

Epidemiological Aspects of Cognitive and Socio-Professional Integration in Schizophrenia

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ABSTRACT: Schizophrenia is one of the major psychiatric disorders with global impairment of cognition, emotional status and personality destruction having a major medical, social and economic impact worldwide. In this paper, we evaluated the correlation of disease progression with cognitive deficit, socio-professional and family disjunction using the MMSE (Mini Mental State Examination) and GAFS (Global Assessment of Functioning Scale) scales on a group of 191 schizophrenic patients admitted to the Psychiatric Clinic II Craiova during 2017. The fact that both scales show reduced values in patients with schizophrenia reveals a significant alteration in the quality of life of patients with this pathology having major implications on the individuals and on the community.

KEYWORDS: Schizophrenia, Cognitive deficit, MMSE, GAFS

Introduction

Schizophrenia is one of the most disabling psychiatric disorders with important consequences on the patient's family, social, professional and occupational life, but also with a major socio-economic impact worldwide.

Considering these aspects, but also the polymorphism of the disease that includes a wide range of phenomena affecting all sectors of the psyche leading to the destruction of the individual's personality, the disease represents a challenge for specialists both from etiopathogenic and therapeutic point of view [1].

Current data is relevant regarding existing differences between the multifactorial etiology, subsequent evolution, and cognitive deficit related to patient functionality.

From an epidemiological point of view, there is a prevalence of 1.5% predominantly in urban and in industrialized areas, the ratio between sexes is approximately equal to an average onset age between 15-35 years [2].

Currently, schizophrenia is thought to have a multifactorial etiology, with a few major issues being discussed such as genetic factors and neurodevelopment factors.

Cognitive changes in schizophrenia occur in 40-60% of patients being characterized either by a progression at onset followed by stabilization or by a continuous progression.

These changes are part of the symptomatology of schizophrenia and are also the result of long-term treatment with incisive neuroleptics [3].

The objective of this paper is to emphasize the impact of schizophrenia on the quality of life of patients considering the correlation of the

condition with cognitive impairment and functionality in all areas of activity, elements that have been evaluated according to specific psychological scales.

Material and methods

In this paper we used a database from which we selected 191 patients with schizophrenia hospitalized in 2017 at Clinic II Psychiatry Craiova, performing a catamnestic assessment of the following parameters: patient age, patient age at first episode, patient age at admission, place of residence, cognitive deficit, patient functionality.

The information in the database was obtained through the patient's medical charts.

For every patient included in the study group, the written informed consent was obtained and the working protocol meets the requirements of institutional ethics code.

Thus, to conduct the study we used a psychological analysis using the MMSE scale (mini mental state examination), as well as the adaptability scale, GAFS (global assessment of functioning scale) in order to judge the patient's social integration, quality of life and cognitive state.

Parameters were used such as: age of patient at the onset of the disease, number of relapses, patient age, sex, place of residence.

For cognitive assessment, we used the MMSE scale which is a brief screening tool helpful in the clinic for identifying and tracking cognitive deficit and which is also used in dementia type cognitive decline, with schizophrenia eventually reaching this stage

(values 20-26 mild, 10-19 medium, under 9 accentuated).

This psychodiagnostic scale evaluates the autopsychic and temporo-spatial orientation capability, short and long-term memory, prosexic ability, verbal, gnostic, language, writing, understanding, and executive functions.

The degree of cognitive impairment is quantified by values as follows: 20-26 mild deficit, 10-19 medium deficit, under 9 accentuated) [4].

We also used the GAFS (Global Assessment of Functioning Scale) scale to reflect the patient's psychological, social and professional level of functionality helping to monitor clinical development and response to treatment [5].

Starting from axial diagnosis according to DSM 5 (Diagnostic and Statistical Manual of Mental Disorders), we calculated the GAFS score, choosing a value that best reflects the patient's functionality level, values between 1 and 100 are used (1 indicates the most dysfunctional level and 100 indicates the healthiest individual).

Patient groups were compared according to age at admission, age of onset of disease, place of residence, number of admissions in acute clinics correlated with the MMSE scale and the patient's functionality using the GAFS scale.

Results

Figure 1 shows that the majority of patients are included in age groups at admission of 30-40 years with 44% of patients and over 40 years with 48% and considering that the onset of the disease is mostly under the age of 25, this shows the chronic recurrent character of disease (Fig.1).

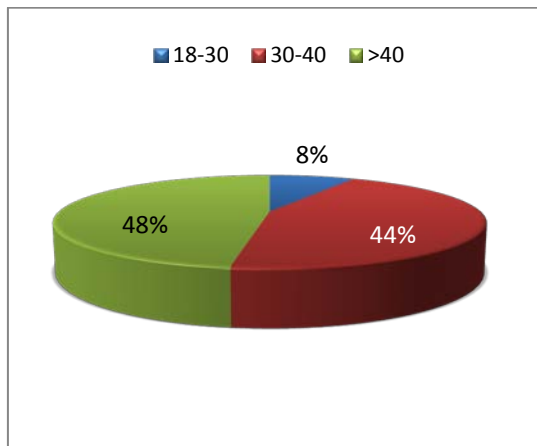


Fig.1. Patient age at admission

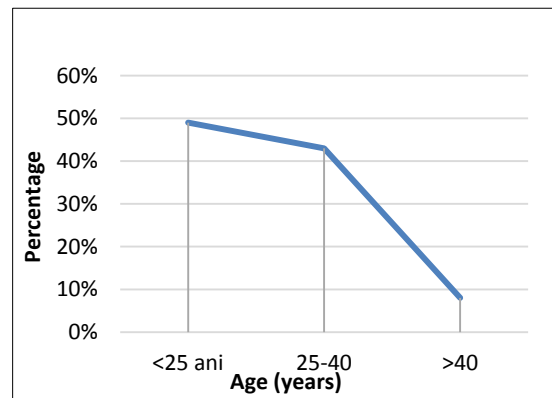


Fig.2. Age at first episode

The age profile of schizophrenia can be observed, thus, the age of 25 or younger is relevant with a percentage of 49%, in which the majority of patients had either a first psychotic episode or one or more relapses (Fig.2).

Also noteworthy is the low number of patients with onset of schizophrenia at over 40 years of age respectively 8%

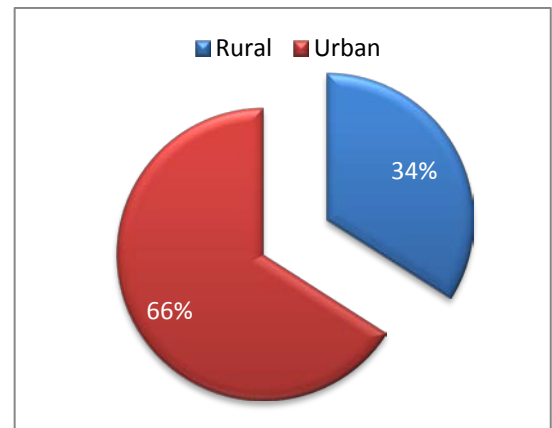


Fig.3. Distribution depending on the place of residence

Schizophrenia patient's place of residence was predominantly urban 66% (Fig.3) fact explained by certain traits of the rural areas like: stigmatization, ethno-cultural customs, poor medical education, also physician addressing is reduced, schizophrenia in these cases being often undiagnosed.

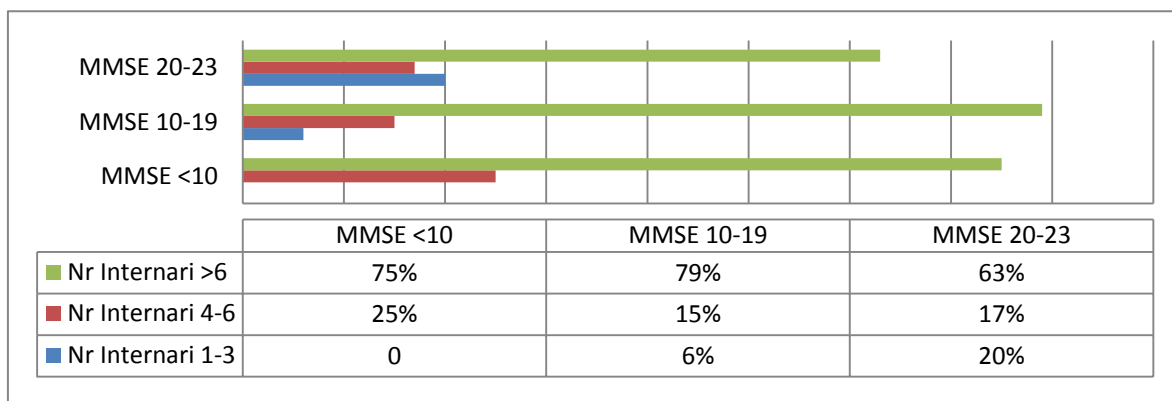


Fig.4. Correlation between cognitive deficit and number of admissions

We correlated the degree of cognitive deficit of patients with schizophrenia with the number of admissions in acute clinics (Fig.4).

Through statistical analysis, we found that the majority of patients, 166 out of 191, had more than 4 admissions.

The psychological examination through MMSE demonstrated over 100 cases of mild

cognitive deficits with scores between 20-23 and 87 had average scores with values in the range 10-19.

A reduced number of just 4 cases showed a massive cognitive impairment similar to those with dementia with an MMSE <10 score.

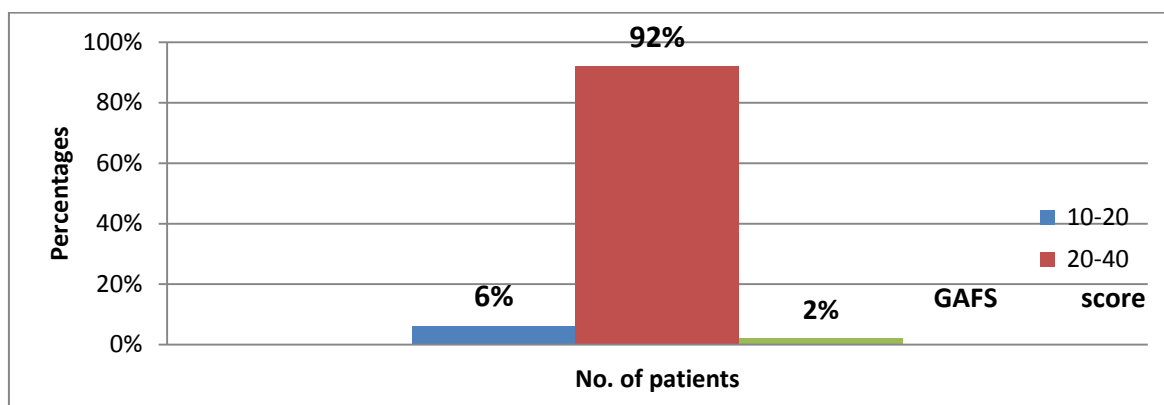


Fig.5. GAFS score distribution

Regarding the level of socio-familial and professional adaptation of studied patients, we evaluated this aspect through the GAFS scale.

Thus, a minimal number of patients (2%) had a functionality corresponding to normal standards of household work, socio-adaptive function, professional integration with a score of 40-61.

Almost all the patients (92%) showed a reduction in functionality with decreased occupational activities, changes in family habits, reduction of group relationships, falling within the 20-40 range of the GAFS score.

A small number of 12 patients (6%) experienced loss of functional abilities requiring caregivers, cognitive decline being marked, thus ranging from 10-20.

Discussions

Regarding the age of onset of schizophrenia, we noticed that the data obtained is consistent with specialized literature, confirming the age profile of schizophrenia as a disease of young age with 49% of patients having their first episode below the age of 25 [6].

Relevant is also the low percentage of onset at the age of 40 or beyond of only 8%, this stage of life being uncharacteristic of schizophrenia and suggesting to us a possible organic pathology responsible for schizophrenia-like symptomatology [7].

Schizophrenia patients place of residence was predominantly urban 66% (Fig.3), fact explained by certain traits of the rural areas like:

stigmatization, ethno-cultural customs, poor medical education, also physician addressing is reduced, schizophrenia in these cases being often undiagnosed.

Regarding the predominance of patients with schizophrenia in the urban environment, social stress factors acting on people prone to schizophrenia have an important role, especially in industrialized countries with existential rhythms generating continuous stress [8].

According to our results, patients with multiple psychiatric admissions also obtained reduced MMSE scores suggesting a moderate cognitive deficit in 79% of cases and accentuated in 75%, which demonstrates the occurrence and progression of cognitive dysfunction in the evolution of schizophrenia as evidenced by multiple studies [9].

Cognitive dysfunction is a main feature of schizophrenia, as our results suggest, deficits are moderate at a remarkable percentage of patients even at a young age and some patients even have severe deficits. A broad range of functions is affected by this particular deficit including attention, working memory, verbal and learning memory and executive functions. This deficit can appear before the onset of psychosis and is stable and progressive over the course of the illness in most patients.

Regarding the level of socio-familial and professional adaptation, patient functionality was reduced compared to the previous level of functioning showing this using the GAFS scale, correlating GAFS scale with MMSE scale, both diminished in the case of schizophrenia, markedly altered the quality of life of patients with this pathology with major implications for the individual and the community [10].

The importance of treating and understanding cognitive deficit in schizophrenia is mostly underappreciated at present time, a fact that is proven in our results by lack of treatment success in most aspects of functional status despite the good response to the positive symptomatology.

Conclusions

- The study showed the cognitive impairment produced by recurring episodes being correlated in evolution with the intensity of the symptoms, duration of admission and treatment;

- Assessing cognitive impairment was done through repeated psychological examinations

using the MMSE test at admission, discharge, and in evolution;

- Functional standardization and adaptation deficiency assessment were determined using the psychodiagnostic of the GAFS score, with which the level of socio-familial and professional integration was appreciated;

- Relevant was the advanced cognitive deficit and reduced socio-professional integration that was found in the statistical data which reveals a poor management in the treatment of schizophrenic patients.

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