|  |  |  |  |
| --- | --- | --- | --- |
| **Demographic factors** | |  |  |
| *Age at interview (years), mean and 95% confidence interval:* | | 39.1 (38.5-39.6) | |
|  |  | **Number** | **%** |
| *Relationship status* | * Single | 32 | 5.5 |
| * In a relationship | 589 | 94.4 |
| ***Military factors*** | | | |
| *Serving status* | * Serving | 395 | 63.3 |
| * Ex-service | 226 | 36.7 |
| *Engagement type* | * Regular | 532 | 87.4 |
| * Reserve | 89 | 12.6 |
| *Service* | * Royal Navy | 67 | 10.6 |
| * Royal Marines | 29 | 4.7 |
| * Army | 422 | 68.3 |
| * RAF | 103 | 16.4 |
| *Rank* | * Officer | 128 | 17.1 |
| * Non-Commissioned Officers | 411 | 67.2 |
| * Other rank | 82 | 15.7 |
| *Deployment status* | * Iraq or Afghanistan | 263 | 43.2 |
| * Neither | 358 | 56.8 |
| ***Health factors*** | | | |
| *DSM criteria met for PTSD* | * Full PTSD | 42 | 7.1 |
| * Sub-threshold PTSD | 17 | 3.0 |
| * Non-case | 562 | 89.9 |
| *DSM criteria for the domains of PTSD* | Re-experiencing symptoms | 116 | 19.6 |
| Avoidance and numbing symptoms | 70 | 11.9 |
| Negative changes in cognition and mood | 81 | 13.4 |
| Changes in arousal and reactivity | 95 | 16.2 |
| ***Family factors*** | | | |
| *Number of mothers* | * 1 | 589 | 94.6 |
| * 2+ | 32 | 5.4 |
| *Number of children* | * 1 | 293 | 47.9 |
| * 2 | 252 | 40.0 |
| * 3 | 61 | 9.7 |
| * 4+ | 15 | 2.5 |

Online Table 1: Characteristics of fathers included in the kids study (n=621), unweighted numbers and weighted percentages are reported

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SDQ domains** | **Number (%)** |  | **OR (95% CI)** | | **p-value** | **AOR (95% CI)** | | **p-value** |
|  | **Non-case** | **Subthreshold/ full case** | **Non-case** | **Subthreshold/full case** |  | **Non-case** | **Subthreshold/full case** |  |
| ***Hyperactivity*** |  |  |  |  |  |  |  |  |
| Non-case | 404 (74.1%) | 32 (57.4%) | 1.0 | 1 |  | 1.0 |  |  |
| Borderline case | 39 (7.4%) | 3 (5.1%) | 1.0 | 0.89 (0.25-3.12) | 0.850 | 1.0 | 0.83 (0.22-3.08) | 0.76 |
| Full case | 99 (18.5%) | 21 (37.6%) | 1.0 | 2.63 (1.41-4.90) | 0.002 | 1.0 | 2.32 (1.18-4.55) | 0.01 |
| ***Emotional symptoms*** | |  |  |  |  |  |  |  |
| Non-case | 434 (79.7%) | 45 (81.7%) | 1.0 | 1 |  | 1.0 |  |  |
| Borderline case | 42 (8.1%) | 3 (4.8%) | 1.0 | 0.58 (0.17-1.97) | 0.379 | 1.0 | 0.51 (0.14-1.84) | 0.31 |
| Full case | 66 (12.2%) | 8 (13.6%) | 1.0 | 1.08 (0.47-2.52) | 0.853 | 1.0 | 0.87 (0.34-2.30) | 0.78 |
| ***Conduct problems*** |  |  |  |  |  |  |  |  |
| Non-case | 389 (70.9%) | 35 (63.2%) | 1.0 | 1 |  | 1.0 |  |  |
| Borderline case | 73 (13.8%) | 9 (14.5%) | 1.0 | 1.19 (0.56-2.53) | 0.660 | 1.0 | 1.17 (0.53-2.60) | 0.70 |
| Full case | 80 (15.3%) | 12 (22.2%) | 1.0 | 1.63 (0.83-3.19) | 0.157 | 1.0 | 1.22 (0.56-2.64) | 0.62 |
| ***Peer problems*** |  |  |  |  |  |  |  |  |
| Non-case | 438 (80.5%) | 37 (66.3%) | 1.0 | 1 |  | 1.0 |  |  |
| Borderline case | 48 (8.7%) | 9 (15.6%) | 1.0 | 2.18 (1.01-4.68) | 0.046 | 1.0 | 1.80 (0.75-4.27) | 0.19 |
| Full case | 56 (10.8%) | 10 (18.1%) | 1.0 | 2.04 (0.89-4.68) | 0.094 | 1.0 | 1.93 (0.79-4.70) | 0.15 |
| ***Prosocial difficulties*** |  |  |  |  |  |  |  |  |
| Non-case | 479 (87.8%) | 41 (75.1%) | 1.0 | 1 |  | 1.0 |  |  |
| Borderline case | 32 (6.2%) | 6 (10.3%) | 1.0 | 1.93 (0.79-4.70) | 0.146 | 1.0 | 1.47 (0.60-3.60) | 0.40 |
| Full case | 31 (6.0%) | 9 (14.7%) | 1.0 | 2.86 (1.23-6.63) | 0.015 | 1.0 | 2.28 (0.89-5.85) | 0.09 |
| ***Total difficulties*** |  |  |  |  |  |  |  |  |
| Non-case | 430 (78.9%) | 34 (60.2%) | 1.0 | 1 |  | 1.0 |  |  |
| Borderline case | 48 (9.0%) | 9 (17.2%) | 1.0 | 2.50 (1.05-5.98) | 0.039 | 1.0 | 2.46 (0.97-6.22) | 0.06 |
| Full case | 64 (12.1%) | 13 (22.6%) | 1.0 | 2.46 (1.19-5.06) | 0.015 | 1.0 | 2.11 (0.99-4.47) | 0.05 |

**Online Table 2: Associations between paternal PTSD and childhood social and emotional problems (as measured by the SDQ) for children <11 years of age, unweighted numbers, weighted percentages, multinominal odds ratios (OR), adjusted odds ratios (AOR) and 95% confidence intervals (CI) are reported. Odds ratios adjusted for child’s age, gender, father’s age, relationship status, deployment status, engagement type, rank and Service**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SDQ domains** | **Number (%)** |  | **OR (95% CI)** | | **p-value** | **AOR (95% CI)** | | **p-value** |
|  | **Non-case** | **Subthreshold/ full case** | **Non-case** | **Subthreshold/full case** |  | **Non-case** | **Subthreshold/full case** |  |
| ***Hyperactivity*** |  |  |  |  |  |  |  |  |
| Non-case | 322 (83.4%) | 30 (83.8%) | 1.0 | 1 |  | 1.0 |  |  |
| Borderline case | 21 (5.7%) | 2 (5.6%) | 1.0 | 0.97 (0.22-4.21) | 0.965 | 1.0 | 0.77 (0.09-6.64) | 0.81 |
| Full case | 42 (11.0%) | 4 (10.6%) | 1.0 | 0.97 (0.33-2.80) | 0.948 | 1.0 | 1.08 (0.35-3.36) | 0.89 |
| ***Emotional symptoms*** | |  |  |  |  |  |  |  |
| Non-case | 275 (71.5%) | 24 (66.8%) | 1.0 | 1 |  | 1.0 |  |  |
| Borderline case | 37 (9.6%) | 3 (8.5%) | 1.0 | 0.95 (0.29-3.14) | 0.930 | 1.0 | 0.72 (0.17-3.04) | 0.65 |
| Full case | 73 (19.0%) | 9 (24.7%) | 1.0 | 1.39 (0.61-3.21) | 0.436 | 1.0 | 1.50 (0.60-3.75) | 0.39 |
| ***Conduct problems*** |  |  |  |  |  |  |  |  |
| Non-case | 303 (78.2%) | 26 (72.1%) | 1.0 | 1 |  | 1.0 |  |  |
| Borderline case | 32 (8.5%) | 5 (13.7%) | 1.0 | 1.76 (0.63-4.89) | 0.282 | 1.0 | 1.76 (0.60-5.17) | 0.31 |
| Full case | 50 (13.3%) | 5 (14.2%) | 1.0 | 1.16 (0.43-3.10) | 0.769 | 1.0 | 0.90 (0.27-3.00) | 0.86 |
| ***Peer problems*** |  |  |  |  |  |  |  |  |
| Non-case | 279 (72.4%) | 26 (71.7%) | 1.0 | 1 |  | 1.0 |  |  |
| Borderline case | 34 (8.6%) | 4 (11.1%) | 1.0 | 1.31 (0.41-4.13) | 0.650 | 1.0 | 1.38 (0.41-4.57) | 0.60 |
| Full case | 72 (19.0%) | 6 (17.2%) | 1.0 | 0.91 (0.35-2.36) | 0.850 | 1.0 | 0.84 (0.30-2.35) | 0.74 |
| ***Prosocial difficulties*** |  |  |  |  |  |  |  |  |
| Non-case | 336 (87.3%) | 30 (84.1%) | 1.0 | 1 |  | 1.0 |  |  |
| Borderline case | 25 (6.5%) | 3 (7.4%) | 1.0 | 1.19 (0.34-4.13) | 0.782 | 1.0 | 1.12 (0.25-4.91) | 0.89 |
| Full case | 24 (6.2%) | 3 (8.5%) | 1.0 | 1.42 (0.41-4.95) | 0.585 | 1.0 | 1.00 (0.21-4.75) | 1.00 |
| ***Total difficulties*** |  |  |  |  |  |  |  |  |
| Non-case | 303 (78.5%) | 26 (72.9%) | 1.0 | 1 |  | 1.0 |  |  |
| Borderline case | 31 (8.1%) | 4 (10.8%) | 1.0 | 1.44 (0.47-4.40) | 0.528 | 1.0 | 1.59 (0.52-4.88) | 0.42 |
| Full case | 51 (13.4%) | 6 (16.4%) | 1.0 | 1.31 (0.51-3.40) | 0.577 | 1.0 | 1.17 (0.36-3.81) | 0.79 |

**Online Table 3: Associations between paternal PTSD and childhood social and emotional problems (as measured by the SDQ) for children aged 11+ years, unweighted numbers, weighted percentages, multinominal odds ratios (OR), adjusted odds ratios (AOR) and 95% confidence intervals (CI) are reported. Odds ratios adjusted for child’s age, gender, father’s age, relationship status, deployment status, engagement type, rank and Service**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SDQ domains** | **Number (%)** |  | **OR (95% CI)** | | **p-value** | **AOR (95% CI)** | | **p-value** |
|  | **Non-case** | **Subthreshold/ full case** | **Non-case** | **Subthreshold/full case** |  | **Non-case** | **Subthreshold/full case** |  |
| ***Hyperactivity*** |  |  |  |  |  |  |  |  |
| Non-case | 346 (73.2%) | 23 (53.8%) | 1.0 | 1.0 |  | 1.0 |  |  |
| Borderline case | 31 (7.0%) | 3 (6.4%) | 1.0 | 1.24 (0.34-4.51) | 0.751 | 1.0 | 1.15 (0.27-4.97) | 0.85 |
| Full case | 91 (19.8%) | 18 (39.8%) | 1.0 | 2.74 (1.35-5.55) | 0.005 | 1.0 | 2.59 (1.21-5.55) | 0.01 |
| ***Emotional symptoms*** | |  |  |  |  |  |  |  |
| Non-case | 364 (77.5%) | 32 (73.4%) | 1.0 | 1.0 |  | 1.0 |  |  |
| Borderline case | 40 (8.9%) | 3 (6.0%) | 1.0 | 0.72 (0.21-2.48) | 0.599 | 1.0 | 0.69 (0.18-2.63) | 0.58 |
| Full case | 64 (13.6%) | 9 (20.5%) | 1.0 | 1.59 (0.68-3.72) | 0.280 | 1.0 | 1.46 (0.55-3.86) | 0.45 |
| ***Conduct problems*** | |  |  |  |  |  |  |  |
| Non-case | 340 (71.6%) | 25 (58.0%) | 1.0 | 1.0 |  | 1.0 |  |  |
| Borderline case | 54 (12.0%) | 6 (11.9%) | 1.0 | 1.22 (0.47-3.18) | 0.686 | 1.0 | 1.31 (0.50-3.41) | 0.58 |
| Full case | 74 (16.4%) | 13 (30.1%) | 1.0 | 2.26 (1.04-4.93) | 0.040 | 1.0 | 1.82 (0.71-4.70) | 0.21 |
| ***Peer problems*** |  |  |  |  |  |  |  |  |
| Non-case | 357 (76.1%) | 27 (61.0%) | 1.0 | 1.0 |  | 1.0 |  |  |
| Borderline case | 41 (8.6%) | 5 (10.8%) | 1.0 | 1.57 (0.61-4.04) | 0.352 | 1.0 | 1.15 (0.39-3.34) | 0.80 |
| Full case | 70 (15.3%) | 12 (28.1%) | 1.0 | 2.30 (0.98-5.37) | 0.055 | 1.0 | 1.82 (0.68-4.88) | 0.23 |
| ***Prosocial difficulties*** |  |  |  |  |  |  |  |  |
| Non-case | 398 (84.3%) | 30 (70.4%) | 1.0 | 1.0 |  | 1.0 |  |  |
| Borderline case | 35 (7.9%) | 5 (10.8%) | 1.0 | 1.64 (0.61-4.45) | 0.327 | 1.0 | 1.33 (0.48-3.67) | 0.58 |
| Full case | 35 (7.9%) | 9 (18.9%) | 1.0 | 2.88 (1.22-6.80) | 0.016 | 1.0 | 2.44 (0.88-6.76) | 0.09 |
| ***Total difficulties*** |  |  |  |  |  |  |  |  |
| Non-case | 358 (76.0%) | 26 (59.2%) | 1.0 | 1.0 |  | 1.0 |  |  |
| Borderline case | 40 (8.9%) | 6 (13.5%) | 1.0 | 1.95 (0.73-5.20) | 0.181 | 1.0 | 2.17 (0.76-6.20) | 0.15 |
| Full case | 70 (15.1%) | 12 (27.3%) | 1.0 | 2.32 (1.01-5.34) | 0.049 | 1.0 | 1.80 (0.69-4.66) | 0.23 |

**Online Table 4: Associations between paternal PTSD and childhood social and emotional problems (as measured by the SDQ) for boys, unweighted numbers, weighted percentages, multinominal odds ratios (OR), adjusted odds ratios (AOR) and 95% confidence intervals (CI) are reported. Odds ratios adjusted for child’s age, father’s age, relationship status, deployment status, engagement type, rank and Service**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SDQ domains** | **Number (%)** |  | **OR (95% CI)** | | **p-value** | **AOR (95% CI)** | | **p-value** |
|  | **Non-case** | **Subthreshold/ full case** | **Non-case** | **Subthreshold/full case** |  | **Non-case** | **Subthreshold/full case** |  |
| ***Hyperactivity*** |  |  |  |  |  |  |  |  |
| Non-case | 380 (82.4%) | 39 (80.5%) | 1.0 | 1.0 |  | 1.0 |  |  |
| Borderline case | 29 (6.5%) | 2 (4.2%) | 1.0 | 0.67 (0.15-2.97) | 0.598 | 1.0 | 0.54 (0.11-2.73) | 0.45 |
| Full case | 50 (11.1%) | 7 (15.3%) | 1.0 | 1.41 (0.60-3.31) | 0.434 | 1.0 | 1.22 (0.49-3.05) | 0.67 |
| ***Emotional symptoms*** | |  |  |  |  |  |  |  |
| Non-case | 345 (75.3%) | 37 (78.1%) | 1.0 | 1.0 |  | 1.0 | 0.52 (0.15-1.88) | 0.32 |
| Borderline case | 39 (8.5%) | 3 (6.4%) | 1.0 | 0.73 (0.22-2.39) | 0.602 | 1.0 | 0.76 (0.29-1.98) | 0.57 |
| Full case | 75 (16.3%) | 8 (15.6%) | 1.0 | 0.92 (0.41-2.08) | 0.842 | 1.0 |  |  |
| ***Conduct problems*** | |  |  |  |  |  |  |  |
| Non-case | 352 (76.1%) | 36 (74.7%) | 1.0 | 1.0 |  | 1.0 |  |  |
| Borderline case | 51 (11.3%) | 8 (16.4%) | 1.0 | 1.48 (0.67-3.26) | 0.327 | 1.0 | 1.33 (0.57-3.10) | 0.51 |
| Full case | 56 (12.6%) | 4 (8.9%) | 1.0 | 0.72 (0.20-2.62) | 0.621 | 1.0 | 0.48 (0.13-1.76) | 0.27 |
| ***Peer problems*** |  |  |  |  |  |  |  |  |
| Non-case | 360 (78.4%) | 36 (75.2%) | 1.0 | 1.0 |  | 1.0 |  |  |
| Borderline case | 41 (8.7%) | 8 (16.6%) | 1.0 | 1.99 (0.85-4.68) | 0.113 | 1.0 | 1.96 (0.75-5.15) | 0.17 |
| Full case | 58 (12.9%) | 4 (8.2%) | 1.0 | 0.66 (0.23-1.93) | 0.450 | 1.0 | 0.54 (0.18-1.56) | 0.25 |
| ***Prosocial difficulties*** |  |  |  |  |  |  |  |  |
| Non-case | 417 (91.0%) | 41 (86.2%) | 1.0 | 1.0 |  | 1.0 |  |  |
| Borderline case | 22 (4.7%) | 4 (7.7%) | 1.0 | 1.70 (0.57-5.06) | 0.339 | 1.0 | 1.53 (0.46-5.07) | 0.48 |
| Full case | 20 (4.3%) | 3 (6.1%) | 1.0 | 1.51 (0.41-5.54) | 0.535 | 1.0 | 1.49 (0.35-6.41) | 0.59 |
| ***Total difficulties*** |  |  |  |  |  |  |  |  |
| Non-case | 375 (81.6%) | 34 (70.7%) | 1.0 | 1.0 |  | 1.0 |  |  |
| Borderline case | 39 (8.4%) | 7 (15.7%) | 1.0 | 2.17 (0.95-4.94) | 0.065 | 1.0 | 1.86 (0.79-4.36) | 0.15 |
| Full case | 45 (10.0%) | 7 (13.6%) | 1.0 | 1.56 (0.63-3.83) | 0.333 | 1.0 | 1.20 (0.41-3.52) | 0.75 |

**Online Table 5: Associations between paternal PTSD and childhood social and emotional problems (as measured by the SDQ) for girls, unweighted numbers, weighted percentages, multinominal odds ratios (OR), adjusted odds ratios (AOR) and 95% confidence intervals (CI) are reported. Odds ratios adjusted for child’s age, father’s age, relationship status, deployment status, engagement type, rank and Service**