RESEARCH ARTICLE

Particular aspects of social integration among patients with schizophrenia

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Objective: In this study we aim to identify characterize the social integration of patients with Schizophrenia in Romania and identify variables that influence their social integration. **Method**: Charts from patients hospitalized in the Psychiatry Clinic 1, during 21 months, were studied: marital status, parenting, and family residence, the quality of the relationships with relatives, professional status and the association with a personality disorder. The associations were performed using the chi-square test. Windows excel and Graphpad.com were used for data processing. **Result**: From the 116 patients selected, 30.17% were married; 71.4% have secondary and higher education; 21.6% were unemployed and did not have any social assistance income; 37.9% lived with families; 46.6% had children; 20.7% had appropriate family relationships; and 54.3% have a personality disorder. There was no association between the number of hospitalizations and the patient's gender (p=0.59), between the personality type and higher education level (p=0.51). Having a personality disorder was not statistically associated with residential status (p=0.11). The chance of a patient living with his family is 2.5 times higher if the patient has a schizoid personality disorder. **Conclusion:** Indicators such as marital status, parenting, family residence, employment, relationship with the family can be used to analyze the effectiveness of the treatment schemes that are conducted for the patients with schizophrenia.

Keywords: schizophrenia, social integration, personality disorder, professional integration

Introduction

The prevalence of schizophrenia across the life spam is around 0.3-0.7%. The predictive factors for the evolution and prognosis are not known. The evolution is favorable for approximatively 20% of the patients with schizophrenia and a small number of them present a complete remission [1].

There are several factors cited in the literature as contributors to professional and social integration of patients with schizophrenia.

The urban environment is one of the most influential environmental factors for the development of severe mental illness. A strong association between exposure to the urban environment and the risk of developing schizophrenia has been demonstrated and several the studies have shown that living in an urban environment increases the risk of developing schizophrenia [2].

Studies indicated a better quality of life for patients living in autonomous residences or with their parents, employees or students, who had a shorter history of the disease and are younger, who graduated the high school [3].

People with schizophrenia fall in the group of people with disabilities who are most likely to be unemployed [4]. They have an unemployment rate 6–7 times higher than the general population [5].

Social skills allow a person with schizophrenia to engage in interpersonal relationships, to be able to use the support of others and to have a productive activity. Social functioning is influenced by the quality of these skills [6].

Raising a child must be recognized for the positive role it plays in the woman with schizophrenia recovery, rather than being seen as a barrier to her recovery [7]. Patients with schizophrenia are concerned about the stigma of the mental suffering they are experiencing and worry about their children, who will be included under the umbrella of stigma [8].

Among the clinical factors identified in reference studies to have a positive role were, in addition to medication, the duration of mental suffering and the number of hospitalizations [3]. As the number of hospitalizations increases, the stigma surrounding patients and their families will deepen [9].

The correlation between schizophrenia and personality disorders has always been described, but rigorous studies are few. Authors have debated this association, considering either that there is a state of continuity "premorbid personality - schizophrenia", or considering that they are independent. Paranoid, schizoid and schizotypal personality disorders have been more often correlated with psychotic disorders [10].

The greatest disability and the most affected quality of life were given by avoidant, dependent, schizoid, paranoid, schizotypal and antisocial personality disorder [11].

In this study we aim to identify characterize the social integration of patients with Schizophrenia in Romania and identify variables that influence their social integration.

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Methods

Medical charts for patients hospitalized for acute exacerbation of schizophrenia across a period of 21 months in the Psychiatry Clinic 1, County Hospital Targu Mures were analyzed. Patients with main diagnosis at discharge of Schizophrenia code ICD 10 - F20.0-F20.9 [12] were selected for this study. Thus, 116 patients were identified and hospitalization charts were reviewed. The sampling method was non-probabilistic, the sampling of convenience, including accessible and available cases in the sample. For each patient the following data were extracted: patient unique identification code; average duration of hospitalizations in the analyzed period; number of acute hospitalizations during the analyzed period; gender (woman, man); address area (Urban / Rural); education Level (No education, Primary, Secondary, High School, University); marital status (married, unmarried, widowed, divorced); professional status (employee, part-time employee, sickness pension, old-age pension, no profession, social case); residence (lives with a parent (mother / father), own family, brother, single, guardian, social assistance); quality of relationships with family / relatives (appropriate, tense, does not interact) and number of children. Social integration was defined as married, living with family, having family relationships and having employment.

Windows excel and Graphpad.com were used for data processing. The statistical test used was the chi-square test. A p value of less than 0.05 was considered significant. The sample size is a condition that has been observed in the processing. No subject contributed more than one value.

Results

Patient demographics

The analyzed group had 51.7% women and 48.3% men. The majority of patients within the studied group, 53.4%, come from urban areas and the remaining 46.6% of patients come from rural areas. Women come mostly from urban areas (60%) and men mostly from rural areas (54%).

From the patients that were married (30.17%), there were more married women (46.7%) compared to married men (12.5%). This demographic structure is presented in Figure 1.

Analysis of social and professional integration indicators

Within the studied group, the majority of patients, 71.4%, have secondary and higher education, of which 33.9% are women and 37.5% are men. All men have the minimum level of education, compared with the women group where 95% achieved the minimum level. The studied group data is presented in Table I. Level of studies (minimum short-term tertiary studies).

Regarding the level of employment within the studied group, 68.1% of patients are retired due to illness, 21.6% are not employed and only 8.62% benefit from a full-time or part-time job.

Sixty percent of women with schizophrenia live with their family, compared to 14.3% of the men with schizophrenia.

In the group of patients analyzed, 26.6% of women with schizophrenia vs. 14.29% of men with schizophrenia have appropriate relationships with relatives (the evaluation is subjectively categorized by the family and registered by the hospital employees in the charts).

Table I. Level of studies (minimum short-term tertiary studies)

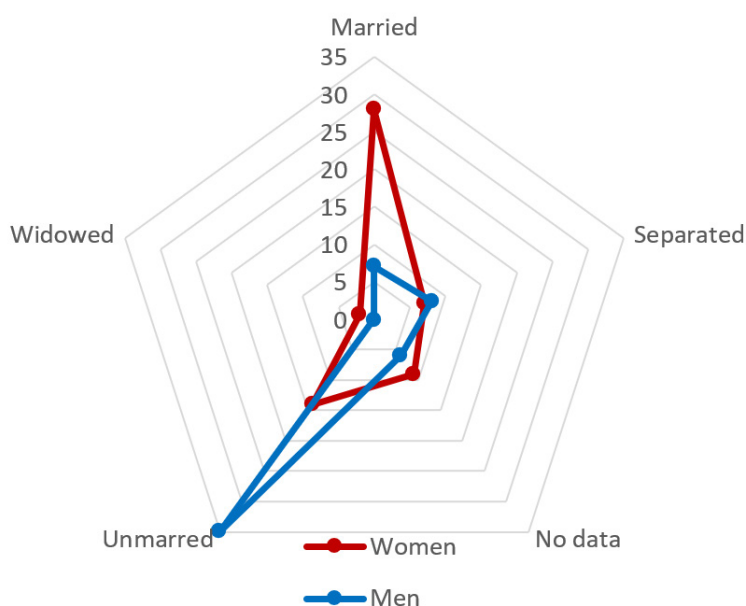| Studies Level (minimum short-term tertiary studies)	Women	Men
General Population (2017) (13)	14.7%	14.6%
Studied patients	15.0%	17.9%

Fig. 1. Marital status among patients with schizophrenia

In the studied population, only 46.6% of the patients have children (and from these, 68.3% are women and 23.2% are men).

The average hospitalization duration was 1.45 days per patient (standard deviation 0, 77 days). Patients who had only one hospitalization, in acute regime, during the analyzed period represent 66.7% of the total number of patients. The average duration of an acute hospitalization was 11.6 days (standard deviation 4.38 days).

There is no statistically significant association between the number of hospitalizations and the patient's gender (chisq test 0.59> p 0.05). Calculating the number of hospitalizations, in the analyzed group, for the different categories it was found that married men have the lowest average number of hospitalizations (1.14 hospitalizations) and the single women have the highest average number of hospitalizations (1.42 hospitalizations). Details are shown in Figure 2.

Personality disorders as an influencing factor in the social and professional status of patients with schizophrenia

In the analyzed group, 54.3% of patients have a personality disorder as a secondary diagnosis, out of which 32.8% is the schizoid personality disorder, 10.3% paranoid, 6.9% borderline, 3.4% antisocial and 0.9% obsessive compulsive disorder.

The highest rate of marriage (50%) is observed in patients with antisocial personality disorder. The lowest percentage of married people is recorded in patients without personality disorder (Figure 3).

There is no statistically significant association between personality type and the education level. A chisq test with values > p 0.05 was obtained for borderline type disorders (0.09), schizoid (chisq test 0.08), antisocial (chisq test 0.64) and paranoid (chisq test 0.43).

Regarding the association between personality type and the residential status (the patient lives with husband, wife, children, type of residence at the time of hospitalization in the time period under analysis) it was identified that borderline disorders (chisq test 0.98), antisocial (chisq test 0.61) and paranoid (chisq test 0.33) are not statistically associated with residential status. In contrast, schizoid personality disorder has a statistically significant association with the residence type (chisq test 0.02 <p 0.05). The chance for a patient to live with his family is 2.5 times higher if he has a schizoid personality disorder compared to other patients with schizophrenia with other types of personality disorders or no personality disorder.

Discussion

The sex distribution in the patient population was similar in both genders, which matches what is described in the literature [1, 14]. The level of education of the patients
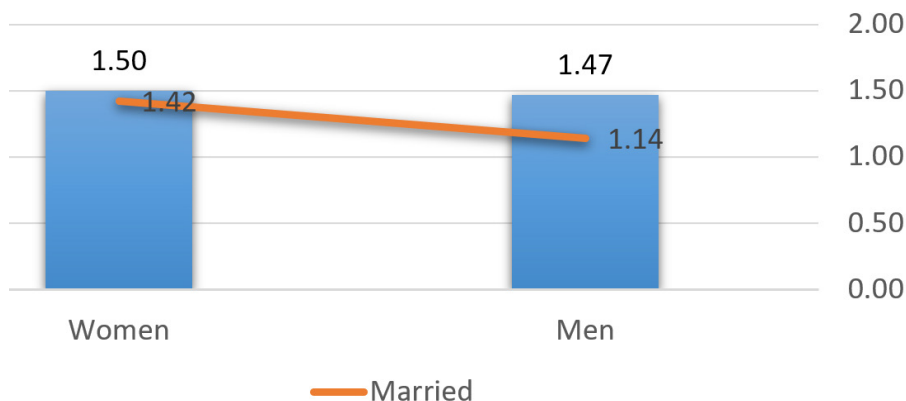

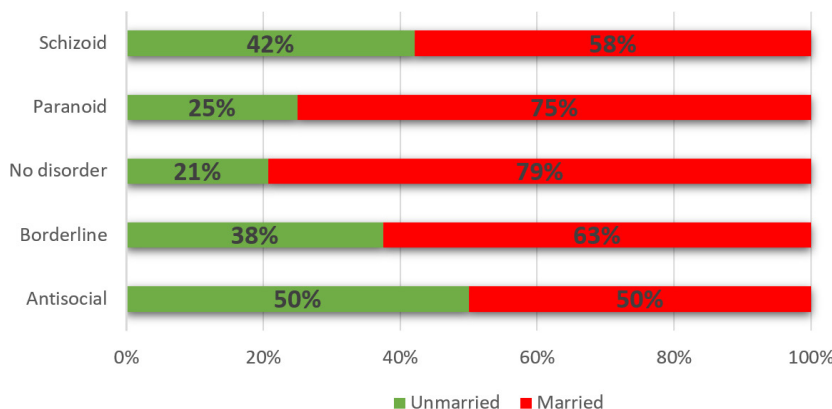Fig. 2. The average number of hospitalizations by type and marital status of patients

Fig. 3. Marital status across the personality disorder groups

with schizophrenia is similar compared to the level of education in the general population of Romania. Regarding the level of employment within the studied group, the difference is in line with the order of magnitude mentioned in the literature, where employment rates for people with schizophrenia are much lower than in the general population. Compared to the rates of unemployment in general population of Romania [5], patients with schizophrenia have a higher unemployment rate. A limitation of this finding is that the patients whose data were collected are patients who are not institutionalized. Further analysis is required for the institutionalized patients. Significantly more women with schizophrenia live with their families compared to men with schizophrenia.

The presented study found a higher percentage of women having appropriate relationships with their families. This result is not in line with previous studies that found that women appear to have more positive symptoms and fewer negative symptoms and tend to be much more hostile, more physically active and dominant, with more sexual and emotional conflicts than men. They may also have emotional and paranoid symptoms, more anxiety symptoms and fewer negative symptoms which can lead to less tolerable behavior in the immediate environment. The meaning of the symptoms seems to differ between men and women [14].

In the reference studies, a certain concordance was observed between the marital status and the number of hospitalizations in psychiatric wards. Single men and, to a lesser extent, single women tend to be better represented among the first hospitalizations [8]. These finding were confirmed by the presented study.

In the analyzed group, 54.3% of patients have a personality disorder. This prevalence is much higher than that presented in other studies. The prevalence of personality disorders has been described as 24.0% in the Chinese population with schizophrenia [15].

There is no statistically significant association between personality type and the education level. The limitation of this observation is given by the fact that it starts from the hypothesis that the personality disorder was installed prior to educational training.

Conclusions
Social integration was defined as married, reaching a tertiary level of education, living with family, having children, having appropriate family relationships and having employment. As such, we found that 46.7% of women patients were married, 12.5% of men patients were married, 71.4% have secondary and higher education, 21.6% were unemployed and did not have any social assistance income, 60% of women patients lived with their families and only 14.3% of the men patients lived with their families, 46.6% had children, 26.6% women had appropriate family relationships and 14.29% men had appropriate family relationships and 54.3% have a personality disorder.

In the study population, we identified the following gender differences: most women live in urban areas, while most men live in rural areas; more women than men are married; more women lived with their families, more women had appropriate relationship with their families, more women have children than men.

There was no association between the number of hospitalizations and the patient's gender, between the personality type and higher education. Having a personality disorder was not statistically associated with residential status and the schizoid-type personality disorder had a statistically significant association with living with the family.

This study highlights the importance of quantifying and analyzing the social and professional milestone for patients with schizophrenia as a measure of the efficacy of the multilevel treatment.

Authors' Contribution
AS - Conceptualization; Investigation; Methodology; Analysis; Writing-original draft;
EDS –Validation; Data curation; Methodology
DM - Validation; Writing – review & editing;
CRB - Conceptualization; Writing – review; Supervision.

Conflict of interest
The authors declare that they have no conflict of interest.

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