Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.
**eTable 1. Target Trial Protocol: Specification and Emulation Using Observational Data**

| Protocol component | Description | Target trial specification | Emulation using LSAC data |
|--------------------|-------------|-----------------------------|--------------------------|
| Eligibility criteria | Who will be included in the study? | Children between the ages of 6 and 15 with no prior parent-report of ADHD diagnosis | Analysis is restricted to children who meet the eligibility criteria of the target trial Required data for each person: age, history of ADHD diagnosis |
| Intervention strategy | What interventions will eligible persons receive? | 1. ADHD diagnosis 2. No ADHD diagnosis | Same as for specification Required data for each person: age of first diagnosis |
| Intervention assignment | How will eligible persons be assigned to the interventions | Eligible children will be randomly assigned to one intervention and will be aware of it | Eligible children will be assigned to the intervention with which their data are compatible at the time of eligibility and will be aware of it |
| Outcomes | What outcomes in eligible persons will be compared among intervention groups? | 9 pre-determined, self-reported measures of quality of life | Same as for specification Required data: values for outcome measures at end of study |
| Follow-up | During which period will eligible persons be followed in the study? | From intervention assignment until loss to follow-up or administrative end of follow-up at age 14/15 | Same as for specification Required data: N/A (due to multiple imputations used to estimate data) |
| Causal estimand | Which counterfactual contrasts will be estimated? | Intention-to-treat effect (effect of being assigned an ADHD diagnosis) | Observational analogue of intention-to-treat effect |
| Statistical analysis | How will counterfactual contrasts be estimated? | Comparing quality of life outcomes at age 14/15 between an equal number of children randomly assigned to each intervention strategy by calculating mean differences/odds ratios for each outcome; regardless of adherence for intention-to-treat analysis. | Same as specification Required data: pre-assignment confounders |

*following the approach described in Hernan MA. Methods of Public Health Research — Strengthening Causal Inference from Observational Data. New England Journal of Medicine. 2021;385(15).*
**Table 2. Outcome Measures**

| Outcome measure            | WHO quality of life domain     | Response format                                                                  | Question(s)                                                                                   | Source                                                                                           |
|----------------------------|--------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Academic self-concept      | Environment & Psychological    | Total score: 1-4 (Average of 3Qs with 1=Strongly disagree, 2=Disagree, 3=Agree, 4=Strongly agree) Higher scores indicate a more positive academic self-concept. | 1. I do well in tests in most school subjects  
2. I learn things quickly in most school subjects  
3. I'm good at most school subjects                                                   | Adapted from the Program for International Student Assessment (PISA) (2000).                   |
| Child Health Utility 9D    | All 4 dimensions               | Total score: 0-1 (Calculated from the CHU9D items using a weighted algorithm from a sample of Australian adolescents) Higher scores indicate better health related quality of life. | These questions ask about how you are today. For each question, read all the choices and decide which one is most like you today  
1. Worried: I don’t feel worried today, I feel a little bit worried today, I feel a bit worried today, I feel quite worried today, I feel very worried today  
2. Sad: I don’t feel sad today, I feel a little bit sad today, I feel a bit sad today, I feel quite sad today, I feel very sad today  
3. Pain: I don’t have any pain today, I have a little bit of pain today, I have a bit of pain today, I have quite a lot of pain today, I have a lot of pain today  
4. Tired: I don’t feel tired today, I feel a little bit tired today, I feel a bit tired today, I feel quite tired today, I feel very tired today  
5. Annoyed: I don’t feel annoyed today, I feel a little bit annoyed today, I feel a bit annoyed today, I feel quite annoyed today, I feel very annoyed today  
6. Work/study (Things like paid work, voluntary work, housework and study): I have no problems with my schoolwork/homework today, I have a few problems with my schoolwork/homework today, I have some problems with my schoolwork/homework today, I have many problems with my schoolwork/homework today, I can’t do my schoolwork/homework today  
7. Sleep: Last night I had no problems sleeping, Last night I had a few problems sleeping, Last night I had some problems sleeping, Last night I had many problems sleeping, Last night I couldn’t sleep at all  
8. Daily routine (Things like eating, having a bath/shower, getting dressed): I have no problems with my daily routine today, I have a few problems with my daily routine today, I have some problems with my daily routine today, I have many problems with my daily routine today, I can’t do my daily routine today  
9. Able to join in activities (Things like playing out with your friends, doing sports, joining in things): I can join in with any activities today, I can join in with most activities today, I can join in with some activities | Adapted from the Child Health Utility 9D (CHU9D) (Stevens, 2005). |
today, I can join in with a few activities today, I can join in with no activities today

| Global health | Physical | Total score: 1-5  
(1=Excellent, 2=Very good, 3=Good, 4=Fair, 5=Poor)  
Lower scores indicate better health perception | How would you rate your general health? | Adapted from the Medical Outcomes Study (MOS) 36-Item Short-Form Health Survey (SF-36) (Ware & Sherbourne, 1992). |
|---------------|----------|-------------------------------------------------|---------------------------------|---------------------------------|
| Negative social behaviours | Social relationships | Total score: 0-85  
(Total of 17 Qs with 0=Not at all, 1=Once, 2=Twice, 3=Three times, 4=Four times, 5=Five or more)  
Lower scores indicate less negative social behaviour occurrences | In the last 12 months had you…?  
1. Been caught by police for something you had done  
2. Been suspended or expelled from school,  
3. Broken into a house, flat or vehicle  
4. Carried a weapon like a knife, gun or piece of wood  
5. Damaged a parked car (e.g. broken an aerial, slashed tyres, scratched paint)  
6. Drawn graffiti in public places  
7. Gone around with a group of 3 or more kids damaging property or getting into fights  
8. Got into physical fights in public  
9. Purposely damaged or destroyed others’ property  
10. Run away from home and stayed away overnight or longer  
11. Skipped school for a whole day  
12. Started a fire in a place where you should not burn anything  
13. Stolen money or other things from another person  
14. Stolen something from a shop  
15. Stolen something out of a parked car  
16. Taken a vehicle (e.g. car, motorbike) for a ride or drive without permission  
17. Used force or threats to get money or things from someone | Adapted from Self-Report Delinquency Scale developed by Moffit and Silva (1988). |
| Overall happiness | Psychological sense of school membership | Self-efficacy | Self-harm |
|-------------------|-----------------------------------------|--------------|----------|
| **Total score:** 1-5  
(1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly agree)  
Higher scores indicate more happiness | **Total score:** 12-60  
(Total of 12Qs with 1=Completely true, 2=Somewhat true, 3=Neither, 4=Not very true, 5=Not at all true; some reverse coded)  
Higher scores indicate better psychological sense of school membership | **Total score:** 1-5  
(Average of 5Qs with 1=False, 2=Mostly False, 3=Sometimes false sometimes true, 4=Mostly true, 5=True)  
Higher scores indicate better self-efficacy | **Total score:** 0 or 1  
(1=Yes, 0=No)  
During the past 12 months have you hurt yourself on purpose in any way? |
| **In general, I am happy with how things are for me in my life right now.** | **For each of the following sentences please pick the answer that best matches your experience. There are no right or wrong answers.** | **1. I can do things as well as most people**  
2. If I really try I can do almost anything I want  
3. Most things I do, I do well  
4. Overall, I have a lot to be proud of  
5. Overall, most things I do turn out well** | **LSAC designed item.** |
| Drawn from the Western Australian Child Development Study, Youth Questionnaire, 12-17 years, Telethon Institute for Child Health Research. | Adapted from the Psychological Sense of School Membership Scale (PSSM), Goodenow, 1993. | Adapted from Marsh Self Description Questionnaire II (Marsh, 1990). | LSAC designed item. |
**Table 3. Propensity Score Balance Assessment**

|                              | Age 6/7 | Age 8/9 | Age 10/11 | Age 12/13 | Age 14/15 |
|------------------------------|---------|---------|-----------|-----------|-----------|
| Overall propensity score     | 0.01    | 1.11    | 0.01      | 1.08      | 0.02      |
| Cohort                       | 0.03    | 1.00    | 0.03      | 0.99      | 0.02      |
| Sex                          | 0.00    | 1.00    | 0.00      | 1.00      | 0.00      |
| Aboriginal and/or Torres Strait Islander | 0.04    | 1.20    | 0.08      | 1.49      | 0.04      |
| Main language spoken at home | 0.03    | 0.91    | 0.01      | 1.03      | 0.02      |
| Two parent household         | 0.00    | 1.03    | 0.03      | 0.97      | 0.01      |
| Number of siblings           | 0.03    | 1.33    | 0.02      | 1.00      | 0.02      |
| Number of stressful life events | 0.00  | 1.11    | 0.03      | 0.98      | 0.01      |
| Rurality                     | 0.02    | 1.03    | 0.01      | 1.00      | 0.01      |
| SEIFA Advantage/ Disadvantage score | 0.01  | 0.94    | 0.03      | 0.99      | 0.00      |
| Socioeconomic position       | 0.01    | 1.54    | 0.01      | 0.99      | 0.01      |
| Mother’s school completion   | 0.00    | 1.01    | 0.01      | 1.01      | 0.02      |
| Mother’s further education   | 0.01    | 1.12    | 0.01      | 0.98      | 0.00      |
| Comorbidities                | 0.00    | 0.79    | 0.01      | 0.87      | 0.08      |
| Depression/ anxiety          | N/A     | N/A     | N/A       | N/A       | N/A       |
| Autism                       | N/A     | N/A     | N/A       | N/A       | N/A       |
| N of other comorbidities     | 0.00    | 0.79    | 0.01      | 0.87      | 0.08      |
| SDQ H/I score                | 0.02    | 1.06    | 0.01      | 0.96      | 0.00      |

*average from 25 multiple imputation sets
bStandardised mean difference
### eTable 4. Missing Data

| Variable                              | Age 4/5 (n=8503) | Age 6/7 (n=8643) | Age 8/9 (n=8093) | Age 10/11 (n=7625) | Age 12/13 (n=7070) | Age 14/15 (n=6433) |
|---------------------------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|
|                                       | Missing values   | Non-participants | % of data imputed | Missing values   | Attrition         | % of data imputed | Missing values   | Attrition         | % of data imputed | Missing values   | Attrition         | % of data imputed |
| Sex<sup>a</sup>                       | 0                | 0                | 0.0              | 0                 | 0                 | 0.0              | 0                | 0                 | 0.0              | 0                | 0                 | 0.0              |
| Aboriginal/Torres Strait Islander status<sup>a</sup> | 0                | 0                | 0.0              | 0                 | 0                 | 0.0              | 0                | 0                 | 0.0              | 0                | 0                 | 0.0              |
| Cohort<sup>a</sup>                    | 0                | 0                | 0.0              | 0                 | 0                 | 0.0              | 0                | 0                 | 0.0              | 0                | 0                 | 0.0              |
| Language spoken at home<sup>a</sup>   | 2                | 0                | 0.0              | 2                 | 0                 | 0.0              | 1                | 0                 | 0.0              | 1                | 0                 | 0.0              |
| Socio-economic position<sup>b</sup>   | 14               | 135              | 1.7              | 4                 | 0                 | 0.0              | 56               | 550               | 7.0              | 76                | 1018              | 12.7             |
| SEIFA adv/disadv score<sup>b</sup>   | 0                | 135              | 1.6              | 0                 | 0                 | 0.0              | 7                | 550               | 6.4              | 1                 | 1018              | 11.8             |
| Number of siblings<sup>b</sup>       | 0                | 135              | 1.6              | 0                 | 0                 | 0.0              | 7                | 550               | 6.4              | 7                 | 1018              | 11.9             |
| Two-parent household<sup>b</sup>     | 0                | 135              | 1.6              | 0                 | 0                 | 0.0              | 7                | 550               | 6.4              | 7                 | 1018              | 11.9             |
| H/I SDQ score<sup>b</sup>            | 478              | 135              | 7.1              | 150               | 0                 | 1.7              | 561              | 550               | 12.9             | 134               | 1018              | 13.3             |
| Stressful life events<sup>b</sup>    | 116              | 135              | 15.0             | 65                | 0                 | 0.8              | 702              | 550               | 14.5             | 139               | 1018              | 13.4             |
| State of residency<sup>b</sup>       | 0                | 135              | 1.6              | 0                 | 0                 | 0.0              | 0                | 550               | 6.4              | 0                 | 1018              | 11.8             |
| Rurality<sup>b</sup>                 | 11               | 135              | 1.7              | 0                 | 0                 | 0.0              | 7                | 550               | 6.4              | 15                | 1018              | 12.0             |
| Mother’s schooling<sup>b</sup>       | 44               | 135              | 2.1              | 21                | 0                 | 0.2              | 83               | 550               | 7.3              | 91                | 1018              | 12.8             |
| Mother’s further education<sup>b</sup> | 292            | 135              | 4.9              | 25                | 0                 | 0.3              | 66               | 550               | 7.1              | 77                | 1018              | 12.7             |
| Other comorbidities<sup>b</sup>      | 0                | 135              | 1.6              | 3                 | 0                 | 0.0              | 31               | 550               | 6.7              | 66                | 1018              | 12.5             |
| ADHD diagnosis                       | 0                | 135              | 1.6              | 3                 | 0                 | 0.0              | 31               | 550               | 6.7              | 66                | 1018              | 12.5             |
| Depression/Anxiety<sup>b</sup>      | 66               | 1018             | 12.5             | 116               | 1573              | 19.5             | 93               | 2210              | 26.6             |
| Autism<sup>b</sup>                   | 66               | 1018             | 12.5             | 116               | 1573              | 19.5             | 93               | 2210              | 26.6             |
| Overall happiness<sup>c</sup>       | 284              | 1573             | 21.5             | 303               | 2210              | 29.1             |
| Self-efficacy<sup>c</sup>            | 282              | 1573             | 21.5             | 300               | 2210              | 29.0             |
| Negative social behaviours<sup>c</sup> | 282            | 1573             | 21.5             | 301               | 2210              | 29.1             |
| Psychological sense of school membership<sup>c</sup> | 441     | 1573             | 23.3             | 364               | 2210              | 29.8             |
| Peer trust<sup>c</sup>               | 275              | 1573             | 21.4             | 302               | 2210              | 29.1             |

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| Academic self-concept | 304 | 2210 | 29.1 |
|-----------------------|-----|------|------|
| Child Health Utility 9D | 323 | 2210 | 29.3 |
| Self-harm             | 357 | 2210 | 29.7 |
| Global health         | 313 | 2210 | 29.2 |

*Variables were treated as fixed and values at age 6/7 were used for all ages.

*Values at age 14/15 were only used as auxiliary variable to impute values at previous ages, not for analysis model.

*Values at age 12/13 were only used as auxiliary variables to impute outcome values at age 14/15, not for analysis model.
### eTable 5. Number of Participants in Exposure (Drop-outs) and Control (Drop-ins) Groups with an ADHD Diagnosis During Follow-up

| H/I SDQ score | n | Has diagnosis at age |
|---------------|---|----------------------|
|               | 6/7 | 8/9 | 10/11 | 12/13 | 14/15 |
| **First dx at 6/7** | | | | | |
| Low risk      | 29  | 100.0% (29) | 65.5% (19) | 58.6% (17) | 48.3% (14) | 55.2% (16) |
| Borderline    | 40  | 100.0% (40) | 80.0% (32) | 70.0% (28) | 70.0% (28) | 82.5% (33) |
| High risk     | 22  | 100.0% (22) | 77.3% (17) | 77.3% (17) | 77.3% (17) | 72.7% (16) |
| **Total**     | 91  | 100.0% (91) | 74.7% (68) | 68.1% (62) | 64.8% (59) | 71.4% (65) |
| **No diagnosis at 6/7** | | | | | |
| Low risk      | 26  | 0.0% (0)    | 0.0% (0)   | 0.0% (0)   | 0.0% (0)   | 0.0% (0)   |
| Borderline    | 44  | 0.0% (0)    | 4.5% (2)   | 2.3% (1)   | 0.0% (0)   | 0.0% (0)   |
| High risk     | 21  | 0.0% (0)    | 4.8% (1)   | 4.8% (1)   | 0.0% (0)   | 0.0% (0)   |
| **Total**     | 91  | 0.0% (0)    | 3.3% (3)   | 2.2% (2)   | 0.0% (0)   | 0.0% (0)   |
| **First dx at 8/9** | | | | | |
| Low risk      | 41  | 100.0% (41) | 68.3% (28) | 61.0% (25) | 51.2% (21) |
| Borderline    | 61  | 100.0% (61) | 73.8% (45) | 67.2% (41) | 67.2% (41) |
| High risk     | 23  | 100.0% (23) | 69.6% (16) | 73.9% (17) | 69.6% (16) |
| **Total**     | 125 | 100.0% (125)| 71.2% (89) | 66.4% (83)| 62.4% (78) |
| **No diagnosis at 8/9** | | | | | |
| Low risk      | 49  | 0.0% (0)    | 4.1% (2)   | 2.0% (1)   | 2.0% (1)   |
| Borderline    | 55  | 0.0% (0)    | 7.3% (4)   | 1.8% (1)   | 0.0% (0)   |
| High risk     | 21  | 0.0% (0)    | 4.8% (1)   | 4.8% (1)   | 0.0% (0)   |
| **Total**     | 125 | 0.0% (0)    | 5.6% (7)   | 6.4% (3)   | 0.8% (1)   |
| **First dx at 10/11** | | | | | |
| Low risk      | 30  | 100.0% (30) | 83.3% (25) | 73.3% (22) |
| Borderline    | 37  | 100.0% (37) | 75.7% (28) | 67.6% (25) |
| High risk     | 12  | 100.0% (12) | 75.0% (9)  | 75.0% (9)  |
| **Total**     | 79  | 100.0% (79) | 78.5% (62)| 70.9% (56) |
| **No diagnosis at 10/11** | | | | | |
| Low risk      | 36  | 0.0% (0)    | 0.0% (0)   | 0.0% (0)   |
| Borderline    | 31  | 0.0% (0)    | 3.2% (1)   | 0.0% (0)   |
| High risk     | 13  | 0.0% (0)    | 7.7% (1)   | 0.0% (0)   |
| **Total**     | 80  | 0.0% (0)    | 2.5% (2)   | 0.0% (0)   |
| **First dx at 12/13** | | | | | |
| Low risk      | 27  | 100.0% (27) | 51.9% (14)|          |
| Borderline    | 21  | 100.0% (21) | 66.7% (14)|          |
| High risk     | 8   | 100.0% (8)  | 62.5% (5)  |          |
| **Total**     | 56  | 100.0% (56)| 58.9% (33)|          |
| **No diagnosis at 12/13** | | | | | |
| Low risk      | 29  | 0.0% (0)    | 0.0% (0)   | 0.0% (0)   |
| Borderline    | 20  | 0.0% (0)    | 0.0% (0)   | 0.0% (0)   |
| High risk     | 6   | 0.0% (0)    | 0.0% (0)   | 0.0% (0)   |
| **Total**     | 55  | 0.0% (0)    | 0.0% (0)   | 0.0% (0)   |
| **First dx at 14/15** | | | | | |
| Low risk      | 26  | 100.0% (26) |          |          |
| Borderline    | 11  | 100.0% (11) |          |          |
| High risk     | 4   | 100.0% (4)  |          |          |
| **Total**     | 41  | 100.0% (41)|          |          |
| **No diagnosis at 14/15** | | | | | |
| Low risk      | 23  | 0.0% (0)    |          |          |
| Borderline    | 14  | 0.0% (0)    |          |          |
| High risk     | 4   | 0.0% (0)    |          |          |
| **Total**     | 41  | 0.0% (0)    |          |          |

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| Total diagnosis group | Low risk | 153 | 64.7% (99) |
|-----------------------|---------|-----|------------|
| Borderline            | 170     |     | 72.9% (124)|
| High risk             | 69      |     | 72.5% (50) |
| **Total**             | **392** |     | **69.6% (273)** |

| Total no diagnosis group | Low risk | 163 | 2.5% (4) |
|--------------------------|---------|-----|----------|
| Borderline               | 164     |     | 5.5% (9) |
| High risk                | 65      |     | 7.7% (5) |
| **Total**                | **392** |     | **4.6% (18)** |

*average from 25 imputed datasets

*Strengths and Difficulties Questionnaire Hyperactivity/Inattention Subscale scores:
  Low risk: 0-4 points, Borderline=5-7 points, High risk=8-10 points
**Table 6. Association of ADHD Diagnosis With Quality-of-Life Outcomes at Age 14/15 Years: Complete Case Analysis**

| Outcome                                      | w/out ADHD diagnosis (n=238), mean | with ADHD diagnosis (n=238), mean | Mean difference | 95% CI          | p-value | Effect size (Cohen’s d) | Interpretation                                      |
|----------------------------------------------|------------------------------------|-----------------------------------|-----------------|-----------------|---------|----------------------|-----------------------------------------------------|
| Child health utility 9D                      | 0.83                               | 0.80                             | -0.03           | -0.06, 0.01     | 0.128   | 0.13                 | There is no difference in CHU9D scores.             |
| Academic self-concept                        | 2.92                               | 2.73                             | -0.19           | -0.31, -0.07    | 0.008   | 0.30                 | Teens with diagnosis have a worse academic self-concept than those without diagnosis. |
| Global health                                | 2.19                               | 2.24                             | 0.05            | -0.10, 0.22     | 0.464   | 0.06                 | There is no difference in perceived health.         |
| Negative social behaviours                   | 1.58                               | 2.83                             | 1.25            | 0.47, 2.17      | 0.008   | 0.26                 | Teens with diagnosis display more negative social behaviours than those without diagnosis. |
| Overall happiness                            | 3.87                               | 3.74                             | -0.13           | -0.32, 0.08     | 0.232   | 0.11                 | There is no difference in overall happiness         |
| Peer trust                                   | 9.24                               | 10.10                            | 0.86            | 0.15, 1.61      | 0.012   | 0.22                 | Teens with diagnosis have lower trust in their peers than those without diagnosis. b                   |
| Psychological sense of school membership     | 48.03                              | 45.26                            | -2.77           | -4.34, -1.23    | <0.001  | 0.33                 | Teens with diagnosis have a worse psychological sense of school membership than those without diagnosis. |
| Self-efficacy                                | 3.93                               | 3.75                             | -0.17           | -0.32, -0.03    | 0.012   | 0.23                 | Teens with diagnosis have less self-efficacy than those without diagnosis.                           |
| Self-harm, % and OR (yes)                    | 7.1                                | 13.5                             | 2.03            | 1.07, 4.37      | 0.036   | N/A                  | Teens with diagnosis are more than twice as likely to harm themselves than those without diagnosis.   |

*Cohen’s d:
- <0.20: negligible effect
- 0.20-0.49: small effect
- 0.50-0.79: moderate effect
- >=0.80: large effect

b This result differs to main analysis where there was no significant difference.
### Table 7. Association of ADHD Diagnosis With Quality of Life by H/I SDQ Score<sup>ab</sup>

| Outcome                          | Low risk with ADHD diagnosis (n=163), mean | Low risk w/out ADHD diagnosis (n=153), mean | Mean difference | 95% CI | P-value | Borderline with ADHD diagnosis (n=164), mean | Borderline w/out ADHD diagnosis (n=170), mean | Mean difference | 95% CI | P-value | High risk with ADHD diagnosis (n=66), mean | High risk w/out ADHD diagnosis (n=69), mean | Mean difference | 95% CI | P-value |
|---------------------------------|--------------------------------------------|---------------------------------------------|----------------|-------|---------|---------------------------------------------|-----------------------------------------------|----------------|-------|---------|--------------------------------------------|---------------------------------------------|----------------|-------|---------|
| Child health utility 9D         | 0.77                                       | 0.81                                        | -0.04          | -0.10 | 0.04    | 0.30                                        | 0.77                                          | 0.80            | 0.04    | -0.09  | 0.17                                        | 0.78                                          | 0.80            | 0.01    | 0.08    |
| (range 0-1, higher scores indicate better QoL) |                                |                                |                |       |         | 0.68                                        | 0.08                                          | 0.05            |       |         |
| Academic self-concept          | 2.71                                       | 2.92                                        | -0.21          | -0.47 | 0.04    | 0.10                                        | 2.65                                          | 2.84            | -0.19   | -0.35  | 0.04                                        | 2.75                                          | 2.78            | -0.03   | -0.23   |
| (range 1-4, higher scores indicate a more positive academic self-concept) |                                |                                |                |       |         | 0.73                                        | 0.17                                          | 0.30            |       |         |
| Global health                  | 2.17                                       | 2.06                                        | 0.11           | -0.22 | 0.42    | 0.49                                        | 2.38                                          | 2.19            | 0.19    | -0.03  | 0.09                                        | 2.28                                          | 2.27            | 0.01    | -0.28   |
| (range 1-5, lower scores indicate better health perception) |                                |                                |                |       |         | 0.96                                        | 0.30                                          | 0.76            |       |         |
| Negative social behaviours     | 3.82                                       | 1.49                                        | 2.33           | 0.05  | 4.57    | 0.04                                        | 3.51                                          | 1.89            | 1.62    | 0.21   | 0.02                                        | 3.47                                          | 2.57            | 0.91    | -0.86   |
| (range 0-85, lower scores indicate less negative social behaviours) |                                |                                |                |       |         | 0.30                                        | 1.56                                          | 0.76            |       |         |
| Overall happiness              | 3.76                                       | 3.84                                        | -0.08          | -0.48 | 0.38    | 0.71                                        | 3.48                                          | 3.74            | -0.27   | -0.60  | 0.09                                        | 3.59                                          | 3.75            | -0.16   | -0.48   |
| (range 1-5, higher scores indicate more happiness) |                                |                                |                |       |         | 0.36                                        | 0.18                                          | 0.76            |       |         |
| Peer trust                     | 10.07                                      | 9.37                                        | 0.70           | -0.66 | 1.87    | 0.30                                        | 10.52                                         | 9.58            | 0.94    | -0.08  | 0.07                                        | 10.09                                         | 9.86            | 0.23    | -1.03   |
| (range 4-20, lower scores indicate better peer trust) |                                |                                |                |       |         | 0.76                                        | 1.56                                          | 0.14            |       |         |

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| Psychological sense of school membership (range 12-60, higher scores indicate better psms) | 45.23 | 48.13 | -2.89 | -6.03 | 0.61 | 0.10 | 43.37 | 47.03 | -3.66 | -6.17 | -1.34 | 0.00 | 44.76 | 45.67 | -0.91 | -3.28 | 1.68 | 0.47 |
| Self-efficacy (range 1-5, higher scores indicate better self-efficacy) | 3.66 | 3.96 | -0.30 | -0.56 | -0.02 | 0.03 | 3.58 | 3.86 | -0.28 | -0.49 | -0.08 | 0.00 | 3.75 | 3.75 | -0.01 | -0.25 | 0.25 | 0.92 |
| Self-harm, % and OR (yes) | 20.6 | 7.5 | 3.44 | 1.14 | 19.80 | 0.02 | 21.5 | 9.2 | 2.81 | 1.25 | 7.65 | 0.01 | 18.0 | 10.5 | 2.65 | 1.53 | 5.41 | 0.00 |

*a Strengths and Difficulties Questionnaire Hyperactivity/Inattention Subscale scores:
Low risk: 0-4 points, Borderline=5-7 points, High risk=8-10 points
b Shading: green=smallest difference, orange=middle difference, red= biggest difference

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**eTable 8. Association of ADHD Diagnosis With Quality of Life by Sex**

| Outcome                                                                 | Boys with ADHD diagnosis (n=284), mean | Boys w/out ADHD diagnosis (n=284), mean | Mean difference | 95% CI Lower | 95% CI Higher | p-value | Girls with ADHD diagnosis (n=109), mean | Girls w/out ADHD diagnosis (n=109), mean | Mean difference | 95% CI Lower | 95% CI Higher | p-value |
|-------------------------------------------------------------------------|----------------------------------------|----------------------------------------|-----------------|--------------|--------------|---------|----------------------------------------|----------------------------------------|-----------------|--------------|--------------|---------|
| Child health utility 9D (range 0-1, higher scores indicate better QoL)  | 0.81                                   | 0.83                                   | -0.02           | -0.06        | 0.02         | 0.316   | 0.68                                   | 0.73                                   | -0.05           | -0.13        | 0.03         | 0.227   |
| Academic self-concept (range 1-4, higher scores indicate a more positive academic self-concept) | 2.75                                   | 2.86                                   | -0.11           | -0.23        | 0.02         | 0.100   | 2.56                                   | 2.79                                   | -0.23           | -0.45        | 0.00         | 0.051   |
| Global health (range 1-5, lower scores indicate better health perception) | 2.22                                   | 2.14                                   | 0.08            | -0.10        | 0.26         | 0.381   | 2.49                                   | 2.30                                   | 0.19            | -0.11        | 0.49         | 0.197   |
| Negative social behaviours (range 0-85, lower scores indicate less negative social behaviours) | 3.84                                   | 2.12                                   | 1.72            | 0.53         | 2.92         | 0.004   | 2.89                                   | 1.74                                   | 1.15            | -0.80        | 3.23         | 0.230   |
| Overall happiness (range 1-5, higher scores indicate more happiness)    | 3.66                                   | 3.82                                   | -0.16           | -0.36        | 0.05         | 0.146   | 3.38                                   | 3.64                                   | -0.26           | -0.62        | 0.10         | 0.164   |
| Peer trust (range 4-20, lower scores indicate better peer trust)         | 10.75                                  | 10.10                                  | 0.65            | -0.13        | 1.41         | 0.100   | 9.01                                   | 8.36                                   | 0.66            | -0.62        | 1.91         | 0.324   |
| Psychological sense of school membership (range 12-60, higher scores indicate better pssm) | 44.79                                  | 47.37                                  | -2.58           | -4.33        | -0.90        | 0.002   | 42.95                                  | 45.51                                  | -2.56           | -5.33        | 0.54         | 0.102   |
| Self-efficacy (range 1-5, higher scores indicate better self-efficacy)    | 3.68                                   | 3.88                                   | -0.21           | -0.36        | -0.05        | 0.011   | 3.60                                   | 3.77                                   | -0.17           | -0.47        | 0.12         | 0.260   |
| Self-harm, % and OR (yes)                                                | 16.9                                   | 6.2                                    | 2.53            | 1.45         | 4.74         | <0.001  | 28.5                                   | 17.1                                   | 2.00            | 0.87         | 5.21         | 0.100   |

*Shading: green=smallest difference, red= biggest difference*
| Outcome                                      | Age 6/7 with ADHD diagnosis (n=91), mean | Age 6/7 w/out ADHD diagnosis (n=91), mean | Mean difference | p-value | 95% CI   | Age 10/11 with ADHD diagnosis (n=80), mean | Age 10/11 w/out ADHD diagnosis (n=80), mean | Mean difference | p-value | 95% CI   | Age 14/15 with ADHD diagnosis (n=41), mean | Age 14/15 w/out ADHD diagnosis (n=41), mean | Mean difference | p-value | 95% CI |
|----------------------------------------------|----------------------------------------|----------------------------------------|----------------|---------|----------|----------------------------------------|----------------------------------------|----------------|---------|----------|----------------------------------------|----------------------------------------|----------------|---------|--------|
| Child health utility 9D                      |                                        |                                        |                |         |          |                                        |                                        |                |         |          |                                        |                                        |                |         |        |
| Academic self-concept                       |                                        |                                        |                |         |          |                                        |                                        |                |         |          |                                        |                                        |                |         |        |
| Global health                               |                                        |                                        |                |         |          |                                        |                                        |                |         |          |                                        |                                        |                |         |        |
| Negative social behaviours                  |                                        |                                        |                |         |          |                                        |                                        |                |         |          |                                        |                                        |                |         |        |
| Overall happiness                           |                                        |                                        |                |         |          |                                        |                                        |                |         |          |                                        |                                        |                |         |        |
| Peer trust                                  |                                        |                                        |                |         |          |                                        |                                        |                |         |          |                                        |                                        |                |         |        |
|                                             |                                        |                                        |                |         |          |                                        |                                        |                |         |          |                                        |                                        |                |         |        |

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|                      |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
|----------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| better peer trust    |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Psychological sense of school membership (range 12-60, higher scores indicate better pssm) | 42.10    | 46.87    | -4.78    | -7.96    | -1.53    | 0.00     | 3         | 46.36    | 46.88    | -0.52    | -3.58    | 2.54     | 0.74     | 0         | 0.00     |
| Self-efficacy (range 1-5, higher scores indicate better self-efficacy) | 3.56     | 3.87     | -0.32    | -0.60    | 0.00     | 0.05     | 2         | 3.66     | 3.86     | -0.20    | -0.49    | 0.08     | 0.16     | 1         | 0.00     |
| Self-harm, % ad OR (yes) | 29.5     | 9.5      | 2.22     | 1.58     | 15.15    | 0.00     | 4         | 18.5     | 6.8      | 1.78     | 1.00     | 28.11    | 0.04     | 8         | 1.30     |

*Shading: green=smallest difference, orange=middle difference, red= biggest difference*