**SUPPLEMENTARY MATERIAL**

**Supplement 1**

*ADHD symptoms scale (CBCL)*

CBCL Items: “Can't concentrate”; “Can’t sit still, restless, or hyperactive”; “Daydreams or gets lost in his/ her thoughts”; “Demands a lot of attention”; “Impulsive or acts without thinking”; “Poor school work”; “Stares blankly”; “Talks too much”; “Unusually loud”). Each item is rated with a 3 points scale (i.e. 0= not true, 1=somewhat or sometimes true; 2= very true or often true). A total score was computed with the sum of these 9 items.

*Childhood Abuse variables*

Self-reports of childhood psychological, physical and sexual abuses were assessed retrospectively at 18 years of age using an Audio-Computer Assisted Self Interview (A-CASI) delivery system. Self-report of psychological abuse was assessed using 18 questions. Severity of psychological abuse was computed on an ordinal 2 points scale (0=No self reports of psychological abuse; 1= being blamed for serious problems, and unreasonable demands or expections; 2= being threathened abandonment, death and suicide and “being put or left in a dangerous situation you might be hurt”).

Self-reports of physical and sexual abuse were assessed using 15 questions and 10 questions, respectively, on different types and frequency of abuse during childhood. A more detailed description of the assessment can be found elsewhere (Everson et al., 2008). Both types of abuse were merged in a single 3 points scale to assess the severity of the physical/sexual abuse (i.e. 0= No self-report of physical or sexual abuse; 1= Being hit or punched or being punished by food privation or locked up/the caregiver touched private parts or acts of penetration; 2= Being choked, burned or stabbed/The caregiver hurt private parts).

Self-reports of frequency of each type of abuses (Psychological and Physical-Sexual abuse) were rated on a 3 points scale (0=No self-reports; 1= 1 or 2 times; 2=between 3 to 10 times; 3=more than 10 times).

Items of both Psychological and Physical/Sexual abuse were asked if these abuses happened before 5 years of age and between 6 to 12 years old. To include the detrimental effect of chronicity of childhood abuse, a mean score was computed between maximum severity for abuse reported before 5 years old and 6 to 12 years old. This was also executed for frequency.

**Supplement 2**

*More detailed Informations about terminology*

**A) Polynomial orders:** Polynomial order refer to the shape of the trajectory:

* **Linear** or First-Order Polynomial order = Linearly increasing or decreasing trajectory.
* **Quadratic** or Second-Order polynomial order = One turning point (ie. Inflection point) or “*Peak*”
* **Cubic** or Third Second-Order polynomial order = Two turning points (ie. Inflection Points) or “*Peaks*”

**B) Average Posterior Probabilities:** Average group posterior probabilities (AvePP) for a trajectory group *j*

* If individuals are assigned perfectly to their respective trajectory group, the AvePP*j* would be 1. Therefore, the closer the AvePP*j* is to 1, the better the children are estimated to their *respective* trajectory. It is recommended that the AvePP*j* for each trajectory groups are greater than 0.70, in order to achieve a good accuracy in the discriminative assignment.

**C) Odds of correct classification:** Odds of correct classification (OCC): for a trajectory group *j*

* ***Formula for OCCj*** = (AvePP*j* / (1-AvePP*j*)) / (*Πj/*(*1- Πj*))
	+ AvePP*j =* Average Posterior Probability
	+ *Πj* = sample size of trajectory group *j*
	+ *Πj/*(*1- Πj*) *=* probability that a random individual belongs to group *j*

\*\*Model that fits the data well, the numerator (AvePPj/(1-AvePPj)) shouldbe much greater than the denominator as such that the overall formula leads to OCC = > 5 for each trajectory groups.

*Summary of the trajectory selection process*

Children were fitted to their most likely trajectory group based on the Average group posterior probability (AvePP). Odds of correct classification (OCC) and conditional probabilities were also used to assess the joint model fit (see Niyonkuru et al., 2013).

To find the optimum number of trajectories per variable, it is recommended to begin with fitting a basic model and then increase its complexity (i.e. number of trajectories and shapes) (Jones, Nagin et Roeder, 2001). In general, the model with the highest Bayesian Information Criteria (BIC; Raftery, 1995) value would be chosen to assess the model fit. In the present study, we used the BIC and the logged Bayes factor. More details about these metrics can be found elsewhere (see Niyonkuru et al., 2013; Jones, Roeder et Nagin, 2001; Arrandale et al., 2006).

For both variables, we started with a model with one trajectory group with a quadratic polynomial order and we increased the number of groups repeatedly. Models were compared based on the BIC and the logged Bayes factor. After we determined the number of groups, based on changes of the BIC, we simplified the polynomial order for each group to keep the most parsimonious model. For ADT, 4 groups with quadratic-linear-quadratic-linear polynomial orders (ie. 1st group = Quadratic order; 2nd group = Linear; 3rd group = Quadratic; and 4th group = Linear) was consider as the most parsimonious model. For the TA model, we started with a model with one trajectory group with a quadratic polynomial order and increased the number of groups repeatedly. Although trajectory models with 3 trajectories for TA suggest a good improvement on the BIC & the logged Bayes factor (Table S1), the sample size (percentages) of these 3 trajectories were 611 (56.62%), 397 (36.8%) & 71 (6.58%), respectively. Thus, this suggest that the third trajectory group (n=71, 6.58%) would be splitted in the joint trajectory analysis Therefore, in order to preserve a good balance between model fit indices (AvePP, OCC) and statistical power, considering the small sub-samples sizes for joint-trajectory analyses, we decided to keep the 2 trajectories model as the most parsimonious model for the joint trajectory’s analysis.

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| Table S1. Model Selection Results |
| *Number of groups* | *Polynomial order* | *BIC* | *Logged Bayes Factor* |
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| **ADT** |  |  |  |
| 1 | 2 | -9000.69 |  |
| 2 | 22 | -8569.77 | >100 |
| 3 | 222 | -8429.61 | >100 |
| 4 | 2222 | -8383.61 | 92 |
| 4 | 2121 | -8379.21 | 8.8a |
| **TA** |  |  |  |
| 1 | 2 | -12028.8 |  |
| 2 | 22 | -11474.2 | >100 |
| 3 | 222 | -11224.6 | >100 |
| *Note.* ADT = Anxiety-Depression traits; TA = Trait-Aggression; BIC = Bayesian Information Criteria  a last model is compared to the 4 groups (2,2,2,2) model. |
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| Table S2. Joint Model Adequacy Results |
| *Trajectory Groups* | *AvePP* *(Mdn, SD)* | *OCC* |
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| **ADT** |  |  |
| Low | 0.91 (.97, .12) | 9.41 |
| Moderate | 0.85 (.90, .15) | 10.76 |
| Increasing | 0.85 (.90, .15) | 43.3 |
| High | 0.92 (.99, .14) | 347.88 |
| **TA** |  |  |
| Low | 0.96 (.99, .09) | 12.81 |
| High | 0.94 (.99, .11) | 29.35 |
| *Note.* AvePP = Average Posterior Probability; OCC = odds of correct classification; ADT = Anxiety/Depression Traits; TA = Trait-Aggression |
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**Figure S1-S2.** Time points 4-5-6-7 refers to age 10-12-14-16 years old respectively.

Once the model of the 2 variables was selected, we evaluated the fit of the joint model using fit indices such as the average posterior probability (AvePP) as well as the odds of correct classification (OCC). The lowest AvePP value was 0.85, greater than the recommended value of 0.7 (Nagin, 2005). Moreover, our lowest OCC value was 9.41 which is also greated than 5, as recommended by the GBTM (Nagin, 2005).

The four trajectories of ADT were: Low (Total = 51.8%; Girls = 50.1%), Moderate (34.5%; 50.8% girls), Increasing (10.5%; 54.9% girls), High (3.2%; 54.3% girls) and the two trajectories of TA were: Low (65.2%; 52.6% girls), High (34.8%; 48% girls). The two trajectories of TA were: Low (65.2%; 52.6% girls) and High (34.8%; 48% girls). To support the validity of these trajectories, we extracted the probabilities for each TA trajectory conditional on a given ADT trajectory. Children with low levels of ADT were substantially more likely to display low levels of TA (probability = 0.99). The probability of children with high levels of ADT to display high levels of TA was 0.97.



**Figure S3.** Reverse trajectories’ conditionality (i.e. ADT trajectories conditional on a given TA trajectory) was also investigated. In fact, children with low levels of TA were significantly more likely to display low levels of ADT (probability = .77) and moderate levels of ADT (probability = 0.23). Finally, children with high levels of TA had only .09 probability to display high levels of ADT, .31 probability to display increasing levels of ADT and .58 probability to show moderate levels of ADT. These results suggest that all ADT trajectories except for LADT are associated with TA, however high TA displays more heterogenous levels of ADT signifying that high TA may or may not be associated with high ADT.

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| **Table S3.** Subanalyses on sociodemographic characteristics between excluded/included children (n=1354) |
|   | Excluded children (n=276) | Included children (n=1078) | X2 | p-value |
| Sex (Male, %) | 46.20% | 49.10% | 0.757 | 0.384 |
|  |  |  |  |  |
| Study Sites (%) |  |  | 16.81 | 0.002 |
| Eastern | 28.40% | 18.90% |  |  |
| Midwestern | 14.20% | 19.10% |  |  |
| Northwestern | 14.20% | 19.90% |  |  |
| Southern | 19.60% | 17.50% |  |  |
| Southwestern | 23.60% | 24.60% |  |  |
|  |  |  |  |  |
| Ethnicity (%) |  |  | 5.51 | 0.48 |
| White | 30.30% | 26.20% |  |  |
| Black | 49.20% | 55.50% |  |  |
| Hispanic | 8.70% | 7.00% |  |  |
| Native American | 0% | 0.30% |  |  |
| Asian  | 0% | 0.20% |  |  |
| Mixed | 10.30% | 10.10% |  |  |
| Other | 1.50% | 0.60% |  |  |
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| **Table S4.** Demographic characteristics by trajectory groups (n=1078) |
|  |  | ADT and TA Trajectory groups |
| Subjects' Characteristics | Total Sample (N=1078) | HADT-HTA (n=34) | IADT-HTA (n=113) | MADT-HTA (n=229) | MADT-LTA (n=143) | LADT-LTA (n=559) | Statistics |
| **Sex** |  |  |  |  |  |  | X2=11.62 |
| Boys | 49.10% | 47.10% | 45.10% | 55.90% | 38.50% | 49.90% | p = 0.020 |
| Girls | 50.90% | 52.90% | 54.90% | 44.10% | 61.50% | 50.10% |  |  |
| **Ethnicity** |  |  |  |  |  |  | X2=53.73 |
| White | 25.10% | 55.90% | 34.50% | 23.10% | 35.00% | 19.70% | p<0.001 |
| African American | 54.70% | 20.60% | 42.50% | 53.30% | 43.40% | 62.80% |  |  |
| Other ethnicity | 20.10% | 23.50% | 23.00% | 23.60% | 21.70% | 17.50% |  |  |
| **Sites** |  |  |  |  |  |  | X2=78.14 |
| East | 18.90% | 29.40% | 15.00% | 14.00% | 11.90% | 24.30% | p<0.001 |
| Midwest | 19.10% | 17.60% | 11.50% | 13.10% | 18.90% | 23.60% |  |  |
| Northwest | 19.90% | 35.30% | 21.20% | 27.90% | 23.80% | 14.50% |  |  |
| South | 17.50% | 11.80% | 13.30% | 14.80% | 22.40% | 18.20% |  |  |
| Southwest | 29.40% | 5.90% | 38.90% | 30.10% | 23.10% | 19.30% |  |  |
| **Family Income**A | 4.74 (2.98) | 4.77 (2.94) | 4.79 (3.31) | 4.67 (2.78) | 5.03 (3.02) | 4.69 (2.99) | F=1.74, p=0.784 |
| **Yrs of Education**A | 11.94 (2.15) | 12.58 (2.05) | 11.97 (2.51) | 11.91 (2.38) | 12.14 (1.90) | 11.85 (2.04) | F= 5.51, p=0.239 |
| Note. AContinuous variables were analyzed using one-way ANOVA: The mean (SD) and the F statistics are presented; ADT= Anxiety-Depression Traits; TA = Trait-Aggression; LADT-LTA = Low ADT - Low TA; MADT-LTA = Moderate ADT - Low TA; MADT-HTA = Moderate ADT - High TA; IADT-HTA = Increasing ADT - High TA; HADT-HTA = High ADT - High TA. |
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| **Table S5.** Pairwise trajectory groups' comparisons on demographic variables (n=1078) |
| Pairwise comparisons | Sex |  | Ethnicity |  | Sites |
| X2 | p-value |   | X2 | p-value |   | X2 | p-value |
| A: HADT-HTA versus LADT-LTA | 0.10 | 0.747 |  | **29.41** | **<0.001** |  | **17.14** | **0.002** |
| B: HADT-HTA versus MADT-LTA | 0.85 | 0.358 |  | 6.78 | 0.034 |  | 3.86 | 0.425 |
| C: HADT-HTA versus MADT-HTA | 0.93 | 0.334 |  | **18.04** | **<0.001** |  | 2.25 | 0.690 |
| D: HADT-HTA versus IADT-HTA | 0.04 | 0.843 |  | 6.30 | 0.041 |  | 4.80 | 0.308 |
| E: IADT-HTA versus LADT-LTA | 0.86 | 0.354 |  | **17.39** | **<0.001** |  | **30.02** | **<0.001** |
| F: IADT-HTA versus MADT-LTA | 1.16 | 0.282 |  | 0.07 | 0.968 |  | 10.98 | 0.027 |
| G: IADT-HTA versus MADT-HTA | 3.51 | 0.061 |  | 5.42 | 0.067 |  | 3.44 | 0.486 |
| H: MADT-HTA versus LADT-LTA | 2.33 | 0.127 |  | **6.48** | **0.039** |  | **42.42** | **0.001** |
| I: MADT-HTA versus MADT-LTA | **10.71** | **<0.001** |  | **6.33** | **0.042** |  | 7.20 | 0.126 |
| J: MADT-LTA versus LADT-LTA | **5.98** | **0.014** |  | **20.05** | **<0.001** |  | **17.03** | **0.002** |
| Note.  **Bolded values represent statistically significant comparisons (p<0.05);** ADT= Anxiety-Depression Traits; TA = Trait-Aggression; LADT-LTA = Low ADT - Low TA; MADT-LTA = Moderate ADT - Low TA; MADT-HTA = Moderate ADT - High TA; IADT-HTA = Increasing ADT - High TA; HADT-HTA = High ADT - High TA.  |
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| **Table S6.** CBCL subscales predictors by Trajectory groups (Between 10 and 16 years old) unadjusted for statistically significant demographic covariates (n=1078) |
| Pairwise group comparisons |
|   | A: HADT-HTA versus MADT-LTA |  | B: HADT-HTA versus MADT-HTA |  | C: HADT-HTA versus IADT-HTA |  | D: IADT-HTA versus MADT-LTA |  | E: IADT-HTA versus MADT-HTA |  | F: IADT-HTA versus MADT-LTA |  | G: MADT-HTA versus MADT-LTA |
| Characteristics | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |
| ADHD scoresA | **1.40****(1.23-1.58)** | **0.000** |  | **1.23****(1.10-1.37)** |  **0.000** |  | **1.19****(1.06-1.34)** | **0.003** |  | **1.25****(1.14-1.36)** | **0.000** |  | 1.04(.97-1.11) | 0.290 |  | **1.25****(1.14-1.36)** | **0.000** |  | **1.20****(1.11-1.29)** | **0.000** |
| Social ProblemsA | **1.62****(1.35-1.94)** | **0.000** |  | **1.35****(1.18-1.54)** |  **0.000** |  | **1.28****(1.11-1.48)** | **0.001** |  | **1.24****(1.10-1.40)** | **0.000** |  | 1.05(.96-1.15) | 0.275 |  | **1.24****(1.10-1.40)** | **0.000** |  | **1.17****(1.06-1.30)** | **0.002** |
| DelinquencyA | **1.70****(1.38-2.11)** | **0.000** |  | **1.23****(1.11-1.38)** |  **0.000** |  | **1.17****(1.04-1.32)** | **0.009** |  | **1.40****(1.21-1.62)** | **0.000** |  | 1.02(.94-1.11) | 0.675 |  | **1.40****(1.21-1.62)** | **0.000** |  | **1.41****(1.24-1.61)** | **0.000** |
| *Note*. A=Assessed at 8 years old; **Bolded values represent statistically significant result (p<0.005);** No formal correction was made for multiple comparisons; ADT= Anxiety-Depression Traits; TA = Trait-Aggression; LADT-LTA = Low ADT - Low TA; MADT-LTA = Moderate ADT - Low TA; MADT-HTA = Moderate ADT - High TA; IADT-HTA = Increasing ADT - High TA; HADT-HTA = High ADT - High TA; OR = Odds Ratio. ADHD = Attention-Deficit Hyperactivity Disorder |
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| **Table S7.** Childhood Abuse predictors by Trajectory groups (Between 10 and 16 years old) unadjusted for statistically significant demographic covariates (n=1078) |
| Pairwise group comparisons |
|   | A: HADT-HTA versus MADT-LTA |  | B: HADT-HTA versus MADT-HTA |  | C: HADT-HTA versus IADT-HTA |  | D: IADT-HTA versus MADT-LTA |  | E: IADT-HTA versus MADT-HTA |  | F: IADT-HTA versus MADT-LTA |  | G: MADT-HTA versus MADT-LTA |
| Characteristics | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |
| Psychological AbuseA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Severity | **4.09****(1.73-9.66)** | **0.000** |  | **3.82** **(1.81-8.04)** | **0.000** |  | 1.65 (.82-3.33) | 0.164 |  | **3.01** **(1.40-6.46)** | **0.005** |  | **2.61** **(1.41-4.81)** | **0.002** |  | **3.01** **(1.40-6.46)** | **0.005** |  | 1.16 (.55-2.44) | 0.701 |
| Frequency | **3.00****(1.56-5.75)** | **0.001** |  | **2.63** **(1.57-4.42)** | **0.000** |  | 1.50 (.93-2.43) | 0.099 |  | 2.21 (1.23-3.95) | 0.008 |  | 1.88 (1.21-2.91) | 0.005 |  | 2.21 (1.23-3.95) | 0.008 |  | 1.15 (.66-2.01) | 0.624 |
| Physical & Sexual AbuseA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Severity | 3.76(1.33-10.67) | 0.013 |  | 2.44 (1.06-5.63) | 0.036 |  | 1.56 (.67-3.62) | 0.303 |  | 2.18 (1.01-4.72) | 0.048 |  | 1.53 (.83-2.82) | 0.174 |  | 2.18 (1.01-4.72) | 0.048 |  | 1.45 (.70-3.01) | 0.321 |
| Frequency | 2.85(1.32-6.15) | 0.007 |  | 1.64 (.94-2.86) | 0.083 |  | 1.22 (.70-2.12) | 0.479 |  | 1.90 (1.13-3.22) | 0.016 |  | 1.29 (.89-1.89) | 0.185 |  | 1.90 (1.13-3.22) | 0.016 |  | 1.50 (.91-2.46) | 0.114 |
| *Note.* A = Childhood abuse (Before age of 12) was assessed retrospectively at age 18 (Before 12 years old); **Bolded values represent statistically significant result (p<0.005);** No formal correction was made for multiple comparisons; ADT= Anxiety-Depression Traits; TA = Trait-Aggression; LADT-LTA = Low ADT - Low TA; MADT-LTA = Moderate ADT - Low TA; MADT-HTA = Moderate ADT - High TA; IADT-HTA = Increasing ADT - High TA; HADT-HTA = High ADT - High TA; OR = Odds Ratio.  |
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| **Table S8.** CBCL subscales predictors by Trajectory groups (Between 10 and 16 years old) adjusted for statistically significant demographic variables |
| Pairwise group comparisons |
|   | AA: HADT-HTA versus MADT-LTA |  | BA: HADT-HTA versus MADT-HTA |  | CA: HADT-HTA versus IADT-HTA |  | DC: IADT-HTA versus MADT-LTA |  | E: IADT-HTA versus MADT-HTA |  | FBC: MADT-HTA versus MADT-LTA |
| Characteristics | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI)  | p-value |   |  OR  (95% CI) | p-value |   | OR (95% CI) | p-value |
| ADHD scoresD | **1.40****(1.23-1.59)** | **0.000** |  | **1.21****(1.08-1.36)** | **0.001** |  | 1.18(1.05-1.33) | 0.007 |  | **1.24****(1.14-1.36)** | **0.000** |  | 1.04(.97-1.11) | 0.290 |  | **1.20****(1.12-1.30)** | **0.000** |
| Social ProblemsD | **1.66****(1.37-2.02)** | **0.000** |  | **1.36****(1.17-1.57)** | **0.000** |  | **1.28****(1.10-1.48)** | **0.001** |  | **1.25****(1.11-1.42)** | **0.000** |  | 1.05(.96-1.15) | 0.275 |  | **1.18****(1.06-1.31)** | **0.002** |
| DelinquencyD | **1.73****(1.38-2.17)** | **0.000** |  | **1.22****(1.08-1.38)** | **0.001** |  | **1.19****(1.06-1.34)** | **0.005** |  | **1.39****(1.20-1.61)** | **0.000** |  | 1.02(.94-1.11) | 0.675 |  | **1.41****(1.24-1.62)** | **0.000** |
| *Note.* A= adjusted for ethnicity; B= Adjusted for Sex; C= Adjusted for sites; D= Assessed at 8 yrs old; **Bolded values represent statistically significant result (p<0.005);** No formal correction was made for multiple comparisons; ADT= Anxiety-Depression Traits; TA = Trait-Aggression; LADT-LTA = Low ADT - Low TA; MADT-LTA = Moderate ADT - Low TA; MADT-HTA = Moderate ADT - High TA; IADT-HTA = Increasing ADT - High TA; HADT-HTA = High ADT - High TA; OR = Odds Ratio; ADHD = Attention-Deficit Hyperactivity Disorder. |
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| **Table S9.** Childhood Abuse predictors by Trajectory groups (Between 10 and 16 years old) adjusted for statistically significant demographic variables |
| Pairwise group comparisons |
|   | AA: HADT-HTA versus MADT-LTA |  | BA: HADT-HTA versus MADT-HTA |  | CA: HADT-HTA versus IADT-HTA |  | DC: IADT-HTA versus MADT-LTA |  | E: IADT-HTA versus MADT-HTA |  | FBC: MADT-HTA versus MADT-LTA |
| Characteristics | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI)  | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |
| Psychological AbuseD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Severity | **3.70****(1.53-8.98)** | **0.004** |  | **3.30****(1.51-7.20)** | **0.003** |  | 1.41(.67-2.94) | 0.367 |  | **3.67****(1.64-8.18)** | **0.002** |  | **2.61****(1.41-4.81)** | **0.002** |  | 1.25(.59-2.68) | 0.562 |
| Frequency | **2.81****(1.46-5.40)** | **0.002** |  | **2.36****(1.36-4.09)** | **0.002** |  | 1.37(.82-2.27) | 0.230 |  | **2.68****(1.47-4.89)** | **0.001** |  | **1.88****(1.21-2.91)** | **0.005** |  | 1.22(.69-2.16) | 0.496 |
| Physical - Sexual AbuseD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Severity | 3.23(1.11-9.36) | 0.031 |  | *2.26**(.94-5.43)* | *0.067* |  | 1.34(.55-3.25) | 0.519 |  | 2.54(1.07-6.04) | 0.035 |  | 1.53(.83-2.82) | 0.174 |  | 1.49(.71-3.14) | 0.290 |
| Frequency | 2.67(1.21-5.88) | 0.015 |  | 1.64(.91-2.95) | 0.100 |  | 1.17(.65-2.09) | 0.599 |  | 2.05(1.16-3.64) | 0.014 |  | 1.29(.89-1.89) | 0.185 |  | 1.50(.89-2.51) | 0.128 |
| *Note.* A= adjusted for ethnicity; B= Adjusted for Sex; C= Adjusted for sites; D= Childhood abuse (Before age of 12) was assessed retrospectively at age 18 (Before 12 years old); **Bolded values represent statistically significant result (p<0.005)**; No formal correction was made for multiple comparisons; ADT= Anxiety-Depression Traits; TA = Trait-Aggression; LADT-LTA = Low ADT - Low TA; MADT-LTA = Moderate ADT - Low TA; MADT-HTA = Moderate ADT - High TA; IADT-HTA = Increasing ADT - High TA; HADT-HTA = High ADT - High TA; OR = Odds Ratio; ADHD = Attention-Deficit Hyperactivity Disorder. |
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| **Table S10.** Logistic regression of negative outcome (Violence) by pairwise group comparisons (Unadjusted for statistically significant demographic covariates) (n = 1078) |
| Pairwise comparisons | Negative Outcomes (Violence) |
| Physical Violence |  | Suicidal Behaviors |
| 16 years old |  | 18 years old |  | 16 years old |  | 18 years old |
| OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |
| A: HADT-HTA versus LADT-LTA | **3.37 (1.50-7.57)** | **0.003** |  | 2.41 (.85-6.78) | 0.097 |  | **9.57 (3.83-23.96)** | **<0.001** |  | 2.26 (.49-10.40) | 0.297 |
| B: HADT-HTA versus MADT-LTA | 3.18 (1.28-7.94) | 0.013 |  | 1.53 (.50-4.68) | 0.457 |  | 2.69 (1.04-7.00) | 0.042 |  | 1.81 (.33-9.91) | 0.495 |
| C: HADT-HTA versus MADT-HTA | 1.55 (.67-3.58) | 0.304 |  | 1.78 (.60-5.26) | 0.295 |  | 3.69 (1.46-9.31) | 0.006 |  | 1.42 (.29-6.88) | 0.665 |
| D: HADT-HTA versus IADT-HTA | 1.99 (.79-5.01) | 0.142 |  | .67 (.22-1.99) | 0.471 |  | 1.55 (.60-3.98) | 0.366 |  | .60 (.12-2.91) | 0.527 |
| E: IADT-HTA versus LADT-LTA | *1.69 (.95-2.99)* | *0.072* |  | **3.60 (2.04-6.36)** | **<0.001** |  | **6.19 (3.11-12.35)** | **<0.001** |  | **3.75 (1.68-8.40)** | **0.001** |
| F: IADT-HTA versus MADT-LTA | 1.60 (.79-3.25) | 0.196 |  | 2.29 (1.12-4.65) | 0.022 |  | 1.74 (.83-3.65) | 0.141 |  | 3.01 (1.00-9.02) | 0.049 |
| G: IADT-HTA versus MADT-HTA | .78 (.42-1.43) | 0.416 |  | **2.67 (1.39-5.11)** | **0.003** |  | 2.39 (1.18-4.82) | 0.015 |  | *2.36 (.96-5.80)* | *0.061* |
| H: MADT-HTA versus LADT-LTA | **2.17 (1.43-3.31)** | **<0.001** |  | 1.35 (.78-2.34) | 0.284 |  | **2.60 (1.34-5.04)** | **0.005** |  | 1.59 (.71-3.58) | 0.261 |
| I: MADT-HTA versus MADT-LTA | 2.05 (1.13-3.73) | 0.018 |  | .86 (.43-1.72) | 0.666 |  | .73 (.36-1.49) | 0.388 |  | 1.28 (.42-3.84) | 0.664 |
| J: MADT-LTA versus LADT-LTA | 1.06 (.60-1.85) | 0.845 |  | 1.57 (.85-2.92) | 0.151 |  | **3.55 (1.76-7.18)** | **<0.001** |  | 1.04 (.36-2.99) | 0.943 |
| Note. **Bolded values represent statistically significant result (p<0.005);** No formal correction was made for multiple comparisons; ADT= Anxiety-Depression Traits; TA = Trait-Aggression; LADT-LTA = Low ADT - Low TA; MADT-LTA = Moderate ADT - Low TA; MADT-HTA = Moderate ADT - High TA; IADT-HTA = Increasing ADT - High TA; HADT-HTA = High ADT - High TA; OR = Odds Ratio; |
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| **Table S11.** Logistic regression of negative outcome (Substance Use) by pairwise group comparisons (Unadjusted for statistically significant demographic covariates) (n = 1078) |
| Pairwise comparisons | Negative Outcomes (Substance Use) |
| Alcohol Use |  | Cigarette Use |  | Cannabis Use |
| 16 years old |  | 18 years old |  | 16 years old |  | 18 years old |  | 16 years old |  | 18 years old |
| OR(95% CI) | p-value |   | OR(95% CI) | p-value |   | OR(95% CI) | p-value |   | OR(95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |
| A: HADT-HTA versus LADT-LTA | 2.13(.96-4.75) | 0.064 |  | 1.77(.78-4.04) | 0.176 |  | 2.93(1.30-6.65) | 0.010 |  | 2.12(.92-4.85) | 0.077 |  | 3.10(1.36-7.03) | 0.007 |  | 2.70(1.17-6.20) | 0.020 |
| B: HADT-HTA versus MADT-LTA | 1.41(.59-3.37) | 0.434 |  | 1.16(.48-2.82) | 0.742 |  | 1.82(.75-4.45) | 0.188 |  | 1.46(.60-3.56) | 0.406 |  | 1.82(.75-4.45) | 0.188 |  | 2.33(.94-5.79) | 0.067 |
| C: HADT-HTA versus MADT-HTA | 1.03(.45-2.35) | 0.951 |  | 1.38(.58-3.24) | 0.465 |  | 1.02(.44-2.35) | 0.969 |  | .76(.32-1.79) | 0.533 |  | 1.26(.55-2.93) | 0.585 |  | 1.42(.60-3.35) | 0.430 |
| D: HADT-HTA versus IADT-HTA | 1.25(.51-3.07) | 0.622 |  | 1.27(.51-3.15) | 0.608 |  | .77(.32-1.89) | 0.575 |  | .67(.27-1.66) | 0.388 |  | 1.44(.58-3.60) | 0.436 |  | 1.27(.51-3.16) | 0.609 |
| E: IADT-HTA versus LADT-LTA | 1.70(1.02-2.85) | 0.042 |  | 1.40(.87-2.23) | 0.163 |  | **3.79****(2.25-6.38)** | **<0.001** |  | **3.16****(1.97-5.08)** | **<0.001** |  | 2.15(1.23-3.78) | 0.008 |  | **2.12****(1.30-3.46)** | **0.002** |
| F: IADT-HTA versus MADT-LTA | 1.13(.61-2.09) | 0.697 |  | .92(.52-1.61) | 0.759 |  | 2.35(1.25-4.43) | 0.008 |  | 2.18(1.22-3.88) | 0.008 |  | 1.27(.65-2.46) | 0.487 |  | 1.84(1.00-3.38) | 0.049 |
| G: IADT-HTA versus MADT-HTA | 0.82(.47-1.43) | 0.482 |  | 1.09(.65-1.83) | 0.758 |  | 1.31(.76-2.27) | 0.330 |  | 1.14(.68-1.91) | 0.629 |  | .88(.49-1.59) | 0.666 |  | 1.12(.65-1.90) | 0.690 |
| H: MADT-HTA versus LADT-LTA | **2.08****(1.42-3.05)** | **<0.001** |  | 1.29(.90-1.84) | 0.169 |  | **2.89****(1.91-4.37)** | **<0.001** |  | **2.78****(1.93-4.01)** | **<0.001** |  | **2.45****(1.60-3.76)** | **<0.001** |  | **1.91****(1.30-2.79)** | **0.001** |
| I: MADT-HTA versus MADT-LTA | 1.38(.83-2.29) | 0.216 |  | .84(.52-1.36) | 0.487 |  | 1.79(1.04-3.10) | 0.037 |  | **1.92****(1.17-3.13)** | **0.010** |  | 1.44(.83-2.51) | 0.197 |  | 1.65(.98-2.79) | 0.062 |
| J: MADT-LTA versus LADT-LTA | 1.51(.95-2.40) | 0.082 |  | 1.53(1.0-2.33) | 0.050 |  | 1.61(.96-2.71) | 0.073 |  | 1.45(.93-2.26) | 0.100 |  | 1.69(1.01-2.87) | 0.047 |  | 1.16(.72-1.87) | 0.556 |
| Note. **Bolded values represent statistically significant result (p<0.05);** *Italic values represent marginally significant (p>0.05 to p<0.075);* No formal correction was made for multiple comparisons; ADT= Anxiety-Depression Traits; TA = Trait-Aggression; LADT-LTA = Low ADT - Low TA; MADT-LTA = Moderate ADT - Low TA; MADT-HTA = Moderate ADT - High TA; IADT-HTA = Increasing ADT - High TA; HADT-HTA = High ADT - High TA; OR = Odds Ratio. |
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| **Table S12.** Logistic regression of negative outcome (Violence) by pairwise group comparisons adjusted for statistically significant demographic covariates (n=1078) |
| Pairwise comparisons | Negative Outcomes (Violence) |
| Physical Violence |  | Suicidal Behaviors |
| 16 years old |  | 18 years old |  | 16 years old |  | 18 years old |
| OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |   | OR (95% CI) | p-value |
| AAC: HADT-HTA versus LADT-LTA  | **4.65****(1.91-11.35)** | **0.001** |  | 2.17(.73-6.43) | 0.164 |  | **16.93****(5.19-55.23)** | **<0.001** |  | 1.80(.35-9.18) | 0.479 |
| BA: HADT-HTA versus MADT-LTA  | 3.02(1.18-7.69) | 0.021 |  | 1.62(.51-5.12) | 0.409 |  | *2.43**(.91-6.47)* | *0.075* |  | 1.38(.24-7.86) | 0.715 |
| CA: HADT-HTA versus MADT-HTA  | 1.91(.79-4.62) | 0.152 |  | 2.11(.67-6.61) | 0.201 |  | 3.83(1.43-10.27) | 0.008 |  | 1.27(.25-6.53) | 0.771 |
| DA: HADT-HTA versus IADT-HTA | 1.74(.67-4.55) | 0.259 |  | .67(.22-2.08) | 0.488 |  | 1.32(.49-3.54) | 0.581 |  | .46(.09-2.30) | 0.341 |
| EAC: IADT-HTA versus LADT-LTA  | 1.87(1.03-3.33) | 0.039 |  | **3.36****(1.85-6.09)** | **<0.001** |  | **5.30****(2.55-11.04)** | **<0.001** |  | 2.63(1.11-6.24) | 0.028 |
| FC: IADT-HTA versus MADT-LTA  | 1.63(.78-3.44) | 0.196 |  | *2.09**(1.00-4.38)* | *0.051* |  | 1.74(.81-3.70) | 0.154 |  | 3.14(.98-10.11) | 0.055 |
| G: IADT-HTA versus MADT-HTA | .78(.42-1.43) | 0.416 |  | **2.67****(1.39-5.11)** | **0.003** |  | 2.39(1.18-4.82) | 0.015 |  | *2.36**(.96-5.80)* | *0.061* |
| HAC: MADT-HTA versus LADT-LTA  | **2.86****(1.81-4.52)** | **<0.001** |  | 1.37(.78-2.42) | 0.279 |  | 2.50(1.24-5.02) | 0.010 |  | 1.61(.69-3.74) | 0.270 |
| IBC: MADT-HTA versus MADT-LTA  | 1.90(1.03-3.47) | 0.039 |  | .62(.30-1.31) | 0.211 |  | .86(.42-1.80) | 0.697 |  | 1.51(.49-4.64) | 0.470 |
| JABC: MADT-LTA versus LADT-LTA  | 1.19(.66-2.12) | 0.562 |  | 1.79(.93-3.43) | 0.081 |  | **3.29****(1.57-6.89)** | **0.002** |  | 1.05(.36-3.06) | 0.924 |
| Note. **Bolded values represent statistically significant result (p<0.05);** *Italic values represent marginally significant (p>0.05 to p<0.075);* No formal correction was made for multiple comparisons; A adjusted for ethnicity; B Adjusted for Sex; C Adjusted for sites; ADT = Anxiety-Depression Traits; TA = Trait-Aggression; LADT-LTA = Low ADT - Low TA; MADT-LTA = Moderate ADT - Low TA; MADT-HTA = Moderate ADT - High TA; IADT-HTA = Increasing ADT - High TA; HADT-HTA = High ADT - High TA; OR = Odds Ratio. |
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| **Table S13.** Logistic regression of negative outcome (Substance Use) by pairwise group comparisons adjusted for statistically significant demographic covariates (n=1078)  |
| Pairwise comparisons | Negative Outcomes (Substance Use) |
| Alcohol Use |  | Cigarette Use |  | Cannabis Use |
| 16 years old |  | 18 years old |  | 16 years old |  | 18 years old |  | 16 years old |  | 18 years old |
| OR(95% CI) | p-value |  | OR(95% CI) | p-value |  | OR(95% CI) | p-value |  | OR(95% CI) | p-value |  | OR(95% CI) | p-value |  | OR(95% CI) | p-value |
| AAC: HADT-HTA versus LADT-LTA | 1.69(.73-3.91) | 0.223 |  | 1.41(.59-3.38) | 0.439 |  | 2.46(1.02-5.93) | 0.046 |  | 1.38(.57-3.29) | 0.474 |  | 2.95(1.24-7.05) | 0.015 |  | 2.64(1.11-6.28) | 0.028 |
| BA: HADT-HTA versus MADT-LTA | 1.39(.53-3.13) | 0.575 |  | .95(.38-2.38) | 0.913 |  | 1.51(.60-3.79) | 0.385 |  | 1.18(.47-2.99) | 0.723 |  | 1.60(.64-4.02) | 0.314 |  | 2.24(.89-5.68) | 0.088 |
| CA: HADT-HTA versus MADT-HTA | .92(.39-2.19) | 0.858 |  | 1.23(.51-2.99) | 0.651 |  | .83(.35-1.99) | 0.675 |  | .56(.22-1.39) | 0.209 |  | 1.11(.46-2.66) | 0.819 |  | 1.45(.60-3.55) | 0.412 |
| DA: HADT-HTA versus IADT-HTA | 1.29(.53-3.13) | 0.575 |  | .89(.34-2.37) | 0.821 |  | .49(.18-1.30) | 0.152 |  | .53(.20-1.37) | 0.190 |  | 1.34(.52-3.47) | 0.547 |  | 1.12(.44-2.86) | 0.821 |
| EAC: IADT-HTA versus LADT-LTA | 1.50(.87-2.58) | 0.142 |  | 1.10(.67-1.80) | 0.706 |  | **3.72****(2.13-6.50)** | **<0.001** |  | **2.85****(1.72-4.73)** | **<0.001** |  | **2.05****(1.14-3.67)** | **0.016** |  | 2.05(1.23-3.40) | 0.006 |
| FC: IADT-HTA versus MADT-LTA | 1.07(.56-2.05) | 0.831 |  | 1.01(.55-1.86) | 0.980 |  | **2.88****(1.43-5.79)** | **0.003** |  | **2.48****(1.33-4.62)** | **0.004** |  | 1.19(.59-2.38) | 0.625 |  | 2.10(1.10-4.03) | 0.025 |
| G: IADT-HTA versus MADT-HTA | 0.82(.47-1.43) | 0.482 |  | 1.09(.65-1.83) | 0.758 |  | 1.31(.76-2.27) | 0.330 |  | 1.14(.68-1.91) | 0.629 |  | .88(.49-1.59) | 0.666 |  | 1.12(.65-1.90) | 0.690 |
| HAC: MADT-HTA versus LADT-LTA | **2.02****(1.35-3.04)** | **0.001** |  | 1.19(.82-1.73) | 0.361 |  | **3.00****(1.92-4.69)** | **<0.001** |  | **2.54****(1.72-3.74)** | **<0.001** |  | **2.35****(1.50-3.68)** | **<0.001** |  | **1.89****(1.27-2.81)** | **0.002** |
| IBC: MADT-HTA versus MADT-LTA | .84(.52-1.36) | 0.487 |  | .78(.47-1.29) | 0.337 |  | 1.92(1.10-3.41) | 0.023 |  | 1.98(1.17-3.34) | 0.010 |  | 1.43(.80-2.53) | 0.226 |  | 1.41(.82-2.44) | 0.215 |
| JABC: MADT-LTA versus LADT-LTA | 1.29(.79-2.09) | 0.308 |  | 1.42(.91-2.21) | 0.120 |  | 1.36(.79-2.36) | 0.272 |  | 1.25(.77-2.02) | 0.367 |  | 1.53(.89-2.64) | 0.123 |  | 1.22(.74-2.00) | 0.442 |
| Note. . **Bolded values represent statistically significant result (p<0.05);** *Italic values represent marginally significant (p>0.05 to p<0.075);* No formal correction was made for multiple comparisons;  A adjusted for ethnicity; B Adjusted for Sex; C Adjusted for sites; ADT= Anxiety-Depression Traits; TA = Trait-Aggression; LADT-LTA = Low ADT - Low TA; MADT-LTA = Moderate ADT - Low TA; MADT-HTA = Moderate ADT - High TA; IADT-HTA = Increasing ADT - High TA; HADT-HTA = High ADT - High TA; OR = Odds Ratio; |
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