

Longitudinal patterns of childhood homelessness and early adolescent trajectories of internalizing and externalizing behavior

Supplementary Material

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STable 1. Homelessness exposure variable definitions.

Variable	Definition
Homeless by age 9	1 = homeless by age 9 0 = never homeless by age 9
First exposure to homelessness	3 = middle childhood (ages 6 to 8) 2 = early childhood (ages 3 to 5) 1 = infancy (ages 0 to 2) 0 = never homeless
Persistent homelessness	2+ = reported homeless 2 or more times by age 9 1 = reported homeless 1 time by age 9 0 = never homeless by age 9

STable 2. Characteristics of the study participants and comparison with imputed data

	Distribution % for categorical and Mean (SD) for continuous variables	
	Observed data	Imputed data*
Female	4144 (49.4%)	49.4%
Ethnicity		
White	7742 (92.3%)	96.0%
Non-White	313 (3.7%)	4.0%
Missing	336 (4.0%)	
Maternal education level		
CSE/None	1148 (13.7%)	14.1%
Vocational	714 (8.5%)	8.8%
O level	2924 (34.8%)	35.7%
A level	2114 (25.2%)	25.6%
Degree	1300 (15.5%)	15.8%
Missing	191 (2.3%)	
Financial difficulties at child birth	2.55 (3.35)	2.58 (3.36)
Missing	387 (4.6%)	
Parity at child birth	0.779 (0.919)	0.78 (0.92)
Missing	231 (2.8%)	
Edinburgh postnatal depression score	5.84 (4.64)	5.86 (4.65)
Missing	355 (4.2%)	
Maternal age at child birth	29.0 (4.57)	29 (4.58)
Missing	293 (3.5%)	
Internalizing age 9	2.61 (2.71)	2.64 (2.73)
Missing	931 (11.1%)	
Internalizing age 11	2.55 (2.71)	2.63 (2.78)
Missing	1579 (18.8%)	
Internalizing age 13	2.62 (2.79)	2.68 (2.84)
Missing	1853 (22.1%)	
Externalizing age 9	4.19 (3.15)	4.23 (3.18)
Missing	932 (11.1%)	
Externalizing age 11	3.93 (3.14)	4.03 (3.19)
Missing	1586 (18.9%)	
Externalizing age 13	4.13 (3.16)	4.24 (3.22)
Missing	1858 (22.1%)	

*Only percentages are reported for the imputed data as counts vary across the 20 imputed datasets.

SD = standard deviation

STable 3. Full results of multilevel models showing the association between homelessness (never/ever by age 9) and trajectories of early adolescent internalizing problems

<i>Fixed parameters</i>	Estimate [95% CI]	Estimate [95% CI]	Estimate [95% CI]
	<i>Model A</i>	<i>Model B</i>	<i>Model C</i>
(Intercept)	-0.18 [-0.333, -0.027]*	-0.176 [-0.329, -0.023]*	-0.188 [-0.341, -0.035]*
Age	0.004 [-0.002, 0.009]	0.003 [-0.002, 0.009]	0.004 [-0.002, 0.009]
Never homeless by age 9	<i>ref</i>	<i>ref</i>	<i>ref</i>
Homeless by age 9	0.179 [0.092, 0.266]***	0.097 [-0.185, 0.379]	0.281 [0.158, 0.403]***
Sex (Female)	0.031 [-0.006, 0.068]	0.031 [-0.006, 0.068]	0.041 [0.003, 0.08]*
Age x Homeless by age 9		0.008 [-0.018, 0.033]	
Sex x Homeless by age 9			-0.19 [-0.353, -0.026]*
Ethnicity - White	<i>ref</i>	<i>ref</i>	<i>ref</i>
Ethnicity - Non-White	0.002 [-0.097, 0.101]	0.002 [-0.097, 0.101]	-0.001 [-0.1, 0.099]
Maternal education 1	<i>ref</i>	<i>ref</i>	<i>ref</i>
Maternal education 2	-0.071 [-0.152, 0.009]	-0.071 [-0.152, 0.009]	-0.07 [-0.151, 0.01]
Maternal education 3	-0.104 [-0.166, -0.043]***	-0.104 [-0.166, -0.043]***	-0.104 [-0.165, -0.042]***
Maternal education 4	-0.161 [-0.224, -0.097]***	-0.161 [-0.224, -0.097]***	-0.16 [-0.224, -0.096]***
Maternal education 5	-0.125 [-0.2, -0.051]***	-0.125 [-0.2, -0.051]***	-0.125 [-0.199, -0.051]***
Financial difficulties	0.028 [0.022, 0.034]***	0.028 [0.022, 0.034]***	0.028 [0.022, 0.034]***
Parity	-0.053 [-0.075, -0.032]***	-0.053 [-0.075, -0.032]***	-0.053 [-0.075, -0.032]***
Edinburgh postnatal depression score	0.038 [0.033, 0.042]***	0.038 [0.033, 0.042]***	0.038 [0.033, 0.042]***
Maternal age at child birth	-0.001 [-0.006, 0.004]	-0.001 [-0.006, 0.004]	-0.001 [-0.006, 0.004]

*=.05, **=.01, ***=0.001

CI: confidence interval; ref: reference group

STable 4. Full results of multilevel models showing the association between homelessness (never/ever by age 9) and trajectories of early adolescent externalizing problems

<i>Fixed parameters</i>	Estimate [95% CI]	Estimate [95% CI]	Estimate [95% CI]
	<i>Model A</i>	<i>Model B</i>	<i>Model C</i>
(Intercept)	0.324 [0.171, 0.476]***	0.329 [0.176, 0.482]***	0.321 [0.169, 0.474]***
Age	0.001 [-0.004, 0.005]	0 [-0.005, 0.005]	0.001 [-0.004, 0.005]
Never homeless by age 9	<i>ref</i>	<i>ref</i>	<i>ref</i>
Homeless by age 9	0.167 [0.081, 0.253]***	0.073 [-0.184, 0.331]	0.196 [0.071, 0.322]**
Sex (Female)	-0.312 [-0.349, -0.275]***	-0.312 [-0.349, -0.275]***	-0.309 [-0.347, -0.271]***
Age x Homeless by age 9		0.009 [-0.014, 0.031]	
Sex x Homeless by age 9			-0.055 [-0.222, 0.113]
Ethnicity - White	<i>ref</i>	<i>ref</i>	<i>ref</i>
Ethnicity - Non-White	0.016 [-0.082, 0.115]	0.016 [-0.082, 0.115]	0.016 [-0.083, 0.114]
Maternal education 1			
Maternal education 2	<i>ref</i>	<i>ref</i>	<i>ref</i>
Maternal education 3	-0.121 [-0.182, -0.06]***	-0.121 [-0.182, -0.06]***	-0.121 [-0.182, -0.06]***
Maternal education 4	-0.186 [-0.252, -0.121]***	-0.186 [-0.252, -0.121]***	-0.186 [-0.252, -0.121]***
Maternal education 5	-0.254 [-0.327, -0.181]***	-0.254 [-0.327, -0.181]***	-0.254 [-0.327, -0.181]***
Financial difficulties	0.028 [0.022, 0.034]***	0.028 [0.022, 0.034]***	0.028 [0.022, 0.034]***
Parity	-0.008 [-0.031, 0.016]	-0.008 [-0.031, 0.016]	-0.008 [-0.031, 0.016]
Edinburgh postnatal depression score	0.033 [0.029, 0.037]***	0.033 [0.029, 0.037]***	0.033 [0.029, 0.037]***
Maternal age at child birth	-0.011 [-0.016, -0.006]***	-0.011 [-0.016, -0.006]***	-0.011 [-0.016, -0.006]***

*=.05, **=.01, ***=0.001

CI: confidence interval; ref: reference group

SFigure 1. Pearson correlation matrix of SDQ internalizing and externalizing symptom scores between each time point

	Internalizing age 9	Internalizing age 11	Internalizing age 13	Externalizing age 9	Externalizing age 11	Externalizing age 13
Internalizing age 9	1	0.63	0.59	0.41	0.34	0.31
Internalizing age 11		1	0.68	0.35	0.41	0.35
Internalizing age 13			1	0.36	0.36	0.4
Externalizing age 9				1	0.73	0.69
Externalizing age 11					1	0.76
Externalizing age 13						1