# Online supplementary Materials

### Table S1 Participant characteristics by site for the pre-COVID cohort

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   |   | South West London | Lincolnshire | Birmingham |
| Sample size |  | 218 | 289 | 427 |
| N female (%) |  | 115 (52.75) | 159 (55.02) | 217 (50.82) |
| Age (mean, SD) |  | 37.94 (14.32) | 38.16 (14.77) | 35.46 (13.79) |
| Ethnicity | Asian /British Asian | 14 (6.42) | 1 (0.35) | 41 (9.60) |
|   | Black/Black British | 9 (4.13) | 4 (1.38) | 37 (8.67) |
|   | White British | 147 (67.43) | 248 (85.81) | 287 (67.21) |
|   | White Irish/White Other | 33 (15.14) | 7 (2.42) | 15 (3.51) |
|   | Other | 12 (5.50) | 1 (0.35) | 8 (1.87) |
|   | Mixed | 0 | 1 (0.35) | 17 (3.98) |
|   | Missing | 3 (1.38) | 27 (9.34) | 22 (5.15) |
|  Primary Diagnosis | F1 - Psychoactive substance use | 7 (3.21) | 8 (2.77) | 5 (1.17) |
|   | F2 - Schizophrenia | 7 (3.21) | 18 (6.23) | 24 (6.62) |
|   | F3 - Mood disorders | 27 (12.39) | 23 (7.96) | 20 (4.68) |
|   | F4 - Neurotic disorders | 17 (7.80) | 16 (5.54) | 9 (2.11) |
|   | F6 - Personality disorders | 14 (6.42) | 0 (0) | 13 (3.04) |
|   | F8 - Disorders of psych development | 0 | 0 | 0 |
|   | F9 - Behavioural and emotional disorders | 1 (0.46) | 0 | 1. (0.23) |
|   | Other | 10 (4.59) | 6 (2.08) | 7 (1.64) |
|   | Not stated/no diagnosis | 135 (61.93) | 218 (75.43) | 384 (81.50) |
| Secondary Diagnosis | Mental health | 55 (25.23) |  - | 9 (2.11) |
|   | Alcohol or substance abuse | 11 (5.05) | - | 14 (3.28) |
|   | Physical health | 4 (1.83) | - | 4 (0.94) |
|   | Other | 10 (4.59) | - | 3 (0.70) |
|   | No secondary diagnosis | 138 (63.30) |  - | 397 (92.97) |
| Marital Status | Single/separated/divorced/widowed | 176 (80.7) | 152 (52.60) | 182 (42.67) |
|   | Married/civil partnership/cohabiting | 34 (15.6) | 41 (14.19) | 37 (8.67) |
|   | Missing | 8 (3.7) | 96 (33.22) | 208 (48.71) |
| Employment Status | Working/student/volunteer/homemaker | 77 (35.3) | 94 (32.53) | 29 (6.79) |
|   | Unemployed | 93 (42.7) | 123 (42.56) | 84 (19.67) |
|   | Retired | 10 (4.6) | 8 (2.77) | 4 (0.94) |
|   | Missing | 38 (17.4) | 64 (22.15) | 310 (72.60) |
| Housing | Mainstream housing | 156 (71.6) | 206 (71.28) | 97 (22.72) |
|   | Supported housing | 9 (4.1) | 10 (3.46) | 13 (3.04) |
|   | Insecure housing/homeless | 13 (6.0) | 16 (5.54) | 10 (2.34) |
|   | Missing | 40 (18.4) | 57 (19.72) | 307 (71.90) |
| Sexual orientation | Gay/Lesbian/Bi | 0 (0) | 17 (5.88) | 4 (0.94) |
|   | Heterosexual | 7 (3.2) | 128 (44.29) | 64 (14.99) |
|   | Missing | 211 (96.8) | 144 (49.83) | 359 (84.07) |
| Referral Source | ED | 93 (42.7) | 113 (39.10) | 229 (56.63) |
|   | CMHT | 77 (35.3) | 1 (0.35) | 1 (0.23) |
|   | Home treatment team | 39 (17.9) | 148 (51.21) | 14 (3.28) |
|   | Local authority and other provider |  -  | 2 (0.69) | 0 |
|   | Primary care & other medical | 8 (3.7) | 6 (2.08) | 166 (38.88) |
|   | Section 136 & Police | 1 (0.5) | 19 (6.57) | 9 (2.11) |
|   | Other source within the trust | 0 | 0 | 0 |
|   | Missing | 0 | 0 | 8 (1.87) |
| Admission to PDU within 7 days of first contact with trust | 55 (25.23) | 40 (13.84) | 110 (25.76) |
| First contact with trust during the 'pre' period | 93 (42.86) | 69 (23.88) | 172 (40.28) |
| Index of social deprivation mean (SD) score | 19,762 (7725) | 13,271 (8871) | 7,141 (7,612) |
| Category of social deprivation mean (SD) | 6.47 (2.33) | 4.42 (2.68) | 2.63 (2.33) |
| Category of social deprivation range |  2-10 |  1-10 |  1-10 |

- Data not available

Table S2 Pre-post comparisons for the pre-COVID cohort

|  |  |  |  |
| --- | --- | --- | --- |
|  | South West London | Lincolnshire | Birmingham |
|  | **Pre** | **Post** | **Pre-post comparison** | **Pre** | **Post** | **Pre-post comparison** | **Pre** | **Post** | **Pre-post comparison** |
| Primary outcomes |  |  |  |  |  |  |  |  |  |
| Mental health trust: n experiencing an informal admission | 8 | 57 | χ2=40.67, p<0.001 | 16 | 75 | χ2=49.03, p<0.001 | 18 | 81 | χ2=47.82, p<0.001 |
| Acute trust: ED presentations (mean, SD) | 1.31 (1.22) | 0.80 (1.55) | t=-4.98, p<0.001 | 0.61 (0.87) | 0.43 (0.93) | t=2.78, p<0.001 | 1.74 (1.60) | 1.83 (2.45) | t = 0.82, p = 0.41 |
| Secondary outcomes; binary events data (number experiencing one or more)   |  |  |  |  |  |  |  |
| Inpatient admissions | 14 | 63 | χ2=40.69, p<0.001 | 24 | 97 | χ2=59.88, p<0.001 | 35 | 110 | χ2=52.57, p<0.001 |
| 0-5 day inpatient admissions | 7 | 14 | χ2=1.00, p=0.63 | 5 | 17 | χ2=10.29, p<0.001 | 4 | 8 | χ2=1.60, p<0.34 |
| Compulsory admissions | 9 | 12 | χ2= 0.47, p=0.65 | 11 | 31 | χ2=11.76, p<0.001 | 19 | 36 | χ2= 6.42, p=0.02 |
| Continuous outcomes, n (SD) |  |  |  |  |  |  |  |  |  |
| Length of non-nil inpatient stays; (days; mean, SD)\* | 31.37 (40.04), 14 | 30.49 (42.35), 63 | t=0.07, p=0.94 | 28.23 (24.74), 24 | 46.44 (61.92), 97 | t=1.41, p=0.16 | 24.53 (30.84), 35 | 49.82 (79.73), 110 | t=1.83, p=0.07 |
| Use of CMHT and other trust services |  |  |  |  |  |  |  |  |  |
| Community contacts with services (mean, SD) | 12.92 (19.26) | 26.98 (30.38) | t=7.34, p<0.001 | 12.97 (18.23) | 21.94 (24.33) | t=6.63, p<0.001 | 3.06 (8.10) | 4.98 (8.38) | t=4.58, p<0.001 |
| Contact type: face to face (mean, SD) | 8.90 (13.96) | 17.60 (18.67) | t=7.12, p<0.001 | 5.89 (8.48) | 13.98 (15.68) | t=9.84, p<0.001 | 2.65 (7.52) | 4.28 (7.43) | t=4.23, p<0.001 |
| Contact type: telephone/video (mean, SD) | 4.02 (6.57) | 9.38 (14.37) | t=5.81, p<0.001 | 7.08 (12.28) | 7.96 (11.59) | t=1.07, p=0.29 | 0.40 (1.44) | 0.69 (1.94) | t=3.19, p<0.05 |
| Use of CMHT and other trust services by category: |  |  |  |  |  |  |  |  |  |
| Continuous data; mean (SD) |  |  |  |  |  |  |  |  |  |
| CMHT | 3.26 (6.93) | 6.28 (10.27) | t=5.62, p<0.001 | 5.40 (12.46) | 7.01 (13.79) | t=2.31, p=0.02 | 3.13 (8.33) | 5.30 (8.84) | t=5.23, p<0.001 |
| Crisis resolution or home treatment team | 5.92 (14.37) | 14.83 (17.74) | t=7.05, p<0.001 | 5.33 (8.21) | 12.42 (14.83) | t=8.47, p<0.001 | 4.90 (13.90) | 12.31 (23.46) | t=6.11, p<0.001 |
| Mental health telephone support line | 0.19 (0.56) | 0.71 (5.11) | t=1.58, p=0.12 | - | - | - | - | - | - |
| Number of contacts (for small numbers); n |  |  |  |  |  |  |  |  |  |
| Mental health support line (also summarised above) | 41 | 155 |  | - | - |  | - | - |  |
| DBT service | 0 | 12 |  | - | - |  | 11 | 11 |  |
| Service contracted by trust | 5 | 26 |  | - | - |  | 3 | 0 |  |
| Art Therapies | 23 | 18 |  | - | - |  | 6 | 6 |  |
| Other | 44 | 88 |  | 38 | 26 |  | - | - |  |
| Outpatient ED service | 0 | 5 |  | 16 | 0 |  | 55 | 45 |  |
| Exercise therapy team | 19 | 121 |  | - | - |  | - | - |  |
| RPD PD Intensive Team | 116 | 139 |  | - | - |  | - | - |  |
| Complex needs service | 63 | 155 |  | 0 | 0 |  | 114 | 81 |  |
| Family therapy | 20 | 34 |  | - | - |  | - | - |  |
| EI team | 98 | 181 |  | 65 | 312 |  | 145 | 145 |  |
| LD service | - | - |  | 11 | 4 |  | - | - |  |
| Perinatal Community Team | 4 | 43 |  | 29 | 50 |  | 124 | 122 |  |
| Traumatic stress service | - | - |  | - | - |  | - | - |  |
| Older peoples service (including but not limited to dementia services) | - | - |  | 56 | 82 |  | - | - |  |
| Forensic/criminal justice liaison service | - | - |  | 47 | 32 |  | 207 | 155 |  |
| CAMHS | - | - |  | 25 | 0 |  | - | - |  |
| Individual placement and support (for work) | - | - |  | 25 | 47 |  | - | - |  |
| SARC (sexual assault referral centre) | - | - |  | 17 | 19 |  | - | - |  |
| PDU visits (people experiencing one or more); n | 0 | 39 |  | - | 49 |  | - | 49 |  |
| Summary of discharge destinations |  |  |  |  |  |  |  |  |  |
| Inpatient - at trust or out of area |  | 7 (3.2) |  |  |  -  |  |  |  - |  |
| Inpatient at trust |  |  -  |  |  | 21 (7.27) |  |  | - |  |
| Inpatient out of area/non-NHS |  |  -  |  |  | 12 (4.15) |  |  | - |  |
| Home treatment team |  | 18 (8.3) |  |  | 80 (27.68) |  |  | - |  |
| Community mental health team |  | 0 (0) |  |  | 1 (0.35) |  |  |  - |  |
| Primary care |  | 1 (0.5) |  |  | 3 (1.04) |  |  |  - |  |
| Temporary place of residence |  | 38 (17.4) |  |  | 18 (6.23) |  |  |  - |  |
| Usual place of residence  |  | 147 (67.4) |  |  | - |  |  |  - |  |
| Other |  |  -  |  |  | 17 (5.88) |  |  |  - |  |
| Ongoing care - not specified |  |  -  |  |  | 66 (22.84) |  |  |  - |  |
| Missing |  | 7 (3.2) |  |  | 71 (24.57) |  |  |  - |  |

\*unpaired t-tests were used for this outcome