

Supplementary material

The supplementary material was provided by the authors and some information may not have been peer reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by the Hong Kong Academy of Medicine and the Hong Kong Medical Association. The Hong Kong Academy of Medicine and the Hong Kong Medical Association disclaim all liability and responsibility arising from any reliance placed on the content.

Supplement to: EYT Yu, EYF Wan, RSM Wong, et al. Parental depression in the relationship between parental stress and child health among low-income families in Hong Kong. Hong Kong Med J 2025;Epub 23 September 2025. <https://doi.org/10.12809/hkmj2412040>.

Supplementary Table 1. Data completion rates for socio-demographics, health status, and outcome measures*

	Children (n=217)			Parents (n=217)		
	Baseline	12 months	24 months	Baseline	12 months	24 months
Socio-demographics						
Age	217 (100%)	N/A	N/A	217 (100%)	N/A	N/A
Gender	217 (100%)			217 (100%)		
Household income	208 (95.9%)					
Education level	206 (94.9%)					
Employment status				196 (90.3%)	N/A	N/A
Marital status				202 (93.1%)	N/A	N/A
Intimate partner abuse				213 (98.2%)	N/A	N/A
Smoking status				213 (98.2%)	N/A	N/A
Alcohol use				213 (98.2%)	N/A	N/A
Health status						
Physical disease status	216 (99.5%)	135 (62.2%)	133 (61.3%)	215 (99.1%)	151 (69.6%)	144 (66.4%)
Mental disease status	216 (99.5%)	135 (62.2%)	133 (61.3%)	215 (99.1%)	151 (69.6%)	144 (66.4%)
PHQ-9				203 (93.5%)	N/A	171 (78.8%)
Estimated intelligence quotient	216 (99.5%)					
Special education needs	217 (100%)					
Core outcome measures						
DASS				217 (100%)	175 (80.6%)	184 (84.8%)
SF-12v2				217 (100%)	171 (78.8%)	184 (84.8%)
CHQ-PF50 and SDQ	217 (100%)	174 (80.2%)	184 (84.8%)			

Physiological markers of health

Waist-to-hip ratio	215 (99.1%)	135 (62.2%)	131 (60.4%)	213 (98.2%)	151 (69.6%)	142 (65.4%)
Systolic blood pressure	216 (99.5%)	134 (61.8%)	133 (61.3%)	214 (98.6%)	151 (69.6%)	145 (66.8%)
Diastolic blood pressure	216 (99.5%)	134 (61.8%)	133 (61.3%)	214 (98.6%)	151 (69.6%)	145 (66.8%)
Fasting blood glucose				210 (96.8%)	151 (69.6%)	139 (64.1%)
Glycated haemoglobin				138 (63.6%)	146 (67.3%)	137 (63.1%)
Total cholesterol				210 (96.8%)	152 (70.0%)	139 (64.1%)
HDL-C				210 (96.8%)	152 (70.0%)	139 (64.1%)
LDL-C				210 (96.8%)	152 (70.0%)	139 (64.1%)
Triglycerides				210 (96.8%)	152 (70.0%)	139 (64.1%)
Allostatic load index [†]				209 (96.3%)	147 (67.7%)	137 (63.1%)
BMI z-score	216 (99.5%)	135 (62.2%)	133 (61.3%)			
Telomere length	178 (82.0%)	N/A	121 (55.8%)			

Family and neighbourhood environment

FHS-5				209 (96.3%)	N/A	197 (90.8%)
PSDQ				209 (96.3%)	N/A	197 (90.8%)
NCES				199 (91.7%)	N/A	190 (87.6%)
CTSPC				196 (90.3%)	N/A	190 (87.6%)

Abbreviations: BMI = body mass index; CHQ-PF50 = Child Health Questionnaire–Parent Form-50; CTSPC = Conflict Tactics Scale for Parent and Child; DASS = Depression Anxiety Stress Scales; FHS-5 = Family Harmony Scale–Short Form; LDL-C = low-density lipoprotein cholesterol; HDL-C = high-density lipoprotein cholesterol; N/A = not applicable; NCES = Neighbourhood Collective Efficacy Scale; PHQ-9 = Patient Health Questionnaire–9; PSDQ = Parenting Styles and Dimensions Questionnaire; SDQ = Strengths and Difficulties Questionnaire; SF-12v2 = 12-Item Short Form Health Survey Version 2.0

* Data are shown as No. (%)

[†] The calculation of allostatic load includes systolic blood pressure, diastolic blood pressure, total cholesterol to HDL-C ratio, fasting blood glucose, and waist-to-hip ratio

Supplementary Table 2. Mediators of the relationship between parental stress and child health

	Against parental stress			Against child health			Indirect effect			Direct effect			Chi squared (df)	P value	CFI	TLI	RMSEA (P value)	SRMR
	Estimate	SE	P value	Estimate	SE	P value	Estimate	SE	P value	Estimate	SE	P value						
PHQ-9	0.45	0.07	<0.001	-0.22	0.10	0.029	-0.10	0.05	0.040	-0.24	0.09	0.004	52.50 (14)	<0.001	0.73	0.14	0.13 (0.00)	0.04
FHS-5	-0.38	0.08	<0.001	0.04	0.08	0.613	-0.02	0.03	0.616	-0.26	0.09	0.002	15.80 (14)	0.326	0.98	0.94	0.03 (0.71)	0.03
CTSPC assault	0.28	0.07	<0.001	0.08	0.07	0.227	0.02	0.02	0.237	-0.30	0.08	<0.001	43.65 (14)	<0.001	0.70	0.02	0.11 (0.00)	0.04
CTSPC neglect	0.24	0.08	0.003	0.04	0.08	0.636	0.01	0.02	0.633	-0.29	0.08	<0.001	35.95 (14)	0.001	0.73	0.13	0.10 (0.03)	0.03
Multi-mediation model																		
PHQ-9	0.42	0.08	<0.001	-0.24	0.11	0.024	-0.10	0.05	0.040	-0.26 0.09 0.004*			172.09 (62)	<0.001	0.53	0.24	0.11 (0.00)	0.07
FHS-5	-0.36	0.08	<0.001	0.06	0.08	0.471	-0.02	0.03	0.481									
CTSPC assault	0.26	0.08	<0.001	0.13	0.07	0.072	0.03	0.02	0.126									
CTSPC neglect	0.24	0.09	0.007	0.05	0.08	0.515	0.01	0.02	0.521									

Abbreviations: CFI = Comparative Fit Index; CTSPC = Conflict Tactics Scale for Parent and Child; df = degrees of freedom; FHS-5 = Family Harmony Scale–Short Form; PHQ-9 = Patient Health Questionnaire–9; RMSEA = root mean square error of approximation; SE = standard error; SRMR = standardised root mean square residual; TLI = Tucker-Lewis Index

* Results were adjusted for parent age and gender, child age and gender, household income, parental employment status, marital status, smoking and alcohol use, presence of diagnosed mental and physical diseases in parent or child, and child’s estimated intelligence quotient

Supplementary Figure. Data collection

