



**GENDER PATTERNS AMONG DSM-IV
ATTENTION-DEFICIT/HYPERACTIVITY
DISORDER SUBTYPES**

VOLUME TWO

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TABLES AND FIGURES CITED IN THE TEXT

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Table 2.1
Studies of DSM-IV ADHD Subtypes with Community Samples

| Study | ADHD Sample Size & % Male | ADHD Subtype | | | | | | | | |
|---|------------------------------|--------------|-------|------------------|------------|-------|------------------|------------|-------|------------------|
| | | Inattentive | | | Hyp-Imp | | | Combined | | |
| | | % of cases | M:F | Age [#] | % of cases | M:F | Age [#] | % of cases | M:F | Age [#] |
| Baumgaertel et al. (1995) ^b | N = 192; NR | 51% | 2.0:1 | NR | 22% | 5.0:1 | NR | 27% | NR | NR |
| Wolraich et al. (1996) ^b | N = 943; 70% M | 44% | 2.1:1 | NR | 23% | 4.2:1 | NR | 33% | 3.3:1 | NR |
| Carlson et al. (1997) ^b | N = 563; 71% M | 60% | 1.9:1 | NR | 11% | 3.0:1 | NR | 28% | 2.7:1 | NR |
| Gaub et al. (1997) ^b | N = 221; 63% M | 56% | 2.3:1 | 7.6 | 21% | 4.1:1 | 7.5 | 23% | 2.8:1 | 7.6 |
| Wolraich et al. (1998) ^b | N = 698; 72% M | 54% | 2.0:1 | NR | 16% | 3.0:1 | NR | 29% | 3.5:1 | NR |
| Hudziak et al. (1998) ^{a,d} | N = 316; 0% M | 41% | NA | NR | 21% | NA | NR | 38% | NA | NR |
| Ostrander et al. (1998) ^c | N = 194; 82% M | 51% | 5.2:1 | NR | 5% | NR | NR | 43% | 3.9:1 | NR |
| Brito et al. (1999) ^b | N = 78; 55% M | 62% | 1.3:1 | NR | 22% | 1.1:1 | NR | 16% | 1.2:1 | NR |
| Gomez et al. (1999) ^a | N = 126; 70% M | 43% | 3.6:1 | NR | 28% | 1.9:1 | NR | 29% | 2.3:1 | NR |
| Pineda et al. (1999) ^{a,d} | N = 87; 62% M | 26% | 1.5:1 | NR | 53% | 1.4:1 | NR | 21% | 2.5:1 | NR |
| Weiler et al. (1999) ^a | N = 26; 50% M | 52% | 0.6:1 | NR | 7% | NR | NR | 41% | 1.5:1 | NR |
| Willcutt et al. (1999) ^{c,d} | N = 105; 69% M | 55% | 1.8:1 | 11.1 | 14% | 2.0:1 | 9.8 | 30% | 3.6:1 | 10.7 |
| Gadow et al. (2000) ^a | N = 119; 69% M | 36% | 1.9:1 | NR | 43% | 2.4:1 | NR | 21% | 2.6:1 | NR |
| Nolan et al. (2001) ^b | N = 242; 63% M | 65% | 2.4:1 | NR | 14% | 3.1:1 | NR | 21% | 4.8:1 | NR |
| Rowland et al. (2001) ^c | N = 46; NR | 26% | NR | NR | 2% | NA | NR | 72% | NR | NR |
| Chhabildas et al. (2001) ^{c,d} | N = 114; 69% M | 59% | 2.1:1 | 12.0 | 12% | 2.5:1 | 10.3 | 29% | 2.7:1 | 10.9 |

Note: M:F = Male:Female ADHD prevalence ratio. [#] Mean Age in Years. M = Male. NR = not recorded. NA = not applicable.

^a Parent informant. ^b Teacher informant. ^c Parent and teacher informant. ^d Sample includes adolescents.

Table 2.2
Studies of DSM-IV ADHD Subtypes with Clinic Samples

| Study | ADHD Sample Size & % Male | ADHD Subtype | | | | | | | | |
|--|------------------------------|--------------|-------|------------------|------------|-------|------------------|------------|-------|------------------|
| | | Inattentive | | | Hyp-Imp | | | Combined | | |
| | | % of cases | M:F | Age [#] | % of cases | M:F | Age [#] | % of cases | M:F | Age [#] |
| Lahey et al. (1994) ^{c d} | N = 276; 83% M | 27% | 2.7:1 | 9.8 | 18% | 4.0:1 | 5.7 | 55% | 7.5:1 | 8.5 |
| Paternite et al. (1996) ^a | N = 96; 100% M | 29% | NA | 9.0 | 10% | NA | 7.5 | 61% | NA | 8.3 |
| Morgan et al. (1996) ^c | N = 56; 80% M | 52% | 3.3:1 | 10.5 | 3% | NR | NR | 45% | 5.5:1 | 9.7 |
| Eiraldi et al. (1997) ^c | N = 60; 70% M | 43% | 2.0:1 | 9.2 | 12% | NR | NR | 45% | 2.8:1 | 8.9 |
| Vaughn et al. (1997) ^c | N = 54; NR | 30% | NR | 9.9 | — | — | — | 70% | NR | 9.8 |
| Clarke et al. (1998) ^{c *} | N = 40; 75% M | 50% | 4.0:1 | 10.3 | — | — | — | 50% | 4.0:1 | 10.2 |
| Lalonde et al. (1998) ^{c d} | N = 100; 81% M | 15% | 1.5:1 | 11.3 | 7% | NR | 8.7 | 78% | 4.9:1 | 8.7 |
| Faraone et al. (1998) ^{a d} | N = 301; 77% M | 30% | 2.4:1 | 12.5 | 10% | 3.0:1 | 8.1 | 60% | 3.9:1 | 9.9 |
| McBurnett et al. (1998) ^{c d} | N = 657; 79% M | 28% | 2.8:1 | 10.0 | 7% | 2.8:1 | 7.1 | 65% | 4.6:1 | 8.2 |
| Lahey et al. (1998) ^c | N = 126; 83% M | 10% | 1.6:1 | 5.8 | 25% | 5.2:1 | 5.1 | 65% | 5.8:1 | 5.2 |
| Power et al. (1998) ^{c d} | N = 57; NR | 53% | 2.0:1 | 9.5 | 4% | NR | NR | 44% | 5.3:1 | 8.4 |
| Houghton et al. (1999) ^{a d} | N = 94; 59% M | 34% | 2.2:1 | 10.5 | — | — | — | 66% | 1.1:1 | 9.9 |
| Nolan et al. (1999) ^{c d} | N = 150; 77% M | 48% | 3.2:1 | 12.0 | 10% | 4.3:1 | 7.8 | 42% | 3.5:1 | 8.6 |
| Weiler et al. (1999) ^a | N = 69; 72% M | 60% | 1:1 | NR | 6% | NR | NR | 33% | 1.3:1 | NR |
| Eiraldi et al. (2000) ^c | N = 187; NR | 31% | NR | 9.2 | 7% | NR | 8.6 | 61% | NR | 8.7 |
| Faraone et al. (2000) ^{a d} | N = 139; NR | 17% | NR | — | 4% | NR | — | 79% | NR | — |
| Karustis et al. (2000) ^c | N = 133; 79% M | 32% | 3.7:1 | 9.4 | 6% | 4.0:1 | 8.5 | 62% | 3.9:1 | 9.1 |

Note: M:F = Male:Female ADHD prevalence ratio. [#] Mean Age in Years. M = Male. NR = not recorded. NA = not applicable

^a Parent informant. ^b Parent and child informant. ^c Parent and teacher informant. ^d Sample includes adolescents. * Matched sample (i.e. equivalent numbers for groups matched on age).

Table 2.2 (continued)
Studies of DSM-IV ADHD Subtypes with Clinic Samples

| Study | ADHD Sample Size & % Male | ADHD Subtype | | | | | | | | |
|---------------------------------------|------------------------------|--------------|-------|------------------|------------|-------|------------------|-----------------------|-------|------------------|
| | | Inattentive | | | Hyp-Imp | | | Combined ^c | | |
| | | % of cases | M:F | Age [#] | % of cases | M:F | Age [#] | % of cases | M:F | Age [#] |
| Maedgen et al. (2000) ^c | N = 30; 70% M | 47% | 1.8:1 | 10.4 | — | — | — | 53% | 3.0:1 | 10.0 |
| Hodgens et al. (2000) ^c | N = 30; 100% M | 50% | NA | 9.8 | — | — | — | 50% | NA | 8.7 |
| Clarke et al. (2001) ^{c*} | N = 40; 75% M | 50% | 4.0:1 | 10.4 | — | — | — | 50% | 4.0:1 | 10.4 |
| Decker et al. (2001) ^{d c} | N = 287; 70% M | 50% | 2.0:1 | NR | 50% | 3.0:1 | NR | — | — | — |
| Manning et al. (2001) ^b | N = 40; 86% M | 30% | 3.0:1 | 10.2 | 70% | 9.0:1 | 8.1 | — | — | — |
| Podolski et al. (2001) ^{c †} | N = 37; 62% M | 40% | 1.1:1 | 10.6 | — | — | — | 60% | 2.1:1 | 9.2 |
| Power et al. (2001) ^c | N = 41; 71% M | 46% | 2.8:1 | 9.8 | — | — | — | 54% | 2.1:1 | 8.1 |
| Landgraf et al. (2002) ^{c d} | N = 80; 74% M | 50% | NR | NR | — | — | — | 50% | NR | NR |
| Nigg et al. (2002) ^{c †} | N = 64; 73% M | 72% | 3.2:1 | 9.6 | — | — | — | 28% | 2.0:1 | 10.6 |
| Carlson et al. (2002) ^a | N = 38; 71% M | 34% | 1.2:1 | 11.4 | — | — | — | 66% | 4.0:1 | 10.9 |

Note: M:F = Male:Female ADHD prevalence ratio. [#] Mean Age in Years. M = Male. NR = not recorded. NA = not applicable

^a Parent informant. ^b Parent and child informant. ^c Parent and teacher informant. ^d Sample includes adolescents. ^e Informant not specified. [†]

Combined community and clinic sample. * Matched sample (i.e. equivalent numbers for groups matched on age).

Table 2.3
Social Adversity

| Domain, Sample & Study | | Measure | Is ADHD Subtype different ($p < .05$) from Controls? | | | Significant Differences among Subtypes |
|-------------------------|--------------------------------------|-------------------------|--|------------------|----------|--|
| | | | Inattentive | Hyp-Imp | Combined | |
| SES | | | | | | |
| Clinic | Paternite et al. (1996) [⊗] | Hollingshead – 2 factor | No | No | No | None |
| | Eiraldi et al. (1997) | Hollingshead - 4 factor | No | — | Yes | C < I (No HI group) |
| | Faraone et al. (1998) | Not Specified | No | Yes | Yes | HI < C < I |
| | McBurnett et al. (1999) | Hollingshead – 2 factor | | No Control Group | | C < HI & I |
| | Eiraldi et al. (2000) | Hollingshead – 5 factor | No | — | No | None (No HI group) |
| | Karustis et al. (2000) | Hollingshead – 4 factor | | No Control Group | | None (No HI group) |
| | Maedgen et al. (2000) | Duncan's SES | No | — | No | None (No HI group) |
| | Podolski et al. (2001) ^{‡⊗} | Duncan's SES | No | — | No | None (No HI group) |
| | Carlson et al. (2002) | Duncan's SES | No | — | No | None (No HI group) |
| | Community | Willcutt et al. (1999) | Hollingshead – 2 factor | No | No | No |
| Ostrander et al. (1998) | | Hollingshead – 4 factor | No | — | No | None (No HI group) |
| Family Type | | | | | | |
| Clinic | Eiraldi et al. (1997) | % Single Parent | No | — | No | None (No HI Group) |
| | Lalonde et al. (1998) | % Intact Families | | No Control Group | | None |
| Family Income | | | | | | |
| Clinic | Lahey et al. (1998) | Annual Income | No | No | No | None |
| Family Size | | | | | | |
| Clinic | Eiraldi et al. (1997) | Number in Family | No | — | No | None (No HI Group) |
| Parent Education | | | | | | |
| Community | Gadow et al. (2000) | Years of Education | No | No | No | None |

Note: [⊗] Compares ADHD subtypes against clinic controls. [‡] Combined community and clinic sample

Table 2.4
Conduct Disorder

| Sample | Study | Assessment Method | Is ADHD Subtype different ($p < .05$) from Controls? | | | Significant Differences among Subtypes |
|-----------|--------------------------------------|----------------------|--|------------------|----------|--|
| | | | Inattentive | Hyp-Imp | Combined | |
| Clinic | Morgan et al. (1996) | Clinic Evaluation | | No Control Group | | C > I (No HI group) |
| | Eiraldi et al. (1997) | Structured Interview | No | — | Yes | C > I (No HI group) |
| | Lalonde et al. (1998) | Symptom Checklist | | No Control Group | | HI > C & I |
| | Faraone et al. (1998) | Structured Interview | Yes | No | Yes | C > I |
| | Power et al. (1998) [⊗] | Structured Interview | No | — | Yes | C > I |
| | Nolan et al. (1999) ^a | Symptom Checklist | | No Control Group | | C > I (No HI group) |
| | Podolski et al. (2001) ^{‡⊗} | Structured Interview | No | — | No | None (No HI group) |
| | Carlson et al. (2002) | Structured Interview | No | — | Yes | C > I (No HI group) |
| | Nigg et al. (2002) | Structured Interview | No | — | Yes | C > I (No HI group) |
| Community | Wolraich et al. (1996) [†] | Symptom Checklist | | No Control Group | | C > HI > I |
| | Ostrander et al. (1998) | Structured Interview | | Not Reported | | None |
| | Willcutt et al. (1999) | Structured Interview | Yes | Yes | Yes | None |
| | Gadow et al. (2000) ^a | Symptom Checklist | Yes | Yes | Yes | None |
| | Nolan et al. (2001) ^{†a} | Symptom Checklist | Yes | Yes | Yes | C > HI > I |

Note: [⊗] Compares ADHD subtypes against clinic controls. ^a Dimensional analysis of symptom severity. [‡] Combined community and clinic sample.

Table 2.5
Depressive Disorders

| Sample | Study | Assessment Method | Is ADHD Subtype different (p < .05) from Controls? | | | Significant Differences among Subtypes |
|-----------|-------------------------------------|----------------------|--|------------------|----------|--|
| | | | Inattentive | Hyp-Imp | Combined | |
| Clinic | Morgan et al. (1996) | Clinic Evaluation | | No Control Group | | None (No HI group) |
| | Eiraldi et al. (1997) | Structured Interview | No | — | No | None (No HI group) |
| | Faraone et al. (1998) | Structured Interview | Yes | No | Yes | I & C > HI |
| | Power et al. (1998) [⊗] | Structured Interview | No | — | No | None |
| | Nolan et al. (1999) ^a | Symptom Checklist | | No Control Group | | None (No HI group) |
| | Karustis et al. (2000) | Structured Interview | | No Control Group | | None (No HI group) |
| Community | Willcutt et al. (1999) ^b | Structured Interview | Yes | No | Yes | I & C > HI |
| | Nolan et al. (2001) ^{†a} | Symptom Checklist | Yes | Yes | Yes | I & C > HI |

Note: [⊗] Compares ADHD subtypes against clinic controls. ^a Dimensional analysis of symptom severity. [†] Teacher informant. ^b C > HI & I on dimensional analysis of symptom severity.

Table 2.6
Externalising Behaviour Problems

| Sample | Study | Measure | Is ADHD Subtype different ($p < .05$) from Controls? | | | Significant Differences among Subtypes | |
|----------------------------------|--|---------------------------------|--|---------|----------|--|---------------------|
| | | | Inattentive | Hyp-Imp | Combined | | |
| Clinic | Morgan et al. (1996) | CBCL Externalizing | No Control Group | | | C > I (No HI group) | |
| | Paternite et al. (1996) ^a ⊗ | CBCL Aggressive | No | Yes | Yes | C & HI > I | |
| | Vaughn et al. (1997) ^b ⊗ | CBCL Externalizing | No | — | Yes | C > I (No HI group) | |
| | Eiraldi et al. (1997) | DSMD Externalizing | Yes | — | Yes | C > I (No HI group) | |
| | Faraone et al. (1998) ^c % | CBCL Aggressive | Yes | Yes | Yes | None | |
| | Eiraldi et al. (2000) [⊗] | CBCL Aggressive | No | — | Yes | C > I (No HI group) | |
| | Maedgen et al. (2000) | RBPC Conduct | No | — | Yes | C > I (No HI group) | |
| | Podolski et al. (2001) [‡] ⊗ | CBCL Aggressive | No | — | Yes | C > I (No HI group) | |
| | Manning et al. (2001) [†] | BASC Externalizing | Yes | Yes | — | HI > I (No C group) | |
| | Power et al. (2001) [⊗] | CBCL Externalizing | No | — | Yes | C > I (No HI group) | |
| | Carlson et al. (2002) | RBPC Conduct | Yes | — | Yes | C > I (No HI group) | |
| | Nigg et al. (2002) [‡] | CBCL Aggressive | No | — | Yes | C > I (No HI group) | |
| | Community | Gaub et al. (1997) [†] | TRF Externalizing | Yes | Yes | Yes | C & HI > I |
| | | Ostrander et al. (1998) | CBCL Aggressive | Yes | — | Yes | C > I (No HI group) |
| Brito et al. (1999) [†] | | ComTRS Hyper/Conduct | Yes | Yes | Yes | C > HI > I | |
| Gadow et al. (2000) ^d | | CBCL Aggressive | Yes | Yes | Yes | C & HI > I | |

Note: [†] Teacher reports. [⊗] Compares ADHD subtypes against clinic controls. [‡] Combined clinic and community sample. [%] Compares the percentage of children scoring above the clinical-cut off.

^a C > I on Delinquent Behavior. ^b C not greater than I on Delinquent Behavior. ^c C > I on Delinquent Behavior ^d C > HI & I on Delinquent Behaviour.

BASC = Behavior Assessment System for Children (Reynolds & Kamphaus, 1992). CBCL = Child Behaviour Checklist (Achenbach, 1991).

comTRS = Composite Teacher Rating Scale (Brito & Pinto, 1991). DSMD = The Devereau Scale of Mental Disorders (Naglieri et al., 1994).

RBPC = Revised Behavior Problem Checklist (Quay & Peterson, 1983). TRF = Teacher Report Form (Achenbach, 1991).

Table 2.7
Internalising Problems

| Sample | Study | Measure | Is ADHD Subtype different ($p < .05$) from Controls? | | | Significant Differences among Subtypes |
|--------------------------------------|--------------------------------------|-------------------------------------|--|------------------|------------------|--|
| | | | Inattentive | Hyp-Imp | Combined | |
| Clinic | Morgan et al. (1996) | CBCL Internalizing | | No Control Group | | None (No HI group) |
| | Paternite et al. (1996) [⊗] | CBCL Anx/Dep | Yes | Yes | Yes | None |
| | Vaughn et al. (1997) [⊗] | CBCL Internalizing | No | — | Yes | C > I (No HI group) |
| | Eiraldi et al. (1997) | DSMD Internalizing | Yes | — | Yes | C > I (No HI group) |
| | Faraone et al. (1998) [%] | CBCL Anx/Dep | Yes | Yes | Yes | None |
| | Eiraldi et al. (2000) [⊗] | CBCL Anx/Dep | Yes | — | Yes | None (No HI group) |
| | Maedgen et al. (2000) | RBPC Anx/Withdrawl | Yes | — | Yes | None (No HI group) |
| | Manning et al. (2001) [†] | BASC Internalising | Yes | Yes | — | None (No C group) |
| | Power et al. (2001) [⊗] | CBCL Internalising | Yes | — | Yes | None (No HI group) |
| | Carlson et al. (2002) | RBPC Anx/Withdrawl | Yes | — | Yes | None (No HI group) |
| | Nigg et al. (2002) [‡] | CBCL Anx/Dep | No | — | Yes | C > I (No HI group) |
| | Community | Wolraich et al. (1996) [†] | PBS Anx/Dep | | No Control Group | |
| Gaub et al. (1997) ^{†a} | | TRF Internalizing | Yes | No | Yes | C > HI |
| Ostrander et al. (1998) ^b | | CBCL Anx/Dep | Yes | — | Yes | C > I (No HI Group) |
| Brito et al. (1999) [†] | | ComTRS Anxiety | Yes | No | No | I > C & HI |
| Gadow et al. (2000) ^c | | CBCL Anx/Dep | Yes | No | No | None |

Note: [†] Teacher reports. [⊗] Compares ADHD subtypes against clinic controls. [‡] Combined clinic and community sample. [%] Compares the percentage of children scoring above the clinical-cut off.

^a I > HI on Withdrawn and C > HI & I on Anxiety/Depression. ^b No difference between C and I on Withdrawn. ^c I > HI & C on Withdrawn.
 BASC = Behavior Assessment System for Children (Reynolds & Kamphaus, 1992). CBCL = Child Behaviour Checklist (Achenbach, 1991).
 comTRS = Composite Teacher Rating Scale (Brito & Pinto, 1991). DSMD = The Devereau Scale of Mental Disorders (Naglieri et al., 1994).
 RBPC = Revised Behavior Problem Checklist (Quay & Peterson, 1983). PBS = Pediatric Behavior Scale (Lindgren & Koepl, 1987).
 TRF = Teacher Report Form (Achenbach, 1991).

Table 2.8
Social Functioning

| Sample | Study | Measure | Is ADHD Subtype different ($p < .05$) from Controls? | | | Significant Differences among Subtypes | |
|------------------------------------|---|---------------------------------|--|------------------|----------|--|---------------------|
| | | | Inattentive | Hyp-Imp | Combined | | |
| Clinic | Lahey et al. (1994) [†] [⊗] | Social Preference | Yes | No | Yes | C & I < HI | |
| | Paternite et al. (1996) [⊗] | CBCL Social Problems | Yes | Yes | Yes | None | |
| | Morgan, et al. (1996) | CBCL Social Problems | | No Control Group | | C > I (No HI group) | |
| | Vaughn et al. (1997) [⊗] | CBCL Social Problems | No | — | Yes | C > I (No HI group) | |
| | Lalonde et al. (1998) | OCHS Social Functioning | | No Control Group | | I > C | |
| | Faraone et al. (1998) | CBCL Social Problems | Yes | Yes | Yes | None ^a | |
| | Lahey et al. (1998) [†] | Peer Dislike | No | No | Yes | C > HI & I ^b | |
| | McBurnett et al. (1999) | Peer Dislike | | No Control Group | | C > HI & I ^c | |
| | Karustus et al. (2000) | CBCL Social Problems | | No Control Group | | None (No HI group) | |
| | Maedgen et al. (2000) ^Δ | Social Preference | No | — | Yes | I > C (No HI group) | |
| | Manning et al. (2001) ^Δ | BASC Social Skills | Yes | Yes | — | None (No C group) | |
| | Hodgens et al. (2000) [#] | Social Preference | Yes | — | Yes | None (No HI group) [*] | |
| | Community | Gaub et al. (1997) [†] | TRF Social Problems | Yes | Yes | Yes | C > I & HI |
| | | Ostrander et al. (1998) | CBCL Social Problems | Yes | — | Yes | C > I (No HI group) |
| Hudziak et al. (1998) | | % Impairment with Friends | | No Control Group | | C > HI & I | |
| Brito et al. (1999) | | ComTRS Negative Socialisation | Yes | No | Yes | C > HI | |
| Gadow et al. (2000) | | CBCL Social Problems | Yes | Yes | Yes | C & I > HI | |
| Nolan et al. (2001) [†] | | CSI-4 Social Problems | Yes | Yes | Yes | C > I & HI | |
| Rowland et al. (2001) [†] | | Peer Relationship Problems | | No Control Group | | C > I (No HI group) | |

Note: [†] Teacher reports. [#] Child reports. ^Δ Combined parent and teacher reports. [⊗] Compares ADHD subtypes against clinic controls. ^{*} Assessed at $p < .01$

^a HI > I & C on CBCL Social T Scores. ^b HI > C & I on Peer like and C > HI on Peer Ignore. ^c C & HI > I on Peer Annoyance.

BASC = Behavior Assessment System for Children (Reynolds & Kamphaus, 1992). CBCL = Child Behaviour Checklist (Achenbach, 1991).

comTRS = Composite Teacher Rating Scale (Brito & Pinto, 1991). CSI-4 = Child Symptom Inventory 4 (Gadow & Sprafkin, 1998).

OCHS = Revised Ontario Child Health Study Scales (Boyle et al. 1993). TRF = Teacher Report Form (Achenbach, 1991).

Table 2.9
Family Functioning

| Sample | Study | Measure | Is ADHD Subtype different ($p < .05$) from Controls? | | | Significant Differences among Subtypes |
|------------------------|--------------------------------------|-------------------------------|--|---------|----------|--|
| | | | Inattentive | Hyp-Imp | Combined | |
| Clinic | Paternite et al. (1996) [⊗] | FES – Cohesion | Yes | Yes | Yes | None |
| | | FES - Conflict | Yes | Yes | Yes | None |
| | | FES – Expressiveness | No | No | No | None |
| | Faraone et al. (1998) | FES - Cohesion | No | No | No | None |
| | | FES - Conflict | Yes | No | No | None |
| | | FES – Expressiveness | No | No | No | None |
| | Podolski et al. (2001) [‡] | Parent role-specific distress | Yes | | Yes | None |
| Landgraf et al. (2002) | ADHD Impact on Home | | No Control Group | | C > I | |
| Community | Gadow et al., (2000) | Mother – Child Relations | Yes | Yes | Yes | None |
| | | Maternal Punishment | Yes | Yes | Yes | None |

Note: [⊗] Compares ADHD subtypes against clinic controls. [‡] Combined clinic and community sample. FES = Family Environment Scale (Moos & Moos, 1981)

Table 2.10

Global Academic Functioning and School Behaviour Problems

| Domain, Sample and Study | | Measure | Is ADHD Subtype different ($p < .05$) from Controls? | | | Significant Differences among Subtypes |
|------------------------------------|--|---------------------------------|--|------------------|----------|--|
| | | | Inattentive | Hyp-Imp | Combined | |
| Global Academic Functioning | | | | | | |
| Clinic | Lahey et al. (1994) [†] ® | Academic Performance | Yes | No | Yes | HI > C & I |
| | Paternite et al. (1996) [®] | Academic Problems | No | No | No | None |
| | Faraone et al. (1998) | CBCL School T score | Yes | No | Yes | None |
| | Lalonde et al. (1998) | OCHS – School Performance | | No Control Group | | None |
| | McBurnett et al. (1999) | CBCL School | | No Control Group | | HI > C & I |
| | Karustis et al. (2000) [†] | Work Completion and Accuracy | | No Control Group | | None (No HI group) |
| | Manning et al. (2001) [†] | BASC Learning Problems | Yes | Yes | — | None (No C group) |
| Community | Baumgaertel et al. (1995) [†] | Academic Performance | | No Control Group | | HI > C & I |
| | Wolraich et al. (1996) [†] | Academic Problems | | No Control Group | | I & C > HI |
| | Gaub et al. (1997) [†] | TRF Learning | Yes | No | Yes | HI > C & I |
| | Hudziak et al. (1998) | % Impaired at school | | No Control Group | | I & C > HI |
| | Brito et al. (1999) [†] | Below ave. Academic Performance | Yes | No | Yes | C & I > HI |
| | Gadow et al. (2000) [†] | Grade Point Average | Yes | No | No | HI > I |
| | Rowland et al. (2001) [†] | Assignment Completion | | No Control Group | | None (No HI group) |
| School Behaviour Problems | | | | | | |
| Clinic | Paternite et al. (1996) [®] | School Behaviour Problems | Yes | Yes | Yes | None |
| Community | Wolraich et al. (1996) [†] | Behavioural Problems | | No Control Group | | C & HI > I |
| | Rowland et al. (2001) [†] | Following Directions/Rules | | No Control Group | | None (No HI Group) |

Note: [†] Teacher reports. [®] Compares ADHD subtypes against clinic controls.

BASC = Behavior Assessment System for Children (Reynolds & Kamphaus, 1992). CBCL = Child Behaviour Checklist (Achenbach, 1991).

OCHS = Revised Ontario Child Health Study Scales (Boyle et al. 1993). TRF = Teacher Report Form (Achenbach, 1991).

Table 2.11
Service and Medication Use

| Domain, Sample and Study | | Measure | Is ADHD Subtype different ($p < .05$) from Controls? | | | Significant Differences among Subtypes |
|--------------------------|--------------------------------------|--------------------------|--|------------------|----------|--|
| | | | Inattentive | Hyp-Imp | Combined | |
| Service Use | | | | | | |
| Clinic | Paternite et al. (1996) [⊗] | % School-based services | Yes | No | No | I > C |
| | Faraone et al. (1998) | % Counseling | Yes | Yes | Yes | C > HI & I |
| Community | Hudziak et al. (1998) | % "Saw professional" | | No Control Group | | C > HI & I |
| | Nolan et al. (2001) [†] | % Special-educ. services | Yes | No | Yes | I > HI |
| Medication Use | | | | | | |
| Clinic | Vaughn et al. (1997) [⊗] | % Medication | Yes | — | Yes | None |
| | Faraone et al. (1998) | % Medication | Yes | Yes | Yes | None |
| | Carlson et al. (2002) | % Stimulants | Yes | — | Yes | None |
| Community | Wolraich et al. (1996) [†] | % Stimulants | | No Control Group | | C > HI & I |
| | Nolan et al. (2001) [†] | % Medication | Yes | Yes | Yes | None |
| | Rowland et al. (2001) | % Medication | | No Control Group | | C > I |

Note: [†] Teacher Reports. [⊗] Compares ADHD subtypes against clinic controls

Table 2.12

Clinic-Based Studies investigating ADHD Gender Differences using Criteria Developed Prior to DSM-IV

| Study | Sample | Diagnosis | Were significant ($p < .05$) gender differences found between boys and girls with ADHD? | | | | | | | | | | | |
|---------------------------|-------------|-------------|---|-----|--------|--------|-----------|--------|-----|------|--------|-----|-------|-----|
| | | | Sym | Age | Soc Ad | CD/Dep | Ext/Int | Social | Fam | Acad | School | SE | S & M | |
| Kashini et al. (1979) | 28B v 28G | DSM-II | No | | Yes | | Yes (Int) | | | | | | | |
| Ackerman et al. (1983) | 24B v 8G | N/S | No | No | | | Yes (Ext) | | | No | | | | |
| Befera et al. (1985) | 15B v 15G | DSM-III +* | No | No | No | | No | No | Yes | | | | | |
| Berry et al. (1985) | 102B v 32G | DSM-III | No | Yes | No | | No | Yes | | Yes | Yes | Yes | | |
| Breen et al. (1988) | 13B v 13G | DSM-III + | Yes | No | No | | Yes (Int) | No | No | | | | | |
| Breen (1989) | 13B v 13G | DSM-III + | No | | No | | No | No | No | | No | | | |
| Horn et al. (1989) | 37B v 17G | DSM-III-R + | No | No | No | | No | No | No | No | | No | | |
| Pelham et al. (1989) | 12B v 12G | DSM-III | No | | | | | | | | | | | |
| Barkley (1989) | 20B v 20G | N/S | No | | No | | | | | Yes | | | | |
| Breen et al. (1990) | 30B v 30G | DSM-III-R + | | | | | | | | | | Yes | | |
| Faraone et al. (1991) | 73B v 21G | DSM-III | No | No | | No | | | | | | | | |
| Brown et al. (1991) | 51B v 20G | DSM-III-R + | No | | No | | No | No | | | | | | |
| Bhatia et al. (1991) | 96B v 16G | DSM-III | | Yes | | | | No | | | | | | |
| James et al. (1990) | 61B v 18G | ICD-9 | No | No | Yes | | No | | No | | | | | |
| Silverthorn et al. (1996) | 67B v 13G | DSM-III-R | No | Yes | No | No | No | | | No | | | | |
| Arcia et al. (1998) | 167B v 13G | N/S | No | No | No | | No | | | | | | | |
| Greene et al. (2001) | 140B v 127G | DSM-III-R | | No | No | | | | No | | | Yes | | |
| Biederman et al. (2002) | 122B v 122G | DSM-III-R | | Yes | No | Yes | | | No | No | | Yes | | Yes |

Note: * + (eg. DSM-III+) indicates that additional criteria to DSM was used to identify children with ADHD (eg. deviant scores on rating scales).

Abbreviations as follows: B = Boy, G = Girl. N/S = Not Specified. Sym = Core symptomatology. Soc Ad = Social Adversity. CD/Dep = Conduct Disorder/Depressive disorders. Ext/Int = Externalising/Internalising Behaviour Problems. Fam = Family Functioning. Acad = Academic Functioning. SE = Self-Esteem. S & M = Service and Medication Use.

Table 2.13

Community-Based Studies investigating ADHD Gender Differences using Criteria Developed Prior to DSM-IV

| Study | Sample | Diagnosis | Were significant ($p < .05$) gender differences found between boys and girls with ADHD? | | | | | | | | | | | | |
|------------------------------|------------|------------|---|-----|--------|--------|---------|-----------|-----|------|--------|----|-------|--|-----|
| | | | Sym | Age | Soc Ad | CD/Dep | Ext/Int | Social | Fam | Acad | School | SE | S & M | | |
| Pelham et al. (1982) | 52B v 12G | DSM-III | | | | | | | | Yes | | | | | |
| de Haas et al. (1984) | 18B v 24G | DSM-III | No | | | | | Yes (Ext) | | | | | | | |
| de Haas (1986) | 10B v 13G | DSM-III +* | Yes | | | | | Yes (Ext) | No | | | | | | |
| McGee et al. (1987) | 20B v 17G | DSM-III + | Yes | | No | | | Yes (Ext) | | | | | | | |
| Szatmari et al. (1989) | 64B v 25G | DSM-III + | | | | No | | | | | | | | | |
| August et al. (1992) | 40B v 24G | DSM-III-R | No | | | No | | | | | | | | | |
| Mantzicopoulos et al. (1994) | 19B v 18G | N/S | Yes | | | | | No (Int) | | | | | | | |
| Angold et al. (2000) | 249B v 34G | DSM-III-R | | | | | | | | | | | | | Yes |

Note: * + (i.e. DSM-III+) indicates that additional criteria to DSM was used to identify children with ADHD (eg. deviant scores on rating scales).

Abbreviations as follows: B = Boy, G = Girl. N/S = Not Specified. Sym = Core symptomatology. Soc Ad = Social Adversity. CD/Dep = Conduct Disorder/Depressive disorders. Ext/Int = Externalising/Internalising Behaviour Problems. Fam = Family Functioning. Acad = Academic Functioning. SE = Self-Esteem. S & M = Service and Medication Use

Table 2.14

Studies investigating ADHD Gender Differences using DSM-IV Criteria

| Study | Sample and Subtypes Investigated | Were significant ($p < .05$) gender differences found between boys and girls with ADHD? | | | | | | | | | | |
|-------------------------|----------------------------------|---|-----|--------|--------|-----------|--------|-----|------|--------|-----|-------|
| | | Sym | Age | Soc Ad | CD/Dep | Ext/Int | Social | Fam | Acad | School | SE | S & M |
| Clinic | | | | | | | | | | | | |
| Lalonde et al. (1998) | 81B v 19G (I & C) | | | | No | | | | | | | |
| Dunn et al. (1999) | 27B v 10G † | | | | | No | | | | | No | |
| Nolan et al. (1999) | 49B v 13G (I, HI & C) | Yes | | | No | | | | | | | |
| Sharp et al. (1999) | 56B v 42G (C) | Yes | No | No | No | No | | | | | | |
| Newcorn et al. (2001) | 395B v 103G (C) | Yes | | | | | | | | | | |
| Lockwood et al. (2001) | 40B v 40G (I & C) | | | No | | | | | | | | |
| Rucklidge et al. (2001) | 25B v 24F † | Yes | No | No | No | Yes (Ext) | Yes | | | | Yes | No |
| Community | | | | | | | | | | | | |
| Wolraich et al. (1996) | 666B v 233G (I, HI, C) | | | | | | | | | Yes | Yes | Yes |
| Carlson et al. (1997) | 46B v 11G (C) | No | | | | Yes (Ext) | No | | | No | | |
| Gadow et al. (2000) | 82B v 37G (I, HI & C) | | | | | Yes (Ext) | | | | | | |

Note: † ADHD subtypes collapsed within gender.

Abbreviations as follows: B = Boy, G = Girl. I = Inattentive, HI = Hyp-Imp, C = Combined. Sym = Core symptomatology. Soc Ad = Social Adversity.

CD/Dep = Conduct Disorder/Depressive disorders. Ext/Int = Externalising/Internalising Behaviour Problems. Fam = Family Functioning. Acad = Academic Functioning.

SE = Self-Esteem. S & M = Service and Medication Use.

TABLES AND FIGURES CITED IN CHAPTER 5

Table 5.1
Prevalence of ADHD by Gender

| ADHD Subtype | Males (n=1,215) % (N) | Females (n=1,189) % (N) | Total (n=2,404) % (N) | χ^2 (Male v Female) |
|-----------------|-----------------------------|-------------------------------|-----------------------------|-----------------------------|
| Inattentive | 8.9 (108) ^a | 4.4 (52) ^a | 6.7 (160) | $\chi^2 = 19.58^{***}$ |
| Hyper-Impulsive | 3.4 (41) ^c | 1.8 (21) ^b | 2.6 (62) | $\chi^2 = 6.2^*$ |
| Combined | 6.3 (76) ^b | 2.2 (26) ^b | 4.3 (102) | $\chi^2 = 24.35^{***}$ |
| Total | 18.7 (225) | 8.4 (99) | 13.6 (324) | $\chi^2 = 52.59^{***}$ |

Note: Superscript denotes differences within gender for the prevalence of DSM-IV ADHD subtypes
 $^{***}p < .0001$. $^*p < .05$.

Table 5.2
Mean (SD) Number of Symptoms for ADHD Subtypes by Gender

| Symptom Dimension | Inattentive | | Hyp-Imp | | Combined | | Gender | <i>F</i> Ratio | |
|-------------------|-----------------|------------------|----------------|------------------|----------------|------------------|--------|---------------------|-------------|
| | Male (n=108) | Female (n=52) | Male (n=41) | Female (n=21) | Male (n=76) | Female (n=26) | | Subtype | Interaction |
| Inattentive | 7.4 (1.1) | 7.3 (1.0) | 3.0 (1.7) | 2.3 (1.3) | 7.8 (1.2) | 7.7 (1.2) | 0.5 | 7.2* ^a | 0.0 |
| Hyper-Impulsive | 2.3 (1.8) | 2.2 (1.8) | 6.8 (1.0) | 7.0 (1.1) | 7.5 (1.1) | 7.4 (1.2) | 0.1 | 11.7** ^b | 0.8 |
| Total | 9.6 (2.3) | 9.5 (2.1) | 9.8 (2.0) | 9.3 (1.7) | 15.3 (2.0) | 15.1 (1.8) | 1.0 | 258.7*** | 0.1 |
| | | | | | | | | C > I | |
| | | | | | | | | C > HI | |
| | | | | | | | | C > HI & I | |

^a *F* test for inattentive symptoms did not include the hyper-impulsive subtype.

^b *F* test for hyper-impulsive symptoms did not include the inattentive subtype.

$^{***}p < .0001$. $^{**}p < .001$. $^*p < .01$.

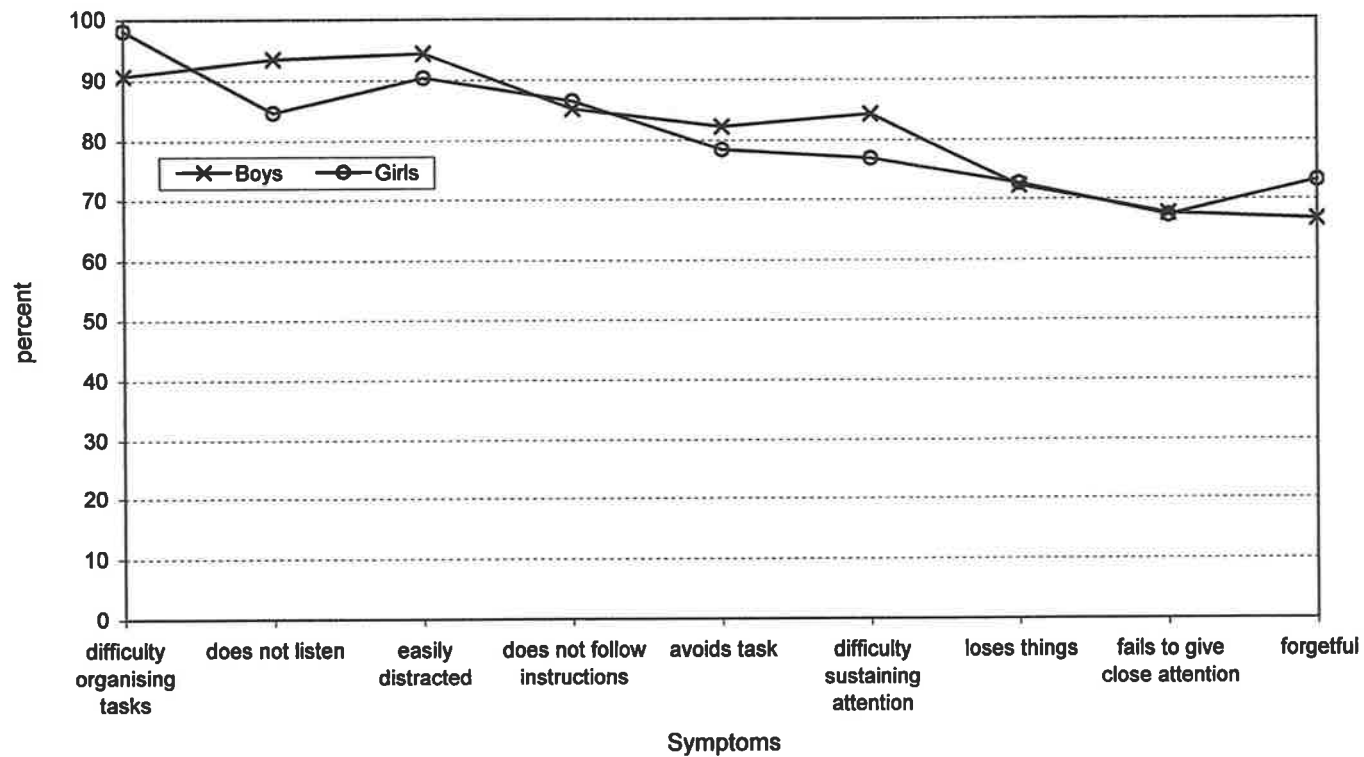


Figure 5.1. Inattentive symptom profiles for boys and girls with inattentive type

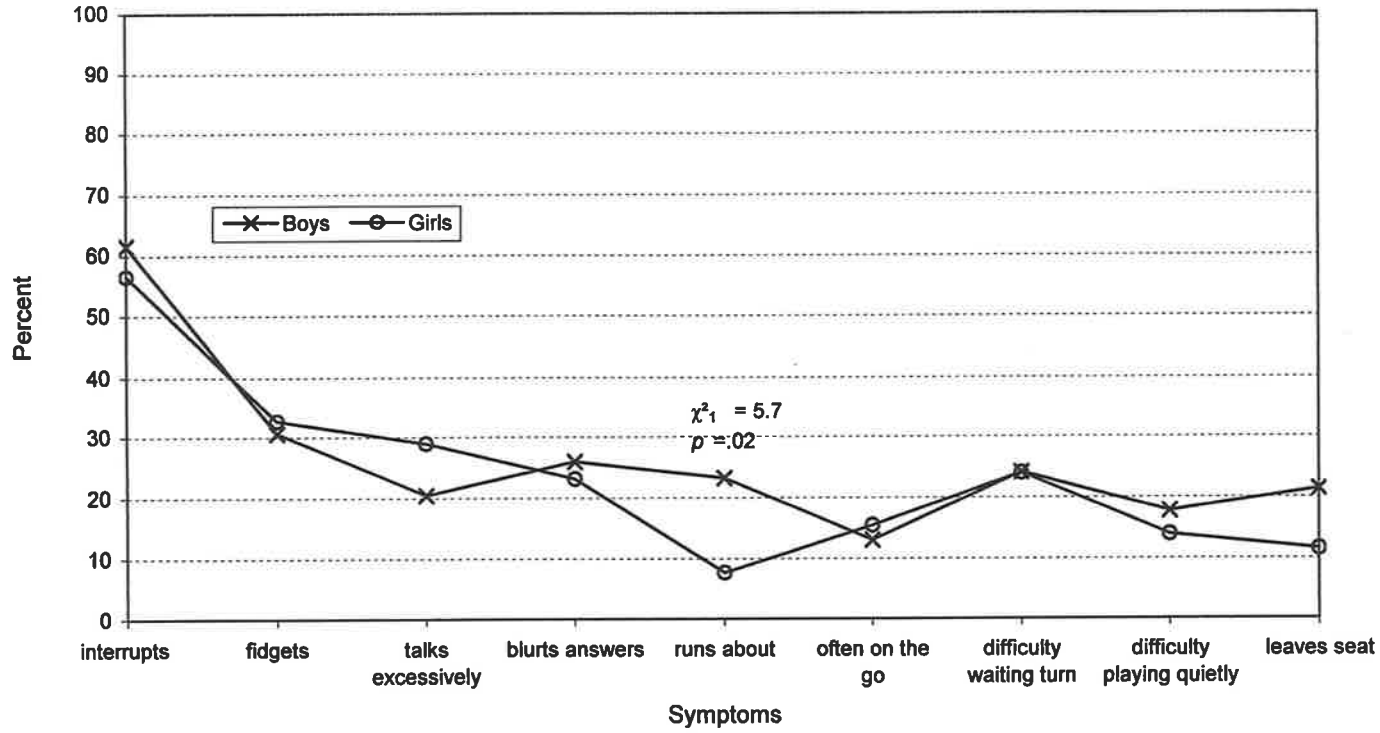


Figure 5.2. Hyper-impulsive symptom profiles for boys and girls with inattentive type

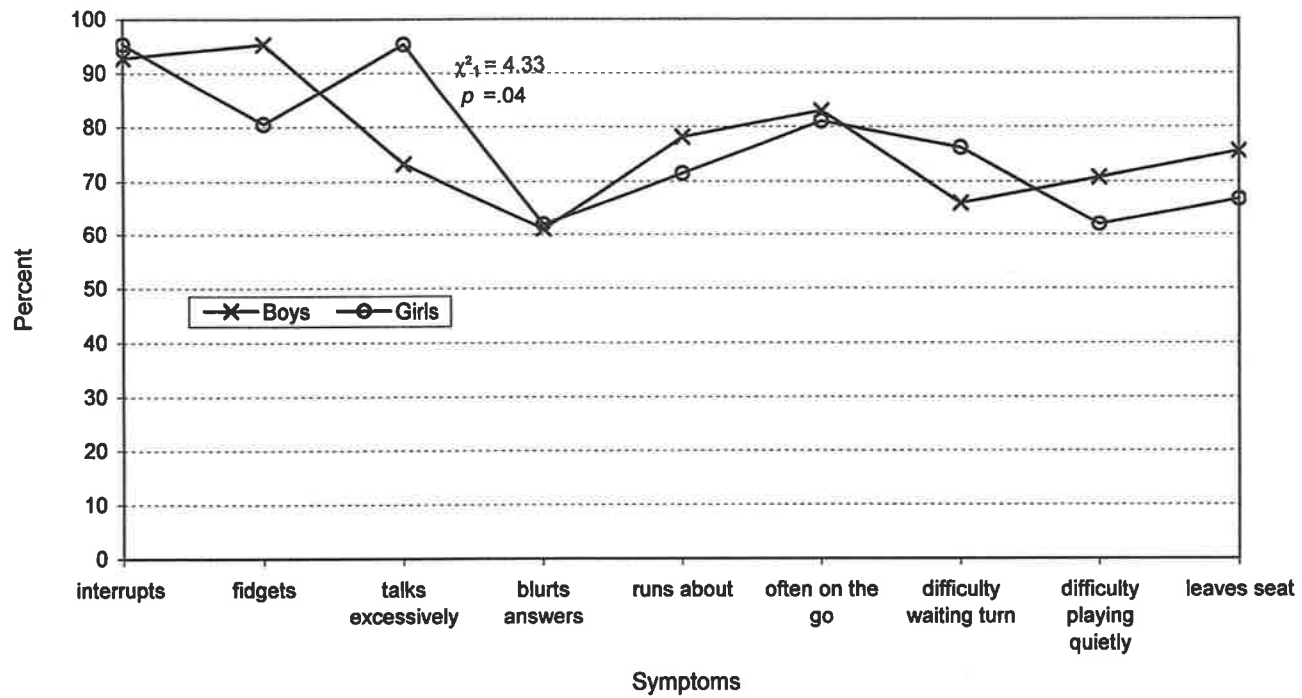


Figure 5.3. Hyper-impulsive symptom profiles for boys and girls with hyper-impulsive type

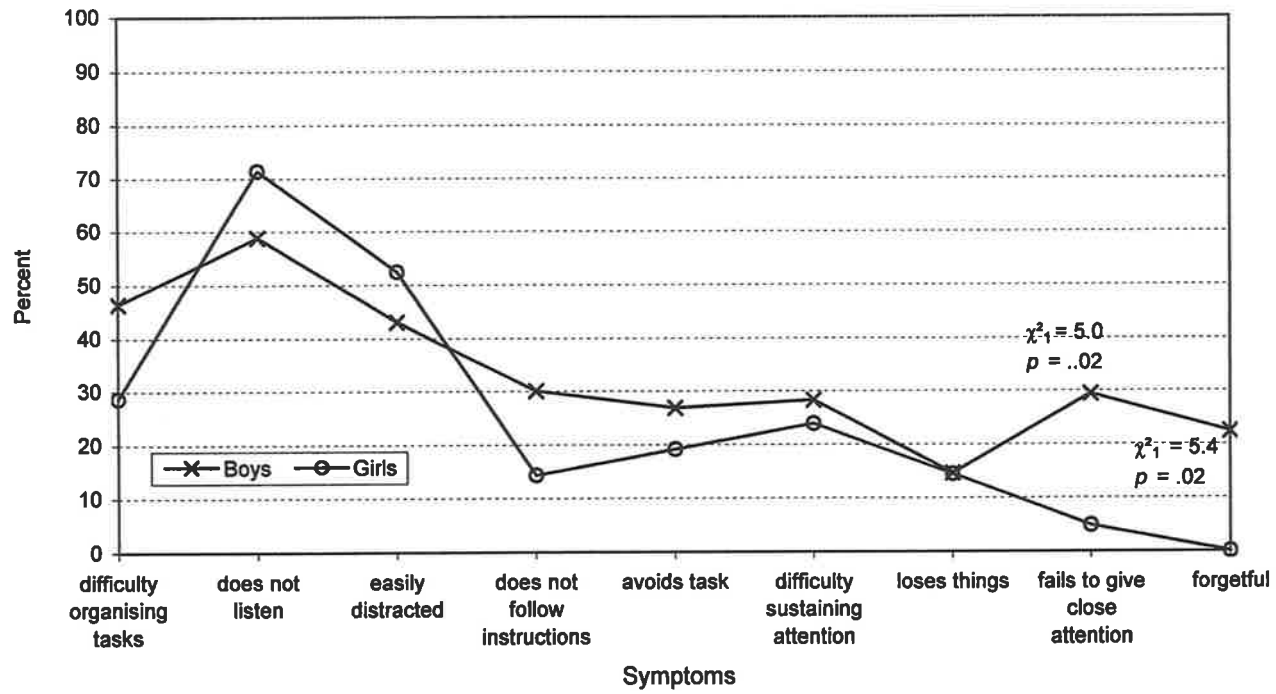


Figure 5.4. Inattentive symptom profiles for boys and girls with hyper-impulsive type

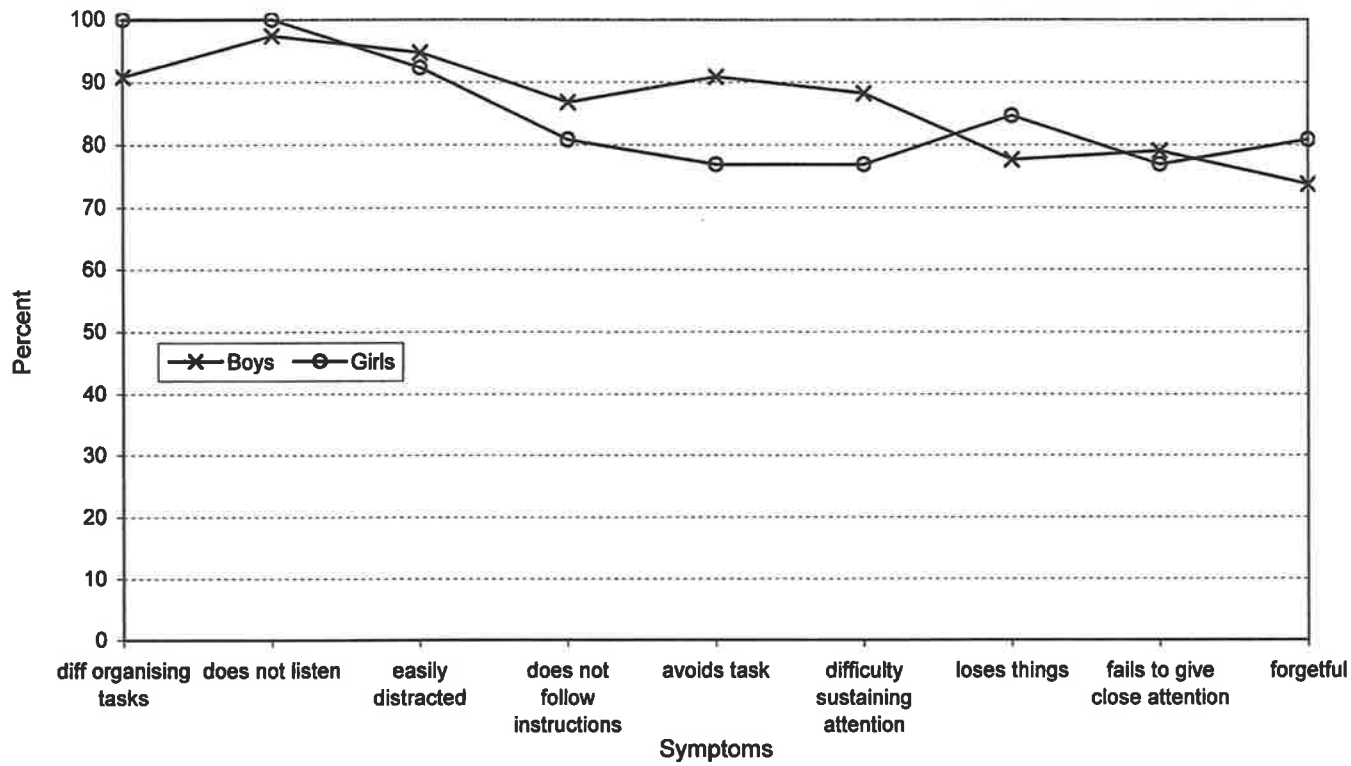


Figure 5.5. Inattentive symptom profiles for boys and girls with combined type

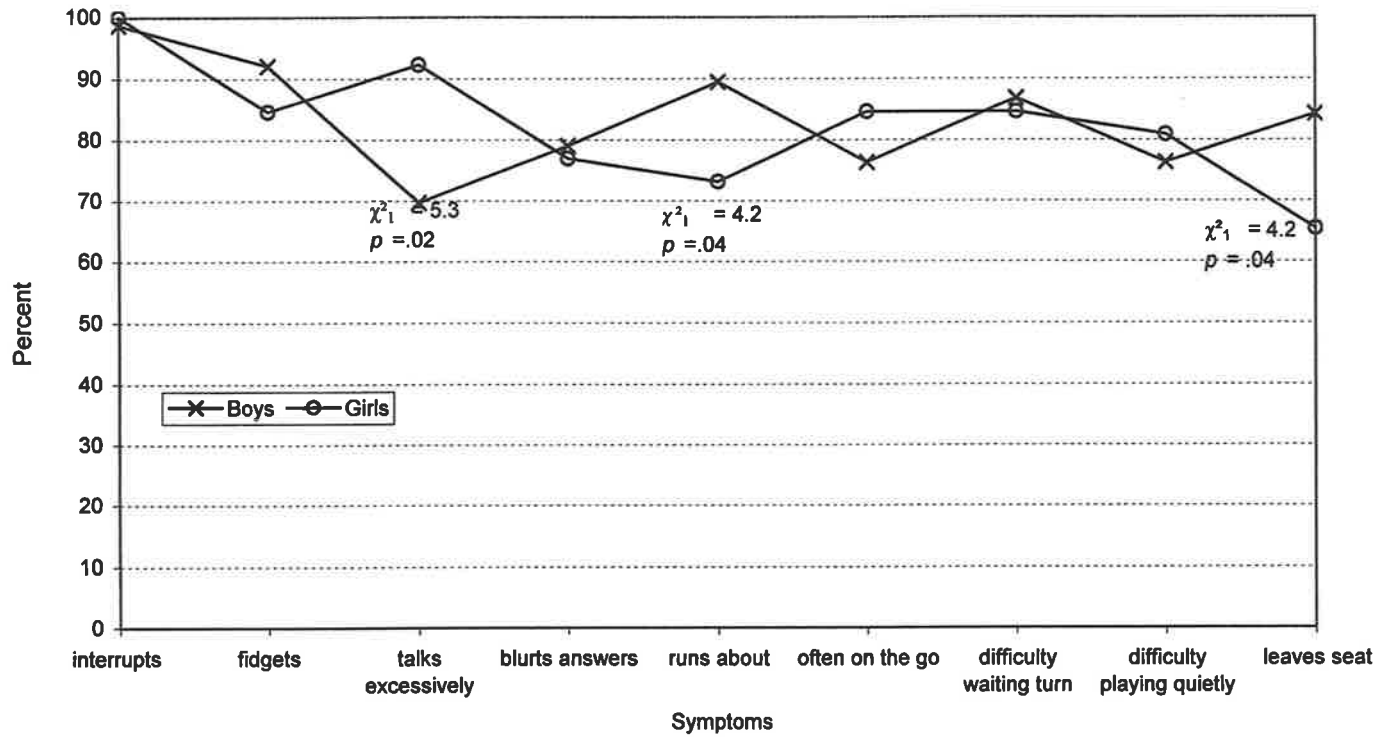


Figure 5.6. Hyper-impulsive symptom profiles for boys and girls with combined type

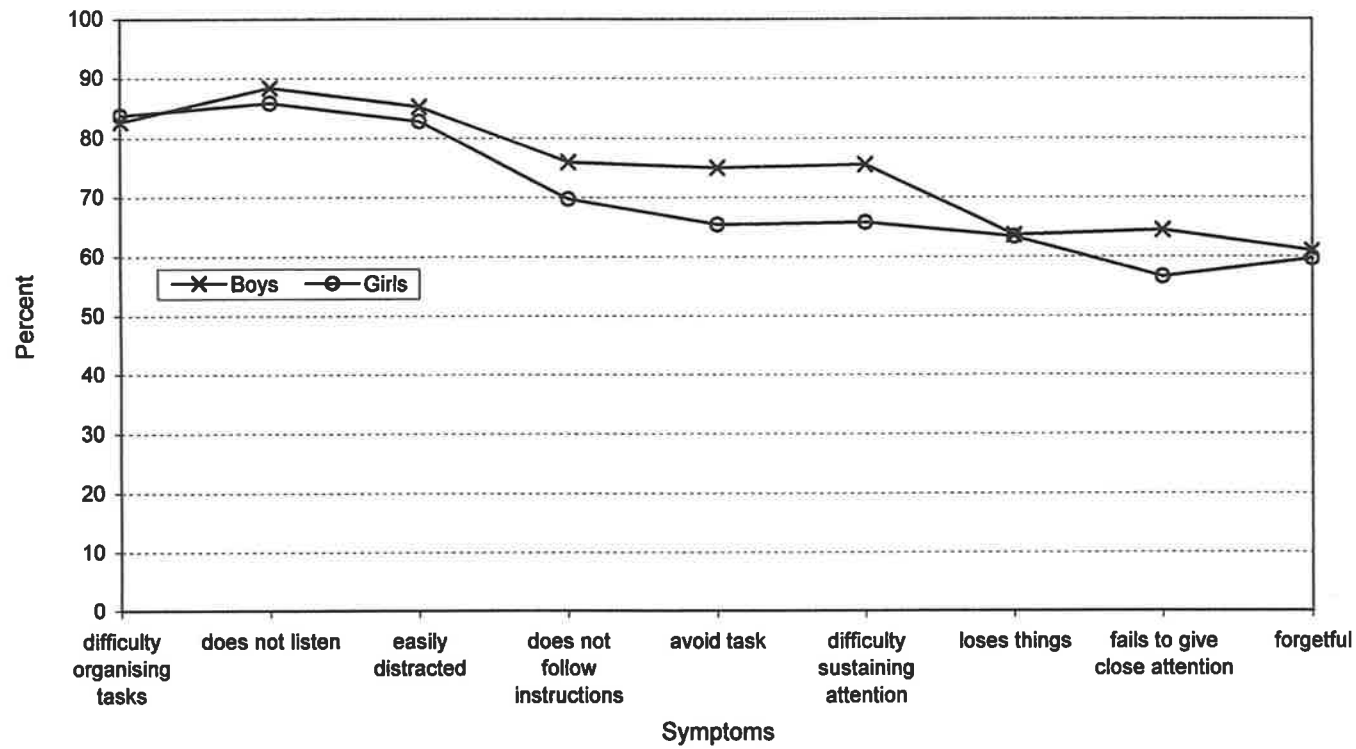


Figure 5.7. Inattentive symptom profiles for boys and girls with ADHD collapsed across subtype

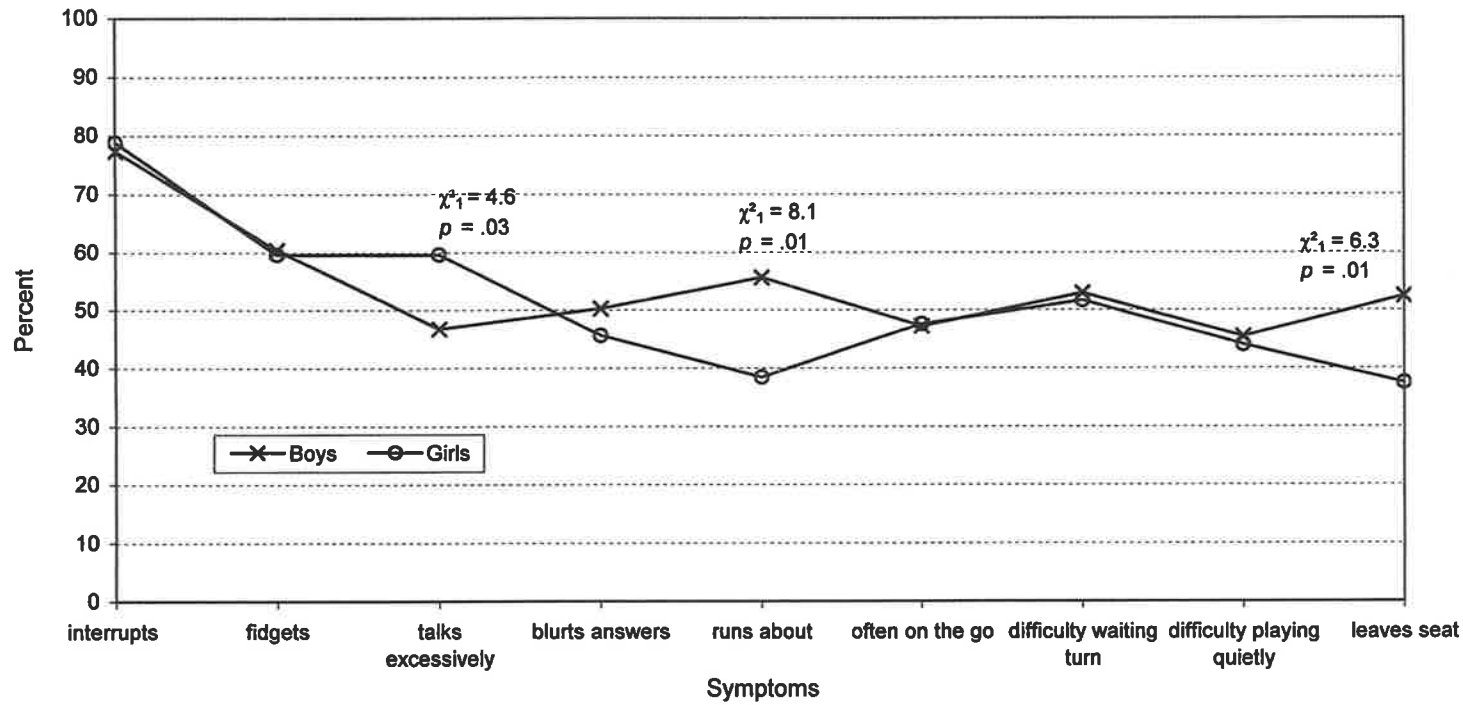


Figure 5.8. Hyper-impulsive symptom profiles for boys and girls with ADHD collapsed across subtype

TABLES CITED IN CHAPTER 6

Table 6.1

Age of Child and Location of Residence

| Measure | Non-ADHD (N) Boys (n= 976) Girls (n=1,075) | Inattentive (I) Boys (n=108) Girls (n=52) | Hyp-Imp (HI) Boys (n=41) Girls (n=21) | Combined (C) Boys (n=76) Girls (n=26) | Test Statistic | Significant between- group differences |
|-----------------------------------|--|---|---|---|----------------------------|---|
| Mean (SD) age (yrs) at assessment | | | | | | |
| Males | 9.6 (2.3) | 9.7 (2.2) | 8.1 (2.0) | 9.2 (2.4) | $F_{(3,1197)} = 5.9^{**}$ | N & I > HI |
| Females | 9.5 (2.3) | 9.1 (2.1) | 7.7 (1.9) | 8.9 (2.4) | $F_{(3,1170)} = 5.3^*$ | N > HI |
| Mean (SD) age (yrs) at onset | | | | | | |
| Males | NA | 3.7 (1.9) | 1.9 (1.7) | 1.9 (1.9) | $F_{(3,221)} = 24.5^{***}$ | I > HI & C |
| Females | NA | 3.9 (2.1) | 2.2 (1.9) | 1.8 (2.1) | $F_{(3,95)} = 5.4^*$ | I > C |
| Residence: % metropolitan | | | | | | |
| Males | 62.1 | 56.5 | 68.3 | 46.1 | $\chi^2_3 = 9.2^*$ | HI & N > C ^a |
| Females | 62.8 | 67.3 | 71.4 | 65.4 | $\chi^2_3 = 1.1$ | |

^a Between group differences were not significant ($\chi^2 = 4.8$ $p = .18$) when analyses controlled for Conduct Disorder

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 6.2
Social Adversity

| Measure | | Non-ADHD (N) Boys (n= 976) Girls (n=1,075) | Inattentive (I) Boys (n=108) Girls (n=52) | Hyp-Imp (HI) Boys (n=41) Girls (n=21) | Combined (C) Boys (n=76) Girls (n=26) | Test Statistic | Significant between-group differences |
|---|--------------|--|---|---|---|------------------------|---|
| Family Type | | | | | | | |
| Males | Original | 74.4 | 71.3 | 73.2 | 46.1 | $\chi^2_3 = 21.3^{**}$ | N, I & HI > C |
| | Step Blended | 8.6 | 6.5 | 4.9 | 22.4 | | |
| | Sole Parent | 15.3 | 21.3 | 19.5 | 27.6 | | |
| | Other | 1.7 | 0.9 | 2.4 | 4.0 | | |
| Females | Original | 78.2 | 65.4 | 71.3 | 53.9 | $\chi^2_3 = 11.0^*$ | N > C ^a |
| | Step Blended | 8.7 | 19.2 | 9.5 | 19.2 | | |
| | Sole Parent | 11.9 | 13.5 | 14.3 | 23.1 | | |
| | Other | 1.2 | 1.9 | 4.8 | 3.9 | | |
| Mean (SD) no. of children | | | | | | | |
| Males | | 2.5 (1.1) | 2.6 (1.0) | 2.3 (1.0) | 2.3 (0.9) | $F_{3,1158} = 0.3$ | |
| Females | | 2.5 (1.1) | 2.3 (0.8) | 2.9 (1.7) | 2.5 (0.9) | $F_{3,1157} = 1.4$ | |
| H/hold Income †: % ≥ \$500/wk | | | | | | | |
| Males | | 74.0 | 69.5 | 70.4 | 55.1 | $\chi^2_3 = 8.2^*$ | N > C ^b |
| Females | | 78.5 | 70.6 | 80.0 | 76.5 | | |
| Age parent left school †: % ≥ 17 yrs | | | | | | | |
| Males | | 59.2 | 49.0 | 65.8 | 47.8 | $\chi^2_3 = 7.6$ | |
| Females | | 59.9 | 65.2 | 60.0 | 50.0 | $\chi^2_3 = 1.5$ | |
| Parental employment^Δ: % | | | | | | | |
| Males | | 81.8 | 82.0 | 79.0 | 60.7 | $\chi^2_3 = 15.3^{**}$ | N & I > C |
| Female | | 83.0 | 82.2 | 60.0 | 70.8 | | |

† Gross weekly household income in \$Australian.

‡ Age parent left school is based on the parent in the household with the highest level of education.

Δ Parental employment refers to the percentage of households with one or more employed parents.

^a Between group differences not significant ($\chi^2_3 = 7.4, p = .07$) when analyses controlled for depressive disorders

^b Between group differences not significant ($\chi^2_3 = 4.4, p = .22$) when analyses controlled for depressive disorders

* $p < .05$. ** $p < .01$.

Table 6.3

Test Statistics for Gender, Subtype and Gender by Subtype Interactions for Social Demographic Variables

| Measure | Test Statistic and significant between-group differences | | |
|--------------------------------------|--|------------------------------------|-------------------|
| | Gender | Subtype | Interaction |
| Mean (SD) age (yrs): at assessment | $F_{1,320} = 3.7$ | $F_{2,319} = 9.2^{**}$ I > C > HI | $F_{2,319} = 0.4$ |
| : at onset | $F_{1,318} = 0.5$ | $F_{2,317} = 28.7^{**}$ I > C & HI | $F_{2,317} = 0.6$ |
| Residence: % metropolitan | $\chi^2_1 = 3.9^*$ G > B | $\chi^2_2 = 4.9$ | $\chi^2_2 = 0.8$ |
| Family type: | $\chi^2_1 = 0.0$ | $\chi^2_2 = 11.8^*$ HI & I > C | $\chi^2_2 = 0.5$ |
| Mean (SD) no. of children | $F_{1,307} = 0.0$ | $F_{2,306} = 0.0$ | $F_{2,306} = 1.4$ |
| H/hold Income †: | $\chi^2_1 = 1.5$ | $\chi^2_2 = 2.2$ | $\chi^2_2 = 1.4$ |
| Age parent left school ‡: (%<17 yrs) | $\chi^2_1 = 1.5$ | $\chi^2_2 = 3.1$ | $\chi^2_2 = 2.1$ |
| Parental employment Δ: % | $\chi^2_1 = 0.0$ | $\chi^2_2 = 9.6^*$ I > C | $\chi^2_2 = 3.0$ |

Note: G = Girl; B = Boy

† Gross weekly household income in \$Australian

‡ Age parent left school is based on the parent in the household with the highest level of education.

Δ Parental employment refers to the percentage of households with one or more employed parents.

* $p < .05$. ** $p < .01$. *** $p < .001$.

TABLES AND FIGURES CITED IN CHAPTER 7

Table 7.1

Prevalence of Conduct and Depressive Disorders

| Comorbid Disorder | Non-ADHD (N) Boys (n= 966) Girls (n=1,063) | Inattentive (I) Boys (n=104) Girls (n=51) | Hyp-Imp (HI) Boys (n=41) Girls (n=21) | Combined (C) Boys (n=72) Girls (n=25) | χ^2_3 & significant ADHD subtype differences |
|-------------------------------|--|---|---|---|--|
| Conduct Disorder % | | | | | |
| Males | 1.5 | 14.4 | 10.5 | 30.6 | 87.6*** C > HI & I |
| Females | 1.1 | 5.9 | 9.5 | 20.8 | 34.0*** |
| Depressive Disorders % | | | | | |
| Males | 1.2 | 6.7 | 9.8 | 18.3 | 48.8*** C > I |
| Females | 1.0 | 12.0 | 5.0 | 4.0 | 24.2*** |
| Major Depression % | | | | | |
| Males | 1.0 | 3.8 | 4.9 | 11.1 | 26.2*** ^a |
| Females | 0.9 | 8.0 | 5.0 | 0.0 | † |
| Dysthymic Disorder % | | | | | |
| Males | 0.2 | 2.8 | 4.9 | 6.9 | 18.6*** |
| Female | 0.1 | 3.9 | 0.0 | 4.0 | † |

Note: Shaded cells indicate that percentages are not significantly different to that of non-ADHD group

† too few numbers in cells to test for significant differences

^a HI not greater than N when analyses control for location of residence

*** $p < .001$.

Table 7.2

Individual Symptoms of Conduct Disorder Reported for Subtypes Collapsed across Gender (%)

| Symptoms | Inattentive (I) (n = 155) | Hyp-Imp (HI) (n = 62) | Combined (C) (n = 97) | χ^2 & significant differences |
|-----------------------------------|------------------------------|--------------------------|--------------------------|------------------------------------|
| Stolen without confrontation | 15.3 | 13.1 | 31.3 | 11.9** C > I & HI |
| Destroyed property | 15.1 | 21.3 | 30.4 | 8.7* C > I |
| Bullies, threatens others | 13.6 | 13.8 | 22.7 | 4.0 |
| Lies to obtain goods or favours | 7.9 | 8.6 | 23.2 | 13.7** C > I & HI |
| Physically cruel to animals | 6.9 | 6.5 | 12.8 | 3.1 |
| Initiates physical fights | 4.4 | 4.9 | 12.1 | 6.1* C > I |
| Physically cruel to people | 3.8 | 3.3 | 10.0 | 5.3 |
| Using a weapon | 6.9 | 11.3 | 9.3 | 1.2 |
| Stays out late | 0.6 | 1.6 | 6.9 | 9.2** † C > I |
| Truant | 1.3 | 0.0 | 2.0 | 1.2 † |
| Stolen with confrontation | 0.6 | 1.6 | 0.0 | 1.6 † |
| Run away from home | 0.0 | 0.0 | 1.0 | 2.1 † |
| Broke into house, building or car | 0.0 | 1.6 | 0.0 | 4.2 † |
| Fire setting | 0.0 | 0.0 | 0.0 | |
| Forced Sex | 0.0 | 0.0 | 0.0 | |

† Chi-square may not be valid test due to low expected cell counts

* $p < .05$. ** $p < .01$.

Table 7.3

Test Statistics for Gender, Subtype and Gender by Subtype Interactions for Psychiatric Comorbidity

| Comorbid Disorder | Test Statistic (χ^2) and significant between-group differences | | |
|---------------------|---|-------------------|-------------|
| | Gender | Subtype | Interaction |
| Conduct Disorder | 2.1 | 10.8** C > HI & I | 0.7 |
| Depressive Disorder | 0.7 | 3.2 | 4.2 |

Note: χ^2 tests controlled for location of residence

$df = 1$ for gender, 2 for subtype and 2 for interaction

** $p < .01$.

Table 7.4

Individual Symptoms of Conduct Disorder Reported for Boys and Girls with ADHD Collapsed across Subtype (%)

| Symptom | Boys (B) (n = 217) | Girls (G) (n = 97) | χ^2_1 & significant differences |
|-----------------------------------|-----------------------|-----------------------|--------------------------------------|
| Stolen without confrontation | 19.9 | 19.8 | 0.0 |
| Destroyed property | 25.0 | 12.2 | 6.6** B > G |
| Bullies, threatens others | 19.1 | 10.5 | 3.5 |
| Lies to obtain goods or favours | 13.1 | 12.6 | 0.0 |
| Physically cruel to animals | 10.2 | 5.1 | 2.3 |
| Initiates physical fights | 8.1 | 4.2 | 1.6 |
| Physically cruel to people | 5.0 | 7.1 | 0.6 |
| Used a weapon | 10.4 | 4.2 | 3.4 |
| Stays out late | 3.1 | 2.0 | 0.3 † |
| Truant | 1.4 | 1.0 | 0.1 † |
| Stolen with confrontation | 0.4 | 1.0 | 0.4 † |
| Run away from home | 0.5 | 0.0 | 0.5 † |
| Broke into house, building or car | 0.4 | 0.0 | 0.4 † |
| Fire setting | 0.0 | 0.0 | |
| Forced Sex | 0.0 | 0.0 | |

† Chi-square may not be valid test due to low expected cell counts

** $p < .01$.

Table 7.5
Mean CBCL Scale Scores

| Measure | Non-ADHD (N) | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | χ^2_3 & significant ADHD subtype differences |
|----------------------------|--------------------------------|------------------------------|-----------------------------|-----------------------------|--|
| | Boys (n= 896) Girls (n=974) | Boys (n=101) Girls (n=48) | Boys (n=40) Girls (n=20) | Boys (n=66) Girls (n=23) | |
| Total Problems | | | | | |
| Males | 15.5 (14.8) | 32.9 (21.4) | 41.0 (23.6) | 57.0 (25.2) | 198.6*** C > I |
| Females | 15.4 (14.7) | 42.4 (20.0) | 37.1 (19.1) | 53.8 (27.6) | 113.8*** |
| Externalising | | | | | |
| Males | 5.8 (6.2) | 11.1 (7.4) | 16.5 (7.4) | 24.1 (10.8) | 197.4*** C > HI > I ^a |
| Females | 5.2 (5.7) | 11.9 (8.6) | 15.7 (7.1) | 20.7 (11.4) | 102.1*** C > I |
| Internalising | | | | | |
| Males | 4.0 (5.0) | 8.4 (8.4) | 8.5 (8.1) | 11.3 (7.8) | 100.7*** C > I |
| Females | 4.7 (5.0) | 12.3 (7.2) | 6.9 (6.3) | 12.2 (9.4) | 62.8*** I > HI |
| Delinquent Behavior | | | | | |
| Males | 1.1 (1.7) | 2.3 (2.0) | 2.9 (2.0) | 5.4 (3.6) | 123.0*** C > HI & I |
| Females | 0.9 (1.5) | 2.6 (2.6) | 3.0 (2.5) | 3.7 (3.3) | 56.4*** |
| Aggressive Behavior | | | | | |
| Males | 4.7 (4.9) | 8.8 (6.0) | 13.6 (6.1) | 18.7 (7.9) | 180.3*** C & HI > I |
| Females | 4.3 (4.6) | 9.3 (6.5) | 12.7 (5.0) | 17.0 (8.9) | 92.0*** C > I |

Note: Maximum likelihood chi-square for testing the significance of differences between groups.

Shaded cells indicate that mean scores are not significantly different to non-ADHD group

^a C & HI > I when analyses control for parental employment

*** $p < .001$.

Table 7.5 (continued)
Mean CBCL Scale Scores

| Measure | Non-ADHD (N) | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | χ^2_3 & significant ADHD subtype differences |
|---------------------------|--------------------------------|------------------------------|-----------------------------|-----------------------------|--|
| | Boys (n= 896) Girls (n=974) | Boys (n=101) Girls (n=48) | Boys (n=40) Girls (n=20) | Boys (n=66) Girls (n=23) | |
| Withdrawn | | | | | |
| Males | 1.2 (1.8) | 2.9 (3.2) | 2.8 (3.1) | 3.7 (3.0) | 78.0*** |
| Females | 1.4 (1.8) | 3.9 (3.0) | 1.9 (1.9) | 3.4 (2.8) | 40.7*** I & C > HI |
| Somatic Complaints | | | | | |
| Males | 0.9 (1.4) | 1.6 (2.2) | 1.5 (2.1) | 1.8 (2.0) | 21.6*** |
| Females | 1.2 (1.7) | 2.2 (2.1) | 1.4 (1.5) | 3.1 (2.6) | 17.9*** C > HI |
| Anxious Depressed | | | | | |
| Males | 2.1 (2.9) | 4.3 (4.6) | 4.7 (5.1) | 6.5 (5.2) | 95.4*** C > I |
| Females | 2.3 (2.7) | 6.8 (4.5) | 4.0 (4.2) | 6.4 (5.7) | 63.3*** I > HI |
| Social Problems | | | | | |
| Males | 1.1 (1.6) | 3.1 (2.7) | 3.1 (3.6) | 4.8 (3.1) | 126.5*** C > HI & I ^b |
| Females | 1.2 (1.6) | 4.2 (3.3) | 2.1 (2.4) | 4.0 (3.1) | 64.6*** I & C > HI ^c |
| Thought Problems | | | | | |
| Males | 0.2 (0.7) | 0.8 (1.9) | 0.9 (1.3) | 1.4 (2.0) | 48.2*** C > HI & I ^d |
| Females | 0.2 (0.7) | 0.9 (1.2) | 0.4 (0.6) | 1.2 (1.8) | 19.9*** C & I > HI |
| Attention Problems | | | | | |
| Males | 2.0 (2.4) | 6.2 (3.7) | 7.0 (4.8) | 9.6 (4.2) | 226.0*** C > HI & I ^e |
| Females | 1.6 (2.3) | 7.4 (3.8) | 4.8 (2.3) | 8.3 (3.8) | 148.1*** C > HI ^f |

Note: Maximum likelihood chi-square for testing the significance of differences between groups.

Shaded cells indicate that mean scores are not significantly different to non-ADHD group

^b C > I when analyses control for depressive disorders and mean age at assessment

^c I > HI when analyses control for Conduct Disorder and family type

^d C > I when analyses control for depressive disorders

^e C > I when analyses control for mean age at assessment

^f ADHD subtypes did not differ when analyses control for Conduct Disorder, family type and parental employment

*** $p < .001$.

Table 7.6

Test Statistics for Gender, Subtype and Gender by Subtype Interactions for CBCL Scales

| CBCL Scale | Test Statistic (<i>F</i> Ratio) and significant between-group differences | | | |
|---------------------|--|---------|-------------|-------|
| | Gender | Subtype | Interaction | |
| Total Problems | 0.9 | 23.7*** | C > HI & I | 2.6 |
| Externalising | 0.4 | 49.9*** | C > HI > I | 1.3 |
| Internalising | 2.5 | 4.7* | C > HI | 2.3 |
| Delinquent Behavior | 1.2 | 23.8*** | C > HI & I | 2.0 |
| Aggressive Behavior | 0.0 | 51.4*** | C > HI > I | 0.2 |
| Withdrawn | 0.2 | 3.0 | C > HI | 2.2 |
| Somatic Complaints | 4.2* G > B | 2.7 | | 1.5 |
| Anxious Depressed | 2.6 | 4.4* | C > HI | 2.8 |
| Social Problems | 0.0 | 8.2** | C > HI & I | 3.5* |
| Thought Problems | 0.3 | 3.4* | | 0.7 |
| Attention Problems | 0.2 | 16.5*** | C > HI & I | 4.7** |

Note: G = Girl; B = Boy

F tests controlled for location of residence

df = 1, 296 for gender, 2, 295 for subtype and 2,295 for interaction

* $p < .05$. ** $p < .01$. *** $p < .001$.

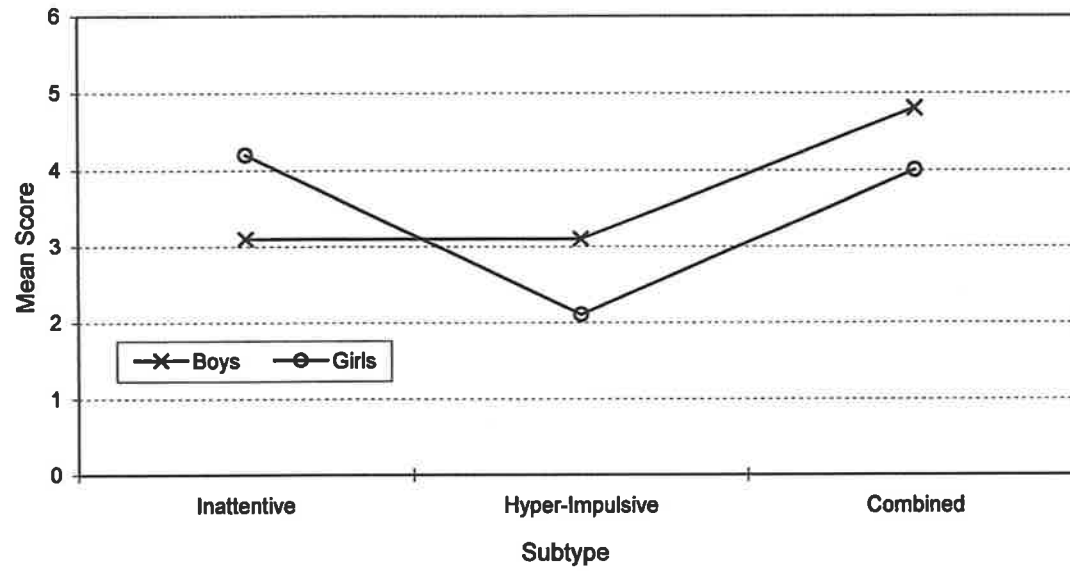


Figure 7.1. Subtype by gender interaction for CBCL Social Problems

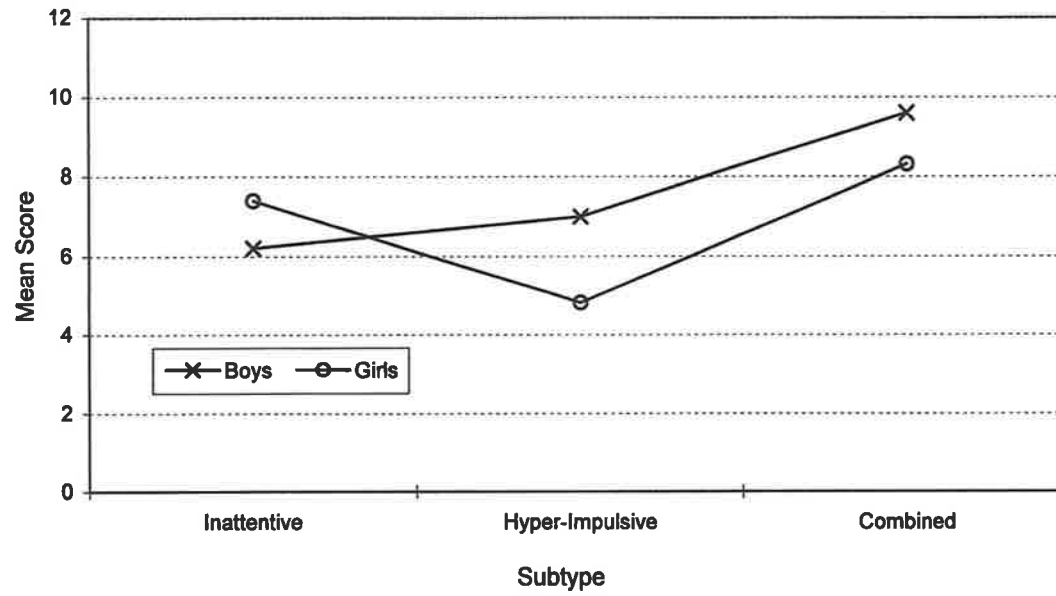


Figure 7.2. Subtype by gender interaction for CBCL Attention Problems

TABLES AND FIGURES CITED IN CHAPTER 8

Table 8.1
DISC Impairment Percentages

| Measure | Inattentive (I) Boys (n=107) Girls (n=50) | Hyp-Imp (HI) Boys (n=40) Girls (n=20) | Combined (C) Boys (n=76) Girls (n=23) | χ^2 & significant ADHD subtype differences |
|--|---|---|---|--|
| Annoyance to parents | | | | |
| Males | 84.1 | 92.7 | 86.8 | 1.8 |
| Females | 82.0 | 85.7 | 96.2 | 2.5 |
| Interference with family activities | | | | |
| Males | 18.9 | 42.5 | 44.0 | 14.8*** C & HI > I |
| Females | 26.5 | 14.3 | 42.3 | 4.4 |
| Interference with peer activities | | | | |
| Males | 26.2 | 40.0 | 57.9 | 18.0*** C > I ^a |
| Females | 32.7 | 9.5 | 42.3 | 5.3 |
| Problems with school work or grades | | | | |
| Males | 61.7 | 42.5 | 78.7 | 14.4*** C > I & HI |
| Females | 54.0 | 9.5 | 34.6 | 10.2** I > HI |
| Annoyance to teachers | | | | |
| Males | 61.7 | 51.3 | 76.0 | 7.5* C > I & HI |
| Females | 50.0 | 23.8 | 61.5 | 6.4* C & I > HI |
| Distress to child | | | | |
| Males | 60.8 | 45.0 | 62.7 | 3.7 |
| Females | 60.0 | 33.3 | 53.9 | 4.1 |
| Clinically significant impairment | | | | |
| Males | 86.9 | 85.0 | 98.7 | 5.7 |
| Females | 92.0 | 79.0 | 96.2 | 3.5 |

^a C & HI > I when analyses control for Conduct Disorder and mean age at assessment

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 8.2

Test Statistics for Gender, Subtype and Gender by Subtype Interactions for DISC Impairment Variables

| Impairment Category | Test Statistic (χ^2) and significant between-group differences | | | |
|-------------------------------------|---|---------|-------------|------|
| | Gender | Subtype | Interaction | |
| Annoyance to parents | 0.0 | 2.6 | | 2.4 |
| Interference with family activities | 0.1 | 13.4** | C > I | 5.8 |
| Interference with peer activities | 1.3 | 16.7*** | C > I & HI | 6.9* |
| Problems with school work or grades | 15.8*** B > G | 19.3*** | C & I > HI | 8.8* |
| Annoyance to teachers | 6.0** B > G | 11.8** | C > I > HI | 1.3 |
| Distress to child | 0.8 | 7.2* | C & I > HI | 0.6 |
| Clinically significant impairment | 0.0 | 9.1* | C > I & HI | 1.7 |

Note: B = Boy; G = Girl

χ^2 tests controlled for location of residence.

$df = 1$ for gender, 2 for subtype and 2 for interaction

* $p < .05$. ** $p < .01$. *** $p < .001$.

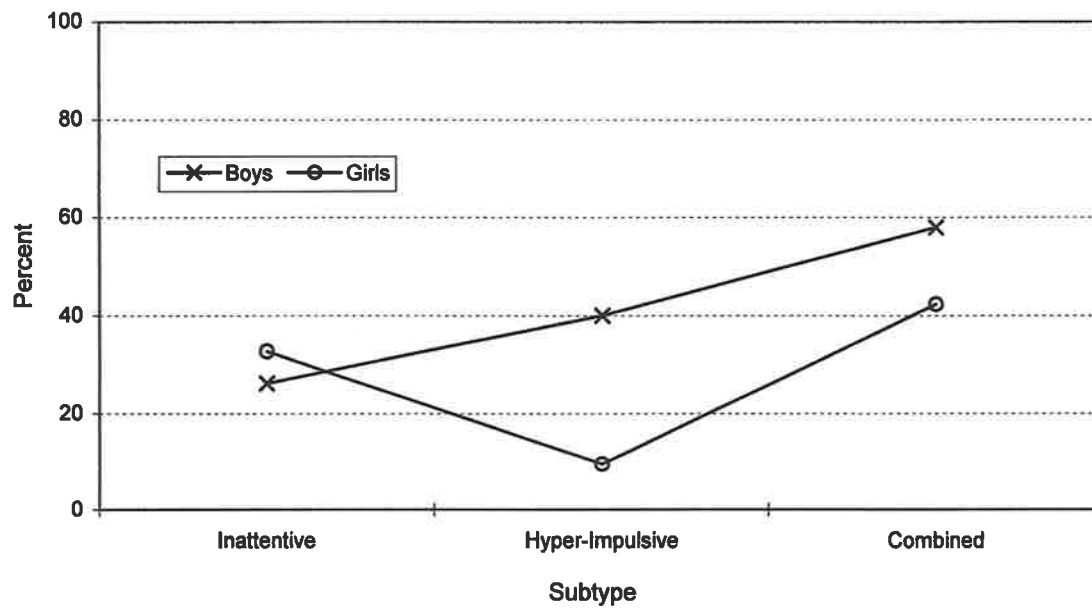


Figure 8.1. Subtype by gender interaction for DISC Interference with Peer Activities

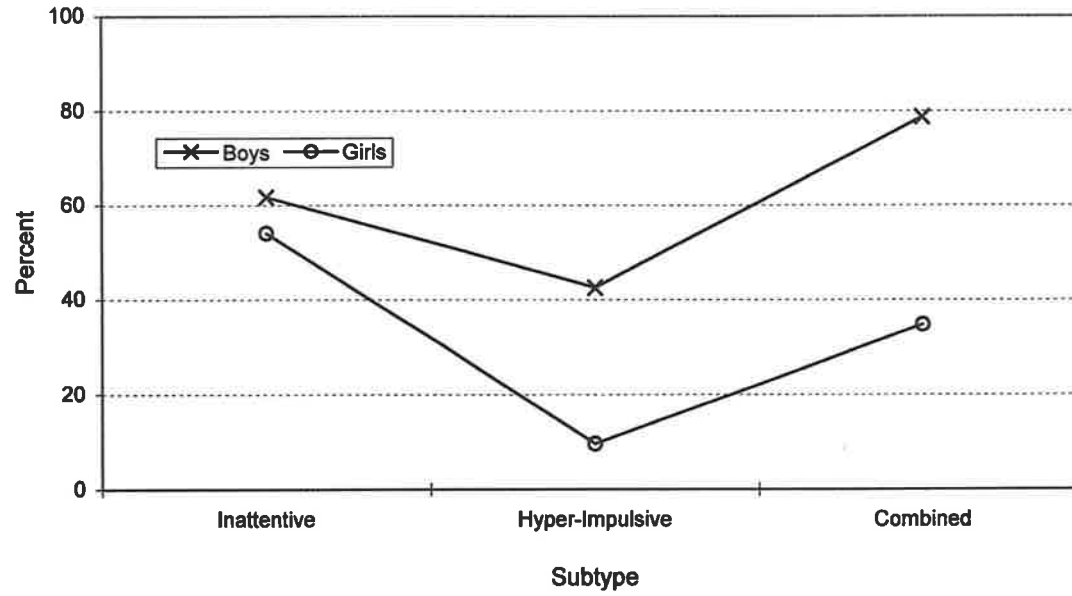


Figure 8.2. Subtype by gender interaction for DISC Problems with Schoolwork or Grades

Table 8.3
Mean CHQ Scale Scores

| Measure | Non-ADHD (N) Boys (n= 896) Girls (n=974) | Inattentive (I) Boys (n=101) Girls (n=48) | Hyp-Imp (HI) Boys (n=40) Girls (n=20) | Combined (C) Boys (n=66) Girls (n=23) | χ^2_3 & significant ADHD subtype differences |
|----------------------------------|--|---|---|---|--|
| Self esteem | | | | | |
| Males | 83.9 (17.9) | 71.3 (15.8) | 76.7 (17.7) | 67.1 (19.6) | 104.2*** HI > C ^a |
| Females | 84.6 (15.6) | 66.6 (19.3) | 82.4 (13.9) | 74.6 (19.3) | 61.6*** HI > I ^b |
| Role/Social functioning. | | | | | |
| Males | 95.8 (14.8) | 87.3 (24.7) | 86.9 (26.5) | 67.0 (33.8) | 127.7*** I & HI > C ^c |
| Females | 96.7 (12.6) | 74.3 (29.5) | 97.1 (8.1) | 84.1 (26.6) | 83.3*** HI > I ^d |
| Family activities | | | | | |
| Males | 88.9 (15.4) | 76.1 (22.6) | 66.2 (23.7) | 57.0 (26.0) | 191.1*** I > HI & C |
| Females | 89.7 (15.3) | 72.0 (21.8) | 79.2 (18.0) | 60.2 (29.6) | 88.4*** HI > C ^e |
| Family cohesion | | | | | |
| Males | 77.7 (19.6) | 68.8 (20.1) | 70.9 (23.0) | 63.1 (26.9) | 42.4*** |
| Females | 78.8 (18.6) | 69.3 (24.5) | 71.1 (21.1) | 60.2 (29.2) | 25.2*** |
| Parent impact - Emotional | | | | | |
| Males | 85.5 (17.5) | 65.4 (23.5) | 64.7 (26.2) | 52.3 (25.7) | 204.8*** I & HI > C ^f |
| Females | 86.2 (18.2) | 56.6 (23.0) | 81.6 (17.0) | 61.6 (30.1) | 105.1*** HI > C & I |
| Parent impact - Time | | | | | |
| Males | 93.0 (15.1) | 81.4 (22.4) | 80.7 (25.0) | 68.0 (27.8) | 132.9*** I & HI > C ^g |
| Females | 94.2 (14.2) | 78.0 (21.6) | 88.3 (17.2) | 71.3 (27.2) | 88.4*** HI > I & C |

Note: Maximum likelihood chi-square test for testing the significance of differences in cumulative logits between groups.

Shaded cells indicate that mean scores are not significantly different to non-ADHD group.

^a ADHD subtypes did not differ when analyses control for mean age at assessment, family type Conduct Disorder and depressive disorders

^b HI & C > I when analyses control for mean age at assessment, Conduct Disorder and depressive disorders

^c I > C when analyses control for Conduct Disorder, parental employment, depressive disorders and mean age at assessment

^d HI & C > I when analyses control for parental employment and Conduct Disorder

^e ADHD subtypes did not differ when analyses control for family type, Conduct Disorder and physical health problems

^f ADHD subtypes did not differ when analyses control for physical health problems, depressive disorders, Conduct Disorder, family type and mean age at assessment

^g ADHD subtypes did not differ when analyses control for physical health problems, Conduct Disorder and family type.

*** $p < .001$.

Table 8.4
 Test Statistics for Gender, Subtype and Gender by Subtype Interactions for CHQ scales

| CHQ Scale | Test Statistic (<i>F</i> Ratio) and significant between-group differences | | | |
|---------------------------|--|---------|------------|-------------|
| | Gender | | Subtype | Interaction |
| Self esteem | 0.3 | 6.6* | HI > I & C | 3.4* |
| Role/Social functioning | 0.1 | 6.9* | HI > C | 7.9** |
| Family activities | 0.3 | 14.0*** | I & HI > C | 2.4 |
| Family cohesion | 0.1 | 2.6 | | 0.1 |
| Parent impact - Emotional | 0.1 | 6.2* | HI > C | 6.2* |
| Parent impact - Time | 0.0 | 8.3** | I & HI > C | 1.1 |

Note: *F* tests controlled for location of residence.

df = 1, 286-290 for gender, 2, 285-289 for subtype, 2, 285 – 289 for interaction

* *p* < .05. ** *p* < .001. *** *p* < .001.

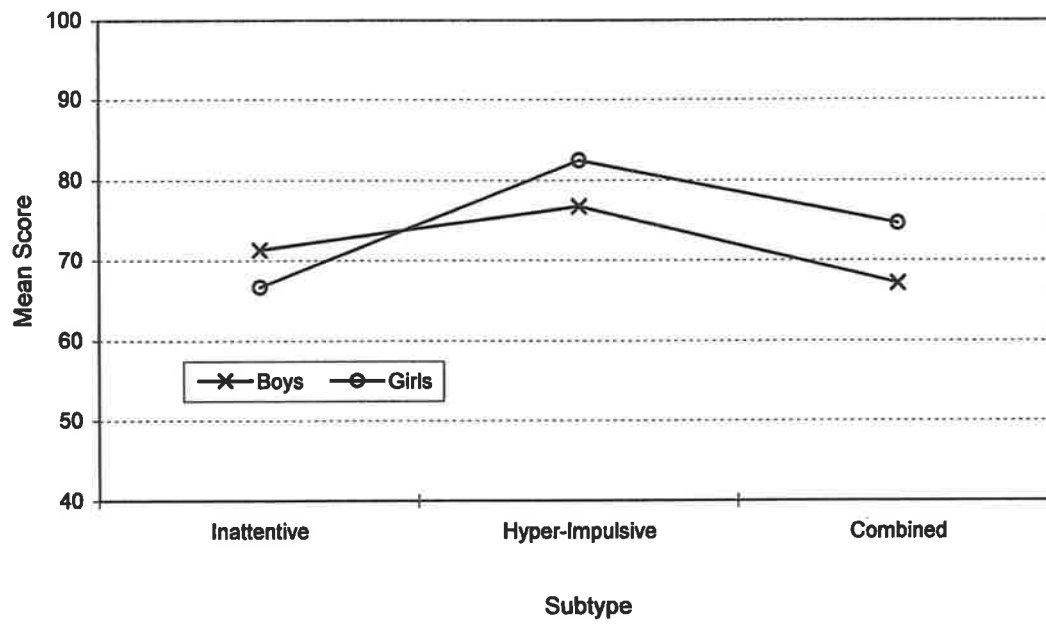


Figure 8.3. Subtype by gender interaction for CHQ Self-Esteem

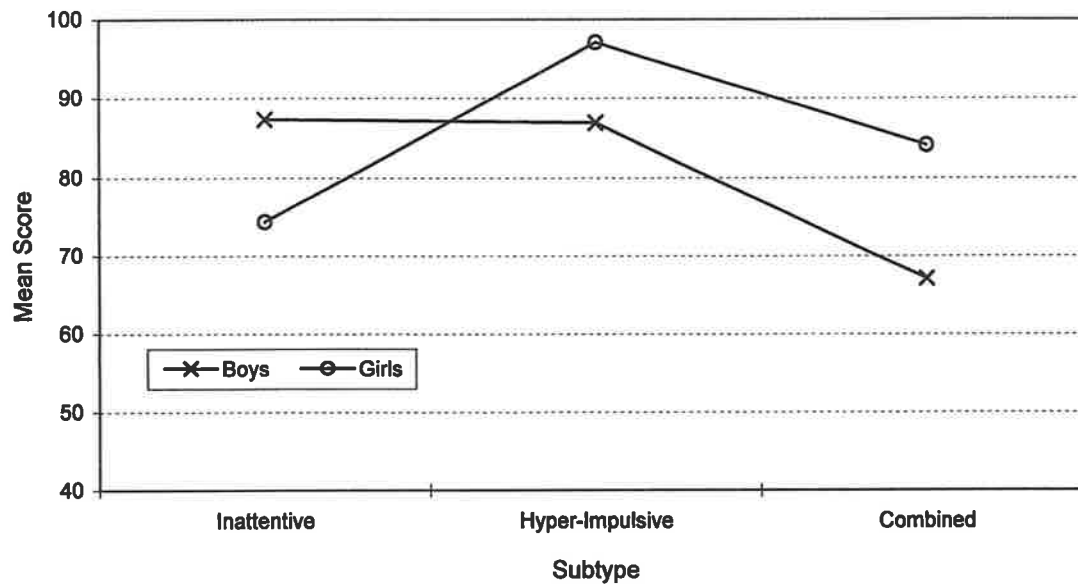


Figure 8.4. Subtype by gender interaction for CHQ Role/Social Functioning

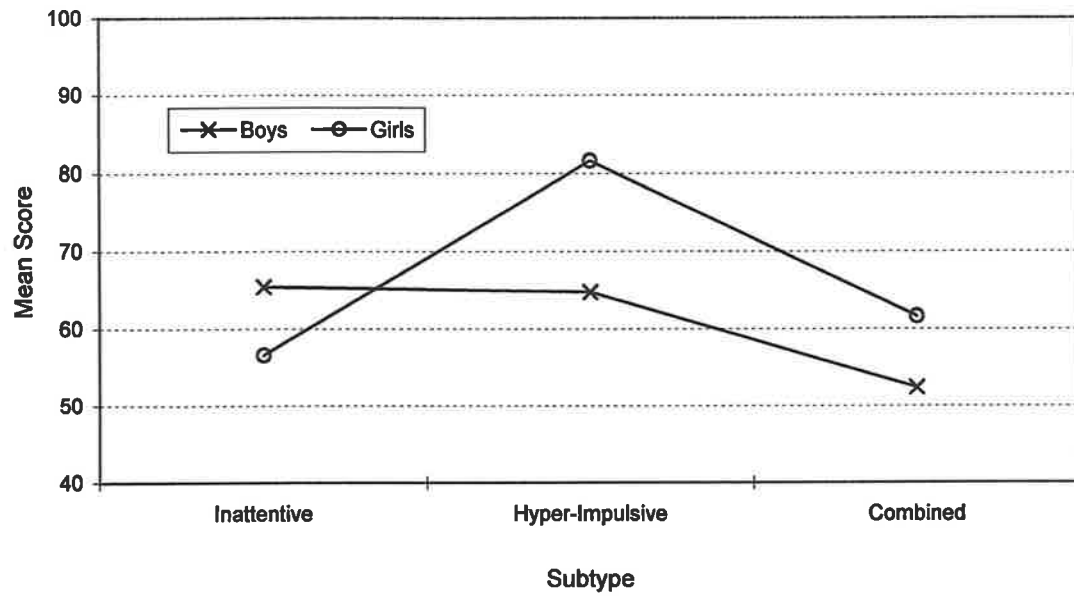


Figure 8.5. Subtype by gender interaction for CHQ Parent Impact - Emotional

TABLES AND FIGURES CITED IN CHAPTER 9

Table 9.1

Reported to Have Problems, Service and Medication Use

| Measure | Non-ADHD (N) Boys (n= 975) Girls (n=1,075) | Inattentive (I) Boys (n=108) Girls (n=52) | Hyp-Imp (HI) Boys (n=41) Girls (n=21) | Combined (C) Boys (n=76) Girls (n=26) | χ^2_3 & significant ADHD subtype differences |
|----------------------------------|--|---|---|---|--|
| Reported to Have Problems | | | | | |
| Has problems % | | | | | |
| Males | 20.2 | 54.0 | 65.8 | 88.1 | 140.3*** C > HI & I ^a |
| Females | 17.0 | 62.5 | 36.8 | 66.7 | 71.6*** ^b |
| Needs professional help % | | | | | |
| Males | 7.0 | 28.9 | 41.7 | 53.2 | 126.3*** C > I ^c |
| Females | 5.0 | 37.0 | 5.6 | 43.5 | 76.7*** C & I > HI |
| Service Use | | | | | |
| Attended services % | | | | | |
| Males | 4.9 | 25.0 | 24.4 | 48.7 | 132.8*** C > HI & I ^d |
| Females | 3.6 | 25.0 | 9.5 | 26.9 | 52.6*** |
| Type of Service Attended: | | | | | |
| School or education based % | | | | | |
| Males | 3.2 | 14.0 | 14.6 | 25.3 | 62.2*** |
| Females | 1.7 | 17.3 | 4.8 | 15.4 | 40.9*** |
| Clinic % | | | | | |
| Males | 3.0 | 19.6 | 19.5 | 38.2 | 111.2*** C > HI & I ^e |
| Females | 2.2 | 21.2 | 4.8 | 26.9 | 58.2*** ^f |

Note: Shaded cells indicate that percentages are not significantly different to non-ADHD group

^a C > I when analyses control for Conduct Disorder, household income and depressive disorders

^b I > HI and HI = N when analyses control for Conduct Disorder, depressive disorders and family type

^c ADHD subtypes did not differ when analyses control for depressive disorders, Conduct Disorder, parental employment and mean age at assessment

^d C > I when analyses control for depressive disorders, family type and Conduct Disorder

^e ADHD subtypes did not differ when analyses control for depressive disorders and Conduct Disorder

^f C > HI when analyses control for depressive disorders and family type

*** $p < .001$.

Table 9.1 (continued)
 Reported to Have Problems, Service and Medication Use

| Measure | Non-ADHD (N) Boys (n= 975) Girls (n=1,075) | Inattentive (I) Boys (n=108) Girls (n=52) | Hyp-Imp (HI) Boys (n=41) Girls (n=21) | Combined (C) Boys (n=76) Girls (n=26) | χ^2_3 & significant ADHD subtype differences |
|--------------------------|--|---|---|---|--|
| Medication Use | | | | | |
| Overall medication use % | | | | | |
| Males | 1.2 | 14.2 | 17.1 | 42.1 | 116.4*** C > HI & I |
| Females | 0.4 | 11.8 | 4.8 | 16.0 | 37.1*** None |
| Stimulants % | | | | | |
| Males | 0.8 | 11.1 | 17.1 | 29.0 | 79.7*** C > I |
| Females | 0.2 | 1.9 | 4.8 | 11.5 | 21.2*** None |
| Other medications % | | | | | |
| Males | 0.4 | 2.8 | 2.4 | 22.4 | 61.1*** C > I & HI |
| Females | 0.1 | 7.7 | 0.0 | 11.5 | † |

Note: Shaded cells indicate that percentages are not significantly different to non-ADHD group

† too few numbers in cells to test for significant differences

*** $p < .001$.

Table 9.2

Main Problems for which Male Subtypes Received Help (%)

| Problem | Inattentive (I) (n = 27) | Hyp-Imp (HI) (n = 10) | Combined (C) (n = 37) |
|---|--------------------------------|-----------------------------|-----------------------------|
| ADHD | 18.5 | 20.0 | 24.3 |
| Other externalising problems | 40.7 | 60.0 | 40.5 |
| Depression | 0.0 | 10 | 16.2 |
| Other internalising problems | 14.8 | 10 | 21.6 |
| Problems related to education and literacy | 25.9 | 20.0 | 10.8 |
| Problems related to social environment | 11.1 | 10.0 | 10.8 |
| Problems related to negative life events | 0.0 | 0.0 | 5.4 |
| Other problems related to primary support group | 11.1 | 0.0 | 8.1 |
| Other | 44.0 | 40.0 | 24.3 |

Table 9.3

Main Problems for which Female Subtypes Received Help (%)

| Problem | Inattentive (I) (n = 13) | Hyp-Imp (HI) (n = 2) | Combined (C) (n = 7) |
|---|--------------------------------|----------------------------|----------------------------|
| ADHD | 7.7 | 0.0 | 42.9 |
| Other externalising problems | 23.1 | 100.0 | 57.1 |
| Depression | 15.4 | 0.0 | 0.0 |
| Other internalising problems | 38.5 | 0.0 | 14.3 |
| Problems related to education and literacy | 7.7 | 0.0 | 0.0 |
| Problems related to social environment | 7.7 | 50.0 | 14.3 |
| Problems related to negative life events | 0.0 | 0.0 | 0.0 |
| Other problems related to primary support group | 0.0 | 0.0 | 14.3 |
| Other | 69.2 | 0.0 | 42.9 |

Table 9.4

Test Statistics for Gender, Subtype and Gender by Subtype Interactions for Reported to Have Problems, Service and Medication Use

| | Test Statistic (χ^2) and significant between-group differences | | | |
|----------------------------------|---|--|--------------------|-------------|
| | Gender | | Subtype | Interaction |
| Reported to Have Problems | | | | |
| Has problems | 2.0 | | 17.3*** C > HI & I | 8.6* |
| Needs professional help | 1.3 | | 10.3** C > HI & I | 6.8* |
| Service Use | | | | |
| Attended services | 3.2 | | 12.9** C > HI & I | 3.0 |
| Type of Service Attended: | | | | |
| School or education based | 0.5 | | 3.0 | 0.4 |
| Clinic | 1.3 | | 11.0** C > HI & I | 2.4 |
| Medication Use | | | | |
| Overall medication use | 5.1* B > G | | 18.0*** C > HI & I | 2.4 |
| Stimulants | 7.9** B > G | | 11.7** C > I | 0.3 |
| Other medications | 0.1 | | 17.2*** C > HI & I | 3.2 |

Note: B = Boy; G = Girl

χ^2 tests controlled for location of residence

df = 1 for gender, 2 for subtype and 2 for interaction

* $p < .05$. ** $p < .01$. *** $p < .001$

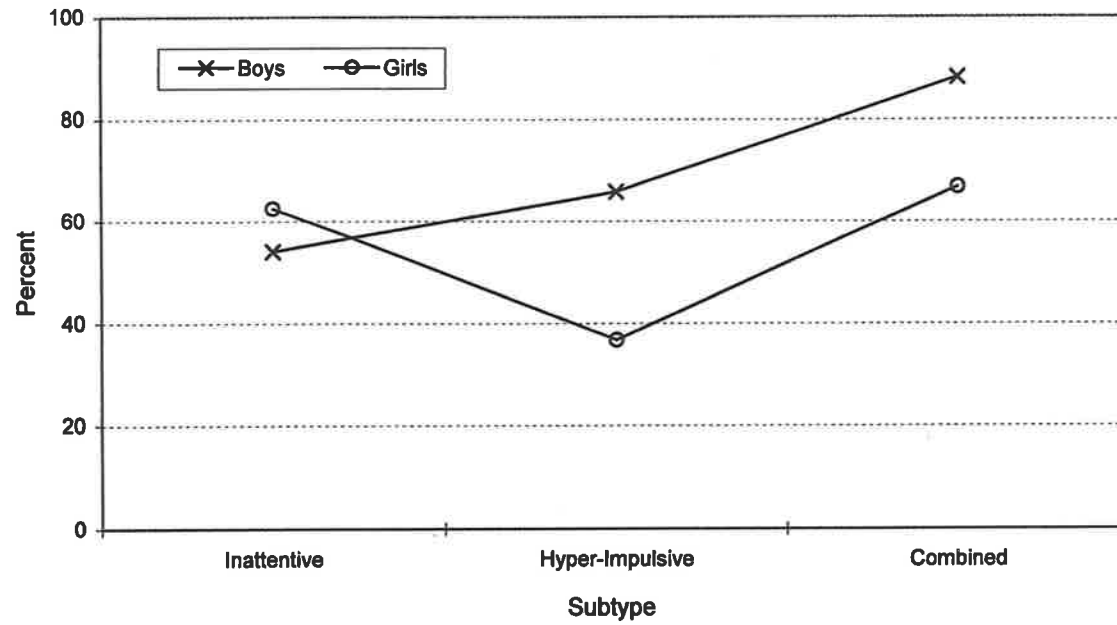


Figure 9.1. Subtype by gender interaction for 'Has Problems'

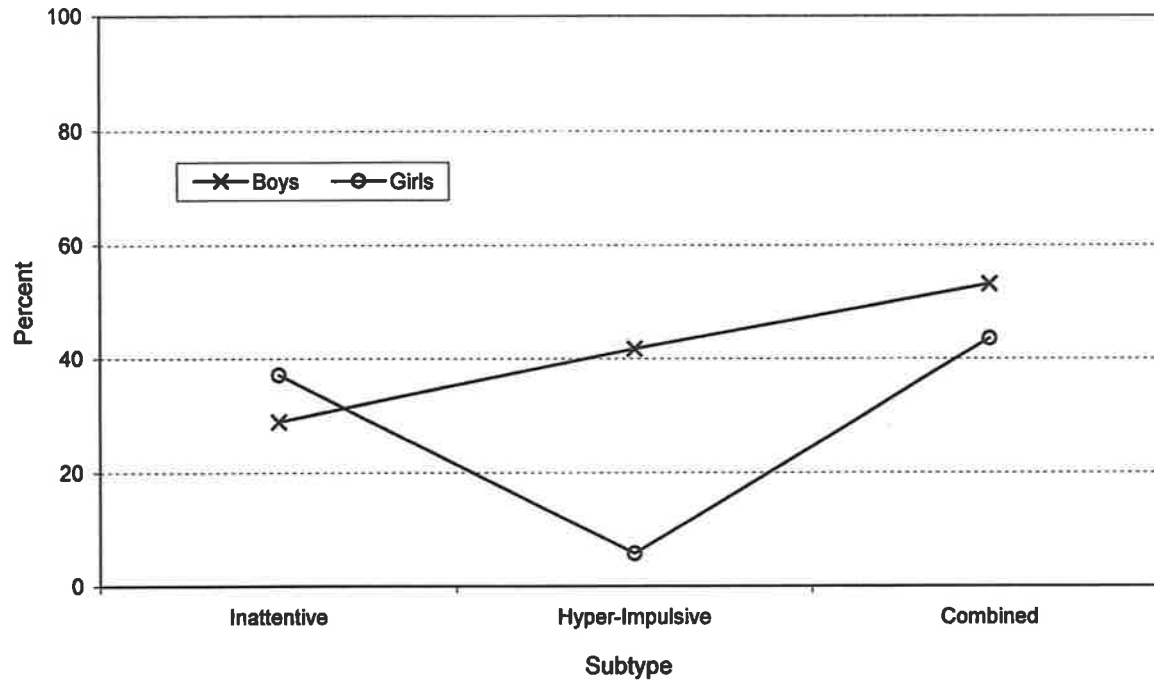


Figure 9.2. Subtype by gender interaction for 'Needs Professional Help'

Table 9.5
Main Problems for which Boys and Girls with ADHD Collapsed across Subtype
Received Help (%)

| Problem | Boys with ADHD (n=74) | Girls with ADHD (n=22) |
|---|--------------------------------------|---------------------------------------|
| ADHD | 21.6 | 18.1 |
| Other externalising problems | 43.2 | 40.9 |
| Depression | 9.5 | 9.1 |
| Other internalising problems | 17.6 | 27.3 |
| Problems related to education and literacy | 17.6 | 4.6 |
| Problems related to social environment | 10.8 | 13.6 |
| Problems related to negative life events | 2.7 | 0.0 |
| Other problems related to primary support group | 8.1 | 4.6 |
| Other | 33.8 | 54.6 |

Table 9.6

Comorbidity amongst Boys and Girls with ADHD by Service Use

| Measure | Attended Service | | Did Not Attend Service | | Test Statistic | | |
|-------------------------------|-----------------------|------------------------|------------------------|------------------------|----------------|------------|-------------|
| | Boys with ADHD (n=74) | Girls with ADHD (n=22) | Boys with ADHD (n=151) | Girls with ADHD (n=77) | Service Use | Gender | Interaction |
| DISC Disorders: % | | | | | | $\chi^2 =$ | |
| Conduct Disorder | 28.4 | 27.3 | 15.0 | 5.4 | 10.7** | 2.8 | 1.8 |
| Depressive Disorders | 18.1 | 30.0 | 7.6 | 2.7 | 13.1*** | 0.1 | 3.3 |
| CBCL Scales: Mean (SD) | | | | | | $F =$ | |
| Total Problems | 53.6 (25.2) | 60.2 (28.6) | 36.9 (23.7) | 39.3 (18.0) | 35.7*** | 1.4 | 0.4 |
| Externalising | 21.2 (11.1) | 19.3 (12.9) | 14.0 (9.1) | 13.6 (8.3) | 26.3*** | 0.3 | 0.7 |
| Internalising | 11.2 (7.7) | 16.1 (10.5) | 8.5 (8.3) | 9.5 (6.3) | 13.5*** | 4.0* | 2.9 |
| Delinquent | 4.6 (3.7) | 4.1 (3.6) | 2.9 (3.1) | 2.6 (2.4) | 17.4*** | 1.5 | 0.1 |
| Aggressive | 16.6 (8.1) | 15.1 (10.2) | 11.2 (7.3) | 11.0 (6.3) | 24.8*** | 0.0 | 0.9 |
| Withdrawn | 3.8 (3.0) | 5.2 (3.4) | 2.8 (3.1) | 2.8 (2.4) | 12.0*** | 0.7 | 3.0 |
| Somatic Complaints | 1.8 (2.2) | 3.0 (2.8) | 1.6 (2.1) | 2.0 (1.9) | 2.1 | 5.3* | 2.0 |
| Anxious Depressed | 6.3 (4.8) | 8.8 (6.4) | 4.5 (5.0) | 5.2 (3.9) | 13.8*** | 3.9 | 1.5 |
| Social Problems | 4.8 (2.8) | 5.7 (3.4) | 3.1 (3.1) | 3.1 (2.8) | 26.4*** | 0.4 | 1.0 |
| Attention Problems | 8.9 (4.4) | 9.7 (4.2) | 6.7 (4.2) | 6.3 (3.1) | 23.1*** | 0.1 | 1.1 |
| Thought Problems | 1.6 (2.4) | 1.6 (1.8) | 0.8 (1.5) | 0.7 (1.0) | 15.3*** | 0.1 | 0.1 |

Note: df for χ^2 test = 1 for gender, service use and interaction.

df for F test = 1, 296 for gender, service use and interaction.

** $p < .01$. *** $p < .001$.

Table 9.7
 Impairment amongst Boys and Girls with ADHD by Service Use

| Measure | Attended Service | | Did Not Attend Service | | Test Statistic | | |
|-------------------------------------|--------------------------|---------------------------|---------------------------|---------------------------|----------------|------------|-------------|
| | Boys with ADHD (n=74) | Girls with ADHD (n=22) | Boys with ADHD (n=151) | Girls with ADHD (n=77) | Service Use | Gender | Interaction |
| DISC Impairment: % | | | | | | $\chi^2 =$ | |
| Annoyance to parents | 85.1 | 90.9 | 87.3 | 85.3 | 0.0 | 0.0 | 0.6 |
| Interference with family activities | 38.9 | 45.5 | 28.2 | 23.0 | 5.7* | 0.2 | 0.8 |
| Interference with peer activities | 55.4 | 40.9 | 31.5 | 27.0 | 12.7*** | 1.5 | 0.4 |
| Problems with school work or grades | 82.4 | 68.2 | 54.7 | 30.7 | 24.1*** | 13.3*** | 0.1 |
| Annoyance to teachers | 68.9 | 68.2 | 62.6 | 41.3 | 7.1** | 3.8 | 1.9 |
| Distress to child | 70.3 | 59.1 | 52.7 | 51.0 | 6.2* | 0.5 | 0.6 |
| Clinically significant impairment | 100 | 98.6 | 87.7 | 86.6 | 6.7** | 0.1 | 0.0 |
| CHQ Scales: Mean (SD) | | | | | | $F =$ | |
| Self esteem | 67.7 (17.9) | 61.7 (21.4) | 72.5 (17.5) | 75.2 (17.4) | 9.3** | 0.1 | 2.8 |
| Role/Social functioning | 69.4 (35.2) | 60.8 (32.7) | 85.5 (25.5) | 87.9 (21.5) | 19.1*** | 0.0 | 2.0 |
| Family limitations | 58.9 (26.7) | 55.2 (25.3) | 72.1 (23.7) | 74.7 (22.2) | 22.2*** | 0.1 | 0.8 |
| Family cohesion | 64.0 (23.8) | 60.5 (30.1) | 68.8 (22.8) | 69.3 (23.5) | 3.5 | 0.0 | 0.3 |
| Emotional impact on parents | 55.4 (26.9) | 53.2 (22.1) | 63.5 (24.3) | 66.2 (26.0) | 8.3** | 0.2 | 0.4 |
| Time impact on parents | 66.0 (29.9) | 62.2 (25.8) | 81.9 (21.4) | 82.9 (20.0) | 31.4*** | 0.0 | 0.5 |

Note: df for χ^2 test = 1 for gender, service use and interaction.
 df for F test = 1, 286 – 290 for gender, service use and interaction.
 * $p < 0.05$. ** $p < 0.01$. *** $p < .001$.

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APPENDICES

APPENDIX A: MEASURES

APPENDIX A.1: THE DISC-IV ADHD MODULE

ADHD

(INATTN)

Everybody has times when they have trouble concentrating or keeping their mind on what they are doing. What we want to know is whether _____ has had difficulty concentrating or keeping [his/her] mind on what [he/she] is doing most of the time.

- | | | | | | |
|-----------------------------|--|---|-----|---|---|
| 1. | In the last year - that is, since [[NAME EVENT]/[NAME CURRENT MONTH] of last year] - did [he/she] <u>often</u> have trouble keeping [his/her] mind on what [he/she] was doing for more than a short time? | 0 | 2 | 7 | 9 |
| | IF YES, A. Did [he/she] have this trouble keeping [his/her] mind on things for six months or longer? | 0 | [2] | 7 | 9 |
| | IF YES, B. When [he/she] was at home, did [he/she] often have trouble keeping [his/her] mind on things? | 0 | 2 | 7 | 9 |
| | C. How about when [he/she] was (at [school/work] or other places)? | 0 | 2 | 7 | 9 |
| | D. Now, what about the <u>last four weeks</u> ? Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]], has [he/she] often had trouble keeping [his/her] mind on what [he/she] was doing? | 0 | 2 | 7 | 9 |
| 2. | In the last year (that is, since [NAME CURRENT MONTH] of last year), did [he/she] <u>often</u> try <u>not</u> to do things where [he/she] would have needed to pay attention for a long time? | 0 | 2 | 7 | 9 |
| | IF YES, A. Did [he/she] try not to do things like this for six months or longer? | 0 | 2* | 7 | 9 |
| | IF YES, B. When [he/she] was at home, did [he/she] often try to get out of doing things where [he/she] had to pay attention for a long time? | 0 | 2 | 7 | 9 |
| | C. How about when [he/she] was (at [school/work] or other places)? | 0 | 2 | 7 | 9 |
| | D. Now, what about the <u>last four weeks</u> ? (Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]]), has [he/she] often tried not to do things where [he/she] needed to pay attention for a long time? | 0 | 2 | 7 | 9 |
| IF YES, GO TO NOTE 1 | | | | | |
| 3. | In the last year (that is, since [NAME CURRENT MONTH] of last year), did [he/she] <u>often</u> dislike doing things where [he/she] had to pay attention for a long time? | 0 | 2 | 7 | 9 |
| | IF YES, A. Did [he/she] dislike doing things where [he/she] had to pay attention like this for six months or longer? | 0 | 2* | 7 | 9 |
| | IF YES, B. When [he/she] was at home, did [he/she] often dislike doing things where [he/she] needed to pay attention for a long time? | 0 | 2 | 7 | 9 |
| | C. How about when [he/she] was (at [school/work] or other places)? | 0 | 2 | 7 | 9 |
| | D. Now, what about the <u>last four weeks</u> ? (Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]]), has [he/she] disliked doing things where [he/she] needed to pay attention for a long time? | 0 | 2 | 7 | 9 |

| | |
|--|--------------|
| <p>NOTE 1: WERE ANY* RESPONSES CODED IN Q 2 OR 3?</p> | <p>0 [2]</p> |
|--|--------------|

| | | | | | |
|----|---|---|-----|---|---|
| 4. | In the last year (<i>that is, since [NAME CURRENT MONTH] of last year</i>), did _____ <u>often</u> find it hard to keep [his/her] mind on what [he/she] was doing when other things were going on? | 0 | 2 | 7 | 9 |
| | IF YES, A. Was [he/she] like this for six months or longer? | 0 | [2] | 7 | 9 |
| | IF YES, B. When [he/she] was at home, did [he/she] often find it hard to keep [his/her] mind on what [he/she] was doing when other things were going on? | 0 | 2 | 7 | 9 |
| | C. How about when [he/she] was (at [school/work] or) other places? | 0 | 2 | 7 | 9 |
| | D. Now, what about the <u>last four weeks</u> ? (Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]], has [he/she] often found it hard to keep [his/her] mind on what [he/she] has been doing when other things were going on? | 0 | 2 | 7 | 9 |
| 5. | Some people are very disorganized. They can't remember where they put their clothes or their books or their projects. They try to do too many things at the same time so they're often late, or they don't go where they're supposed to go or they never have time to do things properly. | | | | |
| | In the last year (<i>that is, since [NAME CURRENT MONTH] of last year</i>), was [he/she] disorganized? | 0 | 2 | 7 | 9 |
| | IF YES, A. Was [he/she] disorganized like this for six months or longer? | 0 | [2] | 7 | 9 |
| | IF YES, B. When [he/she] was at home, was [he/she] often very disorganized? | 0 | 2 | 7 | 9 |
| | C. How about when [he/she] was (at [school/work] or) other places? | 0 | 2 | 7 | 9 |
| | D. Now, what about the <u>last four weeks</u> ? (Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]], has [he/she] been disorganized? | 0 | 2 | 7 | 9 |
| 6. | In the last year - that is, since [NAME CURRENT MONTH] of last year - did [he/she] <u>often</u> have trouble finishing ([his/her] homework or other) things [he/she] was supposed to do? | 0 | 2 | 7 | 9 |
| | IF YES, A. Did [he/she] have this trouble finishing things for six months or longer? | 0 | [2] | 7 | 9 |
| | IF YES, B. When [he/she] was at home, did [he/she] often have trouble finishing ([his/her] homework or other) things [he/she] was supposed to do? | 0 | 2 | 7 | 9 |
| | C. How about when [he/she] was (at [school/work] or) other places? | 0 | 2 | 7 | 9 |
| | D. Now, what about the <u>last four weeks</u> ? (Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]], has [he/she] had trouble finishing ([his/her] homework or other) things [he/she] was supposed to do? | 0 | 2 | 7 | 9 |
| 7. | In the last year (<i>that is, since [NAME CURRENT MONTH] of last year</i>), did [he/she] <u>often</u> lose (things like assignments or books or other) things [he/she] needed? | 0 | 2 | 7 | 9 |
| | IF YES, A. Did this problem with losing things go on for six months or longer? | 0 | [2] | 7 | 9 |
| | IF YES, B. When [he/she] was at home, did [he/she] often lose things [he/she] needed? | 0 | 2 | 7 | 9 |
| | C. How about when [he/she] was (at [school/work] or) other places? | 0 | 2 | 7 | 9 |
| | D. Now, what about the <u>last four weeks</u> ? Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]], has [he/she] often lost things? | 0 | 2 | 7 | 9 |

8. In the last year (*that is, since [NAME CURRENT MONTH] of last year*), did _____ often forget what [he/she] was supposed to be doing or what [he/she] had planned to do? 0 2 7 9
- IF YES, A. Was [he/she] forgetful like this for six months or longer? 0 [2] 7 9
- IF YES, B. When [he/she] was at home, did [he/she] often forget what [he/she] was supposed to be doing or what [he/she] had planned to do? 0 2 7 9
- C. How about when [he/she] was (at [school/work] or other places)? 0 2 7 9
- D. Now, what about the last four weeks?
(Since [[NAME EVENT]//the beginning of/the middle of/the end of [LAST MONTH]], has [he/she] often forgotten what [he/she] was supposed to be doing or what [he/she] had planned to do? 0 2 7 9
9. In the last year (*that is, since [NAME CURRENT MONTH] of last year*), has [he/she] often made a lot of mistakes because it's hard for [him/her] to do things carefully? 0 2 7 9
- IF YES, A. Did [he/she] make careless mistakes like this for six months or longer? 0 [2] 7 9
- IF YES, B. When [he/she] was at home, did [he/she] often make a lot of careless mistakes? 0 2 7 9
- C. How about when [he/she] was (at [school/work] or other places)? 0 2 7 9
- D. Now, what about the last four weeks?
(Since [[NAME EVENT]//the beginning of/the middle of/the end of [LAST MONTH]], has [he/she] made a lot of careless mistakes? 0 2 7 9
10. In the last year - that is, since [NAME CURRENT MONTH] of last year - did [he/she] often not listen when people were speaking to [him/her]? 0 2 7 9
- IF YES, A. Did this problem with not listening to people go on for six months or longer? 0 [2] 7 9
- IF YES, B. When [he/she] was at home, did [he/she] often not listen when people spoke to [him/her]? 0 2 7 9
- C. How about when [he/she] was (at [school/work] or other places)? 0 2 7 9
- D. Now, what about the last four weeks?
(Since [[NAME EVENT]//the beginning of/the middle of/the end of [LAST MONTH]], has [he/she] often not listened when people were speaking to [him/her]? 0 2 7 9
- E. Did [he/she] not listen because [he/she] had difficulty hearing? 0 2 7 9
- IF YES, F. What kind of hearing problem did [he/she] have? (DESCRIBE):

- G. Has this hearing problem been diagnosed by a doctor? 0 2 7 9
11. Some people are always starting things without finishing them. They start a game or project or activity, but after a few minutes they think of something else, and they start doing that other thing instead.
- Has _____ been like that? In the last year (*that is, since [NAME CURRENT MONTH] of last year*), did [he/she] often not finish things because [he/she] started to do something else? 0 2 7 9
- IF YES, A. Did this problem with not finishing things go on for six months or longer? 0 2 7 9

- | | | | | | |
|------------|---|---|---|---|---|
| IF YES, B. | When [he/she] was at home, did [he/she] often not finish things because [he/she] started to do something else? | 0 | 2 | 7 | 9 |
| C. | How about when [he/she] was (at [school/work] or other places? | 0 | 2 | 7 | 9 |
| D. | Now, what about the <u>last four weeks</u> ? (Since [[NAME EVENT]]//the beginning of/the middle of/the end of [LAST MONTH]), has [he/she] often not finished things? | 0 | 2 | 7 | 9 |

a **IF 3 OR MORE [] RESPONSES WERE CODED IN Q 1 AND NOTE 1 (see tally sheet), CONTINUE ALL OTHERS, GO TO Q 22, P. 10**

12. You said that in the last year [he/she] [NAME [] SYMPTOMS IN Q 1 - 10 AND NOTE 1].

How old was [he/she] the first time [he/she] started to have trouble paying attention or concentrating?

CODE AGE (66 = WHOLE LIFE, ALWAYS)> | ____ | YRS.

IF AGE NOT KNOWN, ASK: What grade was [he/she] in?
CODE GRADE (44 = PRE YEAR 1, 55 = OTHER EDUCATIONAL INSTITUTION)>

| ____ | GRADE

b: IF [AGE/GRADE] GIVEN WAS CHILD'S CURRENT [AGE/GRADE], GO TO INSTRUCTION BOX "d"

IF [AGE/GRADE] GIVEN WAS CHILD'S CURRENT [AGE/GRADE] MINUS ONE, GO TO A

ALL OTHERS, GO TO B

TO

A. Was that more than a year ago - that is, before [[NAME EVENT]/[NAME CURRENT MONTH] of last year]? 0 2 7 9

IF NO. GO TO INSTRUCTION BOX "d"

B. Since that first time, was there ever a time when [he/she] did not have trouble with paying attention or concentrating? 0 2 7 9

IF NO. GO TO Q13

C. Did that time when [he/she] didn't have trouble with paying attention or concentrating last for six months or more? 0 2 7 9

IF NO. GO TO Q13

D. You said that [he/she] [NAME [] SYMPTOMS IN Q 1 - 10 AND NOTE 1] in the last year.

How old was [he/she] when having trouble paying attention or concentrating started this time?

CODE AGE (88 = NEVER STARTED AGAIN)> | ____ | YRS.

IF AGE NOT KNOWN, ASK: What grade was [he/she] in?
CODE GRADE (44 = PRE YEAR 1, 55 = OTHER EDUCATIONAL INSTITUTION)>

| ____ | GRADE

c: IF [AGE/GRADE] GIVEN WAS CHILD'S CURRENT [AGE/GRADE] MINUS ONE, GO TO E

ALL OTHERS, GO TO Q 13

E. Did [he/she] start having trouble with paying attention or concentrating again more than a year ago - that is, before [[NAME EVENT]/[NAME CURRENT MONTH] of last year]? 0 2 7 9

13. How old was [he/she] when trouble paying attention or concentrating started to cause problems for [him/her]?

CODE AGE (66 = WHOLE LIFE, ALWAYS) > | ____ | YRS.

IF AGE NOT KNOWN, ASK: What grade was [he/she] in?

CODE GRADE (44 = PRE YEAR 1, 55 = OTHER

EDUCATIONAL INSTITUTION) >| ____ | GRADE

d: IF CHILD DID NOT ATTEND PRE YEAR 1 OR GRADE 1 CODE "8" IN Q 14, THEN GO TO Q 15

14. Did [he/she] have problems in pre year one or grade one because [he/she] had trouble paying attention or concentrating? 0 1 2 7 8 9

15. You said that in the last year _____ [NAME [] SYMPTOMS IN Q 1 - 10 AND NOTE 1].

Now I'd like you to think back to the time in the last year when [his/her] having trouble paying attention or concentrating like this caused the most problems.

At that time, did [you (or [his/her] [CARETAKERS])/[his/her] [CARETAKERS]] get annoyed or upset with [him/her] because [he/she] was having trouble paying attention or concentrating? 0 1 2 7 9

IF YES, A. How often did [you (or [his/her] [CARETAKERS])/[his/her] [CARETAKERS]] get annoyed or upset with [him/her] because of this? Would you say: a lot of the time, some of the time, or hardly ever?

A lot of the time 3
 Some of the time 2
 Hardly ever 1
 Refuse to answer 7
 Don't know 9

16. At that time, did _____'s trouble with paying attention or concentrating keep [him/her] from doing things or going places with [you (or [his/her] family)/[his/her] family]? 0 1 2 7 9

IF YES, A. How often did this keep [him/her] from doing things or going places with [you (or [his/her] family)/[his/her] family]? Would you say: a lot of the time, some of the time, or hardly ever?

A lot of the time 3
 Some of the time 2
 Hardly ever 1
 Refuse to answer 7
 Don't know 9

17. At that time, did [his/her] trouble with paying attention or concentrating keep [him/her] from doing things or going places with other [children/people [his/her] age]? 0 1 2 7 9

IF YES, A. How often did this keep [him/her] from doing things or going places with other [children/people [his/her] age]? Would you say: a lot of the time, some of the time, or hardly ever?

A lot of the time 3
 Some of the time 2
 Hardly ever 1
 Refuse to answer 7
 Don't know 9

e: IF CHILD DID NOT ATTEND SCHOOL OR WORK IN LAST YEAR, CODE "8" IN Q 18 AND Q 19, THEN GO TO Q 20

18. When the problems were worst, did having trouble paying attention or concentrating [make it difficult for [him/her] to do [his/her] schoolwork or cause problems with [his/her] grades/make it difficult for [him/her] to do [his/her] work]? 0 1 2 7 8 9

IF YES, A. How bad were the problems [he/she] had with [his/her] [schoolwork/work] because of this? Would you say: very bad, bad, or not too bad?

- Very bad 3
- Bad 2
- Not too bad 1
- Refuse to answer 7
- Don't know 9

19. At that time, did having trouble paying attention or concentrating cause _____'s [teachers/boss] to be annoyed or upset with [him/her]? 0 1 2 7 8 9

IF YES, A. How often [were/was] [his/her] [teachers/boss] annoyed or upset with [him/her] because of this? Would you say: a lot of the time, some of the time, or hardly ever?

- A lot of the time 3
- Some of the time 2
- Hardly ever 1
- Refuse to answer 7
- Don't know 9

20. When the problems were worst, did it seem like having trouble paying attention or concentrating made [him/her] feel bad or made [him/her] feel upset? 0 1 2 7 9

IF YES, A. How bad did this seem to make [him/her] feel? Would you say: very bad, bad, or not too bad?

- Very bad 3
- Bad 2
- Not too bad 1
- Refuse to answer 7
- Don't know 9

(HY-IMP)

22. I would now like to ask you some questions about being overactive or hyperactive. Everybody has times when they are very active. What we want to know is whether _____ is overactive most of the time.

In the last year - that is, since [NAME CURRENT MONTH] of last year - was [he/she] often "on the go" or did [he/she] move around as if [he/she] was "driven by a motor"? 0 2 7 9

IF YES, A. Did [he/she] move around this much for six months or longer? 0 [2] 7 9

IF YES, B. When [he/she] was at home, was [he/she] often "on the go" or did [he/she] move around as if [he/she] was "driven by a motor"? 0 2 7 9

C. How about when [he/she] was (at [school/work] or) other places? 0 2 7 9

D. Now, what about the last four weeks? (Since [[NAME EVENT]//the beginning of/the middle of/the end of[*LAST MONTH*]], has [he/she] moved around a lot? 0 2 7 9

23. In the last year (that is, since [NAME CURRENT MONTH] of last year), was [he/she] often fidgety or restless? That is, fiddling with [his/her] hands or jiggling [his/her] feet or twisting around in [his/her] seat? 0 2 7 9

IF YES, A. Was [he/she] fidgety or restless like this for six months or longer? 0 [2] 7 9

IF YES, B. When [he/she] was at home, was [he/she] often fidgety or restless? 0 2 7 9

C. How about when [he/she] was (at [school/work] or) other places? 0 2 7 9

D. Now, what about the last four weeks? (Since [[NAME EVENT]//the beginning of/the middle of/the end of[*LAST MONTH*]], has [he/she] often been fidgety or restless? 0 2 7 9

| | | | | | |
|--|--|---|-----|---|---|
| 24. | Sometimes people are supposed to stay in their seats, like at school or when they go somewhere like to the movies or to a library or to a restaurant. | | | | |
| | In the last year (<i>that is, since [NAME CURRENT MONTH] of last year</i>), has [he/she] <u>often</u> left [his/her] seat when [he/she] wasn't supposed to? | 0 | 2 | 7 | 9 |
| | IF YES, A. Did this trouble with staying in [his/her] seat go on for six months or longer? | 0 | [2] | 7 | 9 |
| | IF YES, B. When [he/she] was at home, did [he/she] often leave [his/her] seat when [he/she] wasn't supposed to? | 0 | 2 | 7 | 9 |
| | C. How about when [he/she] was (at [school/work] or other places)? | 0 | 2 | 7 | 9 |
| | D. Now, what about the <u>last four weeks</u> ? (<i>Since [[NAME EVENT]/the beginning of/the middle of/the end of [LASTMONTH]]</i>), has [he/she] often left [his/her] seat when [he/she] wasn't supposed to? | 0 | 2 | 7 | 9 |
| 25. | In the last year (<i>that is, since [NAME CURRENT MONTH] of last year</i>), did [he/she] often climb on things or run around when [he/she] wasn't supposed to? | 0 | 2 | 7 | 9 |
| | IF YES, A. Did this problem of climbing or running around too much go on for six months or longer? | 0 | 2* | 7 | 9 |
| | IF YES, B. When [he/she] was at home, did [he/she] often climb on things or run around when [he/she] wasn't supposed to? | 0 | 2 | 7 | 9 |
| | C. How about when [he/she] was (at [school/work] or other places)? | 0 | 2 | 7 | 9 |
| | D. Now, what about the <u>last four weeks</u> ? (<i>Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]]</i>), has [he/she] often climbed on things or run around when [he/she] wasn't supposed to? | 0 | 2 | 7 | 9 |
| IF YES, GO TO NOTE 2 | | | | | |
| 26. | In the last year (<i>that is, since [NAME CURRENT MONTH] of last year</i>), when _____ had to sit still, for say more than ten minutes, did [he/she] nearly <u>always</u> seem restless, as if [he/she] wanted to kick [his/her] feet or get up and move around? | 0 | 2 | 7 | 9 |
| | IF YES, A. Did this problem of being restless go on for six months or longer? | 0 | 2* | 7 | 9 |
| | IF YES, B. When [he/she] was at home, did [he/she] often seem restless when [he/she] had to sit still? | 0 | 2 | 7 | 9 |
| | C. How about when [he/she] was (at [school/work] or other places)? | 0 | 2 | 7 | 9 |
| | D. Now, what about the <u>last four weeks</u> ? (<i>Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]]</i>), has [he/she] often seemed restless when [he/she] had to sit still? | 0 | 2 | 7 | 9 |
| NOTE 2: WERE ANY * RESPONSES CODED IN Q 25 - 26? 0 [2] | | | | | |
| 27. | In the last year - that is, since [NAME CURRENT MONTH] of last year - did [he/she] <u>often</u> talk a lot more than other [children/people [his/her] age]? | 0 | 2 | 7 | 9 |
| | IF YES, A. Did this trouble with talking too much go on for six months or longer? | 0 | [2] | 7 | 9 |
| | IF YES, B. When [he/she] was at home, did [he/she] often talk too much? | 0 | 2 | 7 | 9 |
| | C. How about when [he/she] was (at [school/work] or other places)? | 0 | 2 | 7 | 9 |
| | D. Now, what about the <u>last four weeks</u> ? (<i>Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]]</i>), has [he/she] often talked a lot more than other [children/people [his/her] age]? | 0 | 2 | 7 | 9 |

| | | | | | |
|--|--|---|-----|---|---|
| 28. | In the last year (<i>that is, since [NAME CURRENT MONTH] of last year</i>), did [he/she] <u>often</u> make much more noise than other [children/people [his/her] age] when [he/she] was [playing/having fun]? | 0 | 2 | 7 | 9 |
| IF YES, A. | Did [he/she] often make a lot of noise when [he/she] was [playing/having fun] for six months or longer? | 0 | [2] | 7 | 9 |
| IF YES, B. | When [he/she] was at home, did [he/she] often make much more noise than other [children/people [his/her] age]? | 0 | 2 | 7 | 9 |
| C. | How about when [he/she] was (at [school/work] or) other places? | 0 | 2 | 7 | 9 |
| D. | Now, what about the <u>last four weeks</u> ? (<i>Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]]</i>), has [he/she] often made much more noise than other [children/people [his/her] age]? | 0 | 2 | 7 | 9 |
| 29. | In the last year (<i>that is, since [NAME CURRENT MONTH] of last year</i>), did [he/she] <u>often</u> interrupt other people when they were talking or when they were busy? | 0 | 2 | 7 | 9 |
| IF YES, A. | Did [he/she] interrupt people often for six months or longer? | 0 | 2* | 7 | 9 |
| IF YES, B. | When [he/she] was at home, did [he/she] often interrupt other people? | 0 | 2 | 7 | 9 |
| C. | How about when [he/she] was (at [school/work] or) other places? | 0 | 2 | 7 | 9 |
| D. | Now, what about the <u>last four weeks</u> ? (<i>Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]]</i>), has [he/she] often interrupted other people? | 0 | 2 | 7 | 9 |
| IF YES, GO TO NOTE 3 | | | | | |
| 30. | In the last year (<i>that is, since [NAME CURRENT MONTH] of last year</i>), did _____ <u>often</u> butt in on what other people were doing? | 0 | 2 | 7 | 9 |
| IF YES, A. | Did [he/she] often butt in on what other people were doing for six months or longer? | 0 | 2* | 7 | 9 |
| IF YES, B. | When [he/she] was at home, did [he/she] often butt in on what other people were doing? | 0 | 2 | 7 | 9 |
| C. | How about when [he/she] was (at [school/work] or) other places? | 0 | 2 | 7 | 9 |
| D. | Now, what about the <u>last four weeks</u> ? (<i>Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]]</i>), has [he/she] often butted in on what other people were doing? | 0 | 2 | 7 | 9 |
| NOTE 3: WAS A * RESPONSE CODED IN Q 29 OR 30? | | | | | |
| | | 0 | [2] | | |
| 31 | In the last year- that is, since [NAME CURRENT MONTH] of last year- did [he/she] <u>often</u> blurt out answers before someone could finish asking the question? | 0 | 2 | 7 | 9 |
| IF YES, A. | Did [he/she] often blurt out answers like this for six months or longer? | 0 | [2] | 7 | 9 |
| IF YES, B. | When [he/she] was at home, did [he/she] often blurt out answers before someone could finish their question? | 0 | 2 | 7 | 9 |
| C. | How about when [he/she] was (at [school/work] or) other places? | 0 | 2 | 7 | 9 |
| D. | Now, what about the <u>last four weeks</u> ? (<i>Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]]</i>), has [he/she] often blurted out answers before someone could finish their question? | 0 | 2 | 7 | 9 |

32. In the last year (*that is, since [NAME CURRENT MONTH] of last year*), has [he/she] often had trouble waiting for [his/her] turn, like when [he/she] was standing in line...or playing a game? 0 2 7 9
- IF YES, A. Did this trouble with waiting for [his/her] turn go on for six months or longer? 0 [2] 7 9
- IF YES, B. When [he/she] was at home, did [he/she] have trouble waiting for [his/her] turn? 0 2 7 9
- C. How about when [he/she] was (at [school/work] or) other places? 0 2 7 9
- D. Now, what about the last four weeks? (Since [[NAME EVENT]//the beginning of/the middle of/the end of [LAST MONTH]], has [he/she] often had trouble waiting for [his/her] turn? 0 2 7 9

33. In the last year (*that is, since [NAME CURRENT MONTH] of last year*), did [he/she] often get [himself/herself] into a dangerous situation where [he/she] could have been injured because [he/she] wasn't thinking? 0 2 7 9

IF YES, A. Please tell me about this. (DESCRIBE:)

_____ | ____ |

- B. Was this something [he/she] did suddenly, without thinking about it first? 0 2 7 9
- C. Did [he/she] do dangerous things like this for six months or longer? 0 2 7 9

IF NO. GO TO INSTRUCTION BOX "f"

- IF YES, D. When [he/she] was at home, did [he/she] often get [himself/herself] into a dangerous situation because [he/she] wasn't thinking? 0 2 7 9
- E. How about when [he/she] was (at [school/work] or) other places? 0 2 7 9
- F. Now, what about the last four weeks? Since [[NAME EVENT]//the beginning/the middle of/the end of [LAST MONTH]], has [he/she] gotten [himself/herself] into a dangerous situation because [he/she] wasn't thinking? 0 2 7 9

f: IF 3 OR MORE [] RESPONSES WERE CODED IN Q 22 to 32 AND NOTES 2 - 3 (see tally sheet), CONTINUE

ALL OTHERS, GO TO Q 44, P. 18

34. You said that in the last year [he/she] [NAME [] SYMPTOMS IN Q 22 - 32 AND NOTES 2 - 3].

How old was [he/she] the first time [he/she] started to be overactive?

CODE AGE (66 = WHOLE LIFE, ALWAYS)> | ____ | YRS.

IF AGE NOT KNOWN, ASK: What grade was [he/she] in?

CODE GRADE (44 = PRE YEAR 1, 55 = OTHER EDUCATIONAL INSTITUTION)> | ____ | GRADE

g: IF [AGE/GRADE] GIVEN WAS CHILD'S CURRENT [AGE/GRADE], GO TO INSTRUCTION BOX "i"

IF [AGE/GRADE] GIVEN WAS CHILD'S CURRENT [AGE/GRADE] MINUS ONE, GO TO A

ALL OTHERS, GO TO B

A. Was that more than a year ago - that is, before [[NAME EVENT]/[NAME CURRENT MONTH] of last year]? 0 2 7 9

IF NO, GO TO INSTRUCTION BOX "i"

B. Since that first time, was there ever a time when [he/she] was not overactive? 0 2 7 9

IF NO, GO TO Q35

C. Did that time when [he/she] wasn't overactive last for six months or more? 0 2 7 9

IF NO, GO TO Q35

D. You said that [he/she] [NAME [] SYMPTOMS IN Q 22 - 32 AND NOTES 2 - 3] in the last year.

How old was [he/she] when being overactive began this time?

CODE AGE (88 = NEVER STARTED AGAIN) > | ____ | YRS.

IF AGE NOT KNOWN, ASK: What grade was [he/she] in?

CODE GRADE (44 = PRE YEAR 1, 55 = OTHER EDUCATIONAL INSTITUTION) > | ____ | GRADE

h: IF [AGE/GRADE] GIVEN WAS CHILD'S CURRENT [AGE/GRADE] MINUS ONE, GO TO E
ALL OTHERS, GO TO Q 35

E. Did [he/she] start being overactive again more than a year ago - that is, before [[NAME EVENT]/[NAME CURRENT MONTH] of last year]? 0 2 7 9

35. How old was [he/she] when being overactive started to cause problems for [him/her]?

CODE AGE (66 = WHOLE LIFE, ALWAYS) > | ____ | YRS.

IF AGE NOT KNOWN, ASK: What grade was [he/she] in?

CODE GRADE (44 = PRE YEAR 1, 55 = OTHER EDUCATIONAL INSTITUTION) > | ____ | GRADE

i: IF CHILD DID NOT ATTEND PRE YEAR 1 OR GRADE 1 CODE "8" IN Q 36, THEN GO TO Q 37

36. Did being overactive cause problems back when [he/she] was in pre year one or grade one? 0 1 2 7 8 9

37. You said that in the last year _____ [NAME [] SYMPTOMS IN Q 22 - 32 AND NOTES 2 - 3].

Now I'd like you to think back to the time in the last year when _____'s being overactive caused the most problems.

At that time, did [you (or [his/her] [CARETAKERS])/[his/her] [CARETAKERS] get annoyed or upset with [him/her] because [he/she] was overactive? 0 1 2 7 9

IF YES, A. How often did [you (or [his/her] [CARETAKERS])/[his/her] [CARETAKERS]] get annoyed or upset with [him/her] because [he/she] was like that? Would you say: a lot of the time, some of the time, or hardly ever?

A lot of the time 3
Some of the time 2
Hardly ever 1
Refuse to answer 7
Don't know 9

38. At that time, did being overactive keep _____ from doing things or going places with [you or [his/her] family/[his/her] family]? 0 1 2 7 9

IF YES, A. How often did being overactive keep [him/her] from doing things or going places with [you or [his/her] family/[his/her] family]? Would you say: a lot of the time, some of the time, or hardly ever?

A lot of the time 3
 Some of the time 2
 Hardly ever 1
 Refuse to answer 7
 Don't know 9

39. At that time, did being overactive keep [him/her] from doing things or going places with other [children/people [his/her] age]? 0 1 2 7 9

IF YES, A. How often did being overactive keep [him/her] from doing things or going places with other [children/people [his/her] age]? Would you say: a lot of the time, some of the time, or hardly ever?

A lot of the time 3
 Some of the time 2
 Hardly ever 1
 Refuse to answer 7
 Don't know 9

j: IF CHILD DID NOT ATTEND SCHOOL OR WORK IN LAST YEAR, CODE "8" IN Q 40 AND Q 41, THEN GO TO Q 42

40. When the problems were worst, did being overactive [make it difficult for [him/her] to do [his/her] schoolwork or cause problems with [his/her] grades/make it difficult for [him/her] to do [his/her] work]? 0 1 2 7 8 9

IF YES, A. How bad were the problems [he/she] had with [his/her] [schoolwork/work] because [he/she] was like that? Would you say: very bad, bad, or not too bad?

Very bad 3
 Bad 2
 Not too bad 1
 Refuse to answer 7
 Don't know 9

41. At that time, did being overactive cause _____'s [teachers/boss] to be annoyed or upset with [him/her]? 0 1 2 7 8 9

IF YES, A. How often [were/was] [his/her] [teachers/boss] annoyed or upset with [him/her] because [he/she] was like that? Would you say: a lot of the time, some of the time, or hardly ever?

A lot of the time 3
 Some of the time 2
 Hardly ever 1
 Refuse to answer 7
 Don't know 9

42. When the problems were worst, did it seem like being overactive made [him/her] feel bad or made [him/her] feel upset? 0 1 2 7 9

IF YES, A. How bad did being overactive seem to make [him/her] feel? Would you say: very bad, bad, or not too bad?

Very bad 3
 Bad 2
 Not too bad 1
 Refuse to answer 7
 Don't know 9

44. In the last year, has [he/she] taken any medicine for being overactive, being hyperactive, or having trouble paying attention? 0 2† 7 9

IF YES, A. What medicine did [he/she] take? (RECORD ALL MEDICATIONS)

_____ | _____ |

- | | | | | |
|---|---|---|---|---|
| B. Did [he/she] take this medicine most of the time during the last year? | 0 | 2 | 7 | 9 |
| C. Now, what about the <u>last four weeks</u> ? (Since [[NAME EVENT]/the beginning of/the middle of/the end of [LAST MONTH]], has [he/she] taken any medicine for being over- active, being hyperactive, or having trouble paying attention? | 0 | 2 | 7 | 9 |

k: IF 4 OR MORE [] RESPONSES WERE CODED IN Q 1 - 32 AND NOTES 1 - 3 OR A † RESPONSE WAS CODED IN Q 44 (see tally sheet), CONTINUE

ALL OTHERS, GO TO CD

- | | | | | |
|---|---|---|---|---|
| 45. In the last year- that is, since [NAME CURRENT MONTH] of last year- has [he/she] been to see someone at a hospital or a clinic or at their office because [he/she] was overactive, hyperactive, or had problems paying attention? | 0 | 2 | 7 | 9 |
|---|---|---|---|---|

IF YES, GO TO CD

- | | | | | |
|--|---|---|---|---|
| IF NO, A. Does [he/she] have an appointment set up to see someone because of this? | 0 | 2 | 7 | 9 |
|--|---|---|---|---|

GO TO CD

Module E: Disruptive Behavior Disorders
Attention-deficit/Hyperactivity Disorder
DISC IV-P, past year: Aust. NCAMH Survey

APPENDIX A.2: THE CHILD BEHAVIOR CHECKLIST

Below is a list of items that describe children and youth. For each item that describes your child *now or within the past 6 months*, please circle the 2 if the item is *very true or often true* of your child. Circle the 1 if the item is *somewhat or sometimes true* of your child. If the item is *not true* of your child, circle the 0. Please answer all items as well as you can, even if some do not seem to apply to your child.

Please Print

0 = Not True (as far as you know)

1 = Somewhat or Sometimes True

2 = Very True or Often True

| | | | | | | | | | |
|---|---|---|-----|---|---|---|---|-----|--|
| 0 | 1 | 2 | 1. | Acts too young for his/her age | 0 | 1 | 2 | 31. | Fears he/she might think or do something bad |
| 0 | 1 | 2 | 2. | Allergy (describe): _____ | 0 | 1 | 2 | 32. | Feels he/she has to be perfect |
| | | | | _____ | 0 | 1 | 2 | 33. | Feels or complains that no one loves him/her |
| 0 | 1 | 2 | 3. | Argues a lot | 0 | 1 | 2 | 34. | Feels others are out to get him/her |
| 0 | 1 | 2 | 4. | Asthma | 0 | 1 | 2 | 35. | Feels worthless or inferior |
| 0 | 1 | 2 | 5. | Behaves like opposite sex | 0 | 1 | 2 | 36. | Gets hurt a lot, accident-prone |
| 0 | 1 | 2 | 6. | Bowel movements outside toilet | 0 | 1 | 2 | 37. | Gets in many fights |
| 0 | 1 | 2 | 7. | Bragging, boasting | 0 | 1 | 2 | 38. | Gets teased a lot |
| 0 | 1 | 2 | 8. | Can't concentrate, can't pay attention for long | 0 | 1 | 2 | 39. | Hangs around with others who get in trouble |
| 0 | 1 | 2 | 9. | Can't get his/her mind off certain thoughts; obsessions (describe): _____ | 0 | 1 | 2 | 40. | Hears sounds or voices that aren't there (describe): _____ |
| | | | | _____ | 0 | 1 | 2 | 41. | Impulsive or acts without thinking |
| 0 | 1 | 2 | 10. | Can't sit still, restless, or hyperactive | 0 | 1 | 2 | 42. | Would rather be alone than with others |
| 0 | 1 | 2 | 11. | Clings to adults or too dependent | 0 | 1 | 2 | 43. | Lying or cheating |
| 0 | 1 | 2 | 12. | Complains of loneliness | 0 | 1 | 2 | 44. | Bites fingernails |
| 0 | 1 | 2 | 13. | Confused or seems to be in a fog | 0 | 1 | 2 | 45. | Nervous, highstrung, or tense |
| 0 | 1 | 2 | 14. | Cries a lot | 0 | 1 | 2 | 46. | Nervous movements or twitching (describe): _____ |
| | | | | | | | | | _____ |
| 0 | 1 | 2 | 15. | Cruel to animals | 0 | 1 | 2 | 47. | Nightmares |
| 0 | 1 | 2 | 16. | Cruelty, bullying, or meanness to others | 0 | 1 | 2 | 48. | Not liked by other kids |
| 0 | 1 | 2 | 17. | Day-dreams or gets lost in his/her thoughts | 0 | 1 | 2 | 49. | Constipated, doesn't move bowels |
| 0 | 1 | 2 | 18. | Deliberately harms self or attempts suicide | 0 | 1 | 2 | 50. | Too fearful or anxious |
| 0 | 1 | 2 | 19. | Demands a lot of attention | 0 | 1 | 2 | 51. | Feels dizzy |
| 0 | 1 | 2 | 20. | Destroys his/her own things | 0 | 1 | 2 | 52. | Feels too guilty |
| 0 | 1 | 2 | 21. | Destroys things belonging to his/her family or others | 0 | 1 | 2 | 53. | Overeating |
| 0 | 1 | 2 | 22. | Disobedient at home | 0 | 1 | 2 | 54. | Overtired |
| 0 | 1 | 2 | 23. | Disobedient at school | 0 | 1 | 2 | 55. | Overweight |
| 0 | 1 | 2 | 24. | Doesn't eat well | | | | 56. | Physical problems <i>without known medical cause</i> : |
| 0 | 1 | 2 | 25. | Doesn't get along with other kids | 0 | 1 | 2 | a. | Aches or pains (<i>not</i> stomach or headaches) |
| 0 | 1 | 2 | 26. | Doesn't seem to feel guilty after misbehaving | 0 | 1 | 2 | b. | Headaches |
| 0 | 1 | 2 | 27. | Easily jealous | 0 | 1 | 2 | c. | Nausea, feels sick |
| 0 | 1 | 2 | 28. | Eats or drinks things that are not food - <i>don't</i> include sweets (describe): _____ | 0 | 1 | 2 | d. | Problems with eyes (<i>not</i> if corrected by glasses) (describe): _____ |
| | | | | _____ | 0 | 1 | 2 | e. | Rashes or other skin problems |
| 0 | 1 | 2 | 29. | Fears certain animals, situations, or places, other than school (describe): _____ | 0 | 1 | 2 | f. | Stomachaches or cramps |
| | | | | _____ | 0 | 1 | 2 | g. | Vomiting, throwing up |
| 0 | 1 | 2 | 30. | Fears going to school | 0 | 1 | 2 | h. | Other (describe) _____ |
| | | | | | | | | | _____ |

Please Print

| 0 = Not true (as far as you know) | | | 1 = Somewhat or Sometimes True | | | 2 = Very True or Often True | | | |
|-----------------------------------|---|---|--------------------------------|--|---|-----------------------------|---|------|--|
| 0 | 1 | 2 | 57. | Physically attacks people | 0 | 1 | 2 | 84. | Strange behaviour (describe): _____ |
| 0 | 1 | 2 | 58. | Picks nose, skin, or other parts of body (describe): _____ | | | | | _____ |
| 0 | 1 | 2 | 59. | Plays with own sex parts in public | 0 | 1 | 2 | 85. | Strange ideas (describe): _____ |
| 0 | 1 | 2 | 60. | Plays with own sex parts too much | | | | | _____ |
| 0 | 1 | 2 | 61. | Poor school work | 0 | 1 | 2 | 86. | Stubborn, sullen, or irritable |
| 0 | 1 | 2 | 62. | Poorly co-ordinated or clumsy | 0 | 1 | 2 | 87. | Sudden changes in mood or feelings |
| 0 | 1 | 2 | 63. | Prefers being with older kids | 0 | 1 | 2 | 88. | Sulks a lot |
| 0 | 1 | 2 | 64. | Prefers being with younger kids | 0 | 1 | 2 | 89. | Suspicious |
| 0 | 1 | 2 | 65. | Refuses to talk | 0 | 1 | 2 | 90. | Swearing or obscene language |
| 0 | 1 | 2 | 66. | Repeats certain acts over and over; compulsions (describe): _____ | 0 | 1 | 2 | 91. | Talks about killing self |
| | | | | _____ | 0 | 1 | 2 | 92. | Talks or walks in sleep (describe): _____ |
| | | | | _____ | | | | | _____ |
| 0 | 1 | 2 | 67. | Runs away from home | 0 | 1 | 2 | 93. | Talks too much |
| 0 | 1 | 2 | 68. | Screams a lot | 0 | 1 | 2 | 94. | Teases a lot |
| 0 | 1 | 2 | 69. | Secretive, keeps things to self | 0 | 1 | 2 | 95. | Temper tantrums or hot temper |
| 0 | 1 | 2 | 70. | Sees things that aren't there (describe): _____ | 0 | 1 | 2 | 96. | Thinks about sex too much |
| | | | | _____ | 0 | 1 | 2 | 97. | Threatens people |
| | | | | _____ | 0 | 1 | 2 | 98. | Thumb-sucking |
| 0 | 1 | 2 | 71. | Self-conscious or easily embarrassed | 0 | 1 | 2 | 99. | Too concerned with neatness or cleanliness |
| 0 | 1 | 2 | 72. | Sets fires | 0 | 1 | 2 | 100. | Trouble sleeping (describe): _____ |
| 0 | 1 | 2 | 73. | Sexual problems (describe): _____ | | | | | _____ |
| | | | | _____ | 0 | 1 | 2 | 101. | Truancy, skips school |
| | | | | _____ | 0 | 1 | 2 | 102. | Underactive, slow moving, or lacks energy |
| 0 | 1 | 2 | 74 | Showing off or clowning | 0 | 1 | 2 | 103. | Unhappy, sad, or depressed |
| 0 | 1 | 2 | 75. | Shy or timid | 0 | 1 | 2 | 104. | Unusually loud |
| 0 | 1 | 2 | 76. | Sleeps less than most kids | 0 | 1 | 2 | 105. | Uses alcohol or drugs for non-medical purposes (describe): _____ |
| 0 | 1 | 2 | 77. | Sleeps more than most kids during day and/or night (describe): _____ | | | | | _____ |
| | | | | _____ | 0 | 1 | 2 | 106. | Vandalism |
| 0 | 1 | 2 | 78. | Smears or plays with bowel movements | 0 | 1 | 2 | 107. | Wets self during the day |
| 0 | 1 | 2 | 79. | Speech problem (describe): _____ | 0 | 1 | 2 | 108. | Wets the bed |
| | | | | _____ | 0 | 1 | 2 | 109. | Whining |
| 0 | 1 | 2 | 80. | Stares blankly | 0 | 1 | 2 | 110. | Wishes to be of opposite sex |
| 0 | 1 | 2 | 81. | Steals at home | 0 | 1 | 2 | 111. | Withdrawn, doesn't get involved with others |
| 0 | 1 | 2 | 82. | Steals outside the home | 0 | 1 | 2 | 112. | Worries |
| 0 | 1 | 2 | 83. | Stores up things he/she doesn't need (describe): _____ | | | | 113. | Please write in any problems your child has that were not listed above |
| | | | | _____ | 0 | 1 | 2 | | _____ |
| | | | | _____ | 0 | 1 | 2 | | _____ |
| | | | | _____ | 0 | 1 | 2 | | _____ |

PLEASE BE SURE YOU HAVE ANSWERED ALL ITEMS

APPENDIX A.3: THE CHILD HEALTH QUESTIONNAIRE

SECTION 2

This section is to be completed by the parents/caregivers of participating children/adolescents who are aged 6 years or older. If the child who is participating in the study is aged 4 or 5 years, skip this section and commence SECTION 3.

Questions in this section ask about your child/adolescent's general health and well being. Answer the questions by circling the appropriate number 1 2 3 4 5

| |
|-----------------------------------|
| YOUR CHILD'S GLOBAL HEALTH |
|-----------------------------------|

1.1. In general, would you say your child's health is:

| | | | | |
|-----------|-----------|------|------|------|
| 1 | 2 | 3 | 4 | 5 |
| Excellent | Very good | Good | Fair | Poor |

| |
|---|
| YOUR CHILD'S PHYSICAL ACTIVITIES |
|---|

The following questions ask about physical activities your child might do during a day.

2.1. During the past 4 weeks, has your child been limited in any of the following activities due to health problems?

| | | Yes, limited a lot | Yes, limited some | Yes, limited a little | No, not limited |
|----|---|--------------------------|-------------------------|-----------------------------|--------------------|
| a. | Doing things that take a lot of energy, such as playing soccer or running? | 1 | 2 | 3 | 4 |
| b. | Doing things that take some energy such as riding a bike or skating? | 1 | 2 | 3 | 4 |
| c. | Ability (physically) to get around the neighbourhood, playground, or school? | 1 | 2 | 3 | 4 |
| d. | Walking one block or climbing one flight of stairs? | 1 | 2 | 3 | 4 |
| e. | Bending, lifting, or stooping? | 1 | 2 | 3 | 4 |
| f. | Taking care of him/herself, that is, eating, dressing, bathing, or going to the toilet? | 1 | 2 | 3 | 4 |

| |
|---|
| YOUR CHILD'S EVERYDAY ACTIVITIES |
|---|

3.1. During the past 4 weeks, has your child's school work or activities with friends been limited in any of the following ways due to EMOTIONAL difficulties or problems with his/her BEHAVIOUR?

| | Yes, limited a lot | Yes, limited some | Yes, limited a little | No, not limited |
|--|-----------------------|----------------------|--------------------------|--------------------|
| a. limited in the KIND of schoolwork or activities with friends he/she could do | 1 | 2 | 3 | 4 |
| b. limited in the AMOUNT of time he/she could spend on schoolwork or activities with friends | 1 | 2 | 3 | 4 |
| c. limited in PERFORMING schoolwork or activities with friends (it took extra effort) | 1 | 2 | 3 | 4 |

3.2. During the past 4 weeks, has your child's school work or activities with friends been limited in any of the following ways due to problems with his/her PHYSICAL health?

| | Yes, limited a lot | Yes, limited some | Yes, limited a little | No, not limited |
|--|-----------------------|----------------------|--------------------------|--------------------|
| a. limited in the KIND of schoolwork or activities with friends he/she could do | 1 | 2 | 3 | 4 |
| b. limited in the AMOUNT of time he/she could spend on schoolwork or activities with friends | 1 | 2 | 3 | 4 |

PAIN

4.1. During the past 4 weeks, how much bodily pain or discomfort has your child had?

| | | | | | |
|-----------|----------------|-----------|---------------|-------------|------------------|
| 1 None | 2 Very mild | 3 Mild | 4 Moderate | 5 Severe | 6 Very severe |
|-----------|----------------|-----------|---------------|-------------|------------------|

4.2. During the past 4 weeks, how often has your child had bodily pain or discomfort?

| | | | | | |
|--------------------------|--------------------|------------------|-------------------|-----------------|--------------------------------|
| 1 None of the time | 2 Once or twice | 3 A few times | 4 Fairly often | 5 Very often | 6 Every/almost every day |
|--------------------------|--------------------|------------------|-------------------|-----------------|--------------------------------|

BEHAVIOUR

Below is a list of items that describe children's behaviour or problems they sometimes have.

5.1. How often during the past 4 weeks did each of the following statements describe your child?

| | Very Often | Fairly Often | Sometimes | Almost Never | Never |
|---|------------|--------------|-----------|--------------|-------|
| a. argued a lot | 1 | 2 | 3 | 4 | 5 |
| b. had difficulty concentrating or paying attention | 1 | 2 | 3 | 4 | 5 |
| c. lied or cheated | 1 | 2 | 3 | 4 | 5 |
| d. stole things inside or outside the home | 1 | 2 | 3 | 4 | 5 |
| e. had tantrums or a hot temper | 1 | 2 | 3 | 4 | 5 |

5.2. Compared to other children your child's age, in general would you say his/her behaviour is:

| | | | | |
|----------------|----------------|-----------|-----------|-----------|
| 1 Excellent | 2 Very good | 3 Good | 4 Fair | 5 Poor |
|----------------|----------------|-----------|-----------|-----------|

WELL-BEING

The following phrases are about children's moods.

6.1. During the past 4 weeks, how much of the time do you think your child:

| | All of the time | Most of the time | Some of the time | A little of the time | None of the time |
|-----------------------------|--------------------|---------------------|---------------------|-------------------------|---------------------|
| a. felt like crying? | 1 | 2 | 3 | 4 | 5 |
| b. felt lonely? | 1 | 2 | 3 | 4 | 5 |
| c. acted nervous? | 1 | 2 | 3 | 4 | 5 |
| d. acted bothered or upset? | 1 | 2 | 3 | 4 | 5 |
| e. acted cheerful? | 1 | 2 | 3 | 4 | 5 |

SELF-ESTEEM

The following asks about your child's satisfaction with self, school, and others. It may be helpful if you keep in mind how other children your child's age might feel about these areas.

7.1. During the past 4 weeks, how satisfied do you think your child has felt about:

| | Very satisfied | Somewhat satisfied | Neither satisfied nor dissatisfied | Somewhat dissatisfied | Very dissatisfied |
|----------------------------------|-------------------|-----------------------|---|--------------------------|----------------------|
| a. his/her school ability? | 1 | 2 | 3 | 4 | 5 |
| b. his/her athletic ability? | 1 | 2 | 3 | 4 | 5 |
| c. his/her friendships? | 1 | 2 | 3 | 4 | 5 |
| d. his/her looks/appearance? | 1 | 2 | 3 | 4 | 5 |
| e. his/her family relationships? | 1 | 2 | 3 | 4 | 5 |
| f. his/her life overall? | 1 | 2 | 3 | 4 | 5 |

YOUR CHILD'S HEALTH

The following statements are about health in general.

8.1. How true or false is each of these statements for your child?

| | Definitely True | Mostly True | Don't Know | Mostly False | Definitely False |
|--|--------------------|----------------|---------------|-----------------|---------------------|
| a. My child seems to be less healthy than other children I know. | 1 | 2 | 3 | 4 | 5 |
| b. My child has never been seriously ill. | 1 | 2 | 3 | 4 | 5 |
| c. When there is something going around my child usually catches it. | 1 | 2 | 3 | 4 | 5 |
| d. I expect my child will have a very healthy life. | 1 | 2 | 3 | 4 | 5 |
| e. I worry more about my child's health than other people worry about their children's health. | 1 | 2 | 3 | 4 | 5 |

8.2. Compared to one year ago, how would you rate your child's health now:

| 1 | 2 | 3 | 4 | 5 |
|---------------------------------|-------------------------------------|----------------------------------|------------------------------------|--------------------------------|
| Much better now than 1 year ago | Somewhat better now than 1 year ago | About the same now as 1 year ago | Somewhat worse now than 1 year ago | Much worse now than 1 year ago |

YOU AND YOUR FAMILY

9.1. During the past 4 weeks, how MUCH emotional worry or concern did each of the following cause YOU?

| | None at all | A little bit | Some | Quite a bit | A lot |
|---|----------------|-----------------|------|----------------|-------|
| a. Your child's physical health | 1 | 2 | 3 | 4 | 5 |
| b. Your child's emotional well-being or behaviour | 1 | 2 | 3 | 4 | 5 |
| c. Your child's attention or learning abilities | 1 | 2 | 3 | 4 | 5 |

9.2. During the past 4 weeks, were you **LIMITED** in the amount of time **YOU** had for your own needs because of:

| | Yes, limited a lot | Yes, limited some | Yes, limited a little | No, not limited |
|--|--------------------------|-------------------------|-----------------------------|--------------------|
| a. Your child's physical health? | 1 | 2 | 3 | 4 |
| b. Your child's emotional well-being or behaviour? | 1 | 2 | 3 | 4 |
| c. Your child's attention or learning abilities? | 1 | 2 | 3 | 4 |

9.3. During the past 4 weeks, how often has your child's health or behaviour:

| | Very often | Fairly often | Sometimes | Almost never | Never |
|--|---------------|-----------------|-----------|-----------------|-------|
| a. limited the types of activities you could do as a family? | 1 | 2 | 3 | 4 | 5 |
| b. interrupted various everyday family activities (eating meals, watching TV)? | 1 | 2 | 3 | 4 | 5 |
| c. limited your ability as a family to "pick up and go" on a moment's notice? | 1 | 2 | 3 | 4 | 5 |
| d. caused tension or conflict in your home? | 1 | 2 | 3 | 4 | 5 |
| e. been a source of disagreements or arguments in your family? | 1 | 2 | 3 | 4 | 5 |
| f. caused you to cancel or change plans (personal or work) at the last minute? | 1 | 2 | 3 | 4 | 5 |

9.4. Sometimes families may have difficulty getting along with one another. They do not always agree and they may get angry. In general, how would you rate your family's ability to get along with one another?

| | | | | |
|----------------|----------------|-----------|-----------|-----------|
| 1 Excellent | 2 Very good | 3 Good | 4 Fair | 5 Poor |
|----------------|----------------|-----------|-----------|-----------|

APPENDIX B: CHILD BEHAVIOR CHECKLIST ITEM SCORES

Table B.1
Effect Size Statistics (*d*) for Differences between Male Subtypes and Non-ADHD Controls for CBCL Scales

| Scale | Inattentive (I) | Hyp-Imp (HI) | Combined (C) |
|---------------------|--------------------|-----------------|-----------------|
| Total Problems | 1.11 | 1.67 | 2.64 |
| Externalising | 0.84 | 1.71 | 2.77 |
| Internalising | 0.81 | 0.87 | 1.40 |
| Withdrawn | 0.86 | 0.85 | 1.31 |
| Somatic Complaints | 0.47 | 0.42 | 0.62 |
| Anxious/Depressed | 0.71 | 0.86 | 1.41 |
| Social Problems | 1.15 | 1.16 | 2.12 |
| Thought Problems | 0.67 | 0.95 | 1.41 |
| Attention Problems | 1.64 | 1.96 | 2.97 |
| Delinquent Behavior | 0.69 | 1.05 | 2.28 |
| Aggressive Behavior | 0.82 | 1.80 | 2.71 |

Table B.2
Effect Size Statistics (*d*) for Differences between Male Subtypes for CBCL Scales

| Scale | Combined versus Inattentive | Combined versus Hyper-Impulsive | Hyper-Impulsive versus Inattentive |
|---------------------|--------------------------------|------------------------------------|---------------------------------------|
| CBCL Scales | | | |
| Total Problems | 1.05 | 0.65 | 0.37 |
| Externalising | 1.46 | 0.79 | 0.73 |
| Internalising | 0.36 | 0.35 | 0.01 |
| Withdrawn | 0.26 | 0.30 | -0.03 |
| Somatic Complaints | 0.09 | 0.15 | -0.05 |
| Anxious/Depressed | 0.45 | 0.35 | 0.08 |
| Social Problems | 0.59 | 0.52 | 0.00 |
| Thought Problems | 0.31 | 0.28 | 0.06 |
| Attention Problems | 0.87 | 0.59 | 0.20 |
| Delinquent Behavior | 1.13 | 0.81 | 0.30 |
| Aggressive Behavior | 1.45 | 0.70 | 0.80 |

Table B.3
Effect Size Statistics (*d*) for Differences between Female Subtypes and Non-ADHD Controls for CBCL Scales

| Scale | Inattentive (I) | Hyp-Imp (HI) | Combined (C) |
|---------------------|--------------------|-----------------|-----------------|
| Total Problems | 1.80 | 1.47 | 2.54 |
| Externalising | 1.14 | 1.83 | 2.63 |
| Internalising | 1.48 | 0.44 | 1.46 |
| Withdrawn | 1.34 | 0.28 | 1.09 |
| Somatic Complaints | 0.58 | 0.12 | 1.10 |
| Anxious/Depressed | 1.60 | 0.62 | 1.46 |
| Social Problems | 1.75 | 0.56 | 1.70 |
| Thought Problems | 0.96 | 0.29 | 1.35 |
| Attention Problems | 2.43 | 1.39 | 2.86 |
| Delinquent Behavior | 1.08 | 1.37 | 1.79 |
| Aggressive Behavior | 1.06 | 1.82 | 2.68 |

Table B.4
Effect Size Statistics (*d*) for Differences between Female Subtypes for CBCL Scales

| Scale | Combined versus Inattentive | Combined versus Hyper-Impulsive | Inattentive versus Hyper-Impulsive |
|---------------------|--------------------------------|------------------------------------|---------------------------------------|
| Total Problems | 0.50 | 0.69 | 0.27 |
| Externalising | 0.92 | 0.52 | -0.46 |
| Internalising | -0.01 | 0.65 | 0.77 |
| Withdrawn | -0.17 | 0.62 | 0.73 |
| Somatic Complaints | 0.40 | 0.79 | 0.41 |
| Anxious/Depressed | -0.08 | 0.47 | 0.63 |
| Social Problems | -0.06 | 0.68 | 0.68 |
| Thought Problems | 0.21 | 0.58 | 0.47 |
| Attention Problems | 0.24 | 1.10 | 0.76 |
| Delinquent Behavior | 0.39 | 0.24 | -0.16 |
| Aggressive Behavior | 1.05 | 0.58 | -0.56 |

Table B.5
 Mean (SD) Scores for CBCL Delinquent Behavior Items for Female Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|-------------------------------|--------------------|-----------------|-----------------|---|
| Does not feel guilty | 0.49 (0.7) | 0.60 (0.8) | 0.78 (0.8) | 1.3 |
| Keeps bad company | 0.17 (0.4) | 0.35 (0.6) | 0.26 (0.4) | 1.3 |
| Lying and cheating | 0.47 (0.5) | 0.70 (0.7) | 0.70 (0.8) | 0.9 |
| Prefers being with older kids | 0.63 (0.7) | 0.70 (0.7) | 0.57 (0.7) | 0.2 |
| Runs away from home | 0.06 (0.2) | 0.00 (0.0) | 0.00 (0.0) | 1.5 |
| Sets fires | 0.06 (0.2) | 0.05 (0.2) | 0.12 (0.4) | 0.4 |
| Steals at home | 0.17 (0.4) | 0.15 (0.4) | 0.32 (0.6) | 1.1 |
| Steals outside home | 0.08 (0.3) | 0.10 (0.3) | 0.04 (0.2) | 0.3 |
| Swears | 0.25 (0.6) | 0.25 (0.4) | 0.56 (0.8) | 2.4 |
| Thinks about sex too much | 0.13 (0.4) | 0.10 (0.3) | 0.21 (0.6) | 0.4 |
| Truant | 0.04 (0.2) | 0.00 (0.0) | 0.00 (0.0) | 0.9 |
| Uses alcohol or drugs | 0.02 (0.1) | 0.00 (0.0) | 0.00 (0.0) | 0.5 |
| Vandalism | 0.04 (0.2) | 0.00 (0.0) | 0.04 (0.2) | 0.4 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

Table B.6
Mean (SD) Scores for CBCL Delinquent Behavior Items for Male Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|-------------------------------|--------------------|-----------------|-----------------|---|
| Does not feel guilty | 0.41 (0.5) | 0.60 (0.7) | 0.91 (0.7) | 9.6*** C > HI & I |
| Keeps bad company | 0.34 (0.6) | 0.32 (0.5) | 0.81 (0.7) | 13.3*** C > HI & I |
| Lying and cheating | 0.36 (0.5) | 0.48 (0.5) | 0.77 (0.7) | 10.1*** [†] C > HI & I |
| Prefers being with older kids | 0.50 (0.6) | 0.63 (0.7) | 1.00 (0.8) | 5.7** C > I |
| Runs away from home | 0.09 (0.3) | 0.00 (0.0) | 0.09 (0.3) | 1.9 |
| Sets fires | 0.05 (0.2) | 0.13 (0.3) | 0.19 (0.5) | 3.6* [†] C > I |
| Steals at home | 0.12 (0.4) | 0.18 (0.4) | 0.40 (0.6) | 8.5*** [†] C > HI & I |
| Steals outside home | 0.05 (0.2) | 0.03 (0.2) | 0.25 (0.5) | 9.3*** [†] C > HI & I |
| Swears | 0.33 (0.6) | 0.38 (0.5) | 0.73 (0.8) | 8.5*** [†] C > HI & I |
| Thinks about sex too much | 0.00 (0.0) | 0.05 (0.2) | 0.12 (0.4) | 4.5* [†] C > I |
| Truant | 0.05 (0.3) | 0.00 (0.0) | 0.03 (0.2) | 0.7 |
| Uses alcohol or drugs | 0.00 (0.0) | 0.03 (0.2) | 0.03 (0.2) | 1.5 |
| Vandalism | 0.05 (0.2) | 0.10 (0.3) | 0.13 (0.4) | 1.9 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

[†] homogeneity of variance assumption violated.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table B.7
Mean (SD) Scores for CBCL Aggressive Behavior Items for Male Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|-------------------------------------|--------------------|-----------------|-----------------|---|
| Argues | 1.08 (0.6) | 1.36 (0.6) | 1.52 (0.7) | 10.1*** C > I |
| Brags | 0.44 (0.6) | 0.70 (0.7) | 0.87 (0.7) | 8.7** C > I |
| Cruelty, bullying, or meanness | 0.20 (0.4) | 0.38 (0.6) | 0.78 (0.7) | 21.1*** † C > HI & I |
| Demands attention | 0.71 (0.7) | 1.26 (0.7) | 1.39 (0.7) | 20.0*** C & HI > I |
| Destroys own things | 0.32 (0.6) | 0.33 (0.6) | 0.80 (0.7) | 13.0*** C > HI & I |
| Destroys things belonging to others | 0.25 (0.5) | 0.38 (0.6) | 0.73 (0.7) | 13.5*** C > HI & I |
| Disobedient at home | 0.85 (0.6) | 1.00 (0.5) | 1.24 (0.6) | 9.3*** C > I |
| Disobedient at school | 0.42 (0.6) | 0.46 (0.5) | 1.00 (0.7) | 18.1*** C > HI & I |
| Jealous | 0.43 (0.6) | 0.63 (0.7) | 0.88 (0.8) | 8.6*** † C > I |
| Fights | 0.15 (0.4) | 0.28 (0.5) | 0.76 (0.8) | 24.3*** † C > HI & I |
| Physically attacks people | 0.17 (0.4) | 0.18 (0.4) | 0.43 (0.6) | 7.1** C > HI & I |
| Screams a lot | 0.24 (0.5) | 0.41 (0.5) | 0.54 (0.7) | 5.1** † C > I |
| Shows off | 0.61 (0.6) | 1.08 (0.7) | 1.24 (0.7) | 14.6*** C & HI > I |
| Stubborn | 0.69 (0.7) | 0.80 (0.7) | 1.09 (0.8) | 3.7* C > I |
| Sudden changes in mood | 0.50 (0.7) | 0.72 (0.8) | 1.04 (0.8) | 11.9*** C > I |
| Talks too much | 0.41 (0.6) | 1.28 (0.7) | 1.15 (0.7) | 36.3*** C & HI > I |
| Teases a lot | 0.34 (0.6) | 0.60 (0.7) | 0.67 (0.7) | 6.3** † C > I |
| Temper tantrums | 0.56 (0.7) | 0.88 (0.8) | 1.22 (0.8) | 16.6*** C > HI & I |
| Threatens people | 0.17 (0.4) | 0.28 (0.5) | 0.40 (0.6) | 4.4* C > I |
| Unusually loud | 0.27 (0.5) | 0.80 (0.7) | 0.90 (0.8) | 21.4*** † C & HI > I |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

† homogeneity of variance assumption violated.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table B.8
Mean (SD) Scores for CBCL Aggressive Behavior Items for Female Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences | |
|-------------------------------------|--------------------|-----------------|-----------------|---|------------|
| Argues | 1.17 (0.7) | 1.15 (0.7) | 1.70 (0.5) | 6.2** | C > HI & I |
| Brags | 0.44 (0.6) | 0.35 (0.5) | 0.65 (0.7) | 1.4 | |
| Cruelty, bullying, or meanness | 0.15 (0.4) | 0.40 (0.5) | 0.56 (0.7) | 5.3** † | C > I |
| Demands attention | 0.81 (0.7) | 1.35 (0.7) | 1.52 (0.7) | 9.8*** | C & HI > I |
| Destroys own things | 0.15 (0.5) | 0.35 (0.6) | 0.48 (0.7) | 3.1* | C > I |
| Destroys things belonging to others | 0.29 (0.5) | 0.30 (0.6) | 0.48 (0.7) | 0.9 | |
| Disobedient at home | 0.75 (0.6) | 1.00 (0.5) | 1.26 (0.6) | 5.8*** | C > I |
| Disobedient at school | 0.21 (0.5) | 0.16 (0.4) | 0.50 (0.6) | 3.4* | |
| Jealous | 0.67 (0.7) | 0.95 (0.8) | 1.17 (0.8) | 4.0* | C > I |
| Fights | 0.10 (0.3) | 0.20 (0.4) | 0.35 (0.8) | 1.8 | |
| Physically attacks people | 0.13 (0.4) | 0.15 (0.4) | 0.21 (0.5) | 0.3 | |
| Screams a lot | 0.31 (0.6) | 0.30 (0.7) | 0.72 (0.8) | 3.4* | C > I |
| Shows off | 0.60 (0.6) | 1.00 (0.6) | 1.00 (0.8) | 3.0 | |
| Stubborn | 0.85 (0.7) | 0.75 (0.6) | 1.00 (0.8) | 0.8 | |
| Sudden changes in mood | 0.69 (0.7) | 0.50 (0.6) | 0.92 (0.9) | 1.8 † | |
| Talks too much | 0.69 (0.7) | 1.45 (0.6) | 1.29 (0.7) | 10.4*** | C & HI > I |
| Teases a lot | 0.25 (0.4) | 0.55 (0.7) | 0.63 (0.8) | 3.9* † | C > I |
| Temper tantrums | 0.58 (0.8) | 0.70 (0.7) | 1.13 (0.9) | 3.8* | C > I |
| Threatens people | 0.08 (0.3) | 0.20 (0.4) | 0.25 (0.6) | 1.3 | |
| Unusually loud | 0.42 (0.6) | 0.90 (0.9) | 1.00 (0.8) | 6.1** | C & HI > I |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

† homogeneity of variance assumption violated.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table B.9
Mean (SD) Scores for CBCL Anxious Depressed Items for Male Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences | |
|--------------------------------------|--------------------|-----------------|-----------------|---|------------|
| Lonely | 0.30 (0.6) | 0.40 (0.6) | 0.64 (0.7) | 6.0** | C > I |
| Cries a lot | 0.29 (0.6) | 0.38 (0.7) | 0.44 (0.6) | 1.3 | |
| Fears might do something bad | 0.13 (0.4) | 0.10 (0.4) | 0.16 (0.4) | 0.4 | |
| Has to be perfect | 0.31 (0.6) | 0.38 (0.6) | 0.30 (0.6) | 0.3 | |
| No one loves him/her | 0.40 (0.6) | 0.48 (0.7) | 0.69 (0.7) | 3.2* | C > I |
| Others out to get him/her | 0.26 (0.5) | 0.28 (0.5) | 0.57 (0.7) | 6.5** † | C > HI & I |
| Worthless or inferior | 0.40 (0.6) | 0.33 (0.6) | 0.51 (0.7) | 1.3 | |
| Nervous, highstrung or tense | 0.26 (0.5) | 0.60 (0.7) | 0.58 (0.7) | 7.8** † | C & HI > I |
| Fearful or anxious | 0.21 (0.5) | 0.23 (0.5) | 0.33 (0.6) | 1.3 | |
| Feels too guilty | 0.09 (0.3) | 0.05 (0.3) | 0.10 (0.4) | 0.3 | |
| Self-conscious or easily embarrassed | 0.63 (0.6) | 0.35 (0.6) | 0.78 (0.7) | 5.2** | C > HI |
| Suspicious | 0.12 (0.4) | 0.15 (0.5) | 0.33 (0.6) | 4.1* † | C > I |
| Unhappy, sad, or depressed | 0.42 (0.6) | 0.40 (0.6) | 0.63 (0.7) | 2.7 | |
| Worries | 0.50 (0.6) | 0.56 (0.7) | 0.58 (0.7) | 0.4 | |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

† homogeneity of variance assumption violated.

* $p < .05$. ** $p < .01$.

Table B.10

Mean (SD) Scores for CBCL Withdrawn Items for Male Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences | |
|---------------------------|--------------------|-----------------|-----------------|---|--------|
| Rather be alone | 0.30 (0.5) | 0.50 (0.6) | 0.54 (0.7) | 3.9* | C > I |
| Refuses to talk | 0.20 (0.5) | 0.20 (0.4) | 0.39 (0.6) | 3.2* | C > I |
| Secretive | 0.33 (0.6) | 0.30 (0.6) | 0.44 (0.6) | 1.0 | |
| Shy or timid | 0.52 (0.6) | 0.35 (0.6) | 0.22 (0.4) | 6.0** † | I > C |
| Stares | 0.26 (0.5) | 0.20 (0.5) | 0.33 (0.6) | 0.8 | |
| Sulks a lot | 0.40 (0.6) | 0.55 (0.7) | 0.69 (0.7) | 4.0* | C > I |
| Underactive | 0.30 (0.5) | 0.08 (0.3) | 0.21 (0.5) | 3.1* | I > HI |
| Unhappy, sad or depressed | 0.42 (0.6) | 0.40 (0.6) | 0.63 (0.7) | 2.7 | |
| Withdrawn | 0.22 (0.5) | 0.21 (0.5) | 0.25 (0.5) | 0.2 | |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

† homogeneity of variance assumption violated.

* $p < .05$. ** $p < .01$.

Table B.11

Mean (SD) Scores for CBCL Somatic Complaint Items for Male Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences | |
|-------------------------|--------------------|-----------------|-----------------|---|--|
| Dizzy | 0.09 (0.3) | 0.10 (0.3) | 0.09 (0.3) | 0.0 | |
| Tired | 0.39 (0.6) | 0.23 (0.4) | 0.49 (0.6) | 2.8 | |
| Aches or pains | 0.20 (0.4) | 0.13 (0.4) | 0.23 (0.5) | 0.7 | |
| Headaches | 0.36 (0.6) | 0.35 (0.6) | 0.33 (0.5) | 0.1 | |
| Nausea | 0.15 (0.4) | 0.25 (0.5) | 0.17 (0.4) | 0.9 | |
| Problems with eyes | 0.05 (0.2) | 0.02 (0.2) | 0.09 (0.3) | 1.0 | |
| Rashes or skin problems | 0.14 (0.4) | 0.18 (0.4) | 0.21 (0.5) | 0.6 | |
| Stomaches or cramps | 0.20 (0.4) | 0.13 (0.4) | 0.15 (0.4) | 0.5 | |
| Vomiting | 0.08 (0.3) | 0.13 (0.3) | 0.08 (0.3) | 0.3 | |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

Table B.12

Mean (SD) Scores for CBCL Anxious Depressed Items for Female Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|--------------------------------------|--------------------|-----------------|-----------------|---|
| Lonely | 0.66 (0.7) | 0.50 (0.6) | 0.65 (0.7) | 0.4 |
| Cries a lot | 0.47 (0.6) | 0.20 (0.4) | 0.56 (0.8) | 2.0 † |
| Fears might do something bad | 0.17 (0.4) | 0.10 (0.3) | 0.14 (0.4) | 0.3 |
| Has to be perfect | 0.50 (0.5) | 0.25 (0.4) | 0.35 (0.5) | 2.0 |
| No one loves him/her | 0.60 (0.6) | 0.40 (0.5) | 0.74 (0.8) | 1.6 † |
| Others out to get him/her | 0.42 (0.6) | 0.20 (0.4) | 0.22 (0.4) | 1.9 |
| Worthless or inferior | 0.52 (0.5) | 0.20 (0.4) | 0.36 (0.5) | 3.0 |
| Nervous, highstrung or tense | 0.46 (0.7) | 0.50 (0.6) | 0.61 (0.8) | 0.4 |
| Fearful or anxious | 0.31 (0.5) | 0.20 (0.4) | 0.35 (0.6) | 0.5 |
| Feels too guilty | 0.25 (0.5) | 0.15 (0.6) | 0.09 (0.3) | 1.3 |
| Self-conscious or easily embarrassed | 0.75 (0.7) | 0.40 (0.5) | 0.64 (0.8) | 1.7 |
| Suspicious | 0.25 (0.5) | 0.20 (0.5) | 0.32 (0.6) | 0.3 |
| Unhappy, sad, or depressed | 0.67 (0.6) | 0.30 (0.5) | 0.63 (0.7) | 2.7 |
| Worries | 0.79 (0.7) | 0.35 (0.6) | 0.65 (0.8) | 2.9 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

† homogeneity of variance assumption violated.

Table B.13
 Mean (SD) Scores for CBCL Withdrawn Items for Female Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|---------------------------|--------------------|-----------------|-----------------|---|
| Rather be alone | 0.48 (0.6) | 0.20 (0.4) | 0.43 (0.6) | 1.8 |
| Refuses to talk | 0.35 (0.6) | 0.20 (0.4) | 0.12 (0.3) | 2.1 |
| Secretive | 0.48 (0.5) | 0.25 (0.6) | 0.36 (0.6) | 1.3 |
| Shy or timid | 0.54 (0.6) | 0.30 (0.5) | 0.48 (0.7) | 1.2 |
| Stares | 0.20 (0.5) | 0.15 (0.4) | 0.24 (0.4) | 0.2 |
| Sulks a lot | 0.54 (0.7) | 0.40 (0.6) | 0.74 (0.8) | 1.4 |
| Underactive | 0.31 (0.6) | 0.00 (0.0) | 0.21 (0.5) | 3.0 |
| Unhappy, sad or depressed | 0.67 (0.6) | 0.30 (0.5) | 0.63 (0.7) | 2.7 |
| Withdrawn | 0.33 (0.5) | 0.05 (0.2) | 0.13 (0.3) | 3.9* † I > HI |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

† homogeneity of variance assumption violated.

* $p < .05$.

Table B.14

Mean (SD) Scores for CBCL Somatic Complaint Items for Female Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences | |
|-------------------------|--------------------|-----------------|-----------------|---|--------|
| Dizzy | 0.10 (0.4) | 0.00 (0.0) | 0.09 (0.3) | 0.8 | |
| Tired | 0.50 (0.7) | 0.10 (0.3) | 0.52 (0.7) | 3.6* [†] | I > HI |
| Aches or pains | 0.35 (0.6) | 0.16 (0.5) | 0.39 (0.5) | 1.0 | |
| Headaches | 0.33 (0.6) | 0.42 (0.5) | 0.48 (0.5) | 0.6 | |
| Nausea | 0.19 (0.4) | 0.16 (0.4) | 0.35 (0.5) | 1.4 | |
| Problems with eyes | 0.02 (0.1) | 0.10 (0.3) | 0.13 (0.3) | 1.7 | |
| Rashes or skin problems | 0.19 (0.4) | 0.26 (0.5) | 0.39 (0.6) | 1.5 | |
| Stomaches or cramps | 0.40 (0.6) | 0.21 (0.4) | 0.52 (0.5) | 1.8 | |
| Vomiting | 0.13 (0.3) | 0.05 (0.2) | 0.22 (0.5) | 1.0 | |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

[†] homogeneity of variance assumption violated.

* $p < .05$.

Table B.15

Mean (SD) Scores for CBCL Social Problem Items for Male Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences | |
|-----------------------------------|--------------------|-----------------|-----------------|---|------------|
| Acts too young for age | 0.60 (0.7) | 0.70 (0.8) | 0.85 (0.8) | 2.2 | |
| Clings to adults or too dependent | 0.28 (0.5) | 0.38 (0.6) | 0.60 (0.7) | 5.9** | C > I |
| Doesn't get along with other kids | 0.33 (0.5) | 0.35 (0.6) | 0.73 (0.7) | 10.0*** | C > HI & I |
| Teased a lot | 0.53 (0.6) | 0.45 (0.7) | 0.84 (0.7) | 5.6** | C > HI & I |
| Not liked by other kids | 0.30 (0.5) | 0.36 (0.6) | 0.54 (0.6) | 3.7* | C > I |
| Overweight | 0.23 (0.6) | 0.18 (0.5) | 0.19 (0.5) | 0.2 | |
| Clumsy | 0.36 (0.6) | 0.35 (0.7) | 0.57 (0.7) | 2.4 | |
| Prefers being with younger kids | 0.50 (0.6) | 0.36 (0.6) | 0.58 (0.7) | 1.6 | |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table B.16

Mean (SD) Scores for CBCL Social Problem Items for Female Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences | |
|-----------------------------------|--------------------|-----------------|-----------------|---|------------|
| Acts too young for age | 0.63 (0.8) | 0.15 (0.4) | 0.81 (0.8) | 4.5* [†] | C & I > HI |
| Clings to adults or too dependent | 0.60 (0.7) | 0.35 (0.6) | 0.70 (0.8) | 1.3 | |
| Doesn't get along with other kids | 0.48 (0.6) | 0.30 (0.6) | 0.48 (0.6) | 0.7 | |
| Teased a lot | 0.79 (0.7) | 0.50 (0.6) | 0.48 (0.7) | 2.2 | |
| Not liked by other kids | 0.38 (0.6) | 0.20 (0.4) | 0.43 (0.7) | 1.0 | |
| Overweight | 0.23 (0.5) | 0.15 (0.5) | 0.13 (0.5) | 0.4 | |
| Clumsy | 0.52 (0.7) | 0.15 (0.4) | 0.48 (0.7) | 2.5 | |
| Prefers being with younger kids | 0.60 (0.6) | 0.30 (0.6) | 0.60 (0.7) | 1.7 | |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

[†] homogeneity of variance assumption violated.

* $p < .05$.

Table B.17

Mean (SD) Scores for CBCL Thought Problem Items for Male Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|-------------------------------------|--------------------|-----------------|-----------------|---|
| Can't get mind off certain thoughts | 0.16 (0.4) | 0.28 (0.6) | 0.36 (0.6) | 3.1 [†] |
| Hears sounds or voices | 0.02 (0.1) | 0.05 (0.2) | 0.06 (0.2) | 1.0 |
| Repeats certain acts | 0.15 (0.4) | 0.23 (0.5) | 0.36 (0.6) | 3.2* C > I |
| Sees things | 0.06 (0.3) | 0.05 (0.3) | 0.03 (0.1) | 0.2 |
| Stares blankly | 0.26 (0.5) | 0.20 (0.5) | 0.33 (0.6) | 0.8 |
| Strange behavior | 0.07 (0.3) | 0.11 (0.3) | 0.15 (0.4) | 1.0 |
| Strange ideas | 0.08 (0.4) | 0.02 (0.2) | 0.14 (0.4) | 1.2 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

[†] homogeneity of variance assumption violated.

**p* < .05.

Table B.18

Mean (SD) Scores for CBCL Thought Problem Items for Female Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|-------------------------------------|--------------------|-----------------|-----------------|---|
| Can't get mind off certain thoughts | 0.35 (0.7) | 0.20 (0.4) | 0.39 (0.7) | 0.6 |
| Hears sounds or voices | 0.02 (0.1) | 0.00 (0.0) | 0.04 (0.2) | 0.5 |
| Repeats certain acts | 0.06 (0.3) | 0.00 (0.0) | 0.24 (0.6) | 2.6 |
| Sees things | 0.04 (0.2) | 0.00 (0.0) | 0.00 (0.0) | 1.0 |
| Stares blankly | 0.21 (0.5) | 0.15 (0.4) | 0.24 (0.4) | 0.2 |
| Strange behavior | 0.13 (0.4) | 0.00 (0.0) | 0.12 (0.4) | 0.9 |
| Strange ideas | 0.10 (0.3) | 0.05 (0.2) | 0.16 (0.5) | 0.6 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

Table B.19

Mean (SD) Scores for CBCL Attention Problem Items for Male Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|--|--------------------|-----------------|-----------------|---|
| Acts too young for age | 0.60 (0.7) | 0.70 (0.8) | 0.85 (0.8) | 2.2 |
| Can't concentrate | 1.21 (0.7) | 1.03 (0.7) | 1.64 (0.5) | 14.7*** † C > I & HI |
| Can't sit still, restless or hyperactive | 0.67 (0.7) | 1.48 (0.7) | 1.67 (0.5) | 57.8*** C & HI > I |
| Confused or seems to be in a fog | 0.34 (0.6) | 0.25 (0.5) | 0.51 (0.6) | 2.9 |
| Daydreams | 0.80 (0.7) | 0.54 (0.7) | 0.94 (0.7) | 4.1* C > HI |
| Impulsive | 0.79 (0.6) | 1.18 (0.7) | 1.46 (0.6) | 24.0*** C & HI > I |
| Nervous, highstrung or tense | 0.26 (0.5) | 0.60 (0.7) | 0.58 (0.7) | 7.8** C & HI > I |
| Nervous movements | 0.13 (0.4) | 0.28 (0.6) | 0.22 (0.6) | 0.7 |
| Poor school work | 0.78 (0.7) | 0.38 (0.7) | 0.97 (0.8) | 8.4** C & I > HI |
| Clumsy | 0.36 (0.6) | 0.36 (0.7) | 0.57 (0.7) | 2.4 |
| Stares blankly | 0.26 (0.5) | 0.20 (0.5) | 0.33 (0.6) | 0.8 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

† homogeneity of variance assumption violated.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table B.20

Mean (SD) Scores for CBCL Attention Problem Items for Female Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences | |
|--|--------------------|-----------------|-----------------|---|------------|
| Acts too young for age | 0.63 (0.8) | 0.15 (0.4) | 0.81 (0.8) | 4.5* [†] | C & I > HI |
| Can't concentrate | 1.40 (0.6) | 0.80 (0.8) | 1.52 (0.6) | 8.4*** | C & I > HI |
| Can't sit still, restless or hyperactive | 0.67 (0.6) | 1.25 (0.6) | 1.43 (0.5) | 15.0*** | C & HI > I |
| Confused or seems to be in a fog | 0.64 (0.6) | 0.05 (0.2) | 0.30 (0.5) | 10.1*** [†] | I > HI & C |
| Daydreams | 1.06 (0.5) | 0.45 (0.6) | 0.96 (0.9) | 6.4** [†] | I & C > HI |
| Impulsive | 0.83 (0.7) | 0.80 (0.7) | 1.35 (0.6) | 5.3** | C > I & HI |
| Nervous, highstrung or tense | 0.46 (0.7) | 0.50 (0.6) | 0.61 (0.8) | 0.4 | |
| Nervous movements | 0.13 (0.4) | 0.32 (0.7) | 0.32 (0.7) | 1.3 | |
| Poor school work | 0.96 (0.8) | 0.15 (0.5) | 0.36 (0.6) | 10.8*** [†] | I > C & HI |
| Clumsy | 0.52 (0.7) | 0.15 (0.4) | 0.48 (0.7) | 2.5 | |
| Stares blankly | 0.21 (0.5) | 0.15 (0.4) | 0.24 (0.4) | 0.2 | |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true"; 2 = "very true or often true".

[†] homogeneity of variance assumption violated.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table B.21

Mean (SD) Scores for CBCL Somatic Complaint Items for Boys and Girls with ADHD Collapsed across Subtype

| Item | Boys (B) (n = 208) | Girls (G) (n = 91) | <i>t</i> & significant differences |
|-------------------------|-----------------------|-----------------------|---------------------------------------|
| Dizzy | 0.09 (0.3) | 0.08 (0.3) | 0.4 |
| Tired | 0.39 (0.6) | 0.42 (0.6) | -0.4 |
| Aches or pains | 0.20 (0.4) | 0.32 (0.6) | -1.8 |
| Headaches | 0.35 (0.6) | 0.39 (0.5) | -0.6 |
| Nausea | 0.17 (0.4) | 0.22 (0.4) | -0.9 |
| Problems with eyes | 0.06 (0.3) | 0.07 (0.3) | -0.2 |
| Rashes or skin problems | 0.17 (0.4) | 0.26 (0.5) | -1.5 |
| Stomaches or cramps | 0.17 (0.4) | 0.39 (0.5) | -3.5*** G > B |
| Vomiting | 0.08 (0.3) | 0.13 (0.4) | -1.1 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true";

2 = "very true or often true".

*** $p < .001$.

Table B.22

Mean (SD) Scores for CBCL Social Problem Items for Boys and Girls with Inattentive Type

| Item | Boys (B) (n = 101) | Girls (G) (n = 48) | <i>t</i> & significant differences |
|-----------------------------------|-----------------------|-----------------------|---------------------------------------|
| Acts too young for age | 0.60 (0.7) | 0.63 (0.8) | -0.2 |
| Clings to adults or too dependent | 0.28 (0.5) | 0.60 (0.7) | -2.7** G > B |
| Doesn't get along with other kids | 0.33 (0.5) | 0.48 (0.6) | -1.5 |
| Teased a lot | 0.53 (0.6) | 0.79 (0.7) | -2.2* G > B |
| Not liked by other kids | 0.30 (0.5) | 0.38 (0.6) | -0.9 |
| Overweight | 0.23 (0.6) | 0.23 (0.5) | -0.7 |
| Clumsy | 0.36 (0.6) | 0.52 (0.7) | -1.5 |
| Prefers being with younger kids | 0.48 (0.6) | 0.60 (0.6) | -1.2 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true";

2 = "very true or often true".

* $p < .05$. ** $p < .01$.

Table B.23

Mean (SD) Scores for CBCL Social Problem Items for Boys and Girls with Hyper-Impulsive Type

| Item | Boys (B) (n = 40) | Girls (G) (n = 20) | <i>t</i> & significant differences |
|-----------------------------------|----------------------|-----------------------|---------------------------------------|
| Acts too young for age | 0.70 (0.8) | 0.15 (0.4) | 3.6*** B > G |
| Clings to adults or too dependent | 0.38 (0.6) | 0.35 (0.6) | 0.2 |
| Doesn't get along with other kids | 0.35 (0.6) | 0.30 (0.6) | 0.3 |
| Teased a lot | 0.45 (0.7) | 0.50 (0.6) | -0.3 |
| Not liked by other kids | 0.36 (0.6) | 0.20 (0.4) | 1.1 |
| Overweight | 0.18 (0.5) | 0.15 (0.5) | 0.2 |
| Clumsy | 0.35 (0.7) | 0.15 (0.4) | 1.5 |
| Prefers being with younger kids | 0.36 (0.6) | 0.30 (0.6) | 0.4 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true";

2 = "very true or often true".

*** $p < .001$.

Table B.24

Mean (SD) Scores for CBCL Social Problem Items for Boys and Girls with Combined Type

| Item | Boys (B) (n = 67) | Girls (G) (n = 25) | <i>t</i> & significant differences |
|-----------------------------------|----------------------|-----------------------|---------------------------------------|
| Acts too young for age | 0.85 (0.8) | 0.81 (0.8) | 0.2 |
| Clings to adults or too dependent | 0.60 (0.7) | 0.70 (0.8) | -0.6 |
| Doesn't get along with other kids | 0.73 (0.7) | 0.48 (0.6) | 1.6 |
| Teased a lot | 0.84 (0.7) | 0.48 (0.7) | 2.1* B > G |
| Not liked by other kids | 0.54 (0.6) | 0.43 (0.7) | 0.7 |
| Overweight | 0.19 (0.5) | 0.13 (0.5) | 0.5 |
| Clumsy | 0.57 (0.7) | 0.48 (0.7) | 0.5 |
| Prefers being with younger kids | 0.58 (0.7) | 0.60 (0.7) | -0.1 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true";

2 = "very true or often true".

* $p < .05$.

Table B.25

Mean (SD) Scores for CBCL Attention Problem Items for Boys and Girls with Inattentive Type

| Item | Boys (B) (n = 101) | Girls (G) (n = 48) | <i>t</i> & significant differences |
|--|-----------------------|-----------------------|---------------------------------------|
| Acts too young for age | 0.60 (0.7) | 0.63 (0.8) | -0.2 |
| Can't concentrate | 1.21 (0.7) | 1.40 (0.6) | -1.8 |
| Can't sit still, restless or hyperactive | 0.67 (0.7) | 0.67 (0.6) | 0.0 |
| Confused or seems to be in a fog | 0.34 (0.6) | 0.64 (0.6) | -2.9** G > B |
| Daydreams | 0.80 (0.7) | 1.06 (0.5) | -2.5* G > B |
| Impulsive | 0.79 (0.6) | 0.83 (0.7) | -0.4 |
| Nervous, highstrung or tense | 0.26 (0.5) | 0.46 (0.7) | -1.9 |
| Nervous movements | 0.13 (0.4) | 0.13 (0.4) | 0.1 |
| Poor school work | 0.78 (0.7) | 0.96 (0.8) | -1.3 |
| Clumsy | 0.36 (0.6) | 0.52 (0.7) | -1.5 |
| Stares blankly | 0.26 (0.5) | 0.21 (0.5) | 0.6 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true";

2 = "very true or often true".

* $p < .05$. ** $p < .01$.

Table B.26
 Mean (SD) Scores for CBCL Attention Problem Items for Boys and Girls
 with Hyper-Impulsive Type

| Item | Boys (B) (n = 40) | Girls (G) (n = 20) | <i>t</i> & significant differences |
|--|----------------------|-----------------------|---------------------------------------|
| Acts too young for age | 0.70 (0.8) | 0.15 (0.4) | 3.6*** B > G |
| Can't concentrate | 1.03 (0.7) | 0.80 (0.8) | 1.1 |
| Can't sit still, restless or hyperactive | 1.48 (0.7) | 1.25 (0.6) | 1.3 |
| Confused or seems to be in a fog | 0.25 (0.5) | 0.05 (0.2) | 2.2* B > G |
| Daydreams | 0.54 (0.7) | 0.45 (0.6) | 0.5 |
| Impulsive | 1.18 (0.7) | 0.80 (0.7) | 1.9 |
| Nervous, highstrung or tense | 0.60 (0.7) | 0.50 (0.6) | 0.5 |
| Nervous movements | 0.28 (0.6) | 0.32 (0.7) | -0.2 |
| Poor school work | 0.38 (0.7) | 0.15 (0.5) | 1.3 |
| Clumsy | 0.35 (0.7) | 0.15 (0.4) | 1.5 |
| Stares blankly | 0.20 (0.5) | 0.15 (0.4) | 0.4 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true";
 2 = "very true or often true".
 * $p < .05$. *** $p < .001$.

Table B.27
 Mean (SD) Scores for CBCL Attention Problem Items for Boys and Girls with Combined Type

| Item | Boys (B) (n = 67) | Girls (G) (n = 25) | <i>t</i> & significant differences |
|--|----------------------|-----------------------|---------------------------------------|
| Acts too young for age | 0.85 (0.8) | 0.81 (0.4) | 0.2 |
| Can't concentrate | 1.64 (0.5) | 1.52 (0.6) | 0.9 |
| Can't sit still, restless or hyperactive | 1.67 (0.5) | 1.43 (0.6) | 1.7 |
| Confused or seems to be in a fog | 0.51 (0.6) | 0.30 (0.5) | 1.5 |
| Daydreams | 0.94 (0.7) | 0.96 (0.9) | -0.1 |
| Impulsive | 1.46 (0.6) | 1.35 (0.6) | 0.8 |
| Nervous, highstrung or tense | 0.58 (0.7) | 0.61 (0.8) | -0.2 |
| Nervous movements | 0.22 (0.6) | 0.32 (0.7) | -0.6 |
| Poor school work | 0.97 (0.8) | 0.36 (0.6) | 3.5*** B > G |
| Clumsy | 0.57 (0.7) | 0.48 (0.7) | 0.5 |
| Stares blankly | 0.33 (0.6) | 0.24 (0.4) | 0.7 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true";
 2 = "very true or often true".
 *** $p < .001$.

Table B.28

Mean (SD) Scores for CBCL Delinquent Behavior Items for Boys and Girls with ADHD
Collapsed across Subtype

| Item | Boys (B) (n = 208) | Girls (G) (n = 93) | <i>t</i> & significant differences |
|-------------------------------|-----------------------|-----------------------|---------------------------------------|
| Does not feel guilty | 0.60 (0.7) | 0.59 (0.7) | 0.2 |
| Keeps bad company | 0.49 (0.6) | 0.23 (0.4) | 4.0*** B > G |
| Lying and cheating | 0.51 (0.6) | 0.58 (0.6) | -0.8 |
| Prefers being with older kids | 0.67 (0.7) | 0.63 (0.7) | 0.5 |
| Runs away from home | 0.07 (0.3) | 0.03 (0.2) | 1.6 |
| Sets fires | 0.11 (0.3) | 0.08 (0.3) | 0.9 |
| Steals at home | 0.22 (0.5) | 0.20 (0.5) | 0.3 |
| Steals outside home | 0.11 (0.3) | 0.08 (0.3) | 1.0 |
| Swears | 0.47 (0.7) | 0.33 (0.6) | 1.7 |
| Thinks about sex too much | 0.05 (0.3) | 0.14 (0.5) | -1.8 |
| Truant | 0.03 (0.2) | 0.02 (0.1) | 0.5 |
| Uses alcohol or drugs | 0.01 (0.1) | 0.01 (0.1) | 0.3 |
| Vandalism | 0.09 (0.3) | 0.03 (0.2) | 2.0* B>G |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true";

2 = "very true or often true".

* $p < .05$. *** $p < .001$.

Table B.29

Mean (SD) Scores for CBCL Aggressive Behavior Items for Boys and Girls with ADHD
Collapsed across Subtype

| Item | Boys (B) (n = 208) | Girls (G) (n = 93) | <i>t</i> & significant differences |
|-------------------------------------|-----------------------|-----------------------|---------------------------------------|
| Argues | 1.28 (0.7) | 1.30 (0.7) | -0.3 |
| Braggs | 0.62 (0.7) | 0.48 (0.6) | 1.7 |
| Cruelty, bullying, or meanness | 0.42 (0.6) | 0.31 (0.6) | 1.5 |
| Demands attention | 1.03 (0.8) | 1.11 (0.8) | -0.8 |
| Destroys own things | 0.48 (0.7) | 0.27 (0.6) | 2.6 |
| Destroys things belonging to others | 0.43 (0.6) | 0.34 (0.6) | 1.2 |
| Disobedient at home | 1.00 (0.6) | 0.93 (0.5) | 0.9 |
| Disobedient at school | 0.61 (0.7) | 0.27 (0.5) | 5.0*** B > G |
| Jealous | 0.61 (0.7) | 0.86 (0.8) | -2.7** G > B |
| Fights | 0.37 (0.6) | 0.19 (0.4) | 2.9** B > G |
| Physically attacks people | 0.26 (0.5) | 0.15 (0.4) | 1.8 |
| Screams a lot | 0.37 (0.6) | 0.42 (0.7) | -0.6 |
| Shows off | 0.90 (0.7) | 0.80 (0.7) | 1.2 |
| Stubborn | 0.84 (0.7) | 0.87 (0.7) | -0.3 |
| Sudden changes in mood | 0.72 (0.8) | 0.71 (0.7) | 0.1 |
| Talks too much | 0.81 (0.8) | 1.01 (0.8) | -2.0* G > B |
| Teases a lot | 0.50 (0.7) | 0.41 (0.6) | 1.0 |
| Temper tantrums | 0.84 (0.8) | 0.75 (0.8) | 0.9 |
| Threatens people | 0.26 (0.5) | 0.15 (0.4) | 1.8 |
| Unusually loud | 0.57 (0.7) | 0.67 (0.8) | -1.1 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true";

2 = "very true or often true".

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table B.30

Mean (SD) Scores for CBCL Anxious Depressed Items for Boys and Girls with ADHD
Collapsed across Subtype

| Item | Boys (B) (n = 208) | Girls (G) (n = 93) | <i>t</i> & significant differences |
|--------------------------------------|-----------------------|-----------------------|---------------------------------------|
| Lonely | 0.43 (0.6) | 0.62 (0.7) | -2.3* G > B |
| Cries a lot | 0.35 (0.6) | 0.43 (0.6) | -1.0 |
| Fears might do something bad | 0.14 (0.4) | 0.14 (0.4) | -0.2 |
| Has to be perfect | 0.32 (0.6) | 0.41 (0.5) | -1.3 |
| No one loves him/her | 0.50 (0.7) | 0.59 (0.6) | -1.1 |
| Others out to get him/her | 0.36 (0.6) | 0.32 (0.5) | 0.7 |
| Worthless or inferior | 0.42 (0.6) | 0.41 (0.5) | 0.1 |
| Nervous, highstrung or tense | 0.43 (0.6) | 0.51 (0.7) | -1.0 |
| Fearful or anxious | 0.25 (0.5) | 0.30 (0.5) | -0.7 |
| Feels too guilty | 0.09 (0.3) | 0.19 (0.4) | -2.1* G > B |
| Self-conscious or easily embarrassed | 0.63 (0.7) | 0.65 (0.7) | -0.2 |
| Suspicious | 0.19 (0.5) | 0.26 (0.5) | -1.1 |
| Unhappy, sad, or depressed | 0.48 (0.6) | 0.58 (0.6) | -1.2 |
| Worries | 0.53 (0.6) | 0.66 (0.7) | -1.5 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true";
2 = "very true or often true".

* $p < .05$.

Table B.31

Mean (SD) Scores for CBCL Withdrawn Items for Boys and Girls with ADHD
Collapsed across Subtype

| Item | Boys (B) (n = 208) | Girls (G) (n = 93) | <i>t</i> & significant differences |
|---------------------------|-----------------------|-----------------------|---------------------------------------|
| Rather be alone | 0.41 (0.6) | 0.41 (0.6) | 0.1 |
| Refuses to talk | 0.26 (0.5) | 0.26 (0.5) | 0.0 |
| Secretive | 0.36 (0.6) | 0.40 (0.5) | -0.6 |
| Shy or timid | 0.39 (0.6) | 0.47 (0.6) | -1.1 |
| Stares | 0.27 (0.5) | 0.20 (0.4) | 1.1 |
| Sulks a lot | 0.52 (0.7) | 0.56 (0.7) | -0.5 |
| Underactive | 0.23 (0.5) | 0.22 (0.5) | 0.2 |
| Unhappy, sad or depressed | 0.48 (0.6) | 0.58 (0.6) | -1.2 |
| Withdrawn | 0.23 (0.5) | 0.22 (0.4) | 0.2 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true";
2 = "very true or often true".

Table B.32
 Mean (SD) CBCL Thought Problem Items for Boys and Girls with ADHD
 Collapsed across Subtype

| Item | Boys (B) (n = 208) | Girls (G) (n = 93) | <i>t</i> & significant differences |
|-------------------------------------|-----------------------|-----------------------|---------------------------------------|
| Can't get mind off certain thoughts | 0.25 (0.5) | 0.33 (0.6) | -1.2 |
| Hears sounds or voices | 0.04 (0.2) | 0.02 (0.1) | 0.7 |
| Repeats certain acts | 0.23 (0.5) | 0.10 (0.4) | 2.2* B > G |
| Sees things | 0.05 (0.3) | 0.02 (0.2) | 1.1 |
| Stares blankly | 0.27 (0.5) | 0.20 (0.4) | 1.1 |
| Strange behavior | 0.10 (0.4) | 0.10 (0.4) | 0.1 |
| Strange ideas | 0.09 (0.4) | 0.11 (0.3) | -0.4 |

Note: Ratings for items as follows: 0 = "not true"; 1 = "somewhat or sometimes true";
 2 = "very true or often true".
 * $p < .05$.

APPENDIX C: CHILD HEALTH QUESTIONNAIRE ITEM SCORES

Table C.1

Effect Size Statistics (*d*) for Differences between Male Subtypes and Non-ADHD Controls for CHQ Scales

| Scale | Inattentive (I) | Hyp-Imp (HI) | Combined (C) |
|---------------------------|--------------------|-----------------|-----------------|
| Self-Esteem | 0.71 | 0.40 | 0.93 |
| Role/Social Functioning | 0.53 | 0.58 | 1.72 |
| Family Activities | 0.79 | 1.43 | 1.95 |
| Family Cohesion | 0.45 | 0.34 | 0.72 |
| Parent impact - Emotional | 1.11 | 1.16 | 1.83 |
| Time Impact on Parents | 0.73 | 0.79 | 1.54 |

Table C.2

Effect Size Statistics (*d*) for Differences between Male Subtypes for CHQ Scales

| Scale | Combined versus Inattentive | Combined versus Hyper-Impulsive | Hyper-Impulsive versus Inattentive |
|---------------------------|--------------------------------|------------------------------------|---------------------------------------|
| Self-Esteem | 0.24 | 0.51 | -0.33 |
| Role/Social Functioning | 0.71 | 0.64 | 0.02 |
| Family Activities | 0.79 | 0.37 | 0.43 |
| Family Cohesion | 0.24 | 0.31 | -0.10 |
| Parent impact - Emotional | 0.53 | 0.48 | 0.03 |
| Time Impact on Parents | 0.54 | 0.47 | 0.03 |

Table C.3

Effect Size Statistics (*d*) for Differences between Female Subtypes and Non-ADHD Controls for CHQ scales

| Scale | Inattentive (I) | Hyp-Imp (HI) | Combined (C) |
|---------------------------|--------------------|-----------------|-----------------|
| Self-Esteem | 1.14 | 0.14 | 0.64 |
| Role/Social Functioning | 1.62 | -0.03 | 0.96 |
| Family Activities | 1.13 | 0.68 | 1.87 |
| Family Cohesion | 0.50 | 0.41 | 0.98 |
| Parent impact - Emotional | 1.60 | 0.25 | 1.33 |
| Time Impact on Parents | 1.11 | 0.41 | 1.57 |

Table C.4

Effect Size Statistics (*d*) for Differences between Female Subtypes for CHQ Scales

| Scale | Combined versus Inattentive | Combined versus Hyper-Impulsive | Inattentive versus Hyper-Impulsive |
|---------------------------|--------------------------------|------------------------------------|---------------------------------------|
| Self-Esteem | -0.41 | 0.46 | 0.88 |
| Role/Social Functioning | -0.34 | 0.64 | 0.90 |
| Family Activities | 0.48 | 0.76 | 0.35 |
| Family Cohesion | 0.34 | 0.42 | 0.08 |
| Parent impact - Emotional | 0.20 | 0.80 | 1.17 |
| Time Impact on Parents | 0.28 | 0.74 | 0.50 |

Table C.5
Mean (SD) Scores for CHQ Self-Esteem Items for Male Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|-----------------------|--------------------|-----------------|-----------------|---|
| Satisfaction with ... | | | | |
| school ability | 2.62 (1.0) | 1.77 (1.0) | 2.60 (1.1) | 10.2*** I & C > HI |
| athletic ability | 2.22 (1.0) | 1.90 (1.0) | 2.31 (1.1) | 2.0 |
| friendships | 2.16 (0.9) | 2.13 (1.3) | 2.45 (1.3) | 1.6 [†] |
| looks/appearance | 2.07 (0.9) | 1.79 (0.9) | 1.14 (1.0) | 1.8 |
| family relationships | 1.87 (0.7) | 1.95 (0.9) | 2.14 (1.1) | 1.7 [†] |
| life overall | 1.94 (0.9) | 2.05 (1.0) | 2.26 (1.1) | 2.2 |

Note: Ratings for items as follows: 1 = "very satisfied"; 2 = "somewhat satisfied"; 3 = "neither satisfied nor dissatisfied"; 4 = "somewhat dissatisfied"; 5 = "very dissatisfied"

[†] homogeneity of variance assumption violated.

*** $p < .001$.

Table C.6
Mean (SD) Scores for CHQ Self-Esteem Items for Female Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|-----------------------|--------------------|-----------------|-----------------|---|
| Satisfaction with ... | | | | |
| school ability | 2.66(1.2) | 1.45 (0.6) | 1.87 (0.9) | 10.9*** [†] I > HI & C |
| athletic ability | 2.48 (1.0) | 1.84 (0.8) | 2.04 (0.8) | 3.7* I > HI |
| friendships | 2.56 (1.2) | 1.70 (0.8) | 1.82 (0.8) | 6.8*** I > HI & C |
| looks/appearance | 2.40 (1.2) | 1.75 (0.8) | 2.04 (0.9) | 3.0 |
| family relationships | 1.94 (1.2) | 1.70 (0.6) | 2.13 (1.1) | 1.0 |
| life overall | 2.00 (0.9) | 1.75 (0.6) | 2.17 (1.2) | 1.1 |

Note: Ratings for items as follows: 1 = "very satisfied"; 2 = "somewhat satisfied"; 3 = "neither satisfied nor dissatisfied"; 4 = "somewhat dissatisfied"; 5 = "very dissatisfied"

[†] homogeneity of variance assumption violated.

* $p < .05$. *** $p < .001$.

Table C.7

Mean (SD) Scores for CHQ Role/Social Functioning Items for Male Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|--|--------------------|-----------------|-----------------|---|
| limited in kind of schoolwork or activities with friends | 3.67 (0.7) | 3.63 (0.8) | 3.09 (1.2) | 8.4*** † I & HI > C |
| limited in the amount of time spent on schoolwork or activities | 3.61 (0.8) | 3.62 (0.8) | 2.97 (1.2) | 10.4*** † I & HI > C |
| limited in performing school work or activities with friends | 3.57 (0.8) | 3.59 (0.9) | 2.97 (1.1) | 9.3*** † I & HI > C |

Note: Ratings for items as follows: 1 = "yes, limited a lot"; 2 = "yes, limited some"; 3 = "yes, limited a little"; 4 = "no, not limited".

† homogeneity of variance assumption violated

*** $p < .001$.

Table C.8

Mean (SD) Scores for CHQ Role/Social Functioning Items for Female Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|--|--------------------|-----------------|-----------------|---|
| limited in kind of schoolwork or activities with friends | 3.15 (1.1) | 4.00 (0.0) | 3.61 (0.7) | 7.4** † HI > I |
| limited in the amount of time spent on schoolwork or activities | 3.38 (0.9) | 3.84 (0.5) | 3.48 (0.9) | 2.1 |
| limited in performing school work or activities with friends | 3.12 (1.0) | 3.89 (0.3) | 3.48 (0.9) | 5.2** † HI > I |

Note: Ratings for items as follows: 1 = "yes, limited a lot"; 2 = "yes, limited some"; 3 = "yes, limited a little"; 4 = "no, not limited".

† homogeneity of variance assumption violated.

** $p < .01$.

Table C.9

Mean (SD) Scores for CHQ Family Activity Items for Male Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|---|--------------------|-----------------|-----------------|---|
| limited types of family activities | 4.31 (1.0) | 3.95 (1.2) | 3.68 (1.3) | 5.9** I > C |
| interrupted various everyday activities | 3.98 (1.1) | 3.41 (1.2) | 3.02 (1.4) | 12.8*** † I > C |
| limited ability of family to "pick up and go" | 4.25 (1.1) | 3.89 (1.2) | 3.45 (1.4) | 8.2*** I > HI & C |
| caused tension and conflict | 3.67 (1.2) | 3.16 (1.2) | 2.70 (1.2) | 13.7*** I > C |
| been a source of disagreement or arguments | 3.71 (1.1) | 3.52 (1.1) | 2.98 (1.2) | 8.1*** I > C |
| caused cancellation or change of plans | 4.35 (1.0) | 3.97 (1.2) | 3.85 (1.1) | 4.2* I > C |

Note: Ratings for items as follows: 1 = "very often"; 2 = "fairly often"; 3 = "sometimes"; 4 = "almost never"; 5 = "never".

† homogeneity of variance assumption violated.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table C.10

Mean (SD) Scores for CHQ Family Activity Items for Female Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|---|--------------------|-----------------|-----------------|---|
| limited types of family activities | 4.04 (1.1) | 4.53 (0.9) | 3.96 (1.4) | 1.5 |
| interrupted various everyday activities | 4.02 (1.1) | 3.94 (1.2) | 2.96 (1.3) | 7.4** I & HI > C |
| limited ability of family to "pick up and go" | 3.96 (1.1) | 4.47 (0.8) | 3.67 (1.6) | 2.4 † |
| caused tension and conflict | 3.46 (1.2) | 3.72 (0.8) | 2.71 (1.2) | 4.9* I & HI > C |
| been a source of disagreement or arguments | 3.60 (1.0) | 3.68 (1.1) | 3.13 (1.5) | 0.7 |
| caused cancellation or change of plans | 4.19 (1.0) | 4.74 (0.6) | 4.04 (1.3) | 2.7 † |

Note: Ratings for items as follows: 1 = "very often"; 2 = "fairly often"; 3 = "sometimes"; 4 = "almost never"; 5 = "never".

† homogeneity of variance assumption violated

* $p < .05$. ** $p < .01$.

Table C.11

Mean (SD) Scores for Parent Impact - Emotional Items for Male Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|---|--------------------|-----------------|-----------------|---|
| Child's physical health | 1.64 (1.0) | 1.74 (1.0) | 1.82 (1.2) | 0.6 |
| Child's emotional well-being or behaviour | 2.51 (1.3) | 2.90 (1.4) | 3.40 (1.3) | 8.9*** C > I |
| Child's attention or learning abilities | 3.01 (1.4) | 2.59 (1.5) | 3.51 (1.4) | 5.4** C > HI |

Note: Ratings for items as follows: 1 = "none at all"; 2 = "a little bit"; 3 = "some"; 4 = "quite a bit"; 5 = "a lot".

** $p < .01$. *** $p < .001$.

Table C.12

Mean (SD) Scores for Parent Impact - Emotional Items for Female Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|---|--------------------|-----------------|-----------------|---|
| Child's physical health | 1.81 (1.0) | 1.32 (0.7) | 1.78 (1.3) | 1.7 |
| Child's emotional well-being or behaviour | 2.94 (1.3) | 2.21 (1.0) | 2.91 (1.6) | 2.2 [†] |
| Child's attention or learning abilities | 3.47 (1.2) | 1.85 (1.1) | 2.91 (1.5) | 11.0*** C & I > HI |

Note: Ratings for items as follows: 1 = "none at all"; 2 = "a little bit"; 3 = "some"; 4 = "quite a bit"; 5 = "a lot".

[†] homogeneity of variance assumption violated.

*** $p < .001$.

Table C.13

Mean (SD) Scores for Parent Impact - Time Items for Male Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|---|--------------------|-----------------|-----------------|---|
| Child's physical health | 3.78 (0.5) | 3.74 (0.7) | 3.71 (0.8) | 0.3 |
| Child's emotional well-being or behaviour | 3.40 (0.9) | 3.24 (1.0) | 2.77 (1.1) | 8.1*** I > C |
| Child's attention or learning abilities | 3.14 (0.9) | 3.29 (1.0) | 2.68 (1.1) | 5.8** I & HI > C |

Note: Ratings for items as follows: 1 = "yes, limited a lot"; 2 = "yes, limited some"; 3 = "yes, limited a little";

4 = "no, not limited".

** $p < .01$. *** $p < .001$.

Table C.14

Mean (SD) Scores for Parent Impact - Time Items for Female Subtypes

| Item | Inattentive (I) | Hyp-Imp (HI) | Combined (C) | <i>F</i> & significant subtype differences |
|---|--------------------|-----------------|-----------------|---|
| Child's physical health | 3.69 (0.6) | 3.89 (0.5) | 3.58 (0.9) | 0.3 |
| Child's emotional well-being or behaviour | 3.29 (0.9) | 3.33 (0.8) | 2.83 (1.2) | 1.1 |
| Child's attention or learning abilities | 3.01 (1.0) | 3.63 (0.7) | 3.00 (1.1) | 3.1 |

Note: Ratings for items as follows: 1 = "yes, limited a lot"; 2 = "yes, limited some"; 3 = "yes, limited a little";

4 = "no, not limited".

Table C.15

Mean (SD) Scores for CHQ Role/Social Functioning Items for Boys and Girls with Inattentive Type

| Item | Boys (B) (n = 96) | Girls (G) (n = 48) | <i>t</i> & significant differences |
|---|----------------------|-----------------------|---------------------------------------|
| limited in kind of schoolwork or activities with friends | 3.67 (0.7) | 3.15 (1.1) | 3.0** B > G |
| limited in the amount of time spent on schoolwork or activities | 3.61 (0.8) | 3.38 (0.9) | 1.6 |
| limited in performing school work or activities with friends | 3.57 (0.8) | 3.17 (1.0) | 2.7** B > G |

Note: Ratings for items as follows: 1 = "yes, limited a lot"; 2 = "yes, limited some"; 3 = "yes, limited a little"; 4 = "no, not limited".

** $p < .01$.

Table C.16

Mean (SD) Scores for CHQ Role/Social Functioning Items for Boys and Girls with Hyper-Impulsive Type

| Item | Boys (B) (n = 38) | Girls (G) (n = 19) | <i>t</i> & significant differences |
|---|----------------------|-----------------------|---------------------------------------|
| limited in kind of schoolwork or activities with friends | 3.63 (0.8) | 4.00 (0.0) | -2.8** G > B |
| limited in the amount of time spent on schoolwork or activities | 3.62 (0.8) | 3.84 (0.5) | -1.3 |
| limited in performing school work or activities with friends | 3.59 (0.9) | 3.89 (0.3) | -1.9 |

Note: Ratings for items as follows: 1 = "yes, limited a lot"; 2 = "yes, limited some"; 3 = "yes, limited a little"; 4 = "no, not limited".

** $p < .01$.

Table C.17

Mean (SD) Scores for CHQ Role/Social Functioning Items for Boys and Girls with Combined Type

| Item | Boys (B) (n = 66) | Girls (G) (n = 23) | <i>t</i> & significant differences |
|---|----------------------|-----------------------|---------------------------------------|
| limited in kind of schoolwork or activities with friends | 3.09 (1.2) | 3.61 (0.7) | -2.6* G > B |
| limited in the amount of time spent on schoolwork or activities | 3.00 (1.2) | 3.48 (0.9) | -1.9 |
| limited in performing school work or activities with friends | 3.00 (1.1) | 3.48 (0.9) | -1.9 |

Note: Ratings for items as follows: 1 = "yes, limited a lot"; 2 = "yes, limited some"; 3 = "yes, limited a little"; 4 = "no, not limited".

* $p < .05$.

Table A.18

Mean (SD) Scores for Parent Impact - Emotional Items for Boys and Girls with Inattentive Type

| Item | Boys (B) (n = 95) | Girls (G) (n = 48) | <i>t</i> & significant differences |
|---|----------------------|-----------------------|---------------------------------------|
| Child's physical health | 1.64 (1.0) | 1.81 (1.0) | -1.0 |
| Child's emotional well-being or behaviour | 2.51 (1.3) | 2.94 (1.3) | -1.9 |
| Child's attention or learning abilities | 3.01 (1.4) | 3.47 (1.2) | -1.9 |

Note: Ratings for items as follows: 1 = "none at all"; 2 = "a little bit"; 3 = "some"; 4 = "quite a bit"; 5 = "a lot".

Table C.19

Mean (SD) Scores for Parent Impact - Emotional Items for Boys and Girls with Hyper-Impulsive Type

| Item | Boys (B) (n = 39) | Girls (G) (n = 19) | <i>t</i> & significant differences |
|---|----------------------|-----------------------|---------------------------------------|
| Child's physical health | 1.74 (1.0) | 1.32 (0.7) | 1.7 |
| Child's emotional well-being or behaviour | 2.90 (1.4) | 2.21 (1.0) | 1.9 |
| Child's attention or learning abilities | 2.60 (1.5) | 1.85 (1.1) | 1.9 |

Note: Ratings for items as follows: 1 = "none at all"; 2 = "a little bit"; 3 = "some"; 4 = "quite a bit"; 5 = "a lot".

Table C.20

Mean (SD) Scores for Parent Impact - Emotional Items for Boys and Girls with Combined Type

| Item | Boys (B) (n = 65) | Girls (G) (n = 23) | <i>t</i> & significant differences |
|---|----------------------|-----------------------|---------------------------------------|
| Child's physical health | 1.82 (1.2) | 1.78 (1.3) | 0.1 |
| Child's emotional well-being or behaviour | 3.40 (1.3) | 2.91 (1.6) | 1.4 |
| Child's attention or learning abilities | 3.51 (1.4) | 2.91 (1.5) | 1.7 |

Note: Ratings for items as follows: 1 = "none at all"; 2 = "a little bit"; 3 = "some"; 4 = "quite a bit"; 5 = "a lot".

Table C.21

Mean (SD) Score for CHQ Self-Esteem Items for Boys and Girls with Inattentive Type

| Item | Boys (B) (n = 95) | Girls (G) (n = 48) | <i>t</i> & significant differences |
|-----------------------|----------------------|-----------------------|---------------------------------------|
| Satisfaction with.... | | | |
| school ability | 2.62 (1.0) | 2.66 (1.2) | -0.2 |
| athletic ability | 2.22 (1.0) | 2.48 (1.0) | -1.5 |
| friendships | 2.16 (0.9) | 2.56 (1.2) | -2.1* G > B |
| looks/appearance | 2.07 (0.9) | 2.40 (1.2) | -1.7 |
| family relationships | 1.87 (0.7) | 1.94 (1.1) | -0.4 |
| life overall | 1.94 (0.9) | 2.00 (0.9) | -0.4 |

Note: Ratings for items as follows: 1 = "very satisfied"; 2 = "somewhat satisfied";

3 = "neither satisfied nor dissatisfied"; 4 = "somewhat dissatisfied"; 5 = "very dissatisfied"

* $p < .05$.

Table C.22

Mean (SD) Scores for CHQ Self-Esteem Items for Boys and Girls with Hyper-Impulsive Type

| Item | Boys (B) (n = 39) | Girls (G) (n = 20) | <i>t</i> & significant differences |
|-----------------------|----------------------|-----------------------|---------------------------------------|
| Satisfaction with.... | | | |
| school ability | 1.77 (1.0) | 1.45 (0.6) | 1.6 |
| athletic ability | 1.90 (1.0) | 1.84 (1.0) | 0.2 |
| friendships | 2.13 (1.3) | 1.70 (0.8) | 1.6 |
| looks/appearance | 1.79 (0.9) | 1.75 (0.8) | 0.2 |
| family relationships | 1.95 (0.9) | 1.70 (0.6) | 1.3 |
| life overall | 2.05 (1.0) | 1.75 (0.6) | 1.4 |

Note: Ratings for items as follows: 1 = "very satisfied"; 2 = "somewhat satisfied";

3 = "neither satisfied nor dissatisfied"; 4 = "somewhat dissatisfied"; 5 = "very dissatisfied"

Table C.23

Mean (SD) Scores for CHQ Self-Esteem Items for Boys and Girls with Combined Type

| Item | Boys (B) (n = 65) | Girls (G) (n = 23) | <i>t</i> & significant differences |
|-----------------------|----------------------|-----------------------|---------------------------------------|
| Satisfaction with.... | | | |
| school ability | 2.60 (1.1) | 1.87 (0.9) | 2.8** B > G |
| athletic ability | 2.31 (1.1) | 2.04 (0.8) | 1.0 |
| friendships | 2.45 (1.3) | 1.83 (0.8) | 2.6* B > G |
| looks/appearance | 2.14 (1.0) | 2.04 (0.9) | 0.4 |
| family relationships | 2.14 (1.1) | 2.13 (1.1) | 0.0 |
| life overall | 2.27 (1.1) | 2.17 (1.2) | 0.3 |

Note: Ratings for items as follows: 1 = "very satisfied"; 2 = "somewhat satisfied";

3 = "neither satisfied nor dissatisfied"; 4 = "somewhat dissatisfied"; 5 = "very dissatisfied"

* $p < .05$. ** $p < .01$.

Table C.24

Mean (SD) Scores for CHQ Family Activity Items for Boys and Girls with ADHD Collapsed across Subtype

| Item | Boys (B) (n = 201) | Girls (G) (n = 91) | <i>t</i> & significant differences |
|---|-----------------------|-----------------------|---------------------------------------|
| limited types of family activities | 4.03 (1.2) | 4.12 (1.2) | -0.6 |
| interrupted various everyday activities | 3.56 (1.3) | 3.72 (1.2) | -1.1 |
| limited ability of family to "pick up and go" | 3.92 (1.3) | 3.99 (1.2) | -0.4 |
| caused tension and conflict | 3.25 (1.2) | 3.31 (1.2) | -0.4 |
| been a source of disagreement or arguments | 3.44 (1.2) | 3.49 (1.2) | -0.4 |
| caused cancellation or change of plans | 4.11 (1.2) | 4.26 (1.0) | -1.1 |

Note: Ratings for items as follows: 1 = "very often"; 2 = "fairly often"; 3 = "sometimes"; 4 = "almost never"; 5 = "never".

Table C.25

Mean (SD) Scores for Parent Impact - Time Items for Boys and Girls with ADHD Collapsed across Subtype

| Item | Boys (B) (n = 200) | Girls (G) (n = 91) | <i>t</i> & significant differences |
|---|-----------------------|-----------------------|---------------------------------------|
| Child's physical health | 3.75 (0.6) | 3.70 (0.7) | 0.6 |
| Child's emotional well-being or behaviour | 3.16 (1.0) | 3.18 (1.0) | -0.1 |
| Child's attention or learning abilities | 3.02 (1.0) | 3.15 (1.0) | -1.0 |

Note: Ratings for items as follows: 1 = "yes, limited a lot"; 2 = "yes, limited some"; 3 = "yes, limited a little"; 4 = "no, not limited".

APPENDIX D: PUBLISHED PAPER

Validity of DSM-IV ADHD Subtypes in a Nationally Representative Sample
of Australian Children and Adolescents

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Objective: To examine the discriminant validity of *DSM-IV* Attention Deficit/Hyperactivity Disorder (ADHD) subtypes in a nationally representative sample of Australian youth.

Method: The Diagnostic Interview Schedule for Children (DISC) including symptom specific impairment questions was administered to 3597 parents of children aged 6 to 17 years (response rate=70%). Parents also completed questionnaires assessing children's emotional and behavioral problems and quality of life.

Results: Current *DSM-IV* ADHD prevalence was 7.5% (6.8% with impairment) with Inattentive types being more common than Hyperactive-Impulsive and Combined types. ADHD was more prevalent among young males and linked to social adversity, particularly for Combined types. Compared to non-ADHD controls, all three ADHD subtypes were rated as having more emotional and behavioural problems and lower psychosocial quality of life, with Combined types consistently rated the most impaired. Combined types received higher ratings than Hyperactive-Impulsive and Inattentive types on externalizing behavior problems, disruption to family activities, and symptom specific impairments with schoolwork and peer-related activities. Inattentive types were rated as having lower self-esteem, more social and school-related problems, but fewer externalizing problems than Hyperactive-Impulsive types.

Conclusion: These findings support the view of *DSM-IV* ADHD subtypes as distinct clinical entities with impairments in multiple domains.

Keywords: Attention Deficit/Hyperactivity Disorder, *DSM-IV*

Successive editions of the *DSM* have revised the diagnostic criteria and subtyping associated with Attention Deficit/Hyperactivity Disorder (ADHD). Whereas ADHD was viewed as a single diagnostic category in *DSM-III-R* (American Psychiatric Association, 1987) it has been reconceptualised in *DSM-IV* (American Psychiatric Association, 1994) as a 2-dimensional disorder consisting of clustered symptoms of inattention and hyperactivity/impulsivity from which three subtypes can be derived: Predominantly Inattentive Type, Predominantly Hyperactive-Impulsive Type, and Combined Type.

If *DSM-IV* ADHD subtypes are to have clinical meaning and utility they should be distinguishable by criteria external to the symptomatology that define them (Cantwell and Rutter, 1994). Research investigating differences between the three *DSM-IV* ADHD subtypes has been predominantly with clinic-referred samples (Eiraldi et al., 1997; Faraone et al., 1998; Lahey et al., 1994; Lahey et al., 1998; McBurnett et al., 1999). These studies have consistently found ADHD subtypes exhibit different patterns of impairment according to symptom dimensions (McBurnett et al., 2000). ADHD subtypes with high levels of inattention (Combined and Inattentive types) exhibit greater academic and school-related impairments while subtypes high in hyperactivity/impulsivity (Combined and Hyperactive-Impulsive types) exhibit greater externalizing behavioral problems. Differences between ADHD subtypes have also been found in some studies for age and gender ratios, with Inattentive types found to be older, and containing proportionally more females than Combined and Hyperactive-Impulsive types (Faraone et al, 1998; Lahey et al, 1994).

Given that only a small proportion of children with ADHD attend clinics (Hoagwood et

al., 2000), and the likely referral bias for those who do attend, it is important to examine whether similar differences between ADHD subtypes are found with non-referred samples. To date, studies of non-referred samples in the United States (Gaub and Carlson, 1997; Willcutt et al., 1999; Wolraich et al., 1996), Germany (Baumgaertel et al., 1995) and Ukraine (Gadow et al., 2000) have found a similar pattern of differences between ADHD subtypes. However, all of these studies have used symptom checklists to identify ADHD subtypes which take into account only current symptomatology and not other essential *DSM-IV* criteria such as symptom duration, symptom onset, pervasiveness, impairment, or exclusion due to other disorders. It is likely these studies overestimate the prevalence of ADHD and, moreover, possibly skew correlates such as gender and age which are important in determining the discriminant validity of ADHD subtypes (Carlson et al., 1999).

The present study aims to examine the discriminant validity of *DSM-IV* ADHD subtypes in a nationally representative sample of Australian children and adolescents aged 6 to 17 years. Three key features distinguish this study from past investigations. First, survey participants were identified via a household survey rather than a school based survey. Second, a standardized diagnostic interview covering key *DSM-IV* criteria was used to identify children with ADHD. Third, a broad range of complimentary measures assessing emotional and behavioral problems, symptom-specific impairment, and quality of life was used to investigate impairment associated with ADHD.

Method

Subjects

The subjects for this study were 3597 children aged 6 to 17 years who participated in the Child and Adolescent Component of the National Survey of Mental Health and Well-being in Australia (Sawyer et al., 2000). The survey utilised a multi-stage probability methodology designed to identify a sample of 4500 Australian children aged 4 to 17 years. 'Clusters' of 10 fully responding households with children in the required age-range were sampled from each of 450 Census Collectors' Districts (CDs) across Australia. The number of CDs sampled within each state or territory was in proportion to the size of the target populations within each region, and were also distributed proportionately across metropolitan and non-metropolitan areas. The participation rate describing the proportion of households that were contacted, identified to contain a child aged 4 to 17 years, and that agreed to participate was 86%. The response rate was somewhat lower at 70% as its calculation took into account the estimated number of non-contacted households that were likely to contain a child between the ages of 4 and 17 years. The major reason for the reduced response rate was that some interviewers contacted new households and conducted interviews before they had completed the specified number of callbacks to households which they had visited earlier and found no one to be at home.

To assess the possibility of bias, the demographic characteristics of the children and families who participated in the study were compared with Australian population figures (based on the 1996 Australian Census). Comparisons included the children's age, gender, family structure, number of children living in the home, whether or not

children were attending school and children's place of birth. Parental (male and female caregiver) characteristics such as age, place of birth, occupation, educational characteristics, labour force status, and weekly income were also compared. Overall, it was found that while adolescents aged 16 to 17 years had been slightly under-sampled, the demographic characteristics of the survey sample in all other areas were highly comparable with the Australian Bureau of Statistics Census figures. Approximately, 8% of the 6 to 17 year olds who participated in the survey had, according to parents, received help for emotional or behavioral problems in the previous 6 months. Proportionally, more Combined type children had received help (52%) than both the Inattentive (26%) and Hyper-Impulsive (21%) types, who in turn were more likely to have received help than non-ADHD children (6%).

Measures

Mental Disorders

The parent-version of the Diagnostic Interview Schedule for Children Version IV (DISC-IV) was employed to identify *DSM-IV* ADHD subtypes. The DISC-IV is designed for use with children aged 6 to 17 years and it has been shown to have acceptable test-retest reliability (Shaffer et al., 2000). Diagnoses for the present study are based on the most recent algorithms (Version F, February 2001) recommended to identify children with current ADHD except that children and adolescents were not required to meet criteria D (impairment) and criteria E (exclusion due to other disorders). Impairment was not included because one of the main aims of the study was to investigate differences in impairment between subtypes. It was not possible to include criteria E as the survey did not assess a number of disorders "which could better account for ADHD symptoms". Children not meeting the criteria for ADHD were

identified as controls. It is likely that some of these non-ADHD controls had a psychiatric disorder not assessed in the current study. Overall, approximately 11% of the non-ADHD control children had a Child Behavior Checklist Total Problems T Score which fell within the clinical range ($T \geq 60$) (Achenbach, 1991).

Emotional and Behavioral Problems

The CBCL (Achenbach, 1991) is a widely used standardized instrument for the assessment of childhood emotional and behavioral problems. Raw scores were used for the analyses conducted in this study as T scores are scaled differently across gender and age groups.

Symptom Specific Impairment

For children who meet the symptom criteria for ADHD, the DISC-IV assesses six areas where children's ADHD symptoms may impair their functioning. These include annoying or upsetting caregivers and teachers, problems with schoolwork, interference with peer and family activities, and distress to the child with the disorder. In each case, caregivers are asked to rate the level of children's impairment at the time during the last year when the child's symptoms were causing the most problems. Ratings employ a three point scale labelled "a lot of the time/some of the time/hardly ever", or "very bad/bad/not too bad". According to the latest published scoring algorithms for the DISC-IV, children are defined as being impaired if they score at least one severe rating or two intermediate ratings on these questions (Version E, November 2000).

Quality of Life

The 50 item parent version of the Child Health Questionnaire (CHQ-PF50) (Landgraf et

al., 1996) was completed by each child's primary caregiver. The questionnaire assesses the quality of life of children in several domains and also rates the impact of children's problems on their parents and families. The CHQ has been shown to be reliable with high levels of internal consistency on all of the scales. Moreover, the CHQ has been shown to discriminate between clinically-referred ADHD children and 'healthy' controls (Landgraf et al., 1996).

As recommended in the CHQ manual, raw scores on each scale were transformed to a 0-100 scale with higher scores indicating a better quality of life. For the purpose of reporting results in the present study, the names of some CHQ scales were altered to better reflect the items that comprise each scale. The summary names which were changed (with the published names in parentheses) were Pain and Discomfort (Bodily Pain), Physical Activities (Physical Functioning), Emotional Problems (Mental Health), and Behavioral Problems (Behavior).

Analyses

Chi square tests were used to examine differences between groups on categorical variables except for differences on the DISC specific impairment measures where logistic regression analyses were conducted so as to control for subtype differences on social demographic variables. Differences between groups on continuous measures were investigated using Analysis of Variance with *Scheffé* follow-up tests. All analyses were conducted using SAS Version 8 Statistical Software.

Results

Prevalence and Social Demographic Correlates

This survey found the overall prevalence of current *DSM-IV* ADHD to be 7.5% with the Inattentive type being more common than Combined and Hyperactive-Impulsive types ($\chi^2 (2) = 32.1, p < .0001$) (Table 1). Pair wise chi-square tests indicate ADHD to be more prevalent among males in all three subtypes (Inattentive type $\chi^2 (1) = 19.0, p < .0001$, Hyperactive-Impulsive type $\chi^2 (1) = 5.0, p < .03$, and Combined type $\chi^2 (1) = 28.5, p < .0001$) with the male:female ratio for Combined types being approximately twice that of Hyperactive-Impulsive and Inattentive types. Children (6 to 12 years) were more prevalent in all three ADHD subtypes than adolescents (13 to 17 years) (Inattentive type $\chi^2 (1) = 6.6, p = .02$, Hyperactive-Impulsive type $\chi^2 (1) = 9.3, p < .01$, and Combined type $\chi^2 (1) = 8.8, p < .01$). The control group was older than both Hyperactive-Impulsive and Combined types, and Inattentive types were older than Hyperactive-Impulsive types.

Significant between-group differences were found for family type, household income, age parent left school and parental employment but not for the number of children living in the household. Although all three ADHD subtypes were found to be socially disadvantaged compared to controls on at least one variable, Combined types were most clearly linked to social adversity. Compared to controls, Combined types were more likely to be living in households where there was a single parent, household income was lower, parents had left school earlier, and the percentage of parents in employment was lower. Differences between ADHD subtypes were observed for parent education and parent employment. Parent education was higher for Inattentive and Hyperactive-

Impulsive types than Combined types and percentage of parents in employment was lower for Hyperactive-Impulsive and Combined types than Inattentive types.

Emotional and Behavioral Problems

All three ADHD subtypes scored higher than controls on all CBCL Scales, with the exception that Hyperactive-Impulsive types and Controls did not differ on ratings for Somatic Complaints (Table 2). Differences between ADHD subtypes were not found for two of the Internalizing Scales (Withdrawn and Somatic Complaints) but Combined types received higher scores on the Anxious/Depressed Scale than Inattentive and Hyperactive-Impulsive types and higher scores on the broader Internalizing Scale than Hyperactive-Impulsive types. On all three Externalizing Scales (Aggressive Behavior, Delinquency and Externalizing Behavior) Combined types scored higher than Hyperactive-Impulsive types who in turn scored higher than Inattentive types. Combined and Inattentive types scored higher than Hyperactive-Impulsive types on Social Problems, and on the Attention Problems Scale, Combined types scored higher than Inattentives who in turn scored higher than Hyperactive-Impulsive types. Finally, Combined types scored higher than both other ADHD subtypes on the Thought Problems and Total Problems Scales.

Symptom Specific Impairment

Table 3 shows the percentage of children from each ADHD subtype exhibiting symptom specific impairment across the domains assessed by the DISC. Impairment ratings are not available for the non-disordered group. Differences between ADHD subtypes were found on all domains except distress to caregiver and interference with family activities. More Combined and Inattentive types were rated as having symptoms

that caused personal distress and annoyance to teachers than Hyperactive-Impulsive types. More Combined types were rated as having symptom specific problems with school-work than Inattentives who, in turn, were having more problems than Hyperactive-Impulsive types. Finally, a higher percentage of Combined types had symptoms which interfered with their peer activities than both Inattentive and Hyperactive-Impulsive types.

The current DISC algorithms indicate that clinically significant impairment (Criteria D) is met if children have at least one severe or two intermediate impairment ratings across any of the six impairment domains. All of the children from the Combined type met this criteria for impairment compared to 93 % of the Inattentive and 86% of the Hyperactive-Impulsive types. If the DISC criteria for impairment was included in case identification the overall prevalence for DSM-IV ADHD would have been 6.8%.

Quality of Life

Few between-group differences were observed on the Physical Health Scales of the CHQ although Inattentive types scored lower than controls on all four Physical Health Scales (General Health Perceptions, Physical Activities, Pain and Discomfort, and Role/Social Functioning due to Physical Health Problems) (Table 4). On all Psychosocial Health Scales the control group scored higher than the three ADHD subtypes indicating a higher quality of life. Differences between ADHD subtypes were observed on all these scales except the Family Cohesion Scale. On the mental health scales, Inattentive and Combined types scored lower on self-esteem than Hyperactive-Impulsive types, and Combined types were rated as having more emotional and behavioral problems than both Hyperactive-Impulsive and Inattentive types. Scores on

the role/social functioning scale due to emotional/behavioral problems indicate that Combined types experience greater limitations in their schoolwork and peer-group activities than Inattentives who in turn experience more limitations than Hyperactive-Impulsive types. Parent reports on the Family Health and Impact on Parents Scales indicate that the problems of Combined types more often disrupted family activities and limited the amount of time parents had for their own personal needs than the problems of Inattentive and Hyperactive-Impulsive types. Finally, Combined and Inattentive types received higher ratings on the emotional impact children's problems had on parents than Hyperactive-Impulsive types.

Discussion

The Child and Adolescent Component of the Australian National Survey of Mental Health and Well-Being found the current prevalence of DSM-IV ADHD to be 7.5% (6.8% with impairment). This figure is lower than ADHD prevalence rates reported in other studies which range between 8 and 20% (Baumgaertel et al., 1995; Gadow et al., 2000; Gaub and Carlson, 1997; Wolraich et al., 1996), but closer to the 3 to 5 % prevalence figure suggested in the DSM-IV (APA, 1994).

The requirement that more DSM-IV criteria be met for ADHD identification in the current study than in past studies (Baumgaertel et al., 1995; Gadow et al., 2000; Gaub and Carlson, 1997; Pineda et al., 1999; Wolraich et al., 1996) clearly contributed to the comparatively low prevalence figure as 14.7% of our sample would be identified as having ADHD based on symptom criteria alone. The only study, to date, to use full

DSM-IV criteria to assess ADHD reported a prevalence figure of 5.8% in Brazilian school children 12 to 14 years (Rhode et al., 1999). This is quite comparable to the 6.8% ADHD prevalence figure found for children 12 to 14 years in the current study. The inclusion of adolescents in the current study also contributed to the comparatively low ADHD prevalence figure as most previous studies restricted their samples to that of young school children, where the prevalence of ADHD is higher (Baumgaertel et al., 1995; Gadow et al., 2000; Gaub and Carlson, 1997; Pineda et al., 1999; Wolraich et al., 1996). For 6 to 12 years olds in this study the prevalence of current ADHD was 9.4%.

Consistent with most previous community-based studies, the current study found Inattentive types (3.7%) to be more common than both Combined (1.9%) and Hyperactive-Impulsive types (1.9%) (Baumgaertel et al., 1995; Gaub and Carlson, 1997; Wolraich et al., 1996). Hyperactive-Impulsive types were also found to be younger than Inattentive types (Lahey et al., 1994; Pineda et al., 1999). Although, males were predominant in all three subtypes the current study found the male:female ratio for Hyperactive (1.7:1) and Combined types (4.6:1) to be, respectively, somewhat lower and higher than previous community based studies (Baumgaertel et al., 1995; Carlson et al., 1997; Wolraich et al., 1996). The use of parent informants in the current study may have contributed to the lower male:female ratio for Hyperactive-Impulsive types as most previous studies have used teacher reports which generally show a greater male predominance for this subtype (Gomez et al., 1999, Pineda et al., 1999). Differences in the male:female ratios were not due to the fact that the ADHD subtypes in the current study had to meet additional DSM-IV criteria as the gender ratios remained the same when we examined those meeting symptom criteria alone.

While all three ADHD subtypes showed some signs of social adversity compared to controls, this link was most evident with Combined types who were disadvantaged on most variables. Few community-based studies have investigated the relationships between social adversity and DSM-IV ADHD subtypes, although Pineda et al. (1999) found ADHD to be more prominent among low socioeconomic status children, particularly for those subtypes with high levels of hyperactive-impulsive symptoms (Combined and Hyperactive-Impulsive types). Studies of referred populations have also found greater social adversity among Combined types (Eiraldi et al., 1997; McBurnett et al., 1999)

Parent reports from the CBCL and CHQ clearly indicate that all three ADHD subtypes exhibit more emotional and behavioral problems and experience a lower psychosocial quality of life compared to non-ADHD children. Overall, similar patterns of discrimination were observed between the three ADHD subtypes across the impairment measures. Most notably, Combined types were rated as showing greater impairment in more domains than Hyperactive-Impulsive and Inattentive types. Combined types were rated as having more externalizing problems (CHQ Behavioral Problems, CBCL Externalizing Behavior Scales) and more problems with their school-work and peer-related activities (DISC symptom impairment, CHQ Role-Social Functioning due to emotional and behavioral problems). The problems of Combined types were also rated as causing greater disruption to family activities (CHQ Family Activities scale) and putting greater limitations on the amount of time parents had for their own personal needs (CHQ Impact on Time Scale) than the problems of Inattentive and Hyperactive-Impulsive types. Finally, Combined types were rated as having more internalizing problems than Hyperactive-Impulsive types (CBCL Internalizing Scale, CHQ

Emotional Problems).

Reports from parents also suggest that Inattentive types were experiencing more difficulties than Hyperactive-Impulsive types in a number of areas. Inattentive type children were rated as having lower self-esteem (CHQ Self-esteem), more social problems (CBCL Social Problems Scales), to be experiencing greater problems in their school-work and to be more annoying to their teachers (DISC symptom impairment) than Hyperactive-Impulsive types. The emotional impact children's problems had on parents was greater for the Inattentive than Hyperactive-Impulsive types (CHQ Emotional Impact). The only area where Hyperactive-Impulsive types were rated as having greater impairment than Inattentive types was in externalizing behavior problems (CBCL Externalizing, Delinquent and Aggressive Behavior Scales). The fact that approximately 7% of Inattentive and 14% of Hyper-Impulsive types did not meet the DISC criteria for clinically significant impairment suggests the possibility that the DSM-IV symptom thresholds for these two subtypes maybe somewhat over-inclusive when applied to non-referred populations.

The overall pattern of impairment found for *DSM-IV* ADHD subtypes in the current study is consistent with that reported by previous community-based studies using symptom checklists to identify ADHD subtypes (Baumgaertel et al., 1995; Gadow et al., 2000; Gaub and Carlson, 1997; Wolraich et al., 1996). As with previous studies, ratings for the three ADHD subtypes in the current study suggest different patterns of impairment according to symptom dimensions (McBurnett et al., 2000). ADHD subtypes with high levels of inattention (Combined and Inattentive types) exhibit greater social and school-related impairments while the subtypes high in

hyperactivity/impulsivity (Combined and Hyperactive-Impulsive types) display more externalizing behavioral problems. If anything, the current study found somewhat greater discrimination between Combined and Hyperactive-Impulsive types with regard to externalizing problems than previous reports, although these studies also observed the trend for greater externalizing behaviors among Combined types (Baumgaertel et al., 1995; Wolraich et al., 1996).

Limitations

There are a number of limitations with the current study. First, there was exclusive reliance on parent reports to identify diagnostic groups as well as social demographic and impairment data. Teacher reports would have been desirable, both to assess the level of parent-teacher agreement regarding symptomatology which current research suggests is relatively low (Gomez et al., 1999; Mitsis, et al., 2000), and to obtain data regarding academic achievement.

Second, while this study was able to assess most of the *DSM-IV* criteria for ADHD it was not able to assess Criteria E, namely whether symptoms were better accounted for by other disorders. Including this criteria in the assessment may have lowered the prevalence of ADHD and perhaps altered the pattern of discrimination found between ADHD subtypes in the current study. For example, the symptoms of some children with ADHD in the current study may be better accounted for by an anxiety disorder which previous research suggests are associated more with Combined and Inattentive types than Hyper-Impulsive types (Wolraich et al., 1996). The lack of control over other disruptive disorders may have also influenced the observed correlates. As previously noted, studies have found that Combined types are more likely to have a

comorbid Disruptive Disorder (Wolraich et al., 1996) and the presence of such a disorder could account for the greater social adversity and poorer functioning reported for this subtype. However, given that this study found Combined types to be more impaired on the DISC symptom specific impairment questions suggests that they may well experience greater problems on the basis of their ADHD symptomatology alone.

Clinical Implications

The findings of the current study strongly support the view that *DSM-IV* ADHD is associated with pervasive impairments which impact not only on the individual child but also on parents and families. Impairment appears particularly severe for Combined types who were rated as exhibiting greater difficulties in a number of domains. Overall, reports from parents suggest gender, age and impairment differences exist between *DSM-IV* ADHD subtypes which are consistent with previous studies predominantly based on teacher reports (Baumgaertel et al., 1995; Gaub and Carlson, 1997; Wolraich et al., 1996), and also provide support for the discriminant validity for the current ADHD subtype classification. Although the link between social adversity and ADHD has been previously reported (Biederman et al., 1995; Pineda et al., 1999), the findings of the current study suggest that children from socially disadvantaged backgrounds are more likely to meet the Combined type classification. This is of concern given the severe impairment associated with this subtype. Although longitudinal studies are required to clarify the link between social adversity and disruptive disorders such as ADHD the results of the current study suggest the possibility that intervention efforts aimed at reducing adversity may be required.

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Table 1

Prevalence and Social Demographic Correlates

| Measure | Inattention (I) 3.7% (N= 133) | Hyper-Impulse (HI) 1.9% (N=68) | Combined (C) 1.9% (N=67) | Controls (N) 92.5% (N=3298) | Test Statistic | Pairwise Comparisons (sig. at p < .05) |
|---|----------------------------------|-----------------------------------|-----------------------------|--------------------------------|----------------------|---|
| Male % | 68.4% | 63.2% | 82.1% | 48.1% | $\chi^2 = 55.0^{**}$ | C > I & HI > N |
| Age: % Child (6–12 yrs) | 69.2% | 76.5% | 76.1% | 57.2% | $\chi^2 = 26.1^{**}$ | I, HI, C > N |
| % Adoles (13-17 yrs) | 30.8% | 23.5% | 23.9% | 42.8% | | |
| Mean (SD) age | 11.0 (2.9) | 9.4 (3.5) | 10.0 (3.0) | 11.5 (3.4) | $F = 14.2^{**}$ | N > HI & C; I > HI |
| Family Type: % Two parent | 78.8% | 78.8% | 67.2% | 85.2% | $\chi^2 = 20.8^{**}$ | N > I & C |
| % Sole parent | 21.2% | 21.2% | 32.8% | 14.8% | | |
| Mean (SD) No. of Children | 2.4 (1.0) | 2.6 (1.3) | 2.6 (1.1) | 2.5 (1.1) | $F = 0.6$ | |
| H/hold Income^a: % ≥ \$500/wk | 70.1% | 68.3% | 58.1% | 76.0% | $\chi^2 = 9.8^*$ | N > C |
| % < \$500/wk | 29.9% | 31.7% | 41.9% | 24.0% | | |
| Age Parent left school^b (%<17 yrs) | 46.3% | 44.1% | 65.0% | 43.6% | $\chi^2 = 11.2^*$ | N, I & HI > C |
| Parental Employment^c % | 80.0% | 65.5% | 60.0% | 83.2% | $\chi^2 = 32.2^{**}$ | N & I > HI & C |

** p < .0001. * p < .05.

Note: ^aH/hold income refers to gross weekly household income in \$Aus.

^bAge parent left school is based on the parent in the household with the highest level education.

^cParental employment refers to the percentage of households with one or more employed parents.

Table 2

Mean (SD) Child Behavior Checklist Scores

| CBCL Scale | Inattentive (I) | Hyper-Impulse (HI) | Combined (C) | Controls (N) | <i>F</i> ratio | Pairwise Comparisons (sig. at $p < .05$) |
|---------------------|--------------------|-----------------------|-----------------|-----------------|----------------|--|
| Total Problems | 39.6 (25.2) | 43.8 (26.9) | 62.1 (27.2) | 16.1 (16.0) | 236.8*** | C > HI & I > N |
| Externalizing | 12.7 (9.4) | 17.7 (10.0) | 26.7 (11.2) | 5.7 (6.4) | 251.7*** | C > HI > I > N |
| Internalizing | 10.3 (9.5) | 9.3 (9.0) | 12.5 (8.8) | 4.7 (5.5) | 79.3*** | C, I & HI > N; C > HI |
| Withdrawn | 3.6 (3.6) | 2.9 (3.1) | 3.9 (3.1) | 1.4 (2.0) | 71.6*** | C, HI & I > N |
| Somatic | 2.0 (2.4) | 1.8 (2.5) | 2.2 (2.2) | 1.2 (1.8) | 18.2*** | C & I > N |
| Anxious Depressed | 5.3 (5.4) | 5.0 (5.3) | 7.1 (5.6) | 2.3 (3.0) | 81.4*** | C > I & HI > N |
| Social Problems | 4.1 (3.5) | 3.2 (3.5) | 4.8 (3.1) | 1.1 (1.7) | 177.4*** | C & I > HI > N |
| Thought Problems | 1.2 (1.8) | 1.0 (1.4) | 1.6 (2.1) | 0.2 (0.7) | 94.7*** | C > HI & I > N |
| Attention Problems | 7.9 (4.3) | 6.7 (4.1) | 10.5 (3.9) | 1.9 (2.6) | 380.6*** | C > I > HI > N |
| Delinquent Behavior | 2.9 (2.9) | 3.9 (4.1) | 6.4 (4.0) | 1.2 (2.0) | 150.0*** | C > HI > I > N |
| Aggressive Behavior | 9.8 (7.0) | 13.9 (6.7) | 20.3 (8.3) | 4.5 (4.9) | 246.8*** | C > HI > I > N |

*** $p < .0001$.Note: *F* tests controlled for gender, age, family type, household income, parent education and parent employment.

Table 3

Percentage of Children with DISC Symptom Specific Impairment

| Impairment Category | Inattentive (I) | Hyper-Impulse (HI) | Combined (C) | Significance of Group Differences | Pairwise Comparisons (sig. at $p < .05$) |
|----------------------------------|--------------------|-----------------------|-----------------|--------------------------------------|--|
| Distress to Caregiver | 86.4 | 88.2 | 88.1 | $p = 0.99$ | |
| Interfere with Family Activities | 30.2 | 31.8 | 48.5 | $p = 0.14$ | |
| Interfere with Peer Activities | 36.4 | 28.4 | 58.2 | $p = 0.007$ | C > I & HI |
| Problems with Schoolwork | 61.1 | 34.3 | 84.9 | $p < 0.001$ | C > I > HI |
| Annoyance to Teachers | 70.2 | 49.3 | 75.8 | $p = 0.0015$ | C & I > HI |
| Distress to Child | 60.8 | 42.2 | 63.6 | $p = 0.032$ | C & I > HI |
| Overall Impairment | 93.1 | 85.9 | 100.0 | $p < 0.0017$ | C > I & HI |

Note: Logistic Regression Analyses controlled for age, gender, parent education and parent employment.

Table 4

Mean (SD) Child Health Questionnaire Scale Scores

| CHQ Scale | Inattentive (I) | Hyper-Impulse (HI) | Combined (C) | Controls (N) | F ratio | Pairwise Comparisons (sig. at $p < .05$) |
|---|--------------------|-----------------------|-----------------|-----------------|----------|--|
| Physical Health | | | | | | |
| General Health | 70.5 (18.4) | 72.9 (15.5) | 71.6 (17.6) | 77.3 (15.8) | 7.9*** | N > I |
| Physical Activities | 90.0 (20.5) | 93.1 (14.9) | 93.8 (17.4) | 95.4 (14.7) | 5.2* | N > I |
| Pain and Discomfort | 80.0 (22.6) | 85.0 (20.6) | 83.7 (17.6) | 87.5 (17.0) | 10.2*** | N > I |
| Mental Health | | | | | | |
| Self Esteem | 65.0 (18.0) | 75.3 (18.6) | 66.2 (19.8) | 82.4 (17.2) | 58.9*** | N > HI > I & C |
| Emotional Problems | 75.6 (14.7) | 76.1 (16.6) | 69.7 (17.7) | 85.3 (10.6) | 72.5*** | N > I & HI > C |
| Behavioral Problems | 62.9 (17.5) | 58.7 (17.5) | 42.5 (21.6) | 84.2 (13.5) | 272.7*** | N > I & HI > C |
| Role/Social Functioning (due to) | | | | | | |
| Physical Health | 88.0 (26.9) | 91.7 (22.0) | 96.6 (11.9) | 96.1 (14.8) | 11.9*** | N & C > I |
| Emot. & Behav. Problems | 78.9 (29.8) | 86.5 (24.1) | 62.3 (35.8) | 95.9 (14.5) | 120.5*** | N > HI > I > C |

Table 4

Mean (SD) Child Health Questionnaire Scale Scores (cont)

| CHQ Scale | Inattentive (I) | Hyper-Impulse (HI) | Combined (C) | Controls (N) | <i>F</i> ratio | Pairwise Comparisons (sig. at $p < .05$) |
|--------------------------|--------------------|-----------------------|-----------------|-----------------|----------------|--|
| Family Health | | | | | | |
| Family Activities | 69.8 (24.1) | 67.0 (26.0) | 54.9 (26.5) | 89.0 (15.8) | 139.7*** | N > I & HI > C |
| Family Cohesion | 66.2 (23.3) | 67.6 (21.6) | 62.0 (26.9) | 77.0 (20.0) | 22.8*** | N > I, HI & C |
| Impact on Parents | | | | | | |
| Emotional Impact | 56.0 (23.9) | 67.2 (24.8) | 55.6 (24.1) | 85.3 (18.4) | 136.7*** | N > HI > I & C |
| Impact on Time | 77.3 (23.1) | 79.4 (24.6) | 67.8 (28.5) | 93.7 (14.8) | 91.2*** | N > I & HI > C |

* $p < .01$. *** $p < .0001$.Note: *F* tests controlled for gender, age, family type, household income, parent education and parent employment.