity	1.01 (0.42, 2.46)	0.982
Body dissatisfaction	0.59 (0.28, 1.25)	0.172
Sleep problems		
<i>Waking in the night</i>	1.93 (0.86, 4.31)	0.109
<i>Insufficient sleep</i>	2.09 (0.99, 4.41)	0.001
Psychiatric/mental health variables		
Any DAWBA diagnosis	0.63 (0.13, 2.92)	0.553
Hopelessness	1.19 (0.65, 2.91)	0.401
Depressive symptoms	0.99 (0.71, 1.38)	0.937
Substance use		
<i>Alcohol, heavy drinking</i>	0.83 (0.37, 1.92)	0.668
<i>Cannabis, at least occasional use</i>	2.58 (1.12, 5.92)	0.026
<i>Smoking, at least weekly</i>	2.13 (0.78, 5.77)	0.139
<i>illicit drug use (post year)</i>	2.52 (1.15, 5.50)	0.020
Suicidal plans	2.15 (0.55, 8.46)	0.273
NSSH frequency		
<i>Not in the last year</i>	(reference)	0.718
<i>1-5 times</i>	1.06 (0.50, 2.24)	
<i>6+ times</i>	1.47 (0.58, 3.69)	
NSSH method used during most recent self-harm episode		
<i>Cutting</i>	(reference)	0.207
<i>Other</i>	0.39 (0.11, 1.38)	
<i>More than one</i>	0.53 (0.12, 2.37)	

NSSH: non-suicidal self-harm