

Economic Evaluation of Mental Health Interventions: A Cost-Consequence Analysis

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Resources

Most resources allocated to mental health services are spent inefficiently on care provided in psychiatric hospitals (1)

Burden

22% of the total burden of diseases

24 million people
1/300

In Colombia, it is 1% of the population, equivalent to more than 520,000 people.

Outcomes

- Hospitalization
- Direct costs of care
- Disability
- Early death

Disability

25% of disability expenses are allocated to those caused by mental illness (2)

Cost

\$343.2 billion was the economic burden of schizophrenia in the US in 2019 (3)

\$251.9 billion in indirect costs (73.4%) \$62.3 billion in direct health care costs (18.2%)

\$35 billion in direct non-health care costs (10.2%)

Methods

To determine the cost-consequence impact by therapeutic scheme of the comprehensive management of schizophrenia, related to clinical and non-clinical outcomes in 3 reference centers in Colombia between 2019 and 2023 in a sample of 450 patients with a DSM-5 diagnosis of schizophrenia.

First, a disaggregated comparison of costs and clinical and non-clinical outcomes by therapeutic scheme and population group is performed, under four time frames: 1. Pre-initiation of LAIs (Oral Antipsychotics); 2. Short Term (PP1M); 3. Medium Term (4 months of PP1m Treatment); 4. Long Term (PP3M x 1 year) in the established periods. Subsequently, each of the variables is analyzed by health outcome and their respective cost to determine which therapy generates the greatest value for the health system.

The analysis of the information will be done with simple descriptive statistical analysis. The results will be presented according to the objectives of the study, for which the total sum of costs and the respective differences between the groups of patients will be calculated.

A general descriptive analysis of the data in the four groups of results will be carried out in order to find the difference in the total sum of invoicing and health results, measured as a percentage.

Results

Outcomes		Oral	Long-acting injectables (LAIs)			
			Short-term	Medium-term PP1M	Long-term PP3M	
% Adherence	%	5,6%	88,2%	94,1%	97,3%	
Subjective improvement of symptoms	%	22,2%	66,7%	94,1%	100,0%	
Relapses (re-hospitalization)	%	92,0%	47,1%	5,9%	5,9%	
Social skills	Greater	5,6%	66,7%	88,9%	94,4%	
	Equal	33,3%	27,8%	11,1%	5,6%	
	Inferior	61,1%	5,6%	0,0%	0,0%	
Occupational performance	Greater	5,6%	55,6%	72,2%	88,9%	
	Equal	27,8%	44,4%	27,8%	11,1%	
	Inferior	66,7%	0,0%	0,0%	0,0%	
Overall subjective perception	Greater	0,0%	55,6%	72,2%	88,9%	
	Equal	27,8%	44,4%	27,8%	11,1%	
	Inferior	72,2%	0,0%	0,0%	0,0%	
Subjective perception of quality of life	Greater	0,0%	61,1%	83,3%	94,4%	
	Equal	22,2%	38,9%	16,7%	5,6%	
	Inferior	77,8%	0,0%	0,0%	0,0%	
Adverse events	Metabolic changes	Dyslipidemia	38,9%	27,8%	11,1%	5,6%
		Uncontrolled diabetes	16,7%	11,1%	5,6%	5,6%
		Weight gain %	72,2%	33,3%	11,1%	0,0%
	Hyperprolactinemia	%	38,9%	22,2%	11,1%	11,1%
		%	27,8%	16,7%	5,6%	0,0%
	Extrapyramidal	Dystonia	38,9%	11,1%	0,0%	0,0%
		Parkinsonism	94,4%	50,0%	22,2%	5,6%
	Drowsiness	%	55,6%	16,7%	11,1%	5,6%
		%	11,1%	61,1%	61,1%	66,7%
	Suicide attempt	%	61,1%	22,2%	5,6%	0,0%
Abandonment due to adverse events	%	77,8%	15,8%	0,0%	0,0%	

Desenlaces	PREINICIO DE ILDS	CORTO PLAZO	MEDIANO PLAZO PP1M	LARGO PLAZO PP3M
% Adherence	5,6%	88,2%	94,1%	97,3%
Relapses (re-hospitalization)	92,0%	47,1%	5,9%	5,9%
Direct Cost / per event				
% Adherence	\$ 7.598,6			
Relapses (re-hospitalization)	\$ 2.027,4			
		N	450	

Cost - consequence Analysis				
Outcomes	Oral	Long-acting Injectables (LAIs)		
		Short-term	Medium-term PP1M	Long-term PP3M
% Adherence	\$ 3.229.388,5	\$ 402.276,8	\$ 201.138,4	\$ 92.322,5
Relapses (re-hospitalization)	\$ 839.334,7	\$ 429.327,2	\$ 53.665,9	\$ 53.665,9

Potencial savings				
Outcomes	Oral	Long-acting Injectables (LAIs)		
		Short-term	Medium-term PP1M	Long-term PP3M
Total	\$ 4.068.723,2	\$ 831.604,0	\$ 254.804,3	\$ 145.988,4
% saving		-80%	-69%	-43%

Conclusions

Additional information



This study showed that LAIs therapy presents an important reduction in the economic burden of schizophrenia in different variables measured, where the direct costs of the disease were significantly lower and an improvement in clinical and psychosocial variables was observed, which represents a lower expenditure to the health system compared to traditional treatments with oral antipsychotics.