

# Effect of lifestyle modification intervention(LMI) on metabolic syndrome in schizophrenia

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## INTRODUCTION

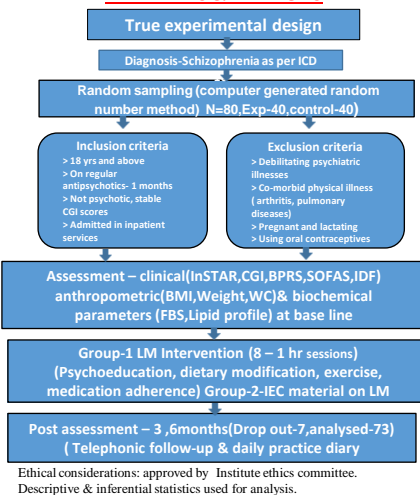
People with schizophrenia may have poor physical health, due to improper lifestyle. Studies identified that life expectancy of this group is 20% lower than general population. They are more prone for risk factors to cardiovascular disease, diabetes and obesity. It may be due to sedentary lifestyle, low physical activity and antipsychotic medication related factors. Lifestyle modification helps to reduce the modifiable risk factors.

## OBJECTIVES

To identify the clinical, anthropometric and biochemical correlates of metabolic syndrome in persons with schizophrenia on treatment with antipsychotics.

To evaluate the effect of lifestyle modification intervention on clinical, anthropometric and biochemical correlates of metabolic syndrome in persons with schizophrenia on treatment with antipsychotics between the two groups and within the groups.

## MATERIALS & METHODS

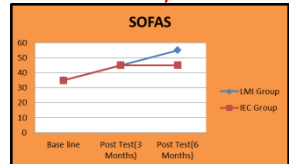
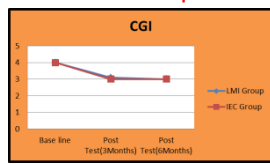
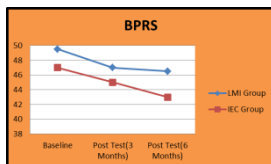


## RESULTS

Mean age was (LMI)33.27± 9.80 yrs, (IEC)36.61 ± 9.41 yrs, majority of them were males, single and Hindus, speaks kannada and not employed. Currently on 5 medications (median), 7 to 8 yrs duration of illness, most of them diagnosed with schizoaffective disorder and had 100% weight gain, 51% of them tried to reduce Wt. (Both groups were homogeneous) N=73

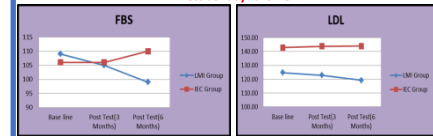
Variables	LMI group(n=37)	IEC group(n=36)	t/U value	p value
<b>(Clinical parameters)</b>				
<b>Median(Q1, Q3)</b>				
BPRS	47(43,56.60)	49.50(43,57)	604.00	0.493
CGI	4(4,5)	4(4,5)	600.50	0.424
SOFAS	35(25,45)	35(35,45)	553.50	0.197
Motivation	60(50,60)	60(50,60)	652.50	0.876
Physical Activity	1(0,2)	1(0,2)	591.00	0.379
<b>(Anthropometric parameters)</b>				
<b>Mean± SD</b>				
W.C(Cms)	102.78±8.50	104.78±7.27	0.656	0.514
<b>Median(Q1, Q3)</b>				
BMI(Kg/M <sup>2</sup> )	29.40(27,30.92)	27.44(26,33.15)	580.00	0.342
Weight(Kg)	78(72,92.50)	79.50(75,86.50)	634.50	0.728
BP-Systolic(mm/hg)	130(130,140)	130(130,140)	657.00	0.916
BP-diastolic(mm/hg)	90(80,90)	90(80,90)	569.50	0.272
<b>(Biochemical parameters)</b>				
<b>Mean±SD</b>				
Cholesterol	196.43± 32.07	202.25±25.64	0.855	0.39
Triglycerides	169.76±56.80	162.33±58.24	-0.551	0.58
HDL	37.05±7.59	40.77±7.35	2.128	<b>0.03*</b>
LDL	124.68±30.70	142.81±29.97	2.252	<b>0.01*</b>
VLDL	30.49±11.72	28.56±8.36	-0.808	0.42
<b>Median(Q1, Q3)</b>				
FBS	109(97.50,120.50)	106(99,117.50)	649.00	0.85

Effect of LMI on clinical, biochemical and anthropometric correlates of metabolic syndrome

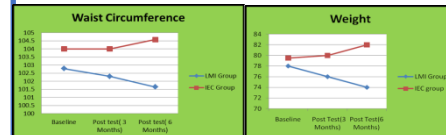


## RESULTS

Effect of LMI on clinical, biochemical and anthropometric correlates of metabolic syndrome



Post BMI, WC and Wt., FBS, LDL reduced after LM intervention.



## DISCUSSION

Findings highlighted that the subjects baseline and end point clinical anthropometric and biochemical correlates showed significant improvement (after 6 months)

Studies conducted by Taylor J (2017), Aschbrenner KA(2016) also revealed that lifestyle modification interventions largely helps to reduce the risk factors related to metabolic syndrome and physical illness in people with schizophrenia.

It is very essential to implement lifestyle interventions as part of multi-faceted strategies to reduce premature death in schizophrenia.

## IMPLICATIONS TO PRACTICE

Mental health care professionals particularly nurses are in an excellent position to intervene and monitor for physical health risks associated with schizophrenia.

Lifestyle modification interventions are essential to prevent and manage obesity in persons with schizophrenia.

## REFERENCES

Aschbrenner KA, Naslund JA, Bartels SJ. A mixed methods study of peer-to-peer support in a group-based lifestyle intervention for adults with serious mental illness. *Psychiatr Rehabil J*. 2016 Dec;39(4):328-34.

Philip B Ward Joseph Firth Simon Rosenbaum Katherine Samaras Brendon Stubbs Jackie Curtis. Lifestyle interventions for premature mortality in schizophrenia. *Lancet Psychiatry*, 2017,4.