

# Psychoeducation and Compliance in the Treatment of Patients with Schizophrenia

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## ABSTRACT

*Psychoeducation provides to the patient and his family members full information about schizophrenia and all aspects of the treatment. If the patient is not fully informed about the treatment and the side effects, there is a higher risk for discontinuation of the therapy without consulting his psychiatrist. Discontinuation of the treatment is one of the main reasons for the relapse of schizophrenia. Aim of the study was to define whether there are differences in compliance between two groups of patients, one who went through education about schizophrenia and the other group without the education about the disease. Group of 30 patients were during the hospitalisation educated about the schizophrenia and the treatment of the disease, while the control group of 30 patients were not educated. On the admission to the hospital, on the release from the hospital and after three months from the release from the hospital patients were rated with Brief Psychiatric Rating Scale and Clinical Global Impression, compliance was rated with Compliance Assessment Inventory, attitude towards drugs with Drug Attitude Inventory, and social functioning of the patients with Global Assessment of Functioning. Knowledge about the disease was assessed with specially designed questionnaire with 12 questions. Results of our study show us the importance of education on the compliance, as well as on the positive attitude towards the drug treatment, which is one of the most important predictors of the successful treatment of the schizophrenia.*

**Key words:** psychoeducation, schizophrenia, compliance

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## Introduction

Schizophrenia can be a severe and chronic illness characterised by lack of insight and poor compliance with the treatment. Psychoeducational approaches have been developed to increase patients knowledge of, and insight into, their illness and its treatment<sup>1,2</sup>. It is supposed that this increased knowledge and insight will enable people with schizophrenia to cope in a more effective way with their illness, thereby improving prognosis. Psychoeducation provides to the patient and his family members full information about schizophrenia and all aspects of the treatment<sup>3</sup>. Topics that should be addressed during the psychoeducation are the early recognition of schizophrenia symptoms, the prevention of recurrence of the psychotic episodes, the role of medication and side effects. If the patient is not fully informed about the treatment and side effects there is a higher risk for discontinuation of the therapy without consulting his psychiatrist<sup>4</sup>. Discontinuation of the treatment is one of the main reasons for the relaps of schizophrenia<sup>5</sup>.

Aim of our study was to define whether there are differences in the compliance and social functioning between two groups of patients, one who went through education about schizophrenia and its treatment and the other group without the education about the disease.

## Materials and Methods

Group of 30 patients were during the hospitalisation educated about the schizophrenia, while the control group of 30 patients were not educated. On the admission to the hospital, on the release from the hospital and after three months from the release patients were rated with Brief Psychiatric Rating Scale, compliance was rated with Compliance Assessment Inventory, attitude towards drugs with Drug Attitude Inventory, and social functioning of the patients with Global Assessment of Functioning. Knowledge about the disease was assessed

**TABLE 1**  
PRESENTATION OF THE RESULTS OF THE BRIEF PSYCHIATRIC RATING SCALE AT THE ADMISSION TO THE HOSPITAL,  
AT THE RELEASE FROM THE HOSPITAL, AND AFTER THREE MONTHS FROM THE RELEASE

At the admission				
	100–81	80–61	60–41	St. significance
Educated patients	20	8	2	$\chi^2=3.226$ $p>0.01$
Uneducated patients	27	2	1	
At the release				
	100–81	80–61	60–41	St. significance
Educated patients	5	7	18	$\chi^2=7.506$ $p<0.01$
Uneducated patients	15	10	5	
After three months				
	100–81	80–61	60–41	St. significance
Educated patients	4	6	20	$\chi^2=7.496$ $p<0.01$
Uneducated patients	10	12	8	

with specially disigned questionnaire with 12 questions. All patients were in-treated at the University Department of Psychiatry in the University Hospital Osijek. Mean age in the group of 30 educated patients was 41.3 years, while mean age in the group of 30 patients who were not educated was 43.2 years. All of the patients fulfilled criteria for Schizophrenia according to the ICD-10 clasification of the diseases. Educated group consisted of 14 female patients and 16 male patients, and in the group of 30 patients who were not educated about the disease were also 14 female patients and 16 male patients. Most of the patients in bouth groups had finished high school (in the educated group 65%, and in the not educated group 60% of the patients). Also the groups were similar in the working status of the patients, most of the patients were unemployed (in the group of educated patients 55%, and in the group of uneducated patients 60% of the patients). Psychoeducation groups were held by psychiatrist once a week in the duration of one hour, patients were educated about the early recognition of schizophrenia symptoms, about the prevention of recurrence of the psychotic episodes, and about the role of the medication in the treatment of schozizophrenia and also about the side effects of those medications. Groups consisted of 6–8 patients. Duration of the hospitalisation is on average 4 weeks so 30 patients who went through education attended 4 educational psychoeducational group sessions.

## Results

There was no statistical differences between two groups in the score of the Brief Psychiatric Rating Scale (Table 1) at the admission to the hospital ( $\chi^2=3.27$   $p>0.05$ ). On the day of the release from the hospital there was statistical difference in the level of the clinical symptoms of the disease ( $\chi^2=7.51$   $p<0.01$ ) measured by the Brief Psychiatric Rating Scale, and after three months group of

patients who went through process of education had less symptoms of the disease in comparisson with the group of patients who were not educated about the disease measured by the Brief Psychiatric Rating Scale ( $\chi^2=7.50$   $p<0.01$ ).

We also applied Global Assesment of Functioning to the bouth groups of patients at the admission to the hospital, at the release from the hospital and after three months on the regular out-patient control. On the scores of the Global Assesment of Functioning (Table 2) at the admision to the hospital, as we can see there were no statistical differences between the functioning of the two groups of patients ( $\chi^2=1.43$   $p>0.05$ ). Same table also shows us results of the apllied Global Assesment of Functioning Scale to both groups of the patients at the release from the hospital, at that time there was statistically significant difference in the level of functioning between the group of uneducated patients who had lower scores than the group of educated patients ( $\chi^2=15.24$

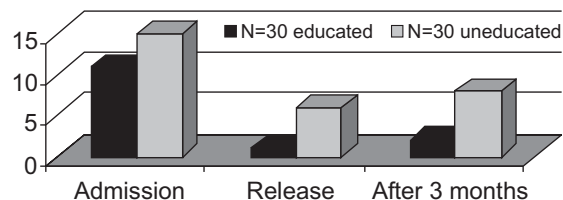


Fig. 1. Drug Attitude Inventory 'I took my medication the way I want it' - answer YES;  $\chi^2=2.14$   $p<0.05$ .

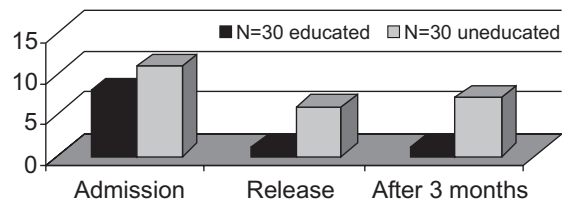


Fig. 2. Drug Attitude Inventory 'I take my medication only when I'm ill' - answer YES;  $\chi^2=2.76$   $p<0.05$ .

**TABLE 2**  
PRESENTATION OF THE RESULTS OF THE GLOBAL ASSESSEMENT OF FUNCTIONING SCALE AT THE ADMISSION TO THE HOSPITAL, AT THE RELEASE FROM THE HOSPITAL, AND AFTER THREE MONTHS FROM THE RELEASE

At the admission				
	0–25	26–50	>50	St. significance
Educated patients	24	4	2	$\chi^2=1.44$ $p>0.05$
Uneducated patients	20	9	1	
At the release				
	0–25	26–50	>50	St. significance
Educated patients	5	7	18	$\chi^2=15.24$ $p<0.01$
Uneducated patients	8	19	3	
After three months				
	0–25	26–50	>50	St. significance
Educated patients	1	6	23	$\chi^2=19.8$ $p<0.01$
Uneducated patients	2	25	3	

$p<0.01$ ). After 3 months higher scores on the Global Assessment of Functioning Scale had educated group of patients, mostly score was higher than 50, while in uneducated group most of the patients had scores between 26–50, there was also statistically significant difference ( $\chi^2=19.8$   $p<0.01$ ).

We can see the results of the Drug Attitude Inventory (Figure 1), item 'I took my medication the way I want it'

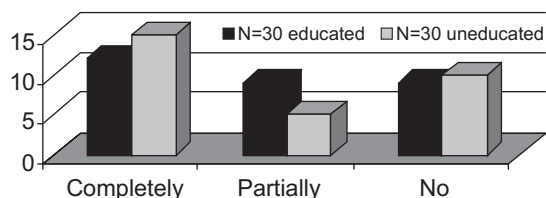


Fig. 3. Compliance Assessment Inventory at the admission – 'Did You take your therapy in the last four weeks?';  $\chi^2=1.51$   $p>0.05$ .

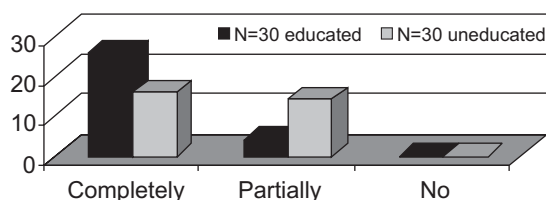


Fig. 4. Compliance Assessment Inventory after three months from the release – 'Did You take your therapy in the last four weeks?';  $\chi^2=5.69$   $p<0.05$ .

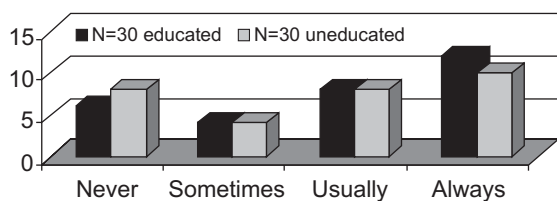


Fig. 5. Compliance Assessment Inventory at the admission – 'I followed instructions of my psychiatrist';  $\chi^2=0.17$   $p>0.05$ .

– answer YES, as we can see there was statistical difference between the group of educated and the group of uneducated patients ( $\chi^2=2.14$   $p<0.05$ ). On the item 'I take my medication only when I'm ill' – answer YES from the Drug Attitude Inventory we also found statistical difference between the educated and the uneducated group of patients, as we can see on the Figure 2 ( $\chi^2=2.76$   $p<0.05$ ).

The results of the Compliance Assessment Inventory we are also presented (Figures 3–7) Item 'Did You take your therapy in the last 4 weeks?' at the admission to the hospital didn't show us any statistical difference between two groups of the patients (Figure 3). The results of the same item applied after three months (Figure 4) has shown us statistical difference between the group of educated and uneducated patients ( $\chi^2=5.69$   $p<0.05$ ). Results of the scores on the item 'I followed instructions of

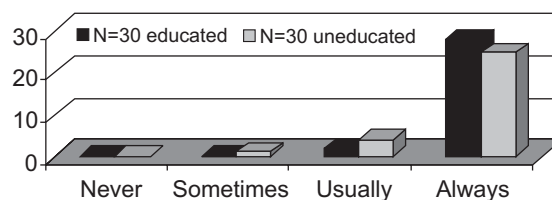


Fig. 6. Compliance Assessment Inventory at the release – 'I followed instructions of my psychiatrist';  $\chi^2=0.20$   $p<0.05$ .

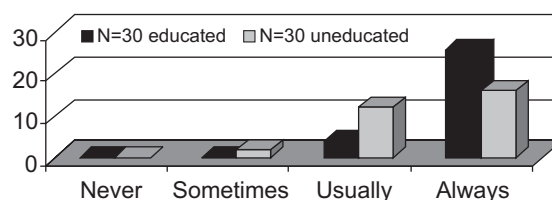


Fig. 7. Compliance Assessment Inventory after three months from the release – 'I followed instructions of my psychiatrist';  $\chi^2=3.04$   $p<0.05$ .

**TABLE 3**  
PRESENTATION OF THE RESULTS OF THE KNOWLEDGE ABOUT THE DISEASE SCALE

No. of answ.	Admission to hospital		Release from the hospital	
	Educated pat.	Uneducated pat.	Educated pat.	Uneducated pat.
4	20	23	0	5
5	6	6	1	15
6	4	1	3	5
>7	0	0	26	0
Statistical Significance	$\chi^2=0.82$ $p>0.05$		$\chi^2=44.27$ $p<0.01$	

my psychiatrist' were not statistically different between two groups at the admission to the hospital (Figure 5) ( $\chi^2=0.17$   $p>0.05$ ), while there was statistical difference at the release from the hospital between the two groups (Figure 6) ( $\chi^2=0.20$   $p<0.05$ ), as well as there was statistical difference after three months between the the group of educated and the group of uneducated patients ( $\chi^2=3.04$   $p<0.05$ ) (Figure 7).

The results of the specially disagned questionnaire with 12 questions of the knowledge about the disease are presented (Table 3). As we can see there was no significant difference between the two groups of the patients at the admission to the hospital, but at the release from the hospital educated group of patients presented higher level of correct answers in the questionnaire which was statistically significant compared with the uneducated group of patients ( $\chi^2=44.27$   $p<0.01$ ).

## Discussion

Numerous studies show the important benefits of psychoeducation as for example influence on improving the quality of life of schizophrenic patients. Psychoeducational interventions involve interaction between the information provider and the mentally ill person. Rabovsky et al. comment that psychoeducation has proved to be highly effective therapeutic method to reduce relapse and rehospitalisation rates of schizophrenic patients, education about their disease has good results on clinical course and especially on the compliance<sup>2</sup>. These comments are confirmed in our study also, as we can see from the results on the Compliance Assesment Inventory patients who were educated in psychotherapeutic groups presented better compliance than the other group of the patients who were not educated, results on the item 'I followed instructions of my psychiatrist' showed us statistically significant difference between educated and uneducated group of the patients on the release from the hospital as well as after 3 months after the release from the hospital.

Yamada et al. showed us on Japanese sample of patients that neuroleptic non-compliance is a major reason for relapse in outpatients with schizophrenia, the authors concluded that it is important to understand the

attitudes of patients with schizophrenia toward drug therapy in order to predict better compliance and provide psychoeducation designed to forestall relapses<sup>6</sup>. Zygmund et al. also published different ways of interventions to improve medication adherence in schizophrenia<sup>7</sup>. Many authors also described ways how integrating treatments helps in rehabilitation and in better compliance for schizophrenic patients<sup>8-13</sup>. In our study we presented the results on the Drug Attitude Inventory Scale, there was statistically significant difference between the educated and uneducated group of patients on the item's 'I took my medication the way I want it' – answer yes, and also statistically significant difference presented between the groups of educated and uneducated patients on the item 'I take my medication only when I'm ill' – answer yes. From our results we can conclude that knowledge about the disease, about the medications and the treatment, and about possible outcomes of the disease provide better drug-compliance. We also found positive correlation between the psychoeducation and the clinical symptoms of the disease, on the Brief Psychiatric Rating Scale applied three months after the release from the hospital group of educated patients had statistically significant less clinical symptoms of the disease than the group of patients who were not educated. Also we observed that the group of 30 patients who were in psychoeducational groups presented statistically significant better results on the Global Assessment of Functioning Scale at the release from the hospital, as well as after three months after the release from the hospital. These results also show us positive correlation between the psychoeducation and the better social functioning of the patients.

Bechdolf et al. compared the effects of a brief group cognitive-behavioural therapy and group psychoeducational programme in acute patients with schizophrenia 2 years after treatment, at six months follow-up, the cognitive-behavioural therapy had shown significantly less rehospitalisation rates and on a descriptive level higher compliance with medication<sup>7</sup>. On the other hand Abbadi in his study showed us that psychoeducation can be harmful for the patients because it seem to enhance mistrust, suspicion, pretence and false self<sup>15</sup>. Poplawska with her team showed us in her study that knowledge about positive influence of medication on psychiatric

symptoms helps to improve compliance and improves the course of disease<sup>16</sup>. The results of Munich Psychosis Information Project Study suggests that a relatively brief intervention of 8 psychoeducational sessions with systematic family involvement in simultaneous groups can considerably improve the treatment of schizophrenia<sup>17</sup>.

Our results shows that the group of schizophrenic patients who were educated about their disease, possible outcomes, ways of treatment and medications presented better level of compliance, higher level of social functioning and they had better clinical outcome of their disease after three months from the release from the hospital. How does one comment these results? These results show us importance of psychoeducation in everyday clinical practice.

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## PSIHOEDUKACIJA I SURADLJIVOST U LIJEČENJU BOLESNIKA SA SHIZOFRENIJOM

### SAŽETAK

Psihoedukacija omogućava bolesnicima i članovima njihovih obitelji informacije o shizofreniji kao bolesti te o načinima liječenja. Veći je rizik za prekid terapije, a samim time i za ponovnu pojavu simptoma bolesti ukoliko bolesnik nije dovoljno upoznat sa načinima liječenja i mogućim nuspojavama. Cilj naše studije je bio utvrditi da li postoji razlika u suradljivosti između dvije skupine bolesnika, jedne koja je prošla edukaciju o bolesti i druge koja nije. Trideset bolesnika su educirani tijekom bolničkog liječenja, a trideset bolesnika nisu prošli edukaciju. Obje skupine bolesnika su testirane na prijemu u bolnicu, po otpustu i nakon tri mjeseca sa BPRS, CGI, Compliance Assessment Inventory, Drug attitude inventory. Znanje o bolesti je testirano sa specijalno dizajniranim upitnikom o shizofreniji za potrebe ovog istraživanja. Rezultati naše studije ukazuju na važnost edukacije na suradljivost, kao i na pozitivne stavove prema medikamentoznoj terapiji što je jedan od najznačajnijih prediktora za uspješno liječenje shizofrenije.