



Research Journal of Pharmaceutical, Biological and Chemical Sciences

Factors of Social Maladjustment of the Patients Suffering From Schizophrenia Who Have Been Declared Legally Incapable in Terms of Psychopharmacotherapy and Rehabilitation.

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ABSTRACT

180 patients with schizophrenia at the age of from 16 to 87 ($48,7 \pm 1,1$) years have been examined, 77 female and 103 male patients that have been declared legally incapable. It has been established that the major factors of social maladjustment are: the clinical-psychopathologic (thought disorders, agitation and suspiciousness, passive-apathetic social isolation, aggression and anger) and social (absence of support on the part of the family members and other important people) ones. In the course of treatment the prolonged repeat-action neuroleptics of the next generation combined with the individual and family psychotherapy were used. As a result of implementation of the treatment and rehabilitation action the level of suspiciousness, aggression and anger was reduced, the patients became more sociable, the family support improved and tending to making the social contacts outlined.

Keywords: schizophrenia, incapacity, social maladjustment factors, psychopharmacotherapy, psycho-social therapy, rehabilitation.

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INTRODUCTION

Schizophrenia is one of the most common mental disorders – according to the WHO (2008) [1] about 26 million people all over the world suffer from this disorder and it is in the top ten of the major causes of disability [2]. The incapable patients make 0,16% of the population, 4,6% of the entire number of patients with mental disorders and 15,1% among the patients with schizophrenia [3].

Against the proper therapy and rehabilitation the patients suffering from schizophrenia are able with 50% probability to restore their social functioning [4, 5]. What is of great importance in the rehabilitation process is the individual and family psychotherapy [6] as well as use of the next gen neuroleptics which improves the social outcomes and the long-term prognosis for schizophrenia [7, 8].

Research objective

Development of the approaches to the treatment and psycho-social rehabilitation of the incapable schizophrenia patients.

MATERIAL AND METHODS

On the basis of the Belgorod Regional Clinical psychoneurological hospital the 180 schizophrenia patients aged from 16 to 87 ($48,7 \pm 1,1$) years, 77 female and 103 male patients that have been declared legally incapable have been examined. The selection criteria were: the schizophrenia diagnosis verified according to the criteria of the International Classification of Diseases, 10th Edition (ICD-10), Chapter F5 and the court decision on the recognition of citizen to lack dispositive legal capacity. All the patients provided the voluntary informed consent to clinical examination. The research protocol was approved by the Ethics Committee.

The comparative analysis was performed in the two groups: the first – 88 (46 men and 42 women) patients staying at home, the second one – 92 (57 men and 35 women) patients that were hospitalized at the stage of preparation for admission to the psychoneurological facility for the social support.

The main researched methods used were the clinical-psychopathological and psychometric ones: the positive and negative syndrome scale (PANSS) [9], the Multidimensional scale of social support – MSPSS [10]. In the course of the study the methods of the database statistical processing were used: the parametric (average (mean) values, standard error of the mean, the Student's t-test t), non-parametric (median, interquartile range Q25-Q75, Mann-Whitney test) with the use of the statistical package Statistica 6.

The research was carried out in 3 stages: diagnostic, therapeutic and follow-up (control) (the analysis of efficiency of the treatment and rehabilitation actions taken).

During the first stage of the psychopharmacotherapy the next gen neuroleptics (Risperidonum, Clozapinum, Quetiapinum) were used in the mean therapeutic doses within 2-3 months. After stabilization of the mental status the prolonged repeat-action neuroleptics (Zuclopenthixolum, Flupentixolum, Fluphenazinum) were prescribed. The psycho-social therapy and rehabilitation included the individual case management, training for restoration of the social and everyday life skills lost and psycho-education for patients and guardians as well as the family therapy.

FINDINGS OF THE STUDY

According to the PANSS the intensity of the productive symptoms in the first and second group is almost the same: delusion scored $5,1 \pm 0,1$ and $5,0 \pm 0,1$, respectively; thought disorders scored $5,9 \pm 0,1$ and $5,8 \pm 0,1$; hallucinations scored $4,6 \pm 0,2$ and $4,5 \pm 0,2$; agitation scored $4,4 \pm 0,2$ and suspiciousness $4,3 \pm 0,1$ in both groups.

From among the negative syndromes – abstract thinking disorder has a high severity degree in both groups (in the first one – $5,7 \pm 0,1$ and $5,8 \pm 0,1$ in the second one). Extremely intense flattened affect ($4,9 \pm 0,1$ and $5,1 \pm 0,1$, respectively), emotional withdrawal ($5,1 \pm 0,1$ in both groups) and passive-apathetic social isola-

tion (5,0±0,1 in the first and 4,9±0,1 in the second group).

From among the common psychopathologic syndromes in both groups the most pronounced in the abnormal thought content (4,8±0,1) and load with psychiatric experience (4,7±0,1 in the first one and 4,8±0,1 in the second one). The statistically significant different between the first and the second group according to the PANSS have been detected (presented in the Table 1).

Table1: Comparison of the results by the PANSS scale of the patients from the first and second group (Mann-Whitney test)*

#	Symptoms according to the PANSS	First group					Second group					p=
		M	m	Me	Q25	Q75	M	m	Me	Q25	Q75	
1	Active social withdrawal	5,6	0,1	6,0	5,0	6,0	6,1	0,1	6,0	6,0	7,0	0,0005
2	Common psychopathologic symptoms totally	56,6	0,7	56,0	52,5	60,0	66,3	0,8	65,5	61,0	71,0	0,0000001
3	Affect lability	3,2	0,1	3,0	2,0	4,0	3,6	0,1	4,0	3,0	5,0	0,04

*Only statistically significant difference presented.

Gender difference in the first and second groups indicated in the Tables 2-3.

Table 2: Results by the PANSS scale of the female and male patients of the first group (Mann-Whitney test)*

#	Symptoms according to the PANSS	Women					Men					p=
		M	m	Me	Q25	Q75	M	m	Me	Q25	Q75	
1	Passive-apatetic social isolation	5,2	0,1	5,0	5,0	6,0	4,8	0,1	5,0	4,0	5,0	0,048
2	Anxiety	3,7	0,2	4,0	3,0	5,0	2,6	0,2	2,0	2,0	4,0	0,0002
3	Sense of guilt	2,6	0,2	2,0	2,0	3,0	2,0	0,2	1,0	1,0	3,0	0,03
4	Mannerism and posturing	3,8	0,2	4,0	3,0	5,0	1,7	0,2	1,0	1,0	2,0	0,0000001
5	Tension	4,0	0,2	4,0	4,0	5,0	3,4	0,2	4,0	2,0	4,0	0,04
6	Abnormal thought content	5,0	0,2	5,0	5,0	6,0	4,6	0,1	5,0	4,0	5,0	0,03
7	Disturbance of will	5,3	0,2	5,5	4,0	6,0	6,0	0,1	6,0	6,0	6,0	0,0001
8	Aggression	3,5	0,2	3,0	3,0	5,0	4,4	0,2	4,0	3,0	5,0	0,002
9	Load with psychiatric experience	5,2	0,1	5,0	5,0	6,0	4,2	0,2	4,0	3,0	5,0	0,0002
10	Anger	3,5	0,2	3,0	3,0	5,0	4,4	0,2	4,0	3,0	5,0	0,002
11	Gratification delay	3,7	0,2	3,0	3,0	4,0	4,4	0,2	4,0	3,0	6,0	0,02

* Only statistically significant difference presented.

Table 3: Results by the PANSS scale of the female and male patients of the second group (Mann-Whitney test)*

#	Symptoms according to the PANSS	Women					Men					p=
		M	m	Me	Q25	Q75	M	m	Me	Q25	Q75	
1	Thought disorder	5,6	0,1	6,0	5,0	6,0	5,9	0,1	6,0	6,0	6,0	0,01
2	Stereotyped thinking	4,4	0,2	4,0	4,0	5,0	5,0	0,1	5,0	4,0	6,0	0,007
3	Somatic concernment	3,9	0,2	4,0	3,0	5,0	3,2	0,2	3,0	2,0	4,0	0,02
4	Anxiety	4,0	0,2	4,0	3,0	5,0	3,0	0,2	2,0	2,0	4,0	0,001
5	Sense of guilt	2,8	0,3	2,0	2,0	4,0	2,0	0,2	2,0	1,0	3,0	0,009
6	Mannerism and posturing	3,9	0,2	4,0	3,0	5,0	2,2	0,2	2,0	1,0	3,0	0,000002
7	Depression	3,8	0,3	4,0	2,0	5,0	2,5	0,2	2,0	2,0	3,0	0,0003
8	Disturbance of attention	4,2	0,2	4,0	3,0	5,0	4,7	0,1	5,0	4,0	5,0	0,02
9	Decreased criticism	5,5	0,1	6,0	5,0	6,0	5,9	0,1	6,0	6,0	6,0	0,008
10	Disturbance of will	5,1	0,2	5,0	4,0	6,0	6,0	0,1	6,0	6,0	6,0	0,00006

* Only statistically significant difference presented.

On the Zimet's scale the "social support by the family" in the patients of the first group made 2,0±0,1 points (without gender difference) and in the second one 0,68±0,07 points (t>=11,0 p<0,001). The average

score in the second group made $0,47 \pm 0,1$ for women and $0,8 \pm 0,1$ for men ($t \geq 2,3$ $p < 0,05$).

The average score on the scale «social support by the friends» in patients of the first group made $0,7 \pm 0,08$ points and on the scale «social support by the other important people» – $0,98 \pm 0,1$ points. In the second group all the patients were deprived of the necessary social support by the friends and other important people (average score «0»).

DISCUSSION

In all, the patients of the second group demonstrated more pronounced social maladjustment due to the higher severity of the common psychopathologic syndromes, active social withdrawal and affect lability. The analysis of gender differences in the first group has shown that women demonstrated more pronounced passive-apatetic isolation and a wide range of the common psychopathologic syndromes (anxiety, sense of guilt, tension, load with psychiatric experience as well as abnormal thought content, mannerism and posturing). Men had higher scores in the disturbance of will, aggression, anger and gratification delay. In the second group men demonstrated more pronounced thought disorders and the total score of the negative symptoms than women. At the same time women demonstrated more pronounced somatic concernment, anxiety, sense of guilt, mannerism and posturing and depression.

As to the social support, the patients of the second group are almost completely isolated from the society; they have nobody to share their problems with, no people around whom they could trust.

After the treatment and implementation of the program of psychosocial therapy and rehabilitation in the patients of the first group the statistically significant decrease in the anxiety, suspiciousness and hostility was observed. Besides, the social circle was somewhat extended, the interpersonal relationships with the relatives were normalized. Certain possibility of self-expression in the art therapy promoted to the decrease in the social isolation, aggression and lack of contacts. The consequence of the decrease in aggression, hostility, suspiciousness was the decreased anger, affect lability and gratification delay.

The patients of the second group demonstrated decreased suspiciousness, hostility, aggression, anger, affect lability. In respect of the social aspect the friendly terms with other patients were established, the circle of contacts was extended, in some cases conflicts with relatives were resolved. Besides, the patients were provided with information about the social care psychoneurological facility, accommodation conditions, the positive attitude to the up-coming period was formed.

SUMMARY

Thus, implementation of the program promoted to the improvement of the mental status of the patients of both the first and second group. The representatives of the first group began to demonstrate better adaptation at own home, the positive attitude for the treatment appeared, the number of the acquainted and friends increased, the social and emotional withdrawal was decreased. This allowed further maintaining of a higher level of social functioning also due to improvement of relationships within the family. In the second group along with stabilization of the mental status in some cases the family relationships improved, in other cases the positive attitude to up-coming staying at a social care psychoneurological facility was formed.

CONCLUSIONS

The clinical factors of the social maladjustment of the incapable schizophrenia patients are the gross disorders of thinking an emotional-volitional sphere constituting the individual-personal peculiarities (suspiciousness, hostility and aggression) putting a person in the conflict relations with the micro-social environment and guardians. The aforesaid is the cause of the guardian refusal from patients with further admission to the social care psychoneurological facility. The psychopharmacotherapy and implementation of the program of psychosocial rehabilitation significantly increases the patients' adaptive potential.

REFERENCES

- [1] The global burden of disease: 2004 update. Date Views 30.08.2013 http://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_full.pdf?ua=1.

- [2] Fleischhacker, W.W., C. Arango, P. Arteel, T.R. Barnes, W. Carpenter, K. Duckworth, S. Galderisi, L. Halpern, M. Knapp, S.R. Marder, M. Moller, N. Sartorius and P. Woodruff, 2014. Schizophrenia – time to commit to policy change. *Schizophrenia bulletin*, 40(suppl 3): S165-194.
- [3] Ruzhenkov, V.A., V.I. Trunov, N.A. Anisimova, Ju.S. Minakova, Ju.A. Bic, 2013. Rasprostranennost' i klinicheskaja struktura psihicheskikh rasstrojstv u lic, priznannyh sudom nedeesposobnymi. *Psihicheskoe zdoro-v'e*, 11(4): 15-18. In Russian.
- [4] Leff, J. and R. Warner, 2006. *The social inclusion of people with mental illness*. Cambridge University Press, pp. 192.
- [5] Schizophrenia: core interventions in the treatment and management of schizophrenia in adults in primary and secondary care (updated). Date Views 30.08. 2013 <http://www.nice.org.uk/nicemedia/live/11786/43607/43607.pdf>.
- [6] Dixon, L., C. Adams and A. Lucksted, 2000. Update on family psychoeducation for schizophrenia. *Schizophrenia bulletin*, 26(1): 5-20.
- [7] Barnes, T.R., 2011. Evidence-based guidelines for the pharmacological treatment of schizophrenia: recommendations from the British Association for Psychopharmacology. *Journal of Psychopharmacology*, 25(5): 567-620.
- [8] Leucht, S., M. Tardy, K. Komossa, S. Heres, W. Kissling and J.M. Davis, 2012. Maintenance treatment with antipsychotic drugs for schizophrenia. *The Cochrane Database of Systematic Reviews*, 5: CD008016.
- [9] Kay, S.R., A. Fiszbein and L.A. Opler, 1987. The positive and negative syndrome scale (PANSS) for schizophrenia. *Schizophrenia bulletin*, 13(2): 261-276.
- [10] Zimet G.D., N.W. Dahlem, S.G. Zimet and G.K. Farley, 1988. The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52(1): 30-41.