

Can Obese Patients On Antipsychotic Medications Achieve Weight Loss In An Unmodified General Population Lifestyle-Intervention Weight Management Programme?

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Background

Antipsychotics (APs) are associated with significant weight gain (>7%) in 78.8% of patients¹. This causes serious implications on the physical and mental well being of the patients with Serious Mental Illnesses (SMIs). It also increases the risks for T2DM, CHD, stroke, some cancers and doubles the risk of all-cause mortality². The challenges faced by these patients include executive dysfunction which impedes learning, poor access to healthy food, physical inactivity and poor diet. They also have difficulties adhering to and participating in behaviour modification programmes^{3,4}. Therefore, studies examining the effect of potential weight-reducing interventions very often excluded patients with SMIs^{5,6}.

Objective

To establish the weight outcomes of obese patients on APs enrolled into an unmodified multidisciplinary weight management programme not tailored to manage patients with SMIs

Hypothesis

Weight change is similar in patients taking APs to that of patients not taking APs when enrolled into an unmodified multidisciplinary weight management programme

Methods

Case-Control Study on patients attending the Weight Management Service (WMS) in St Columcilles Hospital, Dublin.

Each patient on APs is matched for age, gender and BMI with 2 WMS patients not taking APs ie Matched Cohort (MC).

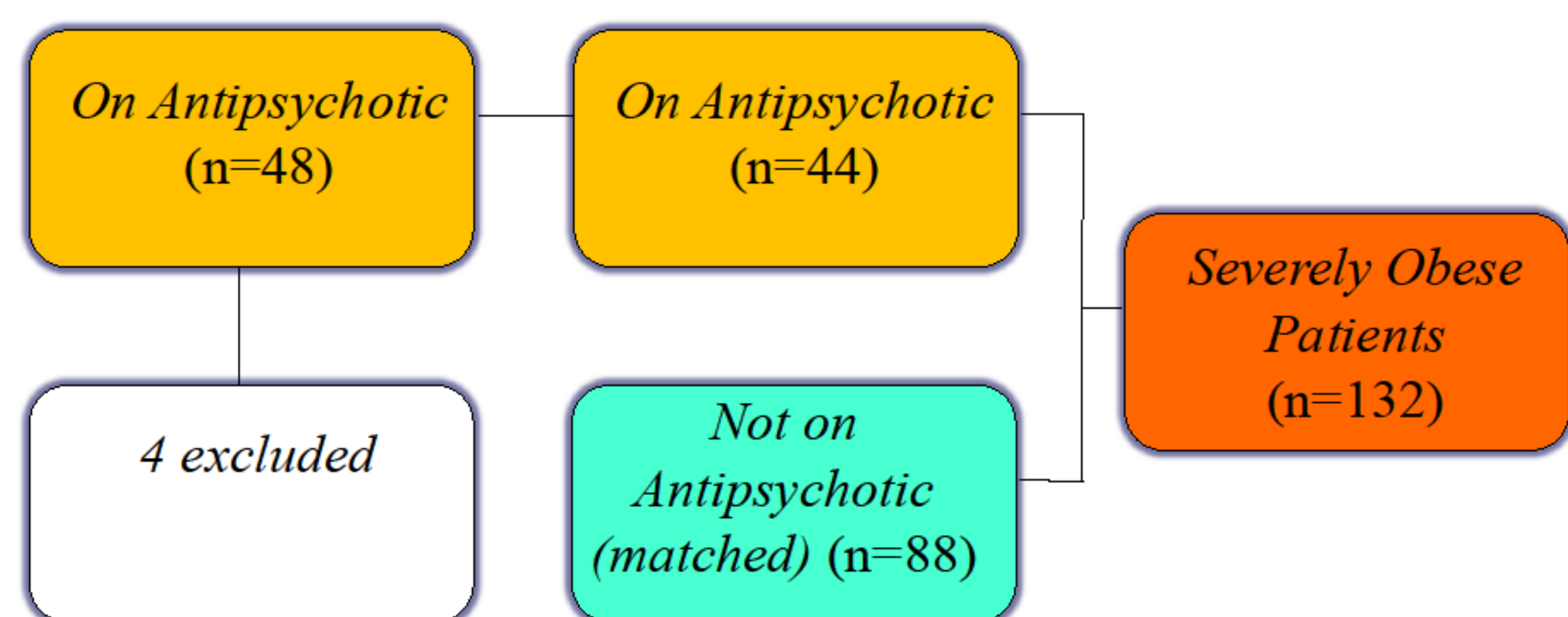


Fig. 1 Pathways of patient selections for the study

Results

Parameters	APs (n=44)	Matched Cohort (n=88)	P
Age, years	44.4 (40.7-48.2)	44.3 (41.7-46.8)	0.898
BMI, kg/m ²	49.1 (46.0-52.3)	48.9 (46.8-51.1)	0.866
Male, n (%)	17 (38.6)	32 (36.4)	0.799
T2DM, n (%)	13 (29.5)	22 (25.0)	0.577
Follow-up, months	15.3 (11.1-19.5)	11.4 (9.9-12.8)	0.687
Attendances, n	6.6 (5.5-7.7)	6.5 (5.9-7.1)	0.622
Medical Illnesses, n	3.6 (2.9-4.3)	2.3 (1.9-2.7)	0.003

Data are expressed as mean (95% confidence interval) for continuous variables and as numbers (percentages) for dichotomous variables.

P values determined using the independent-samples Mann-Whitney U or the Chi-Square test. n, number; BMI, body mass index; T2DM, type 2 diabetes.

Fig.2 Summary of characteristics between AP and MC groups

Parameter	APs			Matched Cohort			P
	Before	After	Change (%)	Before	After	Change (%)	
Weight, kg	139.8 (130.5-149.0)	137.8 (127.7-147.9)	-1.5 (-3.9- +0.8)	140.5 (134.4-146.6)	138.1 (132.0-144.2)	-1.5 (-2.9- -0.1)	0.478
Annual Δweight	---	-2.1 (-6.5- +2.4)	-2.0 (-5.2- +1.2)	---	-3.7 (-5.9- -1.6)	-2.6 (-4.2- -1.1)	0.696
BMI, kg/m ²	49.1 (46.0-52.3)	48.4 (44.9-51.9)	-1.7 (-4.0- +0.6)	48.9 (46.8-51.1)	48.1 (46.0-50.2)	-1.6 (-3.0- -0.2)	0.515
Annual ΔBMI	---	-0.9 (-2.3- +0.6)	-2.3 (-5.5- +0.9)	---	-1.3 (-2.0- -0.5)	-2.7 (-4.3- -1.1)	0.558

Data are expressed as mean (95% confidence interval). P values determined using the Mann-Whitney U test. BMI, body mass index

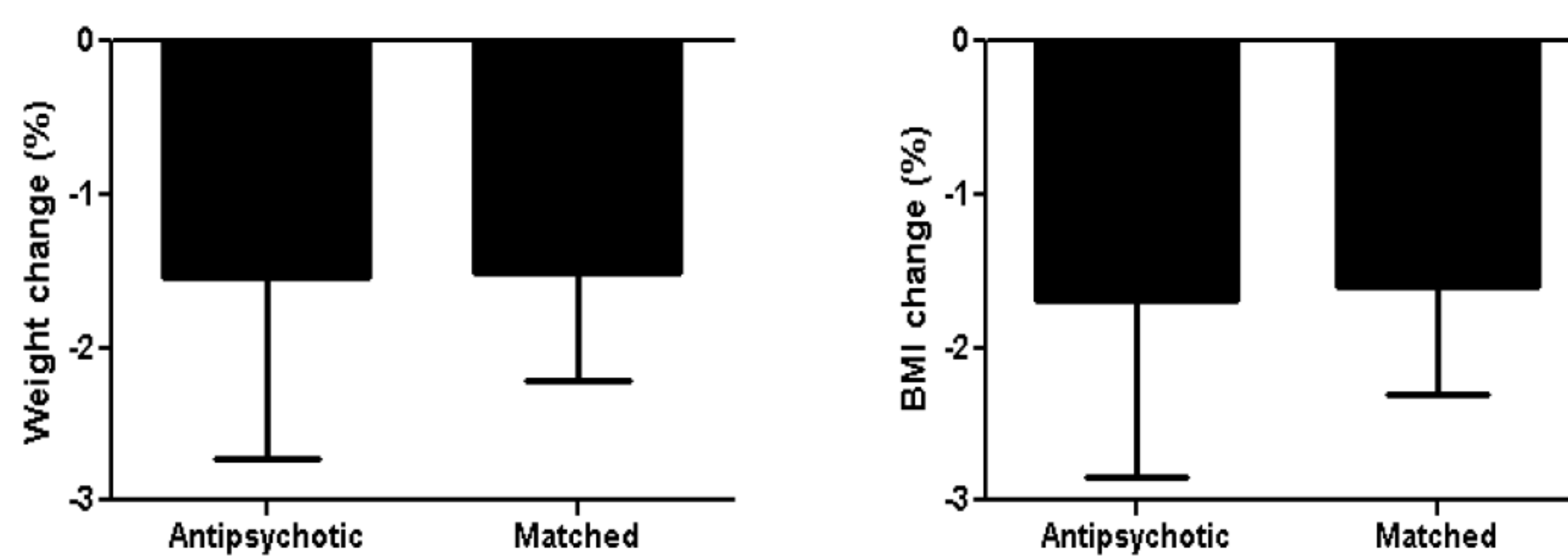


Fig. 3 Comparison of Weight Outcomes between AP and MC groups

Parameters	APs (n=44)	Matched Cohort (n=88)	P
5% weight loss, n (%)	9 (20.5)	18 (20.5)	>0.99
10% weight loss, n (%)	5 (11.4)	6 (6.8)	0.373

Data are expressed as numbers (percentages) for dichotomous variables. P values determined using the Chi-Square test.

Fig. 4 Comparison of 5% and 10% weight losers between the AP and MC groups

Conclusion

Lifestyle interventions effect similar weight change in those taking APs as those not taking APs medications

Individuals with SMIs were willing to attend, and benefited from, a WM program that focused on nutrition, exercise and motivation

It is feasible to run a WM programme unmodified to accommodate obese patients maintained on APs in the community

References

- Mario AJ et al J Clin Psychiatry 2006; 67:1253-1260
- Foley D et al. Arch Gen Psychiatry.2011;68(6):609-616
- Daumit G et al. J Nerv Ment Dis. 2005;193.10: 641-646
- McCreadie R et al. BMJ.1998;317:784-785
- Appel LJ et al. N Engl J Med. 2011; 365:1959-68.
- Elmer PJ et al. Ann Intern Med. 2006; 144:485-95.

