

UNIVERSITY OF MEDICINE AND PHARMACY CRAIOVA

DOCTORAL SCHOOL

PHD THESIS

QUALITY AND MANAGEMENT IN SECONDARY PREVENTION SUFFERING MAJOR  
PSYCHIATRIC

ABSTRACT

PHD ADVISOR

Prof. Dr. TUDOR UDRISTOIU

PHD STUDENT

Dr. DAN BONDARI M.D.

2012

## TABLE OF CONTENTS

INTRODUCTION.....	1
Chapter I – Important issues.....	1
Chapter II Major psychiatric disorders.....	1
2.1 Schizophrenia group.....	1
2.2 Other Psychotic Disorders.....	2
2.3 Bipolar Disorder.....	2
2.4 Unipolar Depressive Disorder.....	3
Chapter III Major therapeutic management of psychiatric disorders.....	3
3.1 Antipsychotics.....	3
3.1.1 Classification.....	3
3.2. Antidepressive.....	3
3.2.1 Classification.....	3
3.3. Timostabilizatoare.....	3
Chapter IV PSYCHIATRIC ASPECTS OF MANAGEMENT.....	3
4.1 Quality management in health care.....	3
4.2 Quality Management Systems.....	4
Chapter V HYPOTHESISISH METHODOLOGICAL COORDINATES.....	4
5.1 Hypothesis.....	4
5.2 Research Objectives.....	4
5.3 Methodological coordinates.....	4
Chapter VI - RESULTS AND DISCUSSION.....	4
Chapter VII – Conclusions.....	11
REFERENCES.....	12

## **Chapter I**

### **INTRODUCTION. Important issues.**

Psychiatry as a branch of medicine, presented a historical journey somewhat different from that of other medical specialties. Historical Analysis of modern psychiatric services on the one hand side deals clinical / technical, but is closely related to socio-economic and political context. Closely linked in the first stage of neurology, psychiatry knows modern three historical periods.

In this paper, we try to establish the role of management strategies in raising the quality and efficiency of hospital psychiatric services in our country

## **Chapter II**

### **Major psychiatric disorders**

Generally, psychosis is distress whose circumscription is difficult because different criteria taken into account intensity, disease awareness, perception of time, gravity field destructuring conscience etc. According to some authors, eliminating the concept of psychosis meant a methodological breakthrough marked with the advent of DSM-II diagnostic manuals and DSM-III, last eliminating the so-called group classification of psychoses. Definitions or, more accurately, attempts to stop the attempts descriptive definition or tautological character. A more commonly addressed, at least methodological implications, has been to oppose the two concepts classical neurosis and psychosis, to define them by comparison. In this respect, taking into account criteria whose value is questionable:

criterion of gravity - imprecise, since there are a number of uncertainties especially in the field of affective disorders, where you can not set a limit between severe depression without psychotic symptoms, but with unfavorable and favorable development psychotic depression;

□ evolutionary criterion - ineffective in some cases, eg short psychotic disorders with possible favorable evolution compared with obsessive-compulsive disorder, which can become debilitating;

□ etiological criteria - Insufficient relevant factors psychogenic disorders can generate either mild or severe disorders, psychotic aspect;

□ criterion disease awareness - limited because there psychotic disorder in which the sufferer intensity at least partially recognize his passion as neurosis in which the patient is hardly aware of its disorders. Taking into question and personality disorders, nerelavanța this criterion becomes even more obvious.

### **2.1. Schizophrenia**

### **1.1.1. History. epidemiological data**

E. Bleuler marked the birth of the concept of schizophrenia in 1911, the title of the chapter that he belonged in the Treaty of Psychiatry of Aschaffenburg, putting equate "dementia praecox" and schizophrenia group. Under the influence of psychoanalytic theory, the full affirmation of the century, Bleuler describes the basic symptoms of schizophrenia (primary and secondary) and defines clinical forms, still valid in the current psychiatry

### **2.1.2. Etiopathogenic hypotheses in schizophrenia**

Hereditary factors. In the general population the risk is 1% third degree relatives is 2%, in the second degree between 2 and 6% in the first degree and between 6 and 17%, lifting rates in children with both 46% of schizophrenic parents. The results show, therefore, a clear increase in the risk of disease in relatives of patients, the risk increasing with the degree of relationship is closer (22).

Factors neurochemical dopamine hypothesis of schizophrenia functional excess is the most accepted. The development of imaging techniques has allowed the study of in vivo dopamine D2 receptor occupancy, showing that the antipsychotic effect occurs when approximately 70% of D2 receptors are occupied (26).

### **2.1.3. Diagnosis**

The concept of schizophrenia is approached by two modern classification systems: ICD-10 (International Classification of Diseases, WHO) and DSM-IV-TR (Diagnostic and Statistical Manual of Mental Disorders, fourth edition revised APA). They contribute to the establishment of an international consensus, given the need to operationalize diagnosis and therapy. The two systems are compatible but despite their efforts, there are still some differences (34, 35).

## **2.2. Other psychotic disorders**

### **2.2.1. Schizoaffective disorder**

DSM-IV-TR defines the disorder as "an uninterrupted period of illness during which successive episodes of major depression, manic or mixed symptoms while two meet criterion A for schizophrenia" (36).

### **2.2.2. Delusional Disorder**

Delusional disorder prototype is the classical concept of paranoia (Kahlbaum, 1863). With the advent of the third edition of the DSM, schizophrenic disorders are bounded by delusional disorder, in which is included paranoia, defined as "a persistent disorder, non-bizarre Oneness is

not due to any other mental disorders, such as schizophrenia, schizophreniform disorder or mood disorder. The diagnosis of delusional disorder is only possible when you can not determine that an organic factor initiated and maintained the disturbance ".

### **2.3. Bipolar Disorder**

Bipolar disorder replaces manic depressive psychosis current classifications described by Kraepelin in 1896. Patients presenting clinically at least one manic episode, hypomanic or mixed episode with or without bipolar depressive episodes are considered. There are several types of bipolar disorder:

#### *2.3.2. manic Episode*

*DSM-IV-TR diagnosis of mania*

### **2.4. Unipolar depressive disorder**

It consists of recurrent depressive episodes, lasting at least two weeks and may have different intensities. Depression is probably the most common mental disorder, is common but underdiagnosed in all types of medical services.

## **Chapter III**

### **Therapeutic management of major psychiatric disorders**

#### **3.1. Antipsychotics**

##### **3.1.1. Classification. Mechanism of action**

From the point of view of the receptor-binding profile, and the pharmacology, clinical implications and adverse effects of antipsychotic drugs can be grouped into two categories:

#### **3.2. Antidepressants**

##### **3.2.1. General. classification**

In order to optimal therapeutic appropriate, is considered to be useful to know the relationship between biological substrate partially known symptoms (90).

#### **3.3. Timostabilizatoare**

Polymorphic group of psychotropic substances have in common action to stabilize property disposal, avoiding distortions hyperthimic positive or negative and can prevent the depressive or manic access. Psychopharmacological speaking, the main role of substances having timostabilizator is to regulate synaptic neuronal excitability level.

## **Chapter IV**

### **PSYCHIATRIC ASPECTS OF MANAGEMENT**

History of psychiatric patient management reflects not only changes in scientific understanding of mental disorder but also political, social and economic period (95). In the XVII century and the eighteenth century, mental illness was soon seen as a problem with social or spiritual than medical, having more in common with other disturbing conditions, such as crime and poverty.

#### **4.1. Quality management in health care**

Based on the classic formulation in 2006 of ISO 9000, quality is all those properties and characteristics of the product or service which affects the ability to meet the needs or expectations expressed. In other words, quality is the extent to which a group of specific characteristics (distinctive properties) satisfy (97).

#### **4.2. Quality Management Systems**

Have the motto understanding and serving users, promotes efficient design, process-based management and apply effective problem-solving techniques. (99) Includes formal verification of outcomes and processes with continuous development plans. Strengthen leadership skills, teamwork and support, not least, easier to adapt to changing circumstances

## **Chapter V**

### **Hypothesis. OBJECTIVES. METHODOLOGICAL COORDINATES**

#### **5.1. Working hypothesis**

Consider appropriate a study of hospitalized patients with schizophrenia and other psychotic disorders, unipolar depressive disorder and bipolar disorder, in terms of socio-demographic, clinical course and treatment in relation to quality management in hospital care for adults.

Highlighting risk factors and prediction for Evolving therapeutic response assessment and care management analysis Contribute to Improving the Effectiveness of can of Psychiatric services and quality of life for the patient's.

#### **5.2. Research Objectives**

- Demonstration of clinical course peculiarities of major psychiatric disorders in patients admitted to psychiatric clinic
- Identify risk factors evolving through comparative analysis of individual feature and therapeutic management of the hospital.

- Assessment of quality management in clinical psychiatry

### 5.3. Methodological coordinates.

**5.3.1** Retrospective study over a period of 5 years from 2006 to 2010 of patients admitted to the Psychiatric University Clinics in Craiova major psychiatric disorders: schizophrenia and other psychotic disorders, bipolar disorder, major depressive disorder. Were selected structural data to allow analysis on various sections, looking for evidence of practical value management in secondary prevention of major psychiatric afflictions and indicators of quality management. The research was conducted in accordance with ethical standards and good practice in respecting the confidentiality of patient information and anonimizării database.

## Chapter VI

### RESULTS

#### 6.1. Lot N

Major psychiatric disorders held a significant share in the two clinics in the range studied - 42.9% (Fig. 1), which is explained by the specificity of acute clinics, and tend to target cases of mild / medium to outpatient and semiambulator ., for reasons of efficiency. Recall that we have not taken into account in the study patients with organic brain disorders, including dementia or those with addictions. Chronologically, I noticed a slight but steady increase during the interval, the number of cases with major psychiatric disorders (TPM).

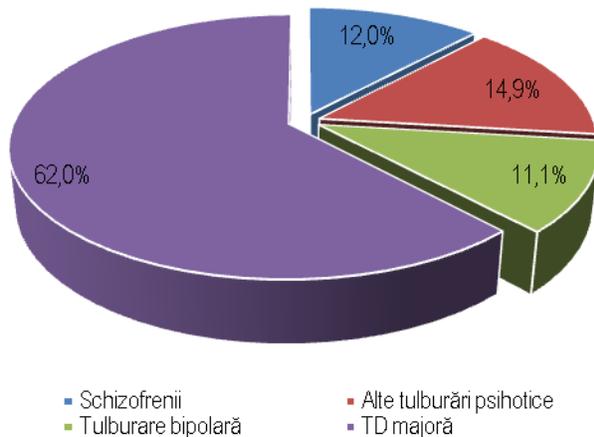


Fig. 1. Proportion of total admissions batch N

#### 6.2. Subgroup N1 2211

N1 subgroup comprising 2211 patients of which 989 with schizophrenia and other psychotic disorders in 1222.

### 6.2.1. Sex and age

Men predominated - 57.1% (Table I) and the difference to their share in the population-48.6% Dolj County, is highly statistically significant ( $p < 0.001$ ). By age groups, we observed a concentration of cases in the third and fourth decades, the data corresponding to the onset of illness ranges between 20 and 30 years for men and in the early years of the fourth decade for women.

### 6.2.6. Fit nosological

We considered appropriate separate analysis of groups of schizophrenia and other psychotic disorders. In the schizophrenia was confirmed that, much emphasized in the literature that paranoid schizophrenia is the most common form, 63.0% (Table IX).

Table IX. Gender distribution of patients with schizophrenia after clinical form

Values were calculated relative to the total

the clinical SEX	paranoid schizophrenia		Schizophrenia hebephrenic		catatonic Schizophrenia		undifferentiated Schizophrenia		residual Schizophrenia		Total	
	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.
Men	331	33.5	8	0.8	7	0.7	145	14.7	90	9.1	581	58.7
Women	292	29.5	8	0.8	1	0.1	56	5.7	51	5.2	408	41.3
Total	623	62.0	16	1.6	8	0.8	201	20.3	141	14.3	989	100.0

### 6.2.14. Indicators of quality management

#### Length of stay

The standard estimate of acute hospitalization in psychiatric hospitals in Romania is considered 14 days. The severity of the condition and the lack of social contribution that resulted in our subgroup, 62.7% of patients may benefit from hospitalization longer than two weeks (Table XIX). As a feature, we observed dynamic progressive increase in the number of admissions lasting less than 14 days trial period.

### 6.3. Subgroup N2 6023 - Patients with affective disorders

### 6.3.1. Sex and age

N2 subgroup of patients with affective disorders consists of a total of 6023 patients. For N2 subgroup showed the greatest difference between the sexes, women report: men being 1.6 (p test for proportions  $Z \sim 0$ ), women accounted for 61.8% of this group (Table XX, Fig. 19). Their number is higher for male patients in all age groups except 31-40 year range where the ratio is equal.

Table XX N2 subgroup distribution by sex, by age group.

Values relative to the total

AGE \ SEX	under 20 years		20-30 years		31-40 years		41-50 years		over 50years		Total	
	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.
Men	32	0.5	139	2.3	697	11.6	1015	16.8	418	7.0	2301	38.2
Women	76	1.3	263	4.4	715	11.9	1473	24.5	1195	19.8	3722	61.8
Total	108	1.8	402	6.7	1412	23.4	2488	41.3	1613	26.8	6023	100.0

### 6.3.11. Number of admissions

Most subplot - 65.0% received more than two to five hospitalizations (Table XXXI, Fig. 30). In this segment, women held a majority, resulting in a highly statistically significant difference between genders ( $p < 0.001$ ) in the number of hospitalizations. This statistical analysis is still burdened by the fact that a large part of the admissions were regular assessments of patients with disability.

### 6.3.14. Indicators of quality management

#### Length of stay

Duration of hospital stay was two weeks in 51.5% of subset (Table XXXII, Fig. 35). Brief hospitalization belonged mostly manic patients admitted and discharged on request voluntary

## CHAPTER VII

### DISCUSSION OF RESULTS

#### 7.1. COMPARISON BETWEEN GROUPS

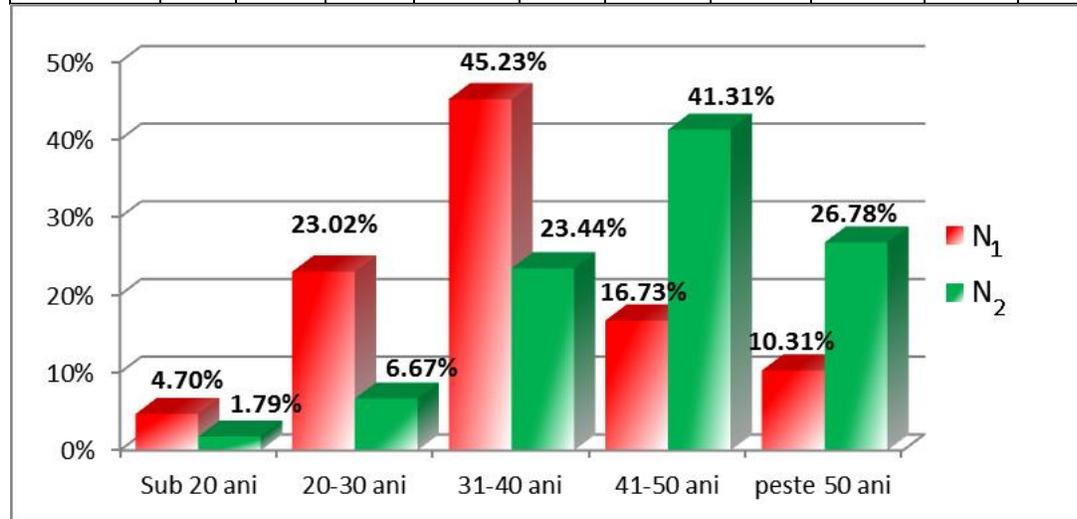
##### 7.1.1. Age

Comparing patients with schizophrenia and psychotic disorders (group N1) in patients with affective disorders (TAB and TD - lot N2) we found differences statistically highly significant ( $p < 0.001$ ) in the distribution by age.

Patients with psychotic disorders and schizophrenia prevail at ages under 40 years, while the age of 40 years stands a higher percentage of patients with affective disorders. (Table XXXIII, Fig.36).

TabelXXXIII. Distribution sublots N1și N2, by age group. The relative values of total

AGE \ LOT	under20 years		20-30 years		31-40 years		41-50 years		over 50 years		Total	
	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.
N1	104	1.3	509	6.2	1000	12.1	370	4.5	228	2.8	2211	26.9%
N2	108	1.3	402	4.9	1412	17.1	2488	30.2	1613	19.6	6023	73.1
Total	212	2.6	911	11.1	2412	29.3	2858	34.7	1841	22.4	8234	100.0



### 7.1.10. Number of admissions

Although the percentage differences in the number of hospitalizations are small between the two groups of patients that were analyzed batches of thousands of patients makes these differences, about 5 percent, to be highly statistically significant ( $p < 0.001$ ). (Table XLII, Figure 45)

Table XLII. Distribution sublots N1 and N2, the number of hospitalizations

The relative values of total

LOT Admissions	Number.	1		2-5		> 5		Total	
		Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.
N1		367	4.5	1513	18.4	331	4.0	2211	26.9
N2		1262	15.3	3916	47.6	845	10.3	6023	73.1
Total		1629	19.8	5429	65.9	1176	14.9	8234	100.0

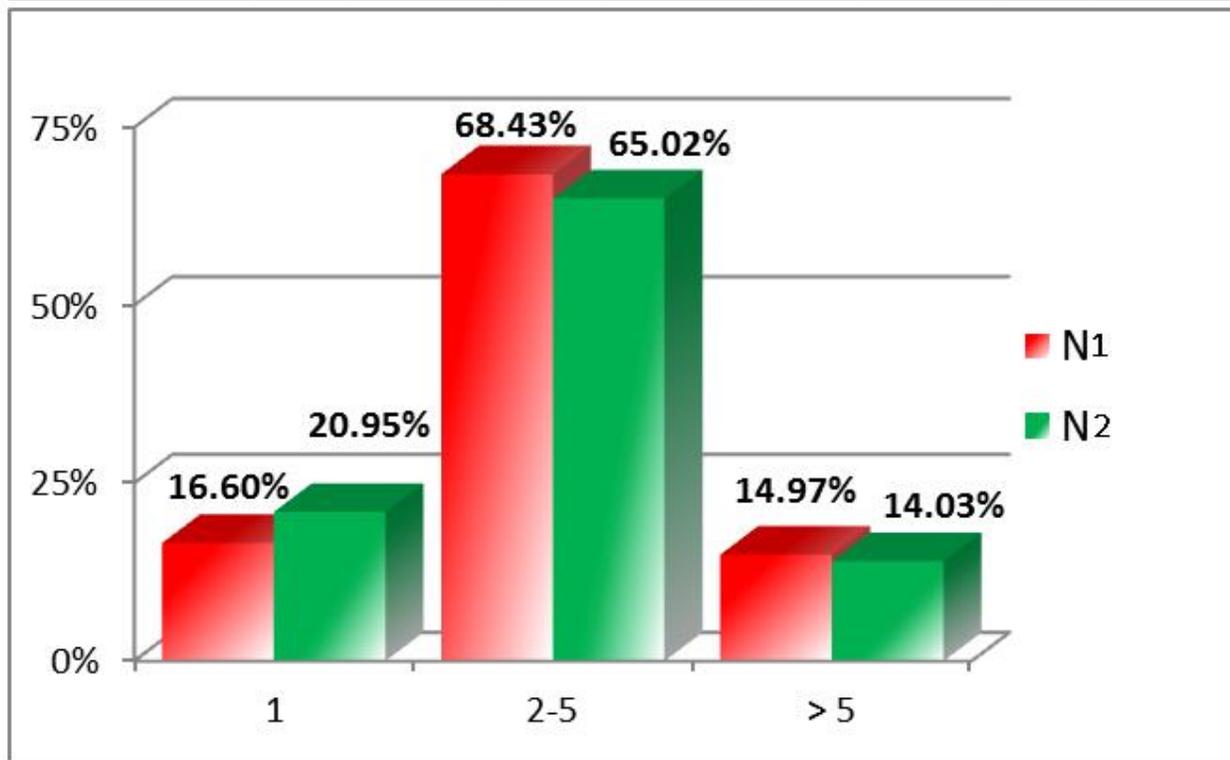


Figure 45 Distribution of sublots N1 and N2, the number of hospitalizations.

Relative values for each subplot

### 7.1.11. Indicators of quality management

Regarding the duration of admissions, there is a highly significant difference ( $p < 0.001$ ) between the two groups, patients with affective disorders with a rate of 25.0% ~ 7 days shorter hospitalizations, compared to only 8.0% of patients with schizophrenia or psychotic disorders,

while the latter have a higher proportion, 62.6% of admissions longer than 2 weeks. (Table XLIII, fig 46)

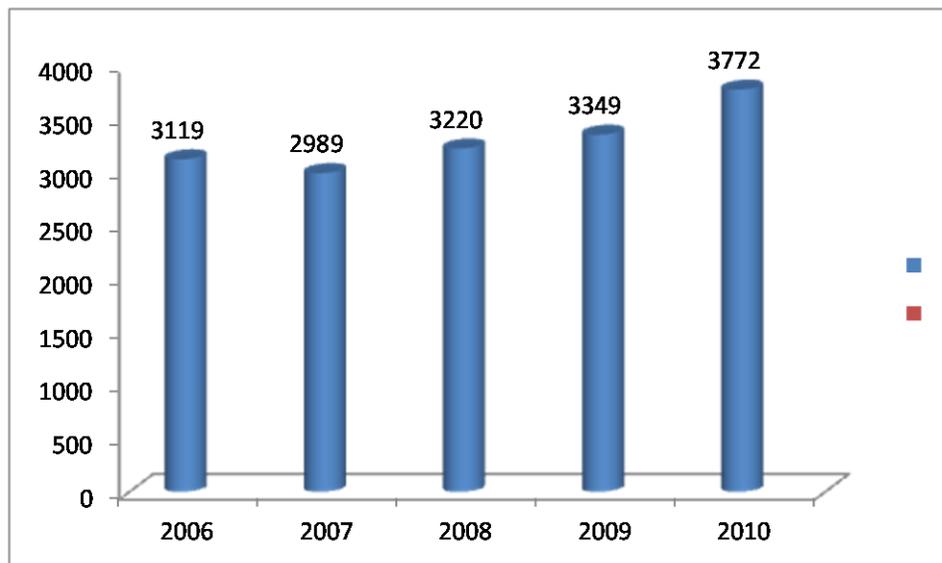
Table XLIII. Distribution sublots N1 and N2 as length of stay. The relative values of total

during hospitalization. LOT	< 7 days		7-14 days		> 14 days		Total	
	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.
N1	173	2.1	652	7.9	1386	16.8	2211	26.9
N2	1461	17.7	1462	17.8	3100	37.6	6023	73.1
Total	1634	19.8	2114	25.7	4486	54.5	8234	100.0

The differences between the two subgroups on quality management indicators were insignificant except mortality rate (0.09%) to 0.03% for N1 and N2). There were no nosocomial infections, and rates of patients transferred or return within 30 days and diagnostic concordance index values were similar and were located in a superior position to the objectives set for hospital

### 7.3. Annual operating and financial aspects

The total number of patients admitted to psychiatric clinics showed an increasing trend, except in 2007 (Fig 47)



Figure

47 Number of patients admitted to psychiatric clinic

The average cost of drugs for a patient declined steadily steeper in 2010, after an increase in 2007 (Fig.50), while the cost of sanitary materials increased, except in 2010, but remains very low (Fig.51)

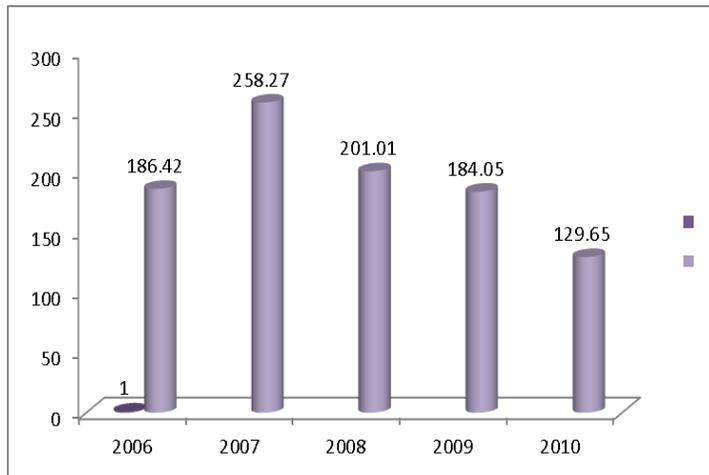


Figure 50 Average cost of medicines

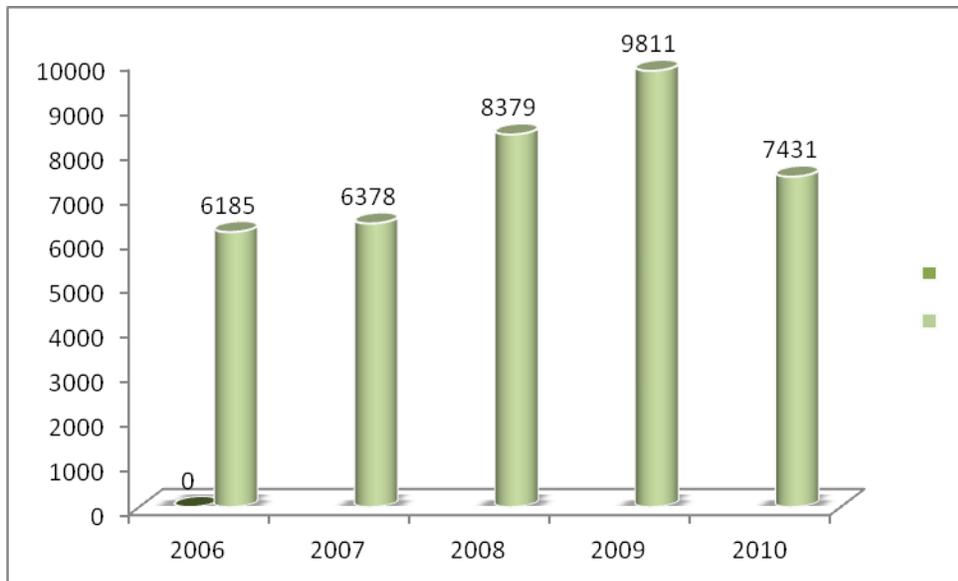


Figure 51 Cost of health

Systematic study of correlations between therapeutic management of use and quality of care could generate a set of measures tailored Psychiatry which will improve the quality of life of patients and disease development in the medium and long term, with beneficial effects on direct and indirect costs

## CHAPTER VIII

### CONCLUSIONS

1. Patients with major psychiatric disorders represent 42.9% of those hospitalized in psychiatric clinics in Craiova, in 2006 - 2010 (Schizophrenia-12, a%, 14.9%, other psychotic disorders, bipolar disorder - 11.1 % unipolar major depressive disorder - 62.0%).
2. schizophrenia and other psychotic disorders were significantly associated with male gender, age group 21-30 years, unmarried status, and major affective disorders were associated with female gender and semnificativ range 31-50 years.
3. In both subgroups there was predominance of medium educational level (67.8% / 72.6%) insidious onset (77.3% / 87.2%) and the number of 2-5 hospitalizations (68.4% / 65 , 0%).
4. The evolution of the two subgroups have significant differences on marital status, higher percentage of married people in major affective disorders and schizophrenia patients unmarried people - other psychoses.
5. The character onset and onset between real - apparently onset were significantly different in the two subgroups, with higher values for sudden onset and range under 1 year in patients with schizophrenia and other psychoses, and predominance in the range 1-3 years with major affective disorders
6. Interval real debut - onset schizophrenia apparently - other psychoses was under 1 year and 59.7% 1-3 years to 24.1% of patients and 48.6% respectively in the subgroup with major affective disorders .
7. A family history were recorded in only 16% of the subgroup "schizophrenia - other psychoses" and 31.2% of patients with major affective disorders.
8. There was a significant difference between subgroups in terms of the presence of somatic comorbidity: 25.7% from "schizophrenia, other psychoses" and 74.1% for major affective disorders.
9. Percentage of patients on monotherapy in the two groups was 6.9% and 1.3%, and adverse effects were present in 9.9% and 9.1% of patients;
10. Incapacitating major psychiatric disorders is demonstrated by the largest share of pensioners of the unemployed.

11. As regards quality management, length of stay over 14 days was recorded in 62.7% of patients. The other indicators showed no particular problems, being superior to established objectives hospital. In total there were eight deaths, two with schizophrenia and major depressive disorder six, two by suicide.

12. Proposals for management:

- Increasing the share of expenditures for drugs and medical supplies in the hospital budget.
- Control polipragmaziei avoiding drug use and treatment adequacy and safety compliance management.
- Developing the techniques of educational counseling of patients and their families, as well as non-biological therapies.

Establish connections between the constant hospital services, outpatient semiambulatorii and to monitor the patient

## **REFERENCES**

### **Selection**

- 1.Thornicroft G, Tansella, M, 2001. Modelul matriceal al sănătății mentale. Editura Medicală București, 29-41.
- 2.Johnson S, Prossor D, Bindman J, Szmukler G, 1997. Continuity of care for the severely mentally ill: concepts and measures. Social Psychiatry and Psychiatric Epidemiology, 32:137-141.
- 3.Knapp M, 1995. Community Mental Health Services: Towards an Understanding of Cost-effectiveness. J Health Serv Res and Policy, 1:254.
- 4.Kuipers L, Bebbington P, 1991. Working in partnership: clinicians and carers in the management of long-term mental illness. London, Heineman, 224-233. 98.
98. Armean, P., Managementul sanitar. Noțiuni fundamentale de sănătate publică, Editura Coresi, București, 2004;
99. Armeanu, P., Managementul calității serviciilor de calitate, Editura Coresi, București, 2002;
100. Brătianu, C., Management și Marketing, Editura Comunicare.ro, 2006;
101. Cătoiu, I. (coord.), Cercetări de marketing, Editura Uranus, București, 2002;
102. Ciurea, A.V., Cooper, C.L., Avram, E., Managementul sistemelor și organizațiilor sănătății, Editura Universitară „Carol Davila”, București, 2010