

Organization of specialized psychiatric help at outpatient stage in Siberia

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Abstract. *During assessment of mental state of patients in general medicine network, obtained data indicated high co-morbidity of mental disorders with somatic pathology, prevalence of these disorders has constituted 39 per 10,000 of the population served by territorial polyclinic. Efficacy of rehabilitative programs conducted at outpatient stage is determined by clinical features of revealed mental disorders, age, cooperativeness and continuity of care. Basic links of therapeutic programs have been described.*

Keywords: comorbidity, efficacy, rehabilitation, out-patient stage.

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RELEVANCE General medical institutions are frequently an initial medical stage where patients with mental disorders (MD) seek medical advice. MD frequency at general somatic institutions is 50%, and at emergency hospitals about 75% of seeking for help; psychosomatic disorders are revealed in 53.6% of physically ill persons (Krasnov, 2002). The need for knowledge of real prevalence of MD combined with somatic pathology determines need of development of differentiated therapeutic and organizational-methodical programs and urgent problem solving connected with improvement of extra-dispensary specialized psychiatric help. Research of mental pathology, influence of social and psychological, climate-geographical factors on clinical dynamics of mental disorders among patients of general medical polyclinic of the large Siberian city is important for theoretical and practical psychiatry that may form a basis for development of pathogenetically based differentiated system of treatment and prevention (Schastnyy *et al.*, 2005; Simutkin, 2005; Semke *et al.*, 2011; 2012).

CHARACTERISTICS OF MATERIAL The main clinical base of study was the territorial polyclinic of city Tomsk of the Siberian region of Russia, where since 1986 the office of specialized psychiatric help has been functioning. Adult population size (>15 years old) served by this polyclinic is 31,000 persons. For the beginning of 2005 in the polyclinic 30,270 out-patient cards were registered. The analyzed material constituted 2,010 patients who sought medical advice at the office of specialized psychiatric help for 2005-2011. The common characteristic of the contingent of patients of the office of specialized psychiatric help at somatic polyclinic was determined by detection on request. Work is organized according to the principle of an office of specialized psychiatric help: referral for consultation by internists, self-referral or at relatives' insistence. The prior information for doctors and patients provided detailed data on possibilities of specialized psychiatric, psychotherapeutic help to patients served by territorial polyclinic. As analysis of work has shown 53.8% of patients were referred to the psychiatrist by internists, 46.2% were self-referrals or at relatives' insistence. Depending on

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clinical-dynamic structure of MD and volume of the necessary specialized help all patients were divided into three groups.

Group 1 (n=460): patients with acute *somatogenias* needing the consultative help of the psychiatrist and therapy at specialized somatic institutions.

Group 2 (n=618): patients with short-term neurotic, somatoform, depressive reactions and episodes (F38.1, F32.00, F32.01, F43.20, F48, F54), psychopathic reactions (F6), cerebrasthenic disorders (F06) needing course therapy, with the subsequent observation by the psychiatrist of polyclinic on request.

Group 3 (n=932): patients with moderate and severe neurotic, somatoform, depressive states with a tendency to a long-term and progressive course (F3, F4, F5), personality disorders (F6), organic mental disorders (F06), alcoholism (F1), schizophrenia (F2), needing systematic therapy and dynamic observation by the psychiatrist of the polyclinic.

Number of women was 1.9-fold more, than men. Mean age of patients with MD of the total group was 42.7 ± 2.5 years (1,550 persons). The largest group included both men and women aged 31-50 years (52.8%), age group of persons > 60 years old included 11.0% of patients. Most patients had MD comorbid with somatic pathology needing systematic therapy (73.0% of Group 3). According to selection criteria this group included patients with diagnosed MD and physical disease (meeting ICD-10 criteria). The age of patients ranged from 18 years and older. The maximum age was not limited, that allowed tracking and estimating age dynamics of MD associated with somatic pathology.

The group of observation did not include the patients who did not agree to be examined due to severe changes of the personality caused by organic lesions of the central nervous system, rough schizophrenic deficit, and mental retardation. Intervention by the psychiatrist of polyclinic in relation to these patients was minimum and was limited to need of prompt correction of therapy at separate stages of treatment and maintenance of communication with the local psychiatrist of the psychoneurological dispensary.

Standard somatic examination and exploring of the medical record of the patient allowed diagnosis of physical disease. Verification of somatic pathology was carried out by the appropriate specialists (with use of modern diagnostic equipment) from the staff of specialized medical institutions.

METHODS included clinical-dynamic, clinical-psychopathological, clinical-epidemiological, screening questionnaire, clinical-follow-up, and mathematical statistics.

The analysis of syndromal and nosological range of Borderline Mental Disorders (BMD) was carried out with the use of ICD-9 and ICD-10.

Clinical verification of states and dynamics of BMD was carried out taking into account long-term experience of domestic researchers (Kerbikov, 1971; Svyadoshch, 1982; Karvasarsky, 1980; Semke, 1987; Axenov *et al.*, 2006). The Zung Depression Scale was used for diagnosis of depressive states and screening-diagnosis. The assessment of efficacy of the used therapeutic and rehabilitation programs was carried out as a result of clinical-follow-up examination according to "The Scale of Efficacy of Therapy of Patients with Borderline States" (Semke, 1987), reflecting level of social adaptation, degree of recovery of working capacity, developed interpersonal relations, neurophysiological indicators.

Quantitative determination of efficacy of therapeutic measures was carried out according to parameters of quality of life with use of the Russian Version of SF-36® Questionnaire (1993-2003 Health Assessment Lab; IQOLA SF-36 Russia Standard Version 1.0).

The findings were exposed to statistical processing (Lakin, 1990). Calculations of arithmetic mean, quadratic deviation, standard mean square error for quantitative indices were made. Statistical processing of results included Student's t-test, correlation analysis. The interrelationship of qualitative signs was investigated with use of Fischer's Z-Transformation and Pearson's chi-squared test. Statistical processing of 46 quantitative parameters included factor analysis (Principal Component Analysis).

RESULTS Mental disorders in patients of the somatic network cover a wide range of diseases and disturbances in which all nosological groups are represented. Three groups of patients needing consultative-diagnostic and therapeutic help of the psychiatrist were distinguished.

The first group was represented by patients with reactions of exogenous type (*somatogenias*) manifesting as a consequence of physical harm (realized on the pathogenetic basis). The number of this group was 14.8 per 1,000 of population, or 22.9% of all examined – 2,010 persons. Patients of this group were referred to the psychiatrist in connection with acutely arisen psychosensory and affective paroxysms, cenestopathic sensations of bizarre nature, transient illusions of perception. Tumor processes of the brain and thyroid gland, infectious diseases such as tick-borne encephalitis (which is endemic for the region of Siberia), post-influenzal arachnoiditis, meningitis; sub-acute disturbances of cerebral circulation; the states of intoxication which arose after specific medication of opisthorchiasis (endemic for the Siberian region) acted as an etiological factor. Depending on severity of MD and in association with this choice of forms and methods of the therapy, patients with MD revealed were distributed in two groups (2 and 3): group of patients needing course therapy and group of patients needing systematic therapy and dynamic observation. Prevalence of MD in patients of Group 2 was 20 per 1,000 persons, in Group 3 was 30, and in total in the second and third 50, that were 5% of the entire population (31,000) which is served by this polyclinic. The clinical-nosological analysis of psychopathological disorders has shown that neurotic and somatoform – 19.7 per 1,000 of population (39.4%) and organic disorders – 14.9 (29.8%) were the most frequent. Affective disorders constituted 5.3 per 1,000 of population (10.7%), personality disorders 3.6 (7.2%), physical disease-related mental and behavioral disorders 3.7 (7.3%). Schizophrenia and delusional disorders (1.8 per 1,000 of population, 3.7%) and dependence syndrome (1.0; 1.9%) were less represented.

It is important that the contingent of patients of Group 2 had not abruptly expressed MD, which were found only in general medical network, but were not revealed by dispensary services. Early diagnosis of mental disorders at the initial stage creates opportunity for timely therapeutic correction of them under conditions of somatic polyclinics together with internists. Group 3, unlike Group 2, in addition to patients with BMD, included patients with schizophrenia, mental and behavioral disorders due to alcohol use and psychotic disorders of exogenous and organic origins, who according to their mental state needed dynamic observation and systematic treatment.

According to findings of presented study, prevalence of MD among the contingent of patients of territorial polyclinic is 50 per 1,000 of population, served by the polyclinic. At the same time, according to data of psychoneurological dispensary of Tomsk, the number of patients under observation by the dispensary for the end of 2007 was only 16.2 per 1,000 of population. The dispensary's detectability of patients with neurotic and somatoform disorders is only 4.9% ($p < 0.01$), organic mental disorders 25.1% ($p > 0.05$), affective disorders 22.0% ($p < 0.01$), personality disorders 40.0% ($p < 0.01$), schizophrenia 77.5% ($p < 0.001$). Integrally supplementing extra-dispensary structures of psychiatric service, the office of specialized psychiatric help at a somatic polyclinic allows organizing work immediately in direct approach to the population. Three main stages in provision of the therapeutic-prophylactic help are distinguished: diagnostic, therapeutic and follow-up.

The therapeutic help is carried out immediately with the assistance of physicians of the somatic polyclinic. The main forms of assistance are out-patient or in-patient. The leading role of the psychiatrist or internist in the therapeutic process is defined by degree of severity of mental and somatic pathology.

Out-patient course or systematic therapy by the psychiatrist is carried out in relation to patients needing these types of the help. The used methods are very various and, unlike all known methods of treatment of mental diseases, at the out-patient stage they are limited to its conditions.

Referral to psychiatric hospital, according to our data, is necessary in most cases for patients observed at polyclinic by the psychiatrist – 53.7% of total number of all patients requiring course or systematic therapy. Hospitalization was conditioned by need of additional examination and observation, or by absence of sufficient effect from the used methods of out-patient treatment. The content of follow-up stage of the therapeutic-prophylactic help included: a) dynamic observation of patients by the psychiatrists who are directly in his group of therapy, and also the patients referred for cure by

physicians of the somatic network, repeated courses and therapy according to indications or systematic maintenance treatment; b) evaluation of quality and efficacy of the carried-out therapy, development of algorithm of health care provision for patients with combined mental and somatic pathology.

When providing therapy under conditions of the somatic network, the following stages were distinguished: initial, basic therapy and maintenance therapy. The initial stage is a stage of selection and provision of therapy directed at reducing affective intensity of mental pathology and acuteness of somatic disorders (vegetovascular, vestibular, pain) and the psychotherapy directed at establishment of contact with the patient. Duration of this stage is 3-5 days. The stage of basic therapy includes targeted individual-differentiated psychopharmacotherapy oriented to nosological belonging of mental disorder. The rational, cognitive-behavioral psychotherapy is oriented to change in patients the idea of illness and ways of recovery, and train the patient in necessary psycho-hygienic skills and knowledge. Duration of the stage is 10-20 days. The stage of maintenance therapy includes continuation of effective medication maintaining the stable mental state. The psychotherapy is directed at correction of family, professional relations, at change of behavior, personal growth, resolving the life problems. Therapy duration at this stage is determined by nosological belonging, progression of disease, therapeutic effect and lasts usually 1 month for patients with neurotic disorders, 3 months for patients with organic mental disorders and more than 6 months for patients with depressive disorders.

Taking into account nosological belonging, specifics of the contingent of patients of the somatic network and possibility of use of diagnostic therapeutic complex of the territorial polyclinic, we developed six rehabilitation programs with their step-by-step implementation: for patients with neurotic, stress-related and somatoform disorders; organic mental disorders; personality disorders; mood disorders, alcohol addiction; elderly persons.

Basic principles of therapy of the combined MD and somatic diseases in patients of the somatic network were *staging* (the sequence of forms and methods of therapy); *complexity* (the combined use of psychotherapeutic complex with psychotropic, somatotropic therapy, physiotherapeutic treatment, exercise therapy); *sufficiency* (the necessary volume of therapy appropriate for degree of severity of mental and somatic disorders, with a minimum side effects and complications from the carried-out therapy); the *individual-differentiated approach* (with account for constitutional-personal and age features, social status, financial possibilities); *continuity* (close cooperation of the psychiatrist and somatologists at all stages of health care provision, possibility of therapy of neurotic, asthenic reactions, sleep disorders, sub-depressive disorders directly by internists); *cooperativeness* (possibility of simultaneous cure of patients (this principle is especially relevant for patients with the group 1 of disability, elderly persons).

The content of algorithm of specialized psychiatric help (see **Box 1**) for patients with combined mental and somatic disorders is as follows: assessment of somatic and mental status, distinguishing the nosological groups taking into account their clinical dynamics, choice of therapy, forming of groups of observation (risk group, needing course therapy and needing systematic therapy).

Box 1 Main functions of a specialized psychiatric office of somatic polyclinic

1. Organization of psychiatric help accessible and oriented to needs of patients
2. Creation of educational programs for doctors and patients
- 2.1. Training measures (seminars, analyses, conferences) directed at heightening of awareness of the personnel of somatic polyclinic on symptoms of mental disorders corresponding to the initial period of a disease
- 2.2. Help to doctors in elaboration of medical tactics in relation to patients with conflict behavior
- 2.3. Training of patients in necessary skills of correction of the disturbed functional possibilities in social, family life, in professional activity
3. Consultative-diagnostic function. Diagnosis of psychosomatic and somatopsychic disorders, psychological counseling, forming of basic groups of observation of patients with combined mental and somatic disorders
4. Therapeutic-diagnostic help. Provision of the differentiated medical care at different stages of disease jointly with internists
5. Organizing-regulating function. The referral of patients, if necessary, to psychiatric institutions (to psychiatric hospital or out-patient psychiatric service), to psychoneurological dispensary for resolving the social and legal issues, control of appropriateness of administration of psychotropic drugs to patients by somatologists
6. Expert function. The assessment of mental and psychological state during resolving the issues of labor expertise (systemic disease), during issue of certificates of incapacity of work, references on restriction of the work associated with emotional and physical overstrain
7. Preventive-prophylactic function. Detection of risk groups for development of MD among patients who are subject to medical examination due to somatic state; persons of later age; young men of military age; the persons passing medical examination during entering educational institution; therapy of some psychopathological symptoms (sleep disorders, emotional lability, irritability) for the purpose of prevention of nosologically developed mental disorders
8. Development of standards of diagnosis and differentiated therapy of combined mental and somatic disorders
9. Dynamic and consultative observation of patients with mental disorders, comorbid with somatic pathology

Use of preventive and rehabilitation programs developed by us on the basis of somatic polyclinic in unity with psychiatric services of psychiatric institutions allowed achieving the improvement of quality of life, high clinical and economic efficacy of treatment of patients with combined mental and somatic pathology. According to follow-up (from 2 to 9 years), in group of patients needing course therapy and observation on request, recovery is achieved in 46.2% of cases, persistent clinical improvement in 44.1%; in group of patients needing system therapy and dynamic observation, recovery is achieved in 24.7% of cases, persistent clinical improvement in 65.5%. The most effective were therapeutic measures for persons with initial stages of MD, corresponding to Group 2 of patients. The differentiated step-by-step approach to treatment of combined mental and somatic disorders under conditions of general somatic institution and the principle of continuity in therapeutic measures allowed reducing the temporary incapacity of work in 1.8 times, number of unreasonable visits and examinations per 1 patient in 2.3 times. When studying quality of life with use of SF-36® questionnaire in patients with MD associated with somatic diseases before and after therapy, it was established that among categories of "physical health" conducted therapeutic measures significantly and reliably increased quality of life of patients across all indicators.

Thus, the organization of extra-dispensary link of psychiatric help at somatic polyclinic allows real improving the work on protection and strengthening of mental health of the population, optimizing its prophylactic and preventive orientation, increasing the detectability of patients with mental pathology, expanding possibilities of the existing psychiatric service. The specialized psychiatric service under conditions of somatic polyclinic for the Siberian city is a necessary organizational model of integrative medical care to the population.

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