***Supplementary Table 1: Broad parental mental illness diagnostic category definitions***

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| ***Broad Diagnostic Group*** | ***Diagnostic categories*** | ***ICD-10 codes*** |
| **Severe Mental Disorders** | Schizophrenia and other psychotic disorders | F20, F22, F23, F24, F28, F29 |
| Schizoaffective Disorders | F25, F25.0, F25.1, F25.2, F25.8, F25.9 |
| Psychotic Affective Disorders | F30, F31 |
| Psychotic Disorders related to Substance Use | F10.5, F11.5, F12.5, F13.5, F14.5, F15.5, F15.50, F15.51, F15.59, F15.70, F16.5, F17.5, F18.5, F19.5, F19.7 |
| **Common Mental Disorders** | Non-psychotic Affective Disorders | F32, F33, F34, F34.0, F34.8, F34.9, F38.0, F38.1, F38.8, F39, F53 |
|  | Neurotic and stress-related (anxiety) disorders | F40, F41, F42, F43, F44, F45, F48 |
| **Personality Disorders** | Cluster A | F21, F60.0, F60.1 |
| Cluster B | F60.2, F60.3, F60.30, F60.31, F60.4 |
| Cluster C | F60.5, F60.6, F60.7 |
| Other Personality Disorders | F60, F60.8, F60.09, F60.9, F61, F62, F62.0, F62.1, F62.8, F62.9, F68.0, F68.1, F68.8, F69 |
| **Substance Use Disorders** | Substance Intoxication and Use Disorders | F10, F11, F12, F13, F14, F15 F16, F17, F18, F19, F55.9 |
| **Other Adult Onset Disorders** | Other postnatal conditions | F53, F53.8, F53.9 |
| Other Disorders not elsewhere classified | F99, F99.1 |
| Other Adult onset disorders (e.g. organic disorders, eating disorders, sleep disorders) | F00, F01, F03, F04, F05, F06, F07, F09, F50, F51, F52, F54, F55, F59, F63, F64, F65, F66 |
| Self-harm | R45.81, X84 |
| Mental health diagnosis not yet allocated | 99.1 |
| **Other Childhood Onset Disorders** | Hyperkinetic disorders | F90 |
| Conduct Disorders | F91, F92 |
| Other Childhood Disorders (e.g. hyperkinetic disorders, conduct disorders, mental retardation, pervasive developmental disorders) | F70, F71, F73, F78, F79, F80, F81, F82, F83, F84, F88, F89, F93, F94, F95, F98 |

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| --- | --- | --- |
| ***Aggressive behaviour*** | ***Hyperactive and inattentive behaviour*** | ***Anxious and fearful behaviour*** |
|  |  |  |
| C34. Would you say that this child gets into physical fights? | C39. Would you say that this child can’t sit still, is restless? | C47. Would you say that this child seems to be unhappy, sad or depressed? |
| C35. Would you say that this child bullies or is mean to others? | C40. Would you say that this child is distractible, has trouble sticking to any activity? | C48. Would you say that this child appears worried? |
| C36. Would you say that this child kicks, bites, hits other children or adults? | C43. Would you say that this child is impulsive, acts without thinking? | C49. Would you say that this child cries a lot? |
| C37. Would you say that this child takes things that do not belong to him/her? | C44. Would you say that this child has difficulty waiting turns in games or groups? | C50. Would you say that this child is nervous, highly-strung or tense? |
| C38. Would you say that this child laughs at other’s discomfort? | C45. Would you say that this child cannot settle to anything for more than a few moments? | C51. Would you say that this child is incapable of making decisions? |
| C41. Would you say that this child is disobedient? | C46Would you say that this child is inattentive? |  |
| C42. Would you say that this child has temper tantrums? |  |  |

***Supplementary Table 2: Australian Early Development Census items constituting the three subdomains of childhood vulnerability***

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| --- | --- | --- | --- | --- | --- | --- |
| ***Supplementary Table 3: Offspring with parental mental disorder (in both parents) and subdomain vulnerability (unadjusted associations)*** | | | | | | |
|  |  | |  | |  | |
| Aggressive behaviour | | Hyperactive and inattentive behaviour | | Anxious and fearful behaviour | |
|  | |  | |  | |
| ***Both parents with a history of:*** | No. cases (row N) | OR (95% CI) | No. cases (row N) | OR (95% CI) | No. cases (row N) | OR (95% CI) |
| Any mental disorder | 219 (1,170) | 2.85 (2.45-3.31) | 261 (1,171) | 2.70 (2.35-3.12) | 215 (1,169) | 2.03 (1.75-2.36) |
| Severe mental disorder\* | 5 (35) | - | 10 (36) | 3.62 (1.75-7.51) | 5 (36) | - |
| Common mental disorder\* | 68 (382) | 2.68 (2.06-3.49) | 78 (383) | 2.41 (1.88-3.09) | 78 (383) | 2.31 (1.80-2.96) |
| Substance use disorder\* | 94 (442) | 3.34 (2.65-4.20) | 120 (443) | 3.50 (2.83-4.32) | 71 (443) | 1.72 (1.33-2.22) |
| Personality disorder\* | 3 (17) | - | 5 (18) | - | 5 (18) | - |
| Other adulthood-onset disorder\* | 49 (258) | 2.90 (2.12-4.00) | 61 (259) | 2.90 (2.17-3.87) | 48 (259) | 2.05 (1.50-2.81) |
| Childhood-onset disorder\* | 1 (2) | - | 0 (2) | - | 2 (2) | - |
| No mental disorder in either parent (ref) | 4,355 (58,196) | 1 | 5,588 (58,206) | 1 | 5,810 (58,181) | 1 |
| Note: No. = number; OR = odds ratio; CI = confidence interval; ref = reference category; \*Each parent had a diagnosis in the same broad category for these comparisons; Results of regression analyses are not reported where the number of cases is <= 5 | | | | | | |

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| ***Supplementary Table 4: Offspring with paternal and maternal history of mental disorder and subdomain vulnerability (raw numbers)*** | | | | | | |
|  |  | |  | |  | |
| Aggressive behaviour | | Hyperactive and inattentive behaviour | | Anxious and fearful behaviour | |
|  | |  | |  | |
|  | Affected Father | Affected Mother | Affected father | Affected mother | Affected father | Affected mother |
|  |  |  |  |  |  |  |
| ***Parent with a history of:*** | No. cases (row N) | No. cases (row N) | No. cases (row N) | No. cases (row N) | No. cases (row N) | No. cases (row N) |
| Any mental disorder | 600 (4,125) | 993 (7,513) | 696 (4,129) | 1,208 (7,515) | 622 (4,126) | 1,109 (7,509) |
| Severe mental disorder | 114 (771) | 118 (702) | 140 (772) | 148 (703) | 136 (771) | 122 (703) |
| Common mental disorder | 289 (2,024) | 640 (5,133) | 338 2,026) | 787 (5,135) | 337 (2,026) | 746 (5,132) |
| Substance use disorder | 402 (2,589) | 365 (1,950) | 465 (2,591) | 440 (1,951) | 369 (2,588) | 337 (1,949) |
| Personality disorder | 75 (401) | 80 (452) | 91 (402) | 99 (453) | 66 (401) | 80 (453) |
| Other adulthood-onset disorder | 291 (1,853) | 389 (2,563) | 340 (1,856) | 459 (2,564) | 289 (1,855) | 400 (2,563) |
| Childhood-onset disorder | 27 (145) | 26 (118) | 31 (145) | 28 (118) | 32 (145) | 25 (118) |
| No mental disorder in either parent | 4,355 (58,196) | 4,355 (58,196) | 5,588 (58,206) | 5,588 (58,206) | 5,810 (58,181) | 5,810 (58,181) |

Note: No. = number

|  |  |  |  |  |  |  |
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| ***Supplementary Table 5: Female and male offspring with parental mental disorder (in either parent) and subdomain vulnerability (raw numbers)*** | | | | | | |
|  |  | |  | |  | |
| Aggressive behaviour | | Hyperactive and inattentive behaviour | | Anxious and fearful behaviour | |
|  | |  | |  | |
|  | Female offspring | Male offspring | Female offspring | Male offspring | Female offspring | Male offspring |
|  |  |  |  |  |  |  |
| ***Either parent with a history of:*** | No. cases (row N) | No. cases (row N) | No. cases (row N) | No. cases (row N) | No. cases (row N) | No. cases (row N) |
| Any mental disorder | 394 (5,209) | 977 (5,259) | 470 (5,213) | 1,173 (5,260) | 679 (5,211) | 837 (5,255) |
| Severe mental disorder | 68 (651) | 140 (660) | 77 (652) | 174 (660) | 10 (652) | 123 (659) |
| Common mental disorder | 246 (3,295) | 592 (3,291) | 302 (3,297) | 718 (3,292) | 451 (3,296) | 512 (3,290) |
| Substance use disorder | 189 (1,878) | 443 (1,901) | 237 (1,880) | 507 (1,901) | 250 (1,879) | 348 (1,897) |
| Personality disorder | 42 (363) | 100 (381) | 56 (364) | 111 (381) | 60 (364) | 69 (380) |
| Other adulthood-onset disorder | 167 (1,970) | 454 (2,075) | 197 (1,972) | 528 (2,076) | 271 (1,971) | 353 (2,075) |
| Childhood-onset disorder | 12 (110) | 37 (117) | 18 (110) | 38 (117) | 25 (110) | 24 (117) |
| No mental disorder in either parent | 1,097 (28,803) | 3,258 (29,393) | 1,314 (28,806) | 4,274 (29,400) | 2,562 (28,792) | 3,248 (29,389) |

Note: No. = number