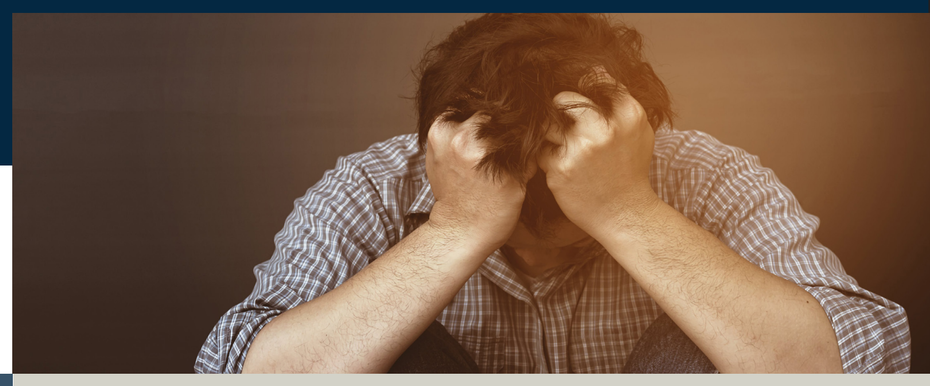
INFLUENCE OF FIRST AND SECOND GENERATION ANTIPSYCHOTICS ON BODY MEASURES OF MALE PSYCHIATRIC PATIENTS.



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BACKGROUND

People with severe mental illness (SMI) on antipsychotic medication, particularly second generation antipsychotics (SGAs), are at major risk for cardiovascular disease. Cardiovascular risk can be established using well known body measures[1-2]. However, few studies have compared body measures between people with SMI who are on first generation antipsychotics (FGAs) with those on SGAs.

AIM

To compare body measures of long-term male inpatients on FGAs and those on SGAs to obtain an impression of their risk for CVD and to record possible differences between the two groups.

SETTING

The study was conducted at Weskoppies Psychiatric Hospital, in Pretoria, Gauteng. The study population included male in-patients with SMI in the chronic care unit (CCU), who had been prescribed either FGAs or SGAs.

METHODS

In this cross sectional study, participants were selected from a list of male in-patients. The weight, height, waist circumference (WC) and hip circumference (HC) were measured for each participant. Using these measurements, body mass index (BMI), waist to hip ratio (WHR) and waist to height ratio (WHtR) were calculated. For each participant, hospital records were used to record demographic variables, diagnosis, comorbid disease and psychotropic medication.

Ethics and funding

This study was approved by the Faculty of Health Sciences Research Ethics Committee at the University of Pretoria (262/2020). No external funding was obtained for this research.

RESULTS

- The age of the participants ranged from 24 to 74 years old, with a mean age of 48.4 years.
- Antipsychotics prescribed in the FGA group included zuclopentixol decanoate, haloperidol and flupentixol decanoate
- Antipsychotics prescribed in the SGA group included clozapine, risperidone, olanzapine, amisulpiride and quetiapine
- Participants in the FGA and SGA groups had similar body measures, resulting in similar BMI, WHR and WHtR between the two groups as reflected in the table below.

	FGA		SGA		Overall		
	Mean (95% CI)	Median (IQR)	Mean (95% CI)	Median (IQR)	Mean (95% CI)	Median (IQR)	p-value
Weight (kg)	83.3(73.67, 93.93)	81	83.3(75.27, 91.40)	63	83.6(77.50, 89.63)	81.5	0.94
Height (m)	1.72(1.67, 1.76)	1.7	1.7(1.67, 1.74)	1.68	1.71(1.68, 1.74)	1.7	0.62
Hip circumference (cm)	100.07(96.18, 103.96)	99	100.8(96.39, 105.27)	101	100.5(97.68, 103.22)	99	0.78
Waist circumference (cm)	100.03(92.99, 107.07)	99	101.1(95.22, 106.98)	103	100.6(96.26, 104.87)	100.8	0.80
Waist to hip ratio	1(0.94, 1.06)	0.98	1(0.97, 1.03)	1	1(0.97, 1.03)	0.99	0.88
Waist to height ratio	0.58(0.54, 0.62)	0.6	0.59(0.56, 0.62)	0.61	0.59(0.56, 0.61)	0.6	0.59
Body mass index	28.33(25.25, 31.42)	26.62	28.5(26.43, 30.73)	28.3	28.5(26.69, 30.22)	28	0.89

CONCLUSIONS

In this study, participants had very similar body measures, irrespective of taking FGAs or SGAs. In the literature, SGAs are generally expected to have more metabolic side effects that increase the risk of CVDs than FGAs.3-5 In this study, the lack of difference in body measures and CVD risk may be explained by the variety of SGAs prescribed to participants. Some studies have suggested that overall cardiovascular risk in patients with SMI may be due to a genetic predisposition.6 Clinicians usually assess CVD risk before initiating antipsychotic medication, resulting in patients with high CVD risk being initiated on FGAs, while patients with low CVD risk tend to be initiated on SGAs. This practice may even out CVD risk between the two groups, possibly explaining the similarities in body measures and CVD risk. The most notable limitation in this study was the small sample size which makes the generalisation of the results inappropriate. Nonetheless, it contributes to research drawing on body measures to gauge cardiovascular risk in patients with SMI, who are on antipsychotic drug treatment. Further studies are needed to assess the usefulness of body measures associated with cardiovascular risk in chronic patients with SMI who are treated with FGAs or SGAs.

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REFERENCES AVAILABLE AT AUTHOR.

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