

Effect of lifestyle, medication and ethnicity on cardiometabolic risk in the year following the first episode of psychosis: a prospective cohort study

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Table 1 – Descriptives at each time point

		Baseline			12 months	
	N	Mean	SD/IQR	N	Mean	SD/IQR
Waist circumference (cm) - Male	102	90.2	12.1	66	93.4	13.7
Waist circumference (cm) - Female	59	88.8	16.1	44	89.8	16.8
Systolic Blood Pressure (mm/Hg)	219	117.4	15.6	147	118.4	15.6
Diastolic Blood Pressure (mm/Hg)	219	75.0	12.0	147	77.4	12.0
Cholesterol (mmol/L)	186	4.8	1.0	114	4.8	1.1
High Density Lipoprotein (mmol/L)	179	1.4	0.4	110	1.3	0.4
Triglycerides (mmol/L)	175	1.4	0.9	100	1.3	0.9
Height (cm) – Male	126	176.6	7.9	-	-	-
Height (cm) – Female	68	165.5	7.7	-	-	-
Weight (kg) – Male	123	80.0	15.7	66	86.0	17.6
Weight (kg) – Female	64	71.3	19.4	43	73.2	19.3
BMI (kg/m ²) – Male	119	25.5	4.6	57	27.2	5.3

BMI (kg/m ²) – Female	61	26.0	6.3	36	26.6	5.4
HbA1c (mmol/mol)	167	35.5	7.1	93	37.7	8.3
Fasting glucose (mmol/L)	173	4.8	0.9	95	5.1	1.9
CRP (mg/L) ²	168	1	0.3-2.6	93	1.5	0.5-3.5
Insulin (mU/L) ²	125	10.1	5.2-15.3	60	8.8	5.0-14.6
HOMA IR ^{2,3}	121	2.1	1.2-3.2	57	1.8	1.0-2.7
AUDIT Hazardous drinking score	199	9.4	9.5	115	5.8	6.9
DINE Fat intake score	186	32.8	13.5	114	30.7	13.2
IPAQ - mean hours sitting per day	178	8.1	4.2	110	8.3	4.2
PANSS total score ¹	190	58.2	15.0	114	51.0	15.6
GAF Symptoms score	175	51.3	20.5	116	62.9	17.5
GAF Disability score	174	56.6	18.1	115	64.8	17.8
CGI Severity scale score ²	198	3	2-4	116	2	1-4
CGI Improvement scale score ²	-	-	-	111	1	0-2
Calgary depression scale total score ^{1,2}	187	4	1-9	118	3	1-8

YMRS score ^{1 2}	185	4	2-8	117	2	0-5
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¹PANSS, Calgary and YMRS totals were calculated even where individual items were missing (although PANSS was considered missing if any of the 3 subscale totals, Positive symptoms, Negative symptoms and General psychopathology were entirely missing)

²Medians and upper/lower quartiles presented instead of means and SDs due to skewed data

³Values of fasting glucose over 11 mmol/L were excluded from the calculation of HOMA IR

Table 2: Rates of identified cardiometabolic and lifestyle risk factors at each time point

	Baseline		12 months	
	N	Freq (%)	N	Freq (%)
BMI (kg/m²)				
BMI <= 25	90	50.0%	39	41.9%
BMI >25 & <=30	58	32.2%	32	34.4%
BMI>30	32	17.8%	22	23.7%
High total cholesterol (>5 mmol/l)				
Yes	76	40.9%	46	40.4%
No	110	58.1%	68	59.6%
Raised triglycerides (>=1.7mmol/L)				
Yes	47	26.9%	34	34.0%
No	128	73.1%	66	66.0%
Low HDL cholesterol (<1.03 mmol/L for Males, <1.29 mmol/L for Females)				
Yes	46	25.7%	37	33.6%
No	133	74.3%	73	66.4%
Type 2 diabetes				
Yes	6	3.4%	5	5.0%
No	172	96.6%	94	95.0%
HBA1c >=39 mmol/mol				
Yes	20	12.0%	22	23.7%
No	147	88.0%	71	76.3%
C-Reactive Protein (CRP)				
>3mg/L	37	22.0%	28	30.1%
<= 3mg/L	131	78.0%	65	69.9%
Hypertension				
Yes	33	15.1%	23	15.7%

No	186	84.9%	124	84.3%
IPAQ sitting hours				
<=6 hours per day	76	42.7%	44	40.0%
>6 & <=10 hours per day	53	29.8%	37	33.6%
>10 hours per day	49	27.5%	29	26.4%
Minutes of moderate or vigorous exercise per week				
<150	144	77.0%	70	60.0%
>=150	43	23.0%	46	40.0%
DINE score (saturated fat)				
<=40	137	74.0%	91	79.8%
>40	49	26.0%	23	20.2%
AUDIT hazardous drinking score				
>7	96	48.2%	33	28.7%
<=7	102	51.8%	82	71.3%
Current smoker?				
Yes	139	76.8%	66	73.3%

Table 3 Effects of gender and ethnicity

Measure – Mean or % (SD) or Median (upper and lower quartiles)	Male	Female	Difference by gender	White	Other ethnicity	Difference by ethnicity
BMI (kg/m ²)						
Baseline (n=180)	25.5 (4.6)	26.0 (6.3)	-0.5	25.7 (5.4)	25.7 (5.1)	0.0
12 months (n=93)	27.2 (5.3)	26.6 (5.4)	0.6	26.9 (5.6)	27.0 (5.1)	-0.1
Total cholesterol (mmol/L)						
Baseline (n=186)	4.81 (1.05)	4.80 (0.83)	0.01	4.93 (1.12)	4.70 (0.82)	0.23
12 months (n=114)	4.81 (1.22)	4.82 (0.92)	-0.01	5.05 (1.36)	4.62 (0.80)	0.43
HBA1c (mmol/mol) ¹						
Baseline (n=167)	34.4 (32.2 – 37.7)	33.3 (32.2 – 35.5)	1.1	34.4 (32.2 – 36.6)	34.4 (32.8 – 37.7)	0.0
12 months (n=93)	36.6 (34.4 – 39.9)	36.6 (33.3 – 38.8)	0.0	34.4 (33.3 – 37.2)	37.7 (35.5 – 39.9)	-3.3
Current smoking (%) (at least once a week)						
Baseline (n=181)	79.8%	70.2%	9.6%	79.2%	74.1%	5.1%
12 months (n=90)	76.8%	67.7%	9.1%	75.5%	70.7%	4.8%

Mean Waist circumference (cm)	Gender	White	Other ethnicity	Difference
Baseline (n=102)	Male	92.5 (13.6)	88.5 (10.6)	4.0
12 months (n=66)		97.4 (15.6)	90.1 (11.1)	7.3
Baseline (n=59)	Female	84.1 (13.3)	93.7 (17.6)	-9.6
12 months (n=44)		86.1 (16.9)	92.9 (16.4)	-6.8

¹Medians and upper and lower quartiles presented for this measure

Table 4 – Association between Lifestyle factors at baseline and 12-month change in cardiometabolic risk factors (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 between baseline and 12 months - Coefficient (95% CI)
12M Change in Cholesterol (mmol/mol)	0.008 (-0.088, 0.025)	0.009 (-0.018, 0.036)	0.023 (-0.032, 0.077)	-0.247 (-0.738, 0.245)
12M Change in Diastolic BP (mmHg)	-0.029 (-0.192, 0.134)	0.045 (-0.252, 0.341)	0.039 (-0.585, 0.592)	-0.425 (-5.085, 4.235)
12M Change in HbA1c (mol/mmol)	-0.005 (-0.145, 0.155)	-0.137 (-0.049, 0.324)	-0.141 (-0.613, 0.330)	-0.552 (-3.408, 3.298)
12M Change in Waist circumference (cm)	0.034 (-0.167, 0.235)	0.042 (-0.329, 0.412)	-0.233 (-1.172, 0.707)	0.326 (-4.712, 5.364)
12M Change in BMI (kg/m²)	-0.003 (-0.108, 0.103)	0.019 (-0.143, 0.181)	-0.058 (-0.415, 0.299)	0.437 (-2.094, 2.968)
12M Change in HDL (mmol/L)	-0.001 (-0.008, 0.007)	0.001 (-0.009, 0.011)	0.002 (-0.021, 0.024)	-0.084 (-0.259, 0.090)
12M Change in Triglycerides (mmol/L)	0.005 (-0.010, 0.021)	0.006 (-0.020, 0.032)	0.010 (-0.053, 0.072)	0.051 (-0.389, 0.491)

†Separate models used for each association