

The problem of compliance in psychiatry

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Abstract

The article presents an overview of major Russian and foreign literature on the problems of compliance in patients with schizophrenia. The article describes key factors associated with the patient's refusal of the prescribed treatment. The article describes the basic methods of evaluation of compliance: experimental and psychological, with applied clinical significance. The article describes the main factors associated with the patient's refusal of the prescribed treatment, describes the contribution of low compliance not only to the patient's quality of life, but also to the health care costs associated with repeated hospitalizations of non-compliant patients. The article examines methods for overcoming non-compliance in patients with schizophrenia, for example, compliance therapy — a psychotherapeutic method that is short-lived, convenient and simple to use in clinical practice, and has shown rather high efficiency.

Key words: psychiatry, schizophrenia, compliance, mental disorders, psychopharmacotherapy.

Introduction

The term "compliance" means patient's voluntary adherence to the prescribed treatment, correctness and adequacy of compliance with medical recommendations.

Compliance with the medical regimen prescribed by a doctor is an urgent research task in almost all areas of clinical medicine. For example, about 40% of hypertensive patients discontinue antihypertensive therapy, and in 25% of cases, self-abolition of supportive treatment occurs already within six months after the start of treatment. Compliance is of particular importance in psychiatry. Many researchers state that the degree of adherence to therapy in patients with mental disorders is significantly lower than in somatic patients, especially in conditions of long-term, long-term medication [1]. For example, for patients with schizophrenia, an increased risk of recurrence and re-hospitalization is the most significant clinical consequence of non-compliance with prescribed medication for schizophrenia. According to the results of studies conducted by American and British psychiatrists, out of 1,646 patients with schizophrenia, 58.6% stopped taking maintenance therapy for 3 months after discharge from the psychiatric hospital, which later became the cause of recurrences of psychopathological symptoms and repeated hospitalizations. In another randomized study [2], incomplete adherence to the treatment regimen was reported, 57.5% of 876 examined patients with schizophrenia experienced episodes of self-dose adjustment, up to and including the complete rejection of drugs due to "good health". According to researchers from San Diego [3], (a sample of 2,801 people) in non-treatment patients there was a 2.5-fold increase in the frequency of re-admissions to psychiatric hospitals compared

with compliant patients. Thus, a low degree of compliance in patients suffering from mental illness contributes to a more severe course of the disease and has a negative impact on the quality of life. [four]. At the same time, patients who observed the correct dosage of the drug and complied with all the prescriptions of the attending physician had a significantly lower risk of re-admission to a psychiatric clinic.

In addition to its purely clinical implications, low compliance significantly increases the costs of the health care system. According to Western studies, due to low adherence to drug treatment of patients with schizophrenia, the workload of one of the clinics increased by 1,21838 bed-days, which corresponds to expenditures of 106 million US dollars [5]. According to researchers from Florida [6], obtained on a sample of 10,330 patients with schizophrenia, there was a marked inverse correlation between patient compliance and the costs of the health care system. Costs for patients with little adherence to treatment were significantly higher than for compliant patients. Against the background of low compliance, monotherapy with atypical antipsychotics increased costs of \$ 133, monotherapy with typical antipsychotics increased by \$ 294, and during combination therapy with typical and atypical antipsychotics, expenses increased by \$ 221. In a San Diego study, outpatient treatment costs were significantly higher for non-compliant patients than for compliant patients, although overall costs were higher for patients with high adherence due to increased pharmacy costs. In a UK survey of 628 patients receiving antipsychotic drugs, failure to comply with the treatment regimen was associated with an increase in inpatient treatment costs of approximately 2,500 pounds per year, which increased costs up to 5,000 pounds per patient per year [7].

Compliance factors

The main difficulty arising in the study of compliance is determined by the multifactor nature of this phenomenon. At present, over two hundred factors have been identified that in one way or another determine the attitude of patients to maintaining the therapy regimen [8]. Compliance reflects the complex interaction of these factors, the configuration of which varies in the dynamics of the disease and at remote stages may differ significantly from the initial one. With regard to schizophrenia, compliance factors can be divided into the following groups:

- 1) factors associated with drug treatment (in particular, side effects of drugs, the need to comply with the regimen);
- 2) factors associated with productive symptoms of the disease;
- 3) factors associated with negative symptoms of the disease, including cognitive disorders;
- 4) factors associated with the attending physician, his professionalism and ability to maintain optimal psychological contact with the patient (therapeutic relationship);
- 5) social and micro social factors.

It is very difficult to determine the significance of the whole diversity of these factors and the nature of their influence on compliance. It seems more expedient to single out the most significant, main factors of compliance, to study the mechanisms of their impact on the phenomenon and to develop measures aimed at correcting them and at increasing compliance.

An important aspect of compliance in relation to psychopharmacotherapy is the tolerability of drugs, the patient's reaction to the side effects associated with taking drugs, the complex of objective neurophysiological as well as subjective individual psychological sensations that arise. Typical neuroleptic drugs with a relatively high level of their therapeutic efficacy have hardest tolerance. The main pharmacological side effects of psychotropic drugs are extrapyramidal neurological disorders, endocrine disorders leading to an increase in body weight, decreased libido, etc., as well as excessive drug sedation.

In order to improve compliance and the quality of life of patients with chronic mental disorders, in the 1960s, the deposited forms of traditional neuroleptics were synthesized and introduced into medical practice. The use of these agents in some cases improved compliance, but they also had side effects typical of the corresponding oral forms [9,10]. Recently, in the development of new psychotropic drugs, its compliant properties were determined as one of the main parameters of the final product [11]. In line with this trend, so-called atypical antipsychotics were synthesized. Among their side effects, at least, extrapyramidal dis-

orders are less frequent (although endocrine disorders are no less frequent than in typical ones) [12]. One of the latest achievements of psychopharmacology was the creation of atypical antipsychotics with prolonged action, like traditional prolonged neuroleptics [13]. However, psychotropic drugs of the most modern classes also show side effects, leading to a decrease in the level of adherence to therapy. Therefore, the best compliance, as a rule, provides an adequate dosing regimen with the selection of the minimum sufficient dose [14]. However, a direct correlation between the low level of compliance and the side effects of drugs has not been established. According to some data, at the stage of initial stabilization of remission, higher dosages of neuroleptics and, consequently, a greater manifestation of extrapyramidal side effects may be accompanied by good compliance [15].

Factors that adversely affect the performance of medical appointments can be uncomfortable or difficult for patients to administer drugs, for example, the need to take the drug several times a day, as well as the high cost of self-medication.

A variety of clinical factors, such as psychopathological symptoms, comorbid symptoms, different course options, progression of the disease, options for drug and other pathomorphosis, which determine the level of adherence of mentally ill patients to the prescribed therapy regimen, have been repeatedly discussed in the medical literature. Researchers have found a large number of correlates of manifestations of mental illness with a level of compliance [16].

An important criterion for evaluating compliance is the adequacy of judgments about one's own illness. The patient's proper understanding of the nature of his own disease, its manifestations and consequences, as well as the consistency of the patient's ideas about his own illness with accepted medical and social criteria is called the awareness of mental illness [17].

It is a violation of the awareness of mental illness is considered one of the pathognomonic criteria of many mental disorders, including schizophrenia. The concept of anosognosia is widespread, which consists in denying the existence of the disease. In particular, the well-known phenomenon of alcohol anosognosia - the denial of alcohol dependence. In this category of patients, anosognosia is the main, determining component of the attitude towards the disease. Initially, alcohol anosognosia was considered as a consequence of psychoorganic syndrome and alcoholic personality changes, and later it was interpreted as manifestations of the psychological defense system [17].

In clinical practice, the phenomenon of awareness of mental illness is identified with the concept of "criticality." However, the term "criticality" has insufficient methodological development, since there is no precise

definition of criticality, despite the frequent use of this concept.

There are several aspects of this concept.

The first is criticism of one's judgments, actions, and statements. This type of criticality is an important characteristic of thinking. The second is self-criticalness, to the assessment of one's personality. This component of criticality implies the understanding by the patient of his place and role in life, his strengths and weaknesses. The third aspect is criticality to one's own psychopathological experiences. This form of criticality is considered in psychiatry as an indicator of the positive dynamics of the disease and the criterion of remission. Thus, it is the criticality to their psychopathological experiences that describes the phenomenon of awareness of mental illness. Violations of criticality can be in the form of unfocused actions, judgments, violations of the prediction of their actions, as a result of which the patient loses the ability to correct his behavior, which in turn affects the patient's compliance and adherence to the doctor's prescriptions.

At the same time, the concept of "criticality" has significant limitations for the clinical evaluation of a patient's thinking disorder. For example, the main drawback is the monotony of the awareness of the disease, since the criticality is considered only the patient's ability to recognize the pain of their own symptoms. In clinical practice, psychiatrists usually assess not only the criticality for manifestations of the disease, but also a number of other criteria, such as criticality for the causes of the disease, the need for treatment, and others. However, due to the lack of diagnostic standards for evaluating criticism, this phenomenon is difficult to apply for evaluating compliance.

Cognitive impairments in mentally ill patients are also highlighted by the authors in terms of the problem of compliance [18]. Errors in taking medications and side effects of drugs can be largely a consequence of the patient's inability to read and understand written and oral instructions. The problem is not limited to the fact that patients must read the printed material or hear the information spoken by a doctor. They are required to understand, realize, keep in memory and apply this information in life, changing their behavior, bad habits, lifestyle, etc., if necessary. This ability may be several orders of magnitude lower than the ability to simply read the material. In this regard, studies of prospective memory (the ability to remember what needs to be done in the future) and drug management in adult patients with schizophrenia and schizoaffective disorder are of interest. Negative changes, the severity of the emotional-volitional personality defect correlated in these patients with a lower ability to follow the regimen of drug therapy. Impaired cognitive functions in these studies were

a more significant predictor of non-compliance with the treatment regimen than, for example, the severity of productive symptoms and attitudes toward treatment [19].

Social factors also significantly affect the compliance of the mentally ill, since they largely determine the patient's attitude towards psychiatric treatment and adherence to treatment, his motivation for treatment or a negative attitude towards him. The key role is played by the patient's microsocial environment - the family. According to American and British researchers, the involvement of the patient's family in the formation of compliance is extremely high, so holding family meetings with a doctor is an essential condition for the effectiveness of measures to improve it.

The psychiatrist is the main component of the treatment and rehabilitation system to a large extent due to his ability to ensure compliance. He not only acts as a passive mediator between the patient and the medical arsenal available in medicine, but builds a personalized system of relations with the patient, is a highly active figure determining the patient's participation in the therapeutic process. Not only patient's understanding of the treatment benefits, but also the doctor's attentiveness to all the problems of the patient contributes to full compliance [20].

A necessary basic condition for achieving good patient compliance is the qualifications of a doctor. According to S.N. Mosolov [11], about 50% of cases of ineffectiveness of therapy are associated with its inadequate administration. The most common mistakes, in addition to the late initiation of treatment and non-observance of clinical indications and contraindications, are the holding of a template (without taking into account individual features) low-dose therapy, frequent drug changes without observing the desired duration of treatment, premature discontinuation of therapy, simultaneous administration of a large number of drugs (polypragmasy) [21].

In the long-term treatment conditions, continuous and effective medical alliance of a doctor with a patient has particular importance. To achieve trust, mutual understanding and proper contact with the attending physician, interested participation of the patient in the process of therapy means minimizing violations of the prescribed recommendations. In a number of publications devoted to this issue [22], the need to properly build a dialogue with the patient is emphasized. The most important conditions are time and patience on the part of the physician. It is necessary to conduct explanatory work with the patient, explain the reasons for his illness, emphasize the need for long-term and regular treatment. These aspects of compliance can be combined with the concept of psychotherapeutic, appealing to the problems of the subjective picture of the disease,

the personality-mediated attitude of the patient to the symptoms and therapeutic measures [23].

Unfortunately, doctor-patient communication often is formal, a doctor does not care about adequate amount of information offered to a patient. The situation is complicated by the fact that nowadays patients are actively using the Internet, which often offers distorted information about mental disorders, medications and their side effects. In combination with the psychotherapeutic inaction of a doctor, this greatly enhances the stigmatization of a patient, causes him unfounded fears in connection with a treatment and worsens compliance. These trends are particularly relevant in modern conditions of modernization of the psychiatric service, which envisages the reduction of the inpatient stage with an increase in the proportion of semi-inpatient and outpatient forms of treatment, with the inevitable increase in the responsibility of the patient's family for taking medications and observing other aspects of the treatment regime.

Compliance assessment methods

The independent vector of modern compliance research is aimed at predicting adherence to treatment. Patient compliance is established when re-admitted to a psychiatric hospital; As a reliable method for its assessment, the most commonly used measurement is the concentration of the drug in the blood. The publications deal with such methods for evaluating compliance, such as a microelectronic monitoring system embedded in the cap of the drug package [24]. While doctors estimate that 95% of patients were compliant, the electronic system showed that only 38% of them followed the therapy regimen. There is evidence of the use of the riboflavin marker method, which was added to the study drug and to placebo. Riboflavin fluoresces when irradiated with ultraviolet light, which makes it easy to carry out rapid control of its content in the urine and thereby control the administration of prescribed drugs [25,26].

However, all these methods are not applicable for mass use in clinical practice, therefore, to study compliance, indirect methods are used, mainly specific psychometric scales.

In American clinical practice, the setting scale for DAI treatment (Disease Attitude Inventory) is used. The Morisky compliance scale is a very popular and widely used in somatic medicine. In 2012, the St. Petersburg Bekhterev Psychoneurological Research Institute developed the scale of drug compliance (SDC) [4].

Clinical and psychological research can be used to assess compliance in a psychiatric clinic, in which compliance is measured by evaluating the awareness level of a mental disorder in a patient, which is assessed using an interval scale containing indicators of low, partial and complete insight (awareness of the disease). Currently,

there are several valid and insight assessment methodologies, which are semi-structured interviews [27,28].

Scale to Assess the Unawareness of Mental Disorder is designed specifically to assess the awareness of the disease in patients with mental disorders, particularly schizophrenia. This scale makes it possible to evaluate the above-mentioned aspects of criticality, to evaluate the parameters of awareness, and understanding of the causes in the time perspective of the patient's present and past state. The assessment is made on the basis of the clinical conversation data on a five-point scale, where the lowest score corresponds to the highest level of insight [17]. This technique is widely used in scientific and clinical studies, which expands the possibilities of comparison and discussion of the results. Other examples of methods for assessing insight in a semi-structured interview include The Insight and Treatment Attitudes Questionnaire (ITAQ) and The Schedule for the Assessment of Insight-Expanded (SAI-E).

Methods to improve compliance

Along with the pharmacological method of improving compliance, which is the most accessible for a practicing psychiatrist, which consists in conducting rational psychopharmacotherapy, prescribing drugs that are optimal for each patient and their doses, avoiding polypragmasy, many authors agree on the need to include other specialists in the process (psychiatrist), as well as enhancing the role of nursing staff of medical institutions [29,30].

In order to improve patient compliance with the treatment regimen, various techniques are used, including psycho-education, family therapy, behavioral therapy, and psycho-pedagogical techniques. A method of psychotherapeutic correction of compliance, called compliance therapy, using cognitive-behavioral technologies has been developed; The latter combine motivational interviews with active therapeutic attitudes, problem solving, and educational cognitive components [31,32].

The method of compliance therapy was originally developed for the treatment of patients suffering from drug and alcohol addiction as an auxiliary method designed to improve the quality of remission. R. Kemp et al. adapted the method of compliance therapy for the treatment of patients with acute psychotic states [33]. The advantages of compliance therapy are short-term (it takes from 6 to 12 psychotherapeutic sessions), practical orientation and expansion of goals, from the task of following the psychopharmacotherapy regimen to a wider adherence to all medical recommendations in clinical practice. Thus, it is a practical and easily implementable intervention in real clinical conditions. In recent years, foreign and domestic researchers obtained data on the effectiveness of this technique. Psychotherapeutic ses-

sions contributed to the correction of maladaptive behavior, reducing self-stigmatization, there was a positive effect on compliance with medical recommendations [34,35].

Conclusion

Approaches to improving compliance should be expanded and ideally involve not only the development of pharmacotherapy strategies, the sphere of behavioral stereotypes, patterns of emotional response and the patient's cognitive functions. It seems to be quite feasible organization of work with the patient's micro-social environment. However, all this is impossible without determining the priority areas for the correction of compliance for each patient, taking into account the individual characteristics of his personality, family relations and a number of other factors. We should not forget about the principle of continuity in the treatment of the mentally ill between hospitals and neuropsychiatric dispensaries. Methods of prediction and correction of compliance should be simplified, becoming available in clinical practice, since many experimental methods today are too laborious, expensive and require the daily presence of the patient and, therefore, they do not have practical value.

Thus, increasing patient compliance is one of the important tasks of modern psychiatry, the relevance of which is increasing due to the current trend of shifting the main means of psychiatric care to the outpatient sector. Measures aimed at improving compliance will not only improve the patient's remission quality, thereby improving the quality of life, but also reduce the number of hospitalizations, which will also reduce the burden on psychiatric hospitals and, thereby, reduce the costs of the health care system.

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