Supplementary Materials 1. Supporting Families Programme Eligibility Criteria (for "On Family List" classification)

1.1: An adult or child who has committed a proven offence in the previous 12 months
1.2: An adult or child who has received an anti-social behaviour intervention in the previous 12 months
1.3: An individual in the household is known to the Anti-Social Behaviour Team for incidents of anti-social behaviour but has not received a formal intervention

2.1: A child whose school attendance is <90% across the last 3 terms excluding authorised absences
2.2: A child with at least 3 fixed term exclusions in the last 3 terms
2.3: A child who has been permanently excluded in the last 3 school terms
2.4: A child who is in an alternative education provision to improve their behaviour (not SEN pupils)
2.5: A child who is known to the Education Welfare Service as a 'Child Not In School' (CNIS)
2.6: A child identified as having a score below threshold in communication skills in the 2-2.5-year-old health check or Primary School assessment (school readiness).

3.1: A child with a 'Common Assessment Framework' or 'Early Help Plan' in the previous 12 months
3.2: A 'Child In Need' under section 17 of The Children Act 1989 in the previous 12 months
3.3: A child which has been listed as missing from home in the previous 12 months
3.4: A child is identified as at risk of sexual exploitation
3.5: A young person aged under 19 became a parent in the past 12 months
3.6: A child who is a young carer

4.1: An adult in receipt of out-of-work benefits (or Universal Credit, if relevant), except those claiming carers allowance only, where worklessness is not considered a problem for the family
4.2: A young person aged 16 – 19 who is not in employment, education, or training
4.3: The family have problematic or unmanageable levels of debt
4.4: The family are homeless
4.5: The family are threatened with or at risk of homelessness

5.1: An individual who has experienced or is currently experiencing domestic abuse and has been engaged with specialist services in the past 12 months
5.2: An individual in the household discloses domestic abuse to a key worker or other professional and is not engaged with specialist services

6.1: An individual currently undergoing or who has undergone treatment for problem use of alcohol and/or other drugs in the last 12 months
6.2: An individual in the household discloses problem use of alcohol and/or other drugs to a key worker or other professional and is not engaged with specialist services
6.3: There is unmanaged physical or mental illness or disability within the household
6.4: A child on Universal Plus Higher or Universal Partnership Plus pathways

Supplementary Materials 1a. Youth adversity data composition

Of the final analytic sample, 582 of 4,441 individuals (13%) were classified as "On Family List", and 2,159 of 4,441 individuals (49%) reported being bullied across the study period. Three hundred and fifty-four individuals (8%) of 4,441 were classified as "On Family List" and reported being bullied across the study period

Supplementary Materials 2. Additional information on latent growth modelling

In a linear latent growth model, a latent intercept and a latent slope factor are specified to capture the two components of a latent trajectory (latent growth). With more than three time-points of data, (nonsaturated) nonlinear models can also be specified. The intercept and slope factors are *latent* because they are not directly observed but are estimated based on the relations among the variables that have been observed. The repeated measures are specified as indicators of the latent growth factors. In this modelling framework, the *average* within-person trajectory is estimated (represented by the *means* of the latent intercept and the latent slope), as well as the between-person *variability* around the averages (represented by the *variances* of the latent intercept and the latent slope). Note that in a model where the latent growth factors are regressed on another/other variable/s and are thus endogenous (dependent), the *averages* are represented as *intercepts*, and the variances are represented as *residual variances.* Residual variances of the repeated measures are also estimated, reflecting time-specific variance not explained by the (conditional or unconditional) latent growth factors.

Supplementary Materials 3. M*plus* script for conditional multiple group latent growth model

```
TITLE: Conditional multiple group latent growth model

VARIABLE:
USEVARIABLES =
        Yr7_SDQ
        Yr8_SDQ
        Yr9_SDQ
        ACES;

GROUPING =
        IS_profile
        (0 = 0 1 = 1
        2 = 2 3 = 3
        4 = 4 5 = 5
        6 = 6 7 = 7);

ANALYSIS:
ESTIMATOR = MLR;

MODEL:
!! Specify latent intercept (i) and slope (s) factors
        i s | Yr7_SDQ@0 Yr8_SDQ@1 Yr9_SDQ@2;

!! This specification estimates the following:
        i s; ! residual variances of latent intercept and slope factors
        i WITH s; ! residual covariance of latent intercept and slope factors
        Yr7_SDQ Yr8_SDQ Yr9_SDQ; ! residual variances of repeated measures (observed SDQ)
        [i s]; ! intercepts of latent intercept and slope factors

!! Specify structural paths
        i ON ACES; ! latent intercept factor regressed on observed youth adversity measure
        s ON ACES; ! latent slope factor regressed on observed youth adversity measure

!! All parameters estimated separately for each intersectionality profile group (defined under grouping command)
```

Supplementary Materials 4. Additional information on longitudinal measurement invariance analysis

One approach for assessing measurement invariance is to specify a multiple group confirmatory factor analysis. Using this approach, a series of models are sequentially specified to assess the extent to which different parameters for a measurement model can be considered sufficiently equivalent (invariant) across measurement occasions. First, a configural model tests for invariance in the general configuration of items to factors. Second, a metric (or 'weak invariance') model tests for invariance in the factor loadings. Third, a scalar (or 'strong invariance') model tests for invariance in the item thresholds (for ordered categorical data, item intercepts for continuous data), in addition to the factor loadings. A unique factor (or 'strict invariance') model can be used to test for invariance in the time-specific residual variances, though this level of invariance is not typically assessed

Supplementary Table 1. Data Across School Years

	Total	Complete	Year 7 and year 8 only	Year 7 and year 9 only	Year 8 and year 9 only	Year 7 only	Year 8 only	Year 9 only	No data
N	5,336	2,614 (48.99%)	1,262 (23.65%)	330 (6.18%)	366 (6.86%)	256 (4.80%)	258 (4.84%)	227 (4.25%)	23 (< 1%)

Note. N: number of individuals. Exact age data is not available for this sample. Based on averages in the United Kingdom, year 7 = age 11-12-years, year 8 = age 12-13-years, and year 9 = age 13-14-years

Supplementary Table 2. Model Fit Information for Confirmatory Factor Analysis of Depression and Anxiety as a Common Factor Model at Each School Year

	N	**Par.**	**Test Statistic (*df*)**	**CFI**	**RMSEA [90% CI]**	**SRMR**	**Omega [95% CI]**
Year 7 (age 11-12-years)	4,262	15	71.096 (5), $p < .001$	0.991	0.054 [0.044, 0.066]	0.020	0.800 [0.791, 0.811]
Year 8 (age 12-13-years)	4,500	15	139.048 (5), $p < .001$	0.986	0.077 [0.066, 0.089]	0.026	0.826 [0.815, 0.835]
Year 9 (age 13-14-years)	3,537	15	98.370 (5), $p < .001$	0.990	0.073 [0.061, 0.086]	0.023	0.850 [0.839, 0.859]

Note. N: number of individuals. Par: number of parameters. CFI: comparative fit index. RMSEA: root mean square error of approximation. SRMR: standardised root mean square residual. Diagonally weighted least squares (DWLS) estimation with mean and variance adjustment (WLSMV), using pairwise present data. Omega estimates with bias-corrected bootstrapped CI from 1,000 draws

Supplementary Table 3. Model Fit Information for Longitudinal Measurement Invariance Analysis of Depression and Anxiety as a Common Factor Model

Model		**Model fit**				**Chi-square difference test**	**Change values**	
	Par.	Test statistic (*df*)	CFI	RMSEA [90% CI]	SRMR	Test statistic (difference *df*)	RMSEA	SRMR
Configural	63	458.794 (72), $p < .001$	0.990	0.032 [0.029, 0.035]	0.026	-	-	-
Metric (constrained loadings)	55	571.113 (80), $p < .001$	0.987	0.034 [0.031, 0.037]	0.028	104.101 (8), $p < .001$	-0.002	-0.002
Scalar (constrained thresholds and loadings)	47	656.960 (88), $p < .001$	0.985	0.035 [0.032, 0.0327]	0.028	92.948 (8), $p < .001$	-0.001	0.000

Note: N = 5,313. N: number of individuals. Par: number of parameters. CFI: comparative fit index. RMSEA: root mean square error of approximation. SRMR: standardised root mean square residual. Diagonally weighted least squares (DWLS) estimation with mean and variance adjustment (WLSMV), using pairwise present data

Supplementary Table 4. Model Fit Information for Latent Growth Models of Depression and Anxiety Symptoms

Model	Par.	Test statistic (*df*)	RMSEA [90% CI]	SRMR	BIC	AIC
Unconditional model	8	15.324 (1), $p < .001$	0.057 [0.034, 0.083]	0.013	50,443.819	50,418.399
Conditional (youth adversity) model	10	15.841 (2), $p < .001$	0.039 [0.023, 0.059]	0.013	49,838.734	49,774.747
Conditional (youth adversity) multiple group model	80	40.975 (16), $p < .001$	0.053 [0.033, 0.073]	0.021	49,413.122	48,901.231

Note. N = 4,441 (with intersectionality profile and youth adversity data). *N*: number of individuals. Par: number of parameters. CFI: comparative fit index. RMSEA: root mean square error of approximation. SRMR: standardised root mean square residual. BIC: Bayesian information criterion. AIC: Akaike information criterion. Full information maximum likelihood estimation, with robust adjustment (MLR). In the conditional model, the latent growth factors are regressed on the observed youth adversity variable. In the multiple group model, separate parameters are estimated for each of the intersectionality profiles

Supplementary Table 5. Parameter Estimates from the Multiple Group Model of Youth Adversity as a Predictor of the Latent Growth Factors of Depression and Anxiety Symptoms

Intersectionality profile	*N*	Intercepts of latent growth factors [a]		Residual variances of latent growth factors [b]	Regression paths of latent growth factors regressed on youth adversity [c]	Latent intercept-slope residual covariance [d]			
Males, Higher SES, Low Hyperactivity/inattention	1,325	Intercept Slope	2.093 (0.067), $p < .001$ 0.020 (0.020), $p = .647$		Intercept Slope	2.667 (0.282), $p < .001$ 0.718 (0.149), $p < .001$	Intercept on YA Slope on YA	1.591 (0.113), $p < .001$ 0.029 (0.077), $p = .709$	-0.574 (0.173), $p = .001$
Females, Higher SES, Low Hyperactivity/inattention	1,518	Intercept Slope	3.308 (0.076), $p < .001$ 0.504 (0.050), $p < .001$		Intercept Slope	4.040 (0.274), $p < .001$ 0.979 (0.140), $p < .001$	Intercept on YA Slope on YA	1.496 (0.121), $p < .001$ 0.029 (0.077), $p = .705$	-0.878 (0.168), $p < .001$
Males, Lower SES, Low Hyperactivity/inattention	188	Intercept Slope	2.053 (0.246), $p < .001$ 0.005 (0.156), $p = .976$		Intercept Slope	3.218 (0.818), $p < .001$ 0.840 (0.426), $p = .049$	Intercept on YA Slope on YA	1.766 (0.322), $p < .001$ -0.104 (0.029), $p = .618$	-0.700 (0.501), $p = .162$
Females, Lower SES, Low Hyperactivity/inattention	243	Intercept Slope	3.577 (0.263), $p < .001$ 0.668 (0.154), $p < .001$		Intercept Slope	3.574 (0.744), $p < .001$	Intercept on YA Slope on YA	1.106 (0.329), $p = .001$ 0.036 (0.198),	-0.477 (0.440), $p = .278$

					0.368 (0.376), p = .328		p = .854	
Males, Higher SES, High Hyperactivity/inattention	590	Intercept Slope	2.996 (0.143), p < .001 -0.213 (0.092), p = .021	Intercept Slope	4.042 (0.502), p < .001 1.057 (0.260), p < .001	Intercept on YA Slope on YA	1.551 (0.192), p < .001 0.028 (0.128), p = .827	-1.142 (0.316), p < .001
Females, Higher SES, High Hyperactivity/inattention	362	Intercept Slope	4.183 (0.211), p < .001 0.313 (0.136), p = .021	Intercept Slope	4.565 (0.633), p < .001 1.115 (0.319), p < .001	Intercept on YA Slope on YA	1.770 (0.264), p < .001 -0.163 (0.171), p = .340	-0.907 (0.367), p = .013
Males, Lower SES, High Hyperactivity/inattention	120	Intercept Slope	2.539 (0.462), p < .001 -0.068 (0.338), p = .840	Intercept Slope	3.108 (0.965), p = .001 0.600 (0.569), p = .292	Intercept on YA Slope on YA	2.318 (0.521), p < .001 -0.626 (0.372), p = .092	-0.336 (0.589), p = .569
Females, Lower SES, High Hyperactivity/inattention	95	Intercept Slope	4.422 (0.671), p < .001 -0.301 (0.400), p = .452	Intercept Slope	5.655 (1.413), p < .001 1.779 (0.594), p = .003	Intercept on YA Slope on YA	1.955 (0.719), p = .007 0.507 (0.437), p = .246	-2.475 (0.798), p = .002

Note. N = 4,441 (with intersectionality profile and youth adversity data). *N*: number of individuals. SES: socio-economic status. YA: youth adversity. Par: number of parameters. Full information maximum likelihood estimation, with robust adjustment (MLR). *SE* in parentheses. Results were substantively unchanged where missing youth adversity data was imputed (10 datasets, *N* = 4,448). School year-specific residual variances shown in Supplementary Table 6

[a] average level of depression and anxiety symptoms at age 11-12-years, (intercept), and change over time in these symptoms (slope) in the absence of youth adversity

[b] variance of depression and anxiety symptoms at age 11-12-years (intercept) and change over time in these symptoms (slope). Variances are residual because the latent growth factors are regressed on youth adversity

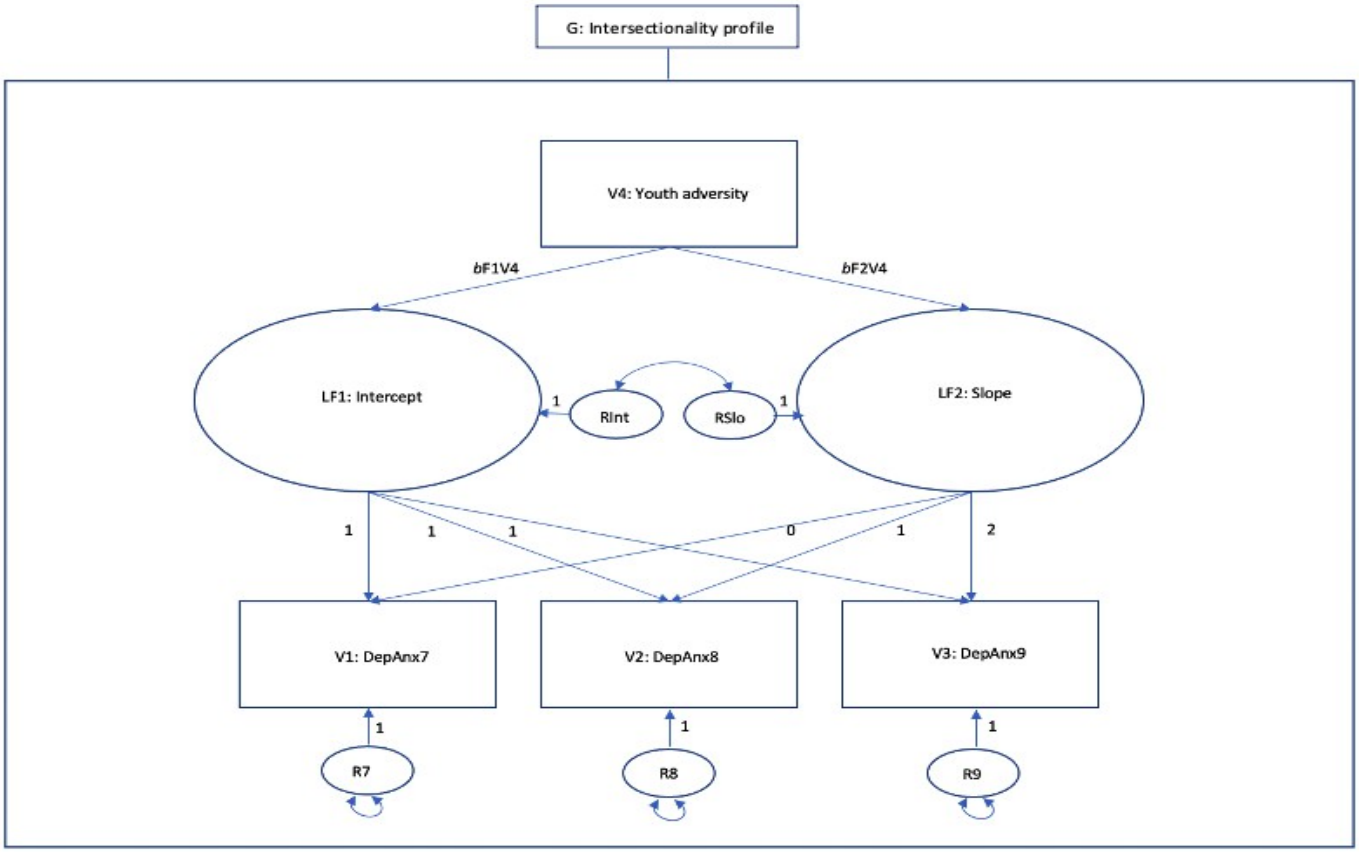
[c] average effect of youth adversity on depression and anxiety symptoms at age 11-12-years (intercept on YA), and on change over time in these symptoms (slope on YA)

[b] covariance between depression and anxiety symptoms at age 11-12-years (intercept) and change over time in these symptoms (slope). The covariance is residual because the latent growth factors are regressed on youth adversity

Supplementary Table 6. School Year-Specific Residual Variance Parameter Estimates from the Multiple Group Model of Youth Adversity as a Predictor of the Latent Growth Factors of Depression and Anxiety Symptoms

Intersectionality profile	*N*	Residual variances	
Males, Higher SES, Low Hyperactivity/inattention	1,325	Year 7 (11-12-years) Year 8 (12-13-years) Year 9 (13-14-years)	1.591 (0.272), $p < .001$ 2.285 (0.149), $p < .001$ 1.694 (0.328), $p < .001$
Females, Higher SES, Low Hyperactivity/inattention	1,518	Year 7 (11-12-years) Year 8 (12-13-years) Year 9 (13-14-years)	1.432 (0.254), $p < .001$ 2.748 (0.138), $p < .001$ 1.603 (0.288), $p < .001$
Males, Lower SES, Low Hyperactivity/inattention	188	Year 7 (11-12-years) Year 8 (12-13-years) Year 9 (13-14-years)	2.344 (0.744), $p = .002$ 2.469 (0.434), $p < .001$ 2.030 (0.426), $p = .049$
Females, Lower SES, Low Hyperactivity/inattention	243	Year 7 (11-12-years) Year 8 (12-13-years) Year 9 (13-14-years)	2.550 (0.755), $p = .001$ 2.978 (0.409), $p < .001$ 2.929 (0.853), $p = .001$
Males, Higher SES, High Hyperactivity/inattention	590	Year 7 (11-12-years) Year 8 (12-13-years) Year 9 (13-14-years)	1.464 (0.465), $p = .002$ 3.189 (0.248), $p < .001$ 2.181 (0.582), $p < .001$
Females, Higher SES, High Hyperactivity/inattention	362	Year 7 (11-12-years) Year 8 (12-13-years) Year 9 (13-14-years)	1.332 (0.576), $p = .021$ 3.157 (0.324), $p < .001$ 0.875 (0.668), $p = .191$
Males, Lower SES, High Hyperactivity/inattention	120	Year 7 (11-12-years) Year 8 (12-13-years) Year 9 (13-14-years)	2.221 (0.998), $p = .026$ 3.220 (0.548), $p < .001$ 2.163 (1.401), $p = .123$
Females, Lower SES, High Hyperactivity/inattention	95	Year 7 (11-12-years) Year 8 (12-13-years) Year 9 (13-14-years)	0.093 (1.201), $p = .938$ 3.724 (0.615), $p < .001$ 1.094 (1.147), $p = .340$

Note. $N = 4,441$ (with intersectionality profile and youth adversity data). *N*: number of individuals. SES: socio-economic status. Full information maximum likelihood estimation, with robust adjustment (MLR). *SE* in parentheses. Results were substantively unchanged where missing youth adversity data was imputed (10 datasets, $N = 4,448$)



Supplementary Figure 1. Path Diagram of the Multiple Group Model of Youth Adversity as a Predictor of the Latent Growth Factors of Depression and Anxiety Symptoms

Note. Simplified path diagram of youth adversity predicting the latent growth factors of depression and anxiety symptoms measured at school years 7 (11-12-years), 8 (12-13-years), and 9 (13-14-years). Mean structure omitted for simplification. In this diagram, the repeated measures are labelled as V1-V3, representing depression and anxiety symptoms observed total scores at school years 7-9. The two latent factors of the linear growth trajectory are labelled as LF1 and LF2, representing the latent intercept and latent slope components, respectively. The latent factors are regressed on the observed youth adversity variable (labelled as V4), and the regression paths are labelled as *b*F1V4 and *b*F2V4, for the latent intercept and latent slope,

respectively. The residual variance parameters of the repeated measures are not labelled but are depicted in the curved arrows of the residuals, labelled as R7-R9. The residual covariance of the latent growth factors is reflected in the curved arrow between the latent residuals, RInt and Rslo (the residual variance parameters of the latent growth factors are not labelled). The conditional latent growth model within the box is estimated separately for each intersectionality profile, schematically represented by a grouping variable, labelled as G