**Supplementary File 1**

Sensitivity analyses were conducted removing participants who reported a different gender to sex reported at baseline (*n* = 115), in order to examine whether results differed to the main analyses on the full sample (*N* = 10,047). For the most part, results held, with the exception of the increase in total difficulties in mostly heterosexual and SMY males at age 11 (Table 2), and the increase in total difficulties in SMY females at age 11 and peer problems at ages 11 and 14 (Table 3).

**Supplementary Table 1.** Descriptive statistics (proportions and means) and group differences (risk ratios) for baseline covariates, parent-reported mental health at

age five, and self-reported mental health at age seventeen, removing gender minority youth (*N* = 9,932).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Males (*N* = 4,860) | | | Females (*N* = 5,072) | | |
|  | Completely heterosexual | Mostly heterosexual | SMY | Completely heterosexual | Mostly heterosexual | SMY |
| *Baseline covariates* | | | | | | |
| Ethnic minority | 15.9% | 15.9%  *1.01* | 10.3%  *0.61* | 16.8% | 17.3%  *1.04* | 14.2%  *0.81* |
| Child poverty | 20.1% | 16.4%  *0.78* | 27.1%  *1.48* | 19.8% | 23.4%  *1.23* | 20.9%  *1.07* |
| Single parent | 18.5% | 15.3%  *0.80* | 13.7%  *0.70* | 16.9% | 25.4%  *1.67* | 20.6%  *1.28* |
| Parent no degree | 65.6% | 53.4%  *0.60\*\*\** | 73.2%  *1.43* | 32.4% | 41.1%  *0.69* | 37.8%  *0.79* |
| Parent depression | 2.2% | 2.4%  *1.09* | 2.2%  *1.00* | 2.3% | 2.5%  *1.09* | 6.2%  *2.74\*\** |
| *Parent-report mental health (age five)* | | | | | | |
| Total difficulties | 7.26 | 7.28  *1.01* | 8.77  *1.04* | 6.40 | 5.69  *0.98* | 6.62  *1.02* |
| Emotional problems | 1.29 | 1.25  *0.95* | 1.42  *0.99* | 1.43 | 1.20  *0.91* | 1.29  *0.98* |
| Peer problems | 1.11 | 1.21  *1.04* | 1.86  *1.22\*\*\** | 0.93 | 0.91  *1.03* | 1.13  *1.16\*\*\** |
| Conduct problems | 1.50 | 1.47  *1.01* | 1.81  *1.05* | 1.25 | 1.12  *0.97* | 1.41  *1.08* |
| Hyperactivity | 3.41 | 3.36  *1.02* | 3.80  *1.05* | 2.80 | 2.48  *0.97* | 2.86  *1.01* |
| *Self-report mental health (age seventeen)* | | | | | | |
| Self-harm | 16.5% | 34.5%  2.90\*\*\* | 45.4%  4.51\*\*\* | 20.6% | 32.7%  2.44\*\*\* | 58.7%  6.39\*\*\* |
| Attempted suicide | 2.6% | 15.4%  6.06\*\*\* | 12.8%  5.79\*\*\* | 7.7% | 10.4%  1.21 | 26.6%  3.48\*\*\* |
| Depression | 7.9% | 17.7%  2.93\*\*\* | 25.7%  4.69\*\*\* | 15.4% | 32.9%  2.16\*\*\* | 45.2%  4.18\*\*\* |
| *N* (%) | 4158 (85.6) | 400 (8.2) | 302 (6.2) | 3716 (73.3) | 691 (13.6) | 665 (13.1) |

***Note:*** SMY = sexual minority youth; Completely heterosexual was the reference group; Sample design and attrition weights were applied; Risk ratios from multinomial regression models are presented in italics; Baseline covariates were included in mental health models; \*\**p* < .01; \*\*\**p* < .001.

**Supplementary Table 2**. Results from multilevel linear spline models for parent-reported mental health trajectories in males (removing gender minority youth).

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Total difficulties | | Emotional problems | | Peer problems | | Conduct problems | | Hyperactivity-inattention | |
|  | *B* | s.e. | *B* | s.e. | *B* | s.e. | *B* | s.e. | *B* | s.e. |
| Intercept | 4.48\*\*\* | 0.26 | 0.46\*\*\* | 0.10 | 0.38\*\*\* | 0.10 | 1.31\*\*\* | 0.09 | 2.27\*\*\* | 0.13 |
| *Group* |  |  |  |  |  |  |  |  |  |  |
| Mostly heterosexual | 0.40 | 0.82 | 0.08 | 0.32 | 0.39 | 0.32 | -0.07 | 0.31 | -0.06 | 0.41 |
| SMY | 0.88 | 0.84 | 0.05 | 0.37 | 0.47 | 0.34 | 0.16 | 0.31 | 0.13 | 0.46 |
| *Age splines* |  |  |  |  |  |  |  |  |  |  |
| Age 5-7 | 0.13\*\*\* | 0.04 | 0.06\*\*\* | 0.02 | 0.04\*\*\* | 0.02 | -0.06\*\*\* | 0.01 | 0.09\*\*\* | 0.02 |
| Age 7-11 | -0.03 | 0.02 | 0.04\*\*\* | 0.01 | 0.02\*\* | 0.01 | -0.02\*\*\* | 0.01 | -0.08\*\*\* | 0.01 |
| Age 11-14 | 0.03 | 0.03 | -0.03\*\*\* | 0.01 | 0.12\*\*\* | 0.01 | -0.01 | 0.01 | -0.05\*\*\* | 0.01 |
| Age 14-17 | -0.29\*\*\* | 0.03 | -0.05\*\*\* | 0.01 | 0.00 | 0.01 | -0.07\*\*\* | 0.01 | -0.17\*\*\* | 0.01 |
| *Group-by-age* |  |  |  |  |  |  |  |  |  |  |
| Mostly\*Age 5-7 | -0.03 | 0.13 | -0.02 | 0.05 | -0.03 | 0.05 | 0.01 | 0.05 | 0.01 | 0.07 |
| SMY\*Age 5-7 | 0.09 | 0.14 | 0.01 | 0.06 | 0.02 | 0.06 | 0.01 | 0.05 | 0.06 | 0.07 |
| Mostly\*Age 7-11 | **0.13** | 0.07 | 0.11\*\*\* | 0.03 | 0.04 | 0.03 | -0.01 | 0.02 | -0.01 | 0.04 |
| SMY\*Age 7-11 | **0.15** | 0.08 | 0.08\*\* | 0.04 | 0.11\*\*\* | 0.04 | 0.00 | 0.03 | -0.01 | 0.03 |
| Mostly\*Age 11-14 | -0.16 | 0.10 | -0.10\*\* | 0.04 | 0.02 | 0.03 | -0.06\*\* | 0.03 | -0.02 | 0.05 |
| SMY\*Age 11-14 | 0.01 | 0.14 | 0.02 | 0.06 | 0.02 | 0.05 | 0.04 | 0.05 | -0.09\*\* | 0.05 |
| Mostly\*Age 14-17 | 0.01 | 0.09 | 0.03 | 0.05 | -0.01 | 0.04 | 0.00 | 0.03 | -0.01 | 0.04 |
| SMY\*Age 14-17 | 0.12 | 0.13 | 0.15\*\*\* | 0.05 | 0.03 | 0.05 | -0.08 | 0.05 | 0.01 | 0.05 |
| *Covariates* |  |  |  |  |  |  |  |  |  |  |
| Ethnic minority | 0.51\*\*\* | 0.17 | 0.15\*\*\* | 0.05 | 0.34\*\*\* | 0.05 | -0.04 | 0.05 | -0.02 | 0.08 |
| Child poverty | 1.72\*\*\* | 0.20 | 0.31\*\*\* | 0.06 | 0.38\*\*\* | 0.06 | 0.46\*\*\* | 0.06 | 0.60\*\*\* | 0.09 |
| Parent no degree | 1.56\*\*\* | 0.13 | 0.21\*\*\* | 0.04 | 0.29\*\*\* | 0.04 | 0.36\*\*\* | 0.04 | 0.69\*\*\* | 0.06 |
| Parent depression | 0.28\*\*\* | 0.01 | 0.10\*\*\* | 0.00 | 0.06\*\*\* | 0.00 | 0.07\*\*\* | 0.00 | 0.07\*\*\* | 0.01 |
| Single parent | 0.23\* | 0.12 | 0.06 | 0.04 | 0.13\*\*\* | 0.04 | 0.04 | 0.04 | 0.04 | 0.06 |
| Observations | 19,787 |  | 19,852 |  | 19,854 |  | 19,866 |  | 19,823 |  |
| Number of groups | 4,746 |  | 4,751 |  | 4,754 |  | 4,752 |  | 4,748 |  |

***Note:*** SMY = sexual minority youth; Mostly = mostly heterosexual; Completely heterosexual was the reference group; Sample and attrition weights were applied to models at the observational level; \*\**p* <.01; \*\*\**p* <.001.

**Supplementary Table 3.** Results from multilevel linear spline models for parent-reported mental health trajectories in females (removing gender minority youth).

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Total difficulties | | Emotional problems | | Peer problems | | Conduct problems | | Hyperactivity-inattention | |
|  | *B* | s.e. | *B* | s.e. | *B* | s.e. | *B* | s.e. | *B* | s.e. |
| Intercept | 4.18\*\*\* | 0.25 | 0.57\*\*\* | 0.11 | 0.41\*\*\* | 0.09 | 1.11\*\*\* | 0.08 | 2.04\*\*\* | 0.13 |
| *Group* |  |  |  |  |  |  |  |  |  |  |
| Mostly heterosexual | -0.13 | 0.59 | -0.47 | 0.24 | 0.02 | 0.27 | 0.08 | 0.19 | 0.33 | 0.29 |
| SMY | -1.32 | 0.71 | -0.31 | 0.26 | -0.43 | 0.24 | -0.16 | 0.23 | -0.53 | 0.43 |
| *Age splines* |  |  |  |  |  |  |  |  |  |  |
| Age 5-7 | 0.03 | 0.04 | 0.07\*\*\* | 0.02 | 0.02 | 0.01 | -0.05\*\*\* | 0.01 | 0.00 | 0.02 |
| Age 7-11 | 0.00 | 0.02 | 0.07\*\*\* | 0.01 | 0.02\*\*\* | 0.01 | -0.01 | 0.01 | -0.09\*\*\* | 0.01 |
| Age 11-14 | 0.13\*\*\* | 0.03 | 0.08\*\*\* | 0.01 | 0.09\*\*\* | 0.01 | 0.02\*\* | 0.01 | -0.05\*\*\* | 0.01 |
| Age 14-17 | -0.11\*\*\* | 0.03 | 0.03 | 0.02 | 0.04\*\*\* | 0.01 | -0.07\*\*\* | 0.01 | -0.12\*\*\* | 0.01 |
| *Group-by-age* |  |  |  |  |  |  |  |  |  |  |
| Mostly\*Age 5-7 | -0.02 | 0.09 | 0.07 | 0.04 | 0.00 | 0.04 | -0.03 | 0.03 | -0.08 | 0.05 |
| SMY\*Age 5-7 | 0.34\*\*\* | 0.12 | 0.05 | 0.04 | 0.12\*\*\* | 0.04 | 0.05 | 0.04 | 0.14 | 0.07 |
| Mostly\*Age 7-11 | -0.01 | 0.05 | -0.03 | 0.02 | 0.00 | 0.02 | -0.01 | 0.02 | 0.04 | 0.02 |
| SMY\*Age 7-11 | **0.10** | 0.06 | **0.05** | 0.03 | **0.04** | 0.02 | -0.01 | 0.02 | 0.01 | 0.03 |
| Mostly\*Age 11-14 | 0.03 | 0.07 | 0.03 | 0.03 | 0.03 | 0.03 | 0.01 | 0.02 | -0.04 | 0.03 |
| SMY\*Age 11-14 | 0.15 | 0.09 | 0.13\*\*\* | 0.04 | **0.06** | 0.03 | 0.00 | 0.02 | -0.05 | 0.04 |
| Mostly\*Age 14-17 | 0.07 | 0.07 | 0.08\*\* | 0.04 | -0.01 | 0.03 | -0.02 | 0.02 | 0.01 | 0.03 |
| SMY\*Age 14-17 | 0.14 | 0.09 | 0.13\*\*\* | 0.05 | 0.01 | 0.03 | -0.04 | 0.03 | 0.03 | 0.04 |
| *Covariates* |  |  |  |  |  |  |  |  |  |  |
| Ethnic minority | 0.67\*\*\* | 0.16 | 0.11\*\* | 0.05 | 0.34\*\*\* | 0.04 | 0.02 | 0.04 | 0.16\*\* | 0.07 |
| Child poverty | 1.46\*\*\* | 0.18 | 0.22\*\*\* | 0.06 | 0.38\*\*\* | 0.05 | 0.40\*\*\* | 0.05 | 0.43\*\*\* | 0.08 |
| Parent no degree | 1.34\*\*\* | 0.11 | 0.18\*\*\* | 0.04 | 0.27\*\*\* | 0.03 | 0.27\*\*\* | 0.03 | 0.60\*\*\* | 0.05 |
| Parent depression | 0.26\*\*\* | 0.01 | 0.10\*\*\* | 0.00 | 0.05\*\*\* | 0.00 | 0.05\*\*\* | 0.00 | 0.07\*\*\* | 0.00 |
| Single parent | 0.45\*\*\* | 0.12 | 0.13\*\*\* | 0.05 | 0.08\*\* | 0.04 | 0.07\*\* | 0.03 | 0.19\*\*\* | 0.05 |
| Observations | 20,800 |  | 20,860 |  | 20,861 |  | 20,871 |  | 20,837 |  |
| Number of groups | 4,946 |  | 4,948 |  | 4,948 |  | 4,950 |  | 4,948 |  |

***Note:*** SMY = sexual minority youth; Mostly = mostly heterosexual; Completely heterosexual was the reference group; Sample and attrition weights were applied to models at the observational level; \*\**p* <.01; \*\*\**p* <.001.