|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |

Supplementary Table 1; Demographic and clinical characteristics by sex

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Characteristic | Total (n=293) | Males (n=190) | Females (n=103) | P value\* |
| Age, mean (SD), years | 30.6 (10.5) | 29.7 (10.51) | 32.3 (10.35) | 0.048 |
| Ethnicity, n (%)  White  Black  Asian  Other (incl. Mixed) | 136 (46.4)  108 (36.9)  23 (7.8)  26 (8.9) | 89 (46.8)  70 (36.8)  17 (9.0)  14 (7.4) | 47 (45.6)  38 (36.9)  6 (5.8)  12 (11.6) | 0.526 |
| Level of education (n=234), n (%)  University degree  A levels  O levels of GCSE  Vocational college diploma  No school qualification | 54 (23.1)  33 (14.1)  42 (17.9)  60 (25.6)  45 (19.2) | 25 (16.5)  18 (11.9)  32 (21.2)  43 (28.5)  33 (21.9) | 29 (34.9)  15 (18.1)  10 (12)  17 (20.5)  12 (14.5) | 0.006 |
| Employment  Lifetime employment status, n (%)  Never employed  Employed  Current employment status (n=234), n (%)  Full time employment  Part-time employment  Unemployed  Not employed, student | 16 (7.1)  208 (92.9)  40 (17.1)  20 (8.5)  155 (66.2)  19 (8.1) | 7 (4.9)  136 (95.1)  27 (17.8)  12 (7.9)  103 (67.7)  10 (6.6) | 9 (11.1)  72 (88.9)  13 (15.8)  8 (9.8)  52 (63.4)  9 (11.0) | 0.074  0.626 |
| Domiciliary status (n=239), n (%)  Alone  With children only  Spouse/partner  Parents/other family  Friends  Other | 76 (31.8)  14 (5.9)  32 (13.4)  69 (28.9)  21 (8.8)  27 (11.3) | 60 (38.5)  0  18 (11.5)  49 (31.4)  10 (6.4)  19 (12.2) | 16 (19.3)  14 (16.9)  14 (16.8)  20 (24.1)  11 (13.3)  8 (9.6) | <0.001 |
| Relationship status (n=237), n (%)  Single  Married  In a relationship  Separated/widowed | 166 (70)  32 (13.6)  29 (12.2)  10 (4.2) | 114 (73.5)  18 (11.6)  18 (11.6)  5 (3.2) | 52 (63.4)  14 (17.1)  11 (13.4)  5 (6.1) | 0.356 |
| Primary OPCRIT diagnosis (n=207), n (%)  Schizophrenia  Psychotic Disorder NOS  Delusional Disorder  Schizophreniform Disorder  Schizoaffective Disorder Depressed  Schizoaffective Disorder Bipolar  No Criteria Met  Manic episode with psychosis  Major Depressive episode with Psychotic  Major Depressive Episode | 49 (23.7)  18 (8.7)  5 (2.4)  55 (26.6)  9 (4.4)  10 (4.8)  3 (1.5)  32 (15.5)  23 (11.1)  3 (1.5) | 36 (27.3)  13 (9.9)  2 (1.5)  38 (28.8)  5 (3.8)  6 (4.6)  2 (1.5)  18 (13.6)  12 (9.1)  0 (0.0) | 13 (17.3)  5 (6.8)  3 (4.0)  17 (22.7)  4 (5.3)  4 (5.3)  1 (1.3)  14 (18.7)  11 (14.7)  3 (4.0) | 0.203 |
| Treatment setting at baseline (n=211), n (%)  Inpatient/Outpatient | 126 (59.7)/  85 (40.3) | 83 (62.4)/  50 (37.6) | 43 (55.8)/  34 (44.2) | 0.215 |

\*Using independent t-tests or chi-squared tests as appropriate

Supplementary table 2 - Cardiometabolic variables in those who had not received anti-psychotics at baseline.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | N | Mean | Std. Dev. | Min | Max |
| Cholesterol | 37 | 4.6 | 0.8 | 2.9 | 6.6 |
| Hba1c (mmol/mol) | 32 | 36.6 | 6.3 | 30.1 | 66.1 |
| Waist circumference (men) | 16 | 85.7 | 9.9 | 71.0 | 103.0 |
| Waist circumference (women) | 9 | 79.7 | 12.3 | 64.0 | 103.0 |
| BMI | 27 | 23.6 | 3.3 | 17.5 | 29.8 |
| HDL cholesterol (men) | 21 | 1.3 | 0.3 | 0.7 | 1.9 |
| HDL cholesterol (women) | 14 | 1.4 | 0.6 | 0.9 | 3.0 |
| Triglycerides | 32 | 1.3 | 0.7 | 0.5 | 3.0 |

Supplementary Table 3; Difference in baseline CVD factors by (a) >14 or <= 14 days on antipsychotic medication and (b) medicated vs unmedicated prior to baseline

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Mean Difference | SE | p-value | 95% CI | |
| **Total Cholesterol (mmol/L)** |  |  |  |  |  |
| >14 days medication vs <=14 days on medication (pre-baseline, not including unmedicated) | 0.5 | 0.2 | 0.007 | 0.1 | 0.8 |
| Medicated vs unmedicated (prior to baseline) | 0.3 | 0.2 | 0.064 | -0.0 | 0.7 |
|  |  |  |  |  |  |
| **Fasting Blood Glucose (mmol/L)** |  |  |  |  |  |
| >14 days medication vs <=14 days on medication (pre-baseline, not including unmedicated) | 0.1 | 0.2 | 0.551 | -0.2 | 0.5 |
| Medicated vs unmedicated (prior to baseline) | 0.1 | 0.2 | 0.591 | -0.3 | 0.5 |
|  |  |  |  |  |  |
| **DBP (mm/Hg)** |  |  |  |  |  |
| >14 days medication vs <=14 days on medication (pre-baseline, not including unmedicated) | 2.7 | 2.1 | 0.192 | -1.4 | 6.8 |
| Medicated vs unmedicated (prior to baseline) | 0.6 | 2.2 | 0.800 | -3.7 | 4.9 |
|  |  |  |  |  |  |
| **Waist circumference** (cm) |  |  |  |  |  |
| >14 days medication vs <=14 days on medication (pre-baseline, not including unmedicated) | 4.0 | 2.5 | 0.116 | -1.0 | 9.0 |
| Medicated vs unmedicated (prior to baseline) | 7.7 | 2.8 | 0.009 | 2.0 | 13.4 |
|  |  |  |  |  |  |
| **BMI (kg/m2)** |  |  |  |  |  |
| >14 days medication vs <=14 days on medication (pre-baseline, not including unmedicated) | 1.0 | 1.0 | 0.322 | -0.9 | 2.8 |
| Medicated vs unmedicated (prior to baseline) | 2.8 | 1.1 | 0.011 | 0.6 | 4.9 |
|  |  |  |  |  |  |
| **HDL (mmol/L)** |  |  |  |  |  |
| >14 days medication vs <=14 days on medication (pre-baseline, not including unmedicated) | 0.0 | 0.1 | 0.573 | -0.2 | 0.1 |
| Medicated vs unmedicated (prior to baseline) | 0.0 | 0.1 | 0.686 | -0.1 | 0.2 |
|  |  |  |  |  |  |
| **Triglycerides (mmol/L)** |  |  |  |  |  |
| >14 days medication vs <=14 days on medication (pre-baseline, not including unmedicated) | 0.4 | 0.2 | 0.025 | 0.1 | 0.7 |
| Medicated vs unmedicated (prior to baseline) | 0.1 | 0.2 | 0.642 | -0.3 | 0.5 |

Supplementary table 4; Comparison of baseline demographics/characteristics between those who attended 12 month follow up assessment (N=125) and those who did not (N=168)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Baseline demographics/  characteristics | Participants who had 12 months follow up assessment (N=125) | | Participants who did not have 12 months follow up assessment (N=168) | | t-test or χ2 test |
| n | Mean (SD) or % | n | Mean (SD) or % |
| Age (years) | 125 | 31.3 (10.3) | 166 | 30.1 (10.7) | t=-0.98, p=0.33 |
| Gender |  |  |  |  | χ2(1) = 1.57, p=0.21 |
| *Male* | 76 | 60.8% | 114 | 67.9% |
| *Female* | 49 | 39.2% | 54 | 32.1% |
| Ethnicity |  |  |  |  |  |
| *White* | 56 | 44.8% | 80 | 47.6% | χ2(3) = 4.19, p=0.24 |
| *Black* | 12 | 9.6% | 11 | 6.6% |
| *Asian* | 50 | 40.0% | 58 | 34.5% |
| *Other (incl. Mixed)* | 7 | 5.6% | 19 | 11.3% |
| Total Cholesterol (mmol/L) | 98 | 4.9 (0.9) | 88 | 4.7 (1.0) | t=-1.56, p=0.12 |
| Diastolic Blood Pressure (mm/Hg) | 109 | 74.5 (11.5) | 110 | 75.6 (12.5) | t=0.66, p=0.51 |
| HbA1c (mmol/mol) | 96 | 35.9 (7.7) | 71 | 35.0 (6.3) | t=-0.83, p=0.41 |
| Waist circumference (cm) | 91 | 89.7 (13.7) | 70 | 89.8 (13.8) | t=0.03, p=0.97 |
| BMI (kg/m2) | 99 | 25.9 (5.3) | 81 | 25.4 (5.2) | t=-0.60, p=0.55 |
| HDL (mmol/L) | 97 | 1.4 (0.4) | 82 | 1.4 (0.4) | t=-0.17, p=0.87 |
| Triglycerides (mmol/L) | 100 | 1.4 (1.1) | 82 | 1.3 (0.7) | t=-0.74, p=0.46 |

Supplementary table 5; Table of differences in measures by gender and ethnicity – paired complete data at baseline and 12 months for measure only

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Measure – Mean or %  (SD) or  Median (upper and lower quartiles) | Male | Female | Difference by gender | White | Other ethnicity | Difference by ethnicity |
| BMI (kg/m2) (n = 88) |  |  |  |  |  |  |
| Baseline | 26.0  (5.2) | 25.2  (5.8) | 0.8 | 26.2  (5.5) | 25.3  (5.3) | 0.9 |
| 12 months | 27.2  (5.3) | 26.3  (5.4) | 0.9 | 27.1  (5.5) | 26.7  (4.9) | 0.4 |
| Total cholesterol (mmol/L) (n=96) |  |  |  |  |  |  |
| Baseline | 4.9  (1.0) | 4.9  (0.8) | 0.01 | 5.0  (1.1) | 4.8  (0.7) | 0.24 |
| 12 months | 4.7  (1.1) | 4.9  (1.0) | -0.2 | 4.9  (1.3) | 4.6  (0.8) | 0.29 |
| HBA1c (mmol/mol) (n=85) 1 |  |  |  |  |  |  |
| Baseline | 34.4  (33.3 – 38.8) | 33.3  (32.2 -35.5) | 1.1 | 33.3  (31.1 – 36.6) | 34.4  (33.3 – 37.7) | -1.1 |
| 12 months | 36.6  (34.4 – 39.9) | 36.6  (33.3 – 38.8) | 0.0 | 34.4  (33.3 – 37.7) | 37.7  (35.5 – 39.9) | -3.3 |
| Current smoking (% who smoke at least once a week) (n=71) |  |  |  |  |  |  |
| Baseline | 74.4% | 75.0% | -0.6% | 76.9% | 71.9% | 5.0% |
| 12 months | 76.7% | 64.3% | 12.4% | 74.4% | 68.8% | 5.6% |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Mean Waist circumference (cm) (difference from baseline) | Gender | White | Other ethnicity | Difference |
| Baseline | Male (n=50, 30 White, 20 Other) | 95.9  (13.6) | 89.1  (10.2) | 6.8 |
| 12 months | 100.2  (16.9) | 90.2  (11.1) | 10.0 |
| Baseline | Female (n=33, 15 White, 18 Other) | 83.3  (12.4) | 88.6  (19.2) | -5.3 |
| 12 months | 83.9  (15.2) | 94.5  (15.7) | -10.6 |

1Medians and upper and lower quartiles presented for this measure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Supplementary Table 6 – Associations between Lifestyle factors and cardiometabolic risk factors at baseline (adjusted for age, gender, ethnicity and pre-baseline number of days on antipsychotic medication | | | | |
| **Dependent (response) variable/Independent variable†** | **Baseline DINE Fat Score - Coefficient (95% CI)** | **Baseline AUDIT Hazardous Drinking Score - Coefficient (95% CI)** | **Baseline Number of hours sitting per day -Coefficient (95% CI)** | **OLZ vs not OLZ prior to baseline - Coefficient (95% CI)** |
| **Baseline Cholesterol (mmol/mol)** | -0.00 (-0.018, 0.007) | -0.007 (-0.024, 0.010) | -0.021 (-0.057, 0.016) | 0.181 (-0.112, 0.475) |
| **Baseline DBP (mmHg)** | 0.048 (-0.138, 0.148) | -0.076 (-0.287, 0.136) | 0.225 (-0.188, 0.638) | 0.781 (-2.565, 4.127) |
| **Baseline HbA1c (mol/mmol)** | 0.006 (-0.091, 0.104) | -0.073 (-0.191, 0.044) | 0.121 (-0.149, 0.391) | -2.281 (-4.580, -0.182) 1 |
| **Baseline Waist circumference (cm)** | 0.002 (-0.159, 0.165) | -0.022 (-0.222, 0.178) | 0.086 (-0.406, 0.578) | 1.478 (-2.838, 5.794) |
| **Baseline BMI (kg/m2)** | -0.034 (-0.095, 0.026) | -0.052 (-0.136, 0.033) | 0.109 (-0.103, 0.320) | -0.014 (-1.853, 1.570) |
| **Baseline HDL (mmol/L)** | 0.002 (-0.002, 0.007) | 0.002 (-0.004, 0.009) | -0.003 (-0.017, 0.010) | 0.027 (-0.092, 0.145) |
| **Baseline Triglycerides (mmol/L)** | -0.002 (-0.013, 0.010) | -0.002 (-0.019, 0.014) | -0.003 (-0.032, 0.038) | 0.021 (-0.278, 0.319) |
| **1p=0.032 but not significant at pre-specified 1% level †Separate models used for each association** | | | | |

Supplementary Table 7: Rates of cardiometabolic and lifestyle risk factors at Baseline and 12 months – complete data at both timepoints only

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Baseline** | | **12 months** | | **Test of whether factors differ by timepoint1** |
|  | **N** | **Freq (%)** | **N** | **Freq (%)** |
| **BMI (kg/m2)** |  |  |  |  |  |
| BMI <= 25 | 47 | 53.4% | 38 | 43.2% | Chi2(2) =4.0, p=0.133 |
| BMI >25 & <=30 | 25 | 28.4% | 30 | 34.1% |
| BMI>30 | 16 | 18.1% | 20 | 23.7% |
| **High total cholesterol (>5 mmol/l)** |  |  |  |  |  |
| Yes | 42 | 43.8% | 38 | 39.6% | Chi2(1) = 0.5, p=0.465 |
| No | 54 | 56.3% | 58 | 60.4% |
| **Raised triglycerides (>=1.7mmol/L)** |  |  |  |  |  |
| Yes | 25 | 27.5% | 25 | 27.5% | No change, p=1.000 |
| No | 66 | 72.5% | 66 | 72.5% |
| **Low HDL cholesterol (<1.03 mmol/L for Males, <1.29 mmol/L for Females)** |  |  |  |  |  |
| Yes | 24 | 25.5% | 31 | 33.0% | Chi2(1) = 2.9, p=0.09 |
| No | 70 | 74.5% | 63 | 67.0% |
| **Type 2 diabetes** |  |  |  |  |  |
| Yes | 3 | 3.3% | 3 | 3.3% | Chi2(1) = <0.01, p=1.000 |
| No | 88 | 96.7% | 88 | 96.7% |
| **HBA1c >=39 mmol/mol** |  |  |  |  |  |
| Yes | 12 | 14.1% | 19 | 22.4% | Chi2(1) = 3.8, p=0.052 |
| No | 73 | 85.9% | 66 | 77.7% |
| **C-Reactive Protein (CRP)** |  |  |  |  |  |
| **>3mg/L** | 17 | 20.5% | 25 | 30.1% | Chi2(1) = 2.7, p=0.102 |
| **<= 3mg/L** | 66 | 79.5% | 58 | 69.9% |
| **Hypertension** |  |  |  |  |  |
| Yes | 19 | 14.2% | 20 | 14.2% | Chi2(1) =0.04, p=0.847 |
| No | 115 | 85.8% | 114 | 85.8% |
| **IPAQ sitting hours** |  |  |  |  |  |
| <-=6 hours per day | 32 | 39.0% | 33 | 40.2% | Chi2(2) = 0.6, p =0.730 |
| >6 & <=10 hours per day | 31 | 37.8% | 27 | 32.9% |
| >10 hours per day | 19 | 23.2% | 22 | 26.8% |
| **Minutes of moderate or vigorous exercise per week** |  |  |  |  |  |
| <150 | 68 | 76.4% | 58 | 65.2% | Chi2(1) = 3.3, p =0.068 |
| >=150 | 21 | 23.6% | 31 | 34.8% |
| **DINE score (saturated fat)** |  |  |  |  |  |
| <=40 | 64 | 73.6% | 70 | 80.5% | Chi2(1) =1.4, p=0.239 |
| >40 | 23 | 26.4% | 17 | 19.5% |
| **AUDIT hazardous drinking score** |  |  |  |  |  |
| >7 | 38 | 41.8% | 24 | 26.4% | Chi2(1) =8.9, p=0.002 |
| <=7 | 53 | 58.2% | 67 | 73.6% |
| **Current smoker?** |  |  |  |  |  |
| Yes | 53 | 74.7% | 45 | 71.8% | Chi2(1) =0.3, p=0.593 |
| No | 18 | 25.4% | 20 | 28.2% |

Table: Rates of cardiometabolic and lifestyle risk factors at Baseline and 12 months – complete data at both timepoints only

1McNemar’s test for binary factors or Marginal homogeneity (Stuart-Maxwell) test for 3-level factors