**Supplementary Fig. 1 ABC-Ct score over 12 months.**

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**Supplementary Table 1 Sensitivity and exploratory multivariate analyses**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Model*** | ***Difference*** | ***95% CI*** | ***P-value*** |
| **Sensitivity analyses** |  |  |  |
| Primary model | -2·14 | (-8·79, 4·51) | 0·528 |
| Area deprivation | -2·39 | (-9·19 ,4·41) | 0·491 |
| Completed by family/paid carer | -1·21 | (-8·20 ,5·79) | 0·735 |
| Missing data (BOCF) | -1·83 | (-8·42, 4·76) | 0·586  |
| Heteroscedastic model | -2·35 | (-9·24, 4·55) | 0·505  |
| Imbalance in baseline characteristics | -0·81 | (-7·95, 6·32) | 0·824 |
| % of participants who had at least one intervention component (e.g. plan, observations, goodness of fit) | 1.41 | (-15.5, 18.3) | 0.870 |
| **Multivariate analysis (ABC-C subdomains)** |  |  |  |
| Irritability, Agitation, Crying  | -0.041 | (-0.22, 0.14) |  |
| Lethargy, Social Withdrawal  | -0.016 | (-0.22, 0.19) |  |
| Stereotypic Behaviour | -0.050 | (-0.25, 0.14) |  |
| Hyperactivity, Non-compliance | -0.049 | (-0.23, 0.13) |  |

**Supplementary Table 2 Secondary outcomes over 12 months**

|  |  |  |
| --- | --- | --- |
|  | **Descriptive: N (%)** | **Analysis over 12 months** |
|  | **Baseline** | **6 Months** | **12 Months** | **Nsu** | **Odds Ratio/****Difference** | **95% CI** |
| ***Service users*** |  |  |  |  |  |  |
| **Mini-PASADD** | **N (%)** | **N (%)** | **N (%)** |  |  |  |
| **Common mental disorder** |  |  |  |  |  |  |
|  Control | 61 (46) | 43 (37) | 54 (44) | 230 | 1·07 | (0·61, 1·87) |
|  Intervention | 56 (52) | 45 (46) | 42 (42) |
| **Severe mental illness (SMI)** |  |  |  |  |  |  |
|  Control | 27 (20) | 13 (11) | 21 (17) | 229 | 1·24 | (0·32, 4·81) |
|  Intervention | 20 (19) | 17 (18) | 15 (15) |
| **Autistic spectrum** |  |  |  |  |  |  |
|  Control | 31 (23) | 31 (27) | 40 (33) | 230 | 0·70 | (0·26, 1·88) |
|  Intervention | 19 (18) | 24 (24) | 22 (22) |
|  |  |  |  |  |  |  |
| **GCPLA** | **Median (IQR)** | **Median (IQR)** | **Median (IQR)** |  |  |  |
| **Range** |  |  |  |  |  |  |
|  Control | 17 (12, 22) | 16.5 (13, 21) | 17 (13, 21) | 232 | 0·587 | (-0·57, 1·74) |
|  Intervention | 19 (13, 23·5) | 19 (14, 23) | 17 (13·5, 22) |  |  |  |
| **Busy** |  |  |  |  |  |  |
| Control | 10 (7, 13) | 11 (7, 13) | 11 (8, 13) | 232 | 0·377 | (-0·59, 1·34) |
| Intervention | 11 (8, 15) | 11 (8, 14) | 12 (8, 14) |  |  |  |
|  |  |  |  |  |  |  |
| ***Family carers*** | Median (IQR) | Median (IQR) | Median (IQR) |  |  |  |
| **Uplift** |  |  |  |  |  |  |
|  Control | 15 (13, 17) | 15 (12, 17) | 15 (13, 17) |  |  |  |
|  Intervention | 14 (13, 16) | 15 (14, 17) | 15 (13, 16) |  |  |  |
| **Burden** |  |  |  |  |  |  |
| Control | 33 (28, 39) | 31 (25, 36) | 30 (25, 39) |  |  |  |
| Intervention | 28 (26, 31) | 29 (25·5, 32·5) | 30 (28, 32·5) |  |  |  |
| **GHQ score** |  |  |  |  |  |  |
|  Control | 4 (1, 8) | 4 (2, 7) | 3 (1, 6) |  |  |  |
|  Intervention | 3 (0, 4) | 2·5 (1, 6.5) | 2 (0, 3) |  |  |  |
| ***Paid carers*** | Median (IQR) |  |  |  |  |  |
| **CDS\*** |  |  |  |  |  |  |
|  Control | 24 (15, 37) |  |  |  |  |  |
|  Intervention | 21 (13, 31) |  |  |  |  |  |

\*Respondents changed over the 12 months, consequently the trends are not provided