PSYCHOTHERAPY OF PATIENTS WITH HYPOCHONDRIAC AND OBSESSIVE-COMPULSIVE DISORDERS DUE TO PERINATAL CEREBROVASCULAR LESIONS

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Abstract
Perinatal cerebrovascular lesions represent one of the important causes of the onset of mental disorders. The research addresses specific psychic pathologies of this type such as hypochondriac and obsessive-compulsive disorders. The main focus of the research is the psychotherapy for that contingent of patients. Tests and statistical trials were conducted for groups composed of persons suffering from the said disorders. Based on the results of data analysis the research reviews specific recommendations for using psychotherapeutic techniques considering their influence on clinical manifestations of hypochondria and obsessive-compulsive disorder.

Keywords: perinatal cerebrovascular lesions, obsessive-compulsive disorder, psychotherapy.

Introduction
Along with environmental factors and genetic factors, whose role in the development of psychopathology is becoming more clearly delineated, it is also impossible to exclude the importance of perinatal hemorrhagic and hypoxic-ischemic cerebrovascular lesions. The rate of the latter on average reaches 40% and progressively increases to 80-85% inversely proportional to the gestational age of babies (American Psychiatric Association, 2000; Brugha, 1995; Bustillo, Lauriello, Horan, & Keith, 2001; Fergus & Valentiner, 2009).

By directly influencing neural systems, such brain damage can be the root cause of mental disorders (Amir, Freshman, & Foa, 2000; Fontenelle et al., 2006; Hollander & Benzaquen, 1997; Ristner, Modai, & Endicott, 2000; Gonchar, 2011; Gurovich, Shmukler, & Strojakova, 2004). Children who survive acute perinatal pathology are later considered healthy, because after a certain period of time they do not show any indicators of encephalopathic damage. However, at later stages of development disturbances of mental type may become more and more noticeable and pronounced (Anthony, Cohen, Frakas, & Gagne, 2002; Creed & Barsky, 2004; Fink,
Hansen, & Oxhøj, 2004; Goldberg et al., 1997). These can manifest themselves throughout the whole lifespan (Hemsley, & Murray, 2000; Hollifield & Finlay, 2014; Noyes, Langbehn, Happel, & Stout, 2001; Rasmussen & Eisen, 1991).

Until now, the issues of mental disorders due to perinatal cerebral lesions, with an assessment of the stereotype of their development, their patterns of dynamics, clinical and social prognosis, the choice of therapy and rehabilitation programs according to their clinical options and the analysis of trigger factors in their formation remain open (Hansen, Fink, Frydenberg, de Jonqe, & Huysc, 2001; Noyes, Stuart, & Langbehn, 2003; Rasmussen & Tsuang, 1984; Rasmussen & Eisen, 1994; Rief & Rojas, 2007).

Hypochondriac conditions take special place in clinical psychiatry and psychology. They are not studied completely because of theoretical variances between diagnostic criteria and final definitions of non-delusional hypochondriac conditions (Liberman & Robert, 1987; Martin & Jacobi, 2006; Mayou, Kirmayer, Simon, Kroenke, & Sharpe, 2005; Rasmussen & Eisen, 1992).

The problem of obsessive-compulsive disorder (OCD) is very relevant now. Despite the research and development of new methods of psychopharmacotherapy, the treatment of patients of this category remains a difficult task (Torres & Lima, 2005). In spite of the relatively low level of mental activity and the widespread arsenal of therapies, obsessive-compulsive disorder (OCD) is resistant to ongoing therapy; there is a tendency for chronic disease and disability of such patients with significant negative social and economic consequences. International epidemiological studies show that prevalence of OCD is from 1.9 to 3.3% of the population (Krasnov, Gurovich, Mosolova, & Shmukler, 2007; Chubko & Romanchenko, 2012).

Currently, among the approaches to the psychiatric rehabilitation, the technologies of therapy are used to a greater extent than the methods of the rehabilitation as such. The purpose of the latter is to improve the functioning of the individual in society, programming skills, and resources modification (Gurovich & Newfeldt, 2007; Chubko & Romanchenko, 2012).

Absence of the programs of medical and social rehabilitation, accounting for clinical options, a level of quality of life and social functioning, for patients with mental pathology due to perinatal cerebrovascular lesions significantly limits therapeutic possibilities in modern clinical practice (Anthony et al., 2002; Hemsley, & Murray, 2000; Gonchar, 2011).

Thus, with all the issues, concerning mental disorders arising from hemorrhagic and hypoxic-ischemic vascular-cerebral lesions that are not solved both theoretically and practically their study is topical at the present time. The resolution of these problems will ensure the reliability of psychopathological qualifications, the accuracy of the prognosis of such disorders, and will facilitate the creation of rehabilitation programs making it possible to optimize the treatment process.

**Methodology of Research**

*General Background*

The main aim of the study is to investigate the role of psychotherapy in medical and social rehabilitation of patients suffering from mental disorders due to perinatal cerebrovascular lesions. The study focuses on specific psychic pathologies such as hypochondriac and obsessive-compulsive disorders as there are some similarities between the conditions, including the development of excessive, stereotyped, repetitive behaviors in an attempt to allay the anxiety.

*Sample Selection*

The study included 120 patients with hypochondriac disorders originating from the perinatal cerebrovascular lesions. The study also included 165 patients with OCD. The study excluded individuals younger than 18 years old and older than 60 years old, persons with severe somatic pathology, severe CNS damage. The average age was $24.6 \pm 11.0$ years among those who have undergone inpatient and / or outpatient treatment.

On the later stage of the study 10 patients who were treated exclusively by psychophar-
macotherapy were excluded from the OCD comparison group. Among the remaining 155 OCD patients 102 (65.8%) were men and 53 (34.2%) were women. The group included persons with obsessive-compulsive disorders of the neurotic register (96 patients - 61.9%) and with disorders of the endogenous register (59 patients - 38.1%).

**Instrument and Procedures**

The research was conducted using the following methods: clinical-catamnestic, clinical-psychopathological, psychodiagnostic (Whitley index, WI, Pilowsky, 1967; Multidimensional Inventory of Hypochondriacal Traits, MIHT, Longley, Watson, & Noyes, 2005; Quality of life scale, Chaban, Khaustova, & Bezsheyko, 2016; Hospital Anxiety and Depression Scale, HADS, Zigmond & Snaith, 1983; Das Freiburger Persönlichkeitsinventar, FPI, [Freiburg Personality Evaluation Scale] Fahrenberg, Hampel, & Selg, 2010), socio-demographic, statistical.

At the first stage of the study, 165 patients with the OCD symptoms were screened. The following instruments were used on this stage: the MKH-10 criteria; the clinical scale of obsessions and compulsions of Yale-Brown Obsessive-Compulsive Scale (Y-BOCS), (Goodman et al., 1989) which allows assessing the severity of OCD; the hospital scale of anxiety and depression (HADS) which permits to form two groups (the main group and the comparison group) including subsequently persons with the diagnoses of the neurotic (96 patients - 55.8%) and endogenous (69 patients - 44.2%) obsessive-compulsive disorders.

At the second stage of the study, clarification of symptoms was performed with the help of the following instruments: the scale of assessing the quality of life (Chaban et al., 2016), the multidimensional scale of perception of social support (MSPSS), (Zimet et al., 1988), the Plutchik-Kellerman-Conte questionnaire “Lifestyle Index - LSI “ (Conte & Apter, 1995), the methods for psychological diagnostics of learning behavior (Lazarus, 1984). A comparison was also made between the two groups using the data of the daily questionnaires obtained on the first stage.

The third stage of the study involved division of the group into therapeutic subgroups. The main group included patients with OCD of the neurotic register, who received monotherapy, as psychotherapy (the elements of cognitive-behavioral therapy and gestalt therapy) and combined therapy (psychotherapy and psychopharmacotherapy). The comparison group included patients with OCD of the endogenous register who received monotherapy, as a psychopharmacotherapy and combined therapy (psychotherapy and psychopharmacotherapy). Here also as mentioned above, 10 patients were excluded from the comparison group, who were exclusively on psychopharmacotherapy. Also at this stage, the comparison between the therapeutic subgroups was performed using the scale points of the first stage of the research, which in its turn gave an ability to identify the targets for further therapeutic correction.

The fourth stage of the research included an assessment of the efficacy of treatment after three months of therapy and after six months of therapy. The above-mentioned scales were used as an instrument of the assessment.

**Results of the Research**

The data obtained on the first two described above stages were processed as follows. Using factor analysis and the results of the quartimax rotation of the OCD evaluation scale (Y-BOCS) scores made it possible to combine the various symptoms into groups and expose the symptoms of obsessions and compulsions for each of the four axes (groups). The final results are presented in the Table 1.
Table 1.  Factor loads as a result of quartimax rotation of the Y-BOCS scale scores.

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>G1 A</th>
<th>G1 B</th>
<th>G2 C</th>
<th>G2 D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 axis - the obsession with completeness</td>
<td>n=50</td>
<td>n=46</td>
<td>n=59</td>
<td>n=10</td>
</tr>
<tr>
<td>Obsession of symmetry and order</td>
<td>0.590</td>
<td>0.352</td>
<td>0.206</td>
<td>0.312</td>
</tr>
<tr>
<td>Obsession of pollution</td>
<td>0.159</td>
<td>0.777</td>
<td>0.054</td>
<td>-0.224</td>
</tr>
<tr>
<td>Aggressive thoughts</td>
<td>0.023</td>
<td>0.244</td>
<td>0.788</td>
<td>0.035</td>
</tr>
<tr>
<td>Obsession of hypochondria content</td>
<td>-0.377</td>
<td>0.531</td>
<td>0.017</td>
<td>0.237</td>
</tr>
<tr>
<td>Obsessions of sexual content</td>
<td>0.175</td>
<td>0.076</td>
<td>0.773</td>
<td>-0.199</td>
</tr>
<tr>
<td>Obsession of religious content</td>
<td>-0.059</td>
<td>0.600</td>
<td>0.144</td>
<td>-0.418</td>
</tr>
<tr>
<td>Obsession of dysmorphic content</td>
<td>-0.073</td>
<td>0.175</td>
<td>0.732</td>
<td>0.489</td>
</tr>
<tr>
<td>Another obsessions</td>
<td>0.167</td>
<td>0.155</td>
<td>0.331</td>
<td>0.902</td>
</tr>
<tr>
<td>Symmetry and order compulsions</td>
<td>0.903</td>
<td>0.201</td>
<td>0.081</td>
<td>-0.036</td>
</tr>
<tr>
<td>Rituals of repetition</td>
<td>0.702</td>
<td>0.369</td>
<td>0.099</td>
<td>0.145</td>
</tr>
<tr>
<td>Cleaning compulsions</td>
<td>0.266</td>
<td>0.585</td>
<td>-0.345</td>
<td>-0.366</td>
</tr>
<tr>
<td>Compulsive checking</td>
<td>0.179</td>
<td>0.788</td>
<td>-0.008</td>
<td>0.224</td>
</tr>
<tr>
<td>Compulsive neurotic excoriation</td>
<td>-0.122</td>
<td>0.032</td>
<td>0.599</td>
<td>0.344</td>
</tr>
<tr>
<td>Collecting compulsions</td>
<td>0.106</td>
<td>0.195</td>
<td>-0.142</td>
<td>0.780</td>
</tr>
<tr>
<td>Expl. Var</td>
<td>2.368</td>
<td>3.700</td>
<td>1.537</td>
<td>1.353</td>
</tr>
<tr>
<td>Prp. Totl</td>
<td>0.158</td>
<td>0.247</td>
<td>0.102</td>
<td>0.090</td>
</tr>
</tbody>
</table>

* Marked load above 0.500

Axis 1 – the obsession with completeness
Axis 2 – the obsession with safety
Axis 3 – the ambivalent obsession (forbidden motives)
Axis 4 – the obsessions with accumulation

The first axis (axis 1) included 50 patients (n=50). The mostly loaded were obsessions of symmetry and order, symmetry and order compulsions, and the repetition rituals. It made it possible to define the first group – that of the obsession with completeness. The second axis (axis 2) included 46 patients (n=46). The main load here came from obsessions of pollution, obsessions of hypochondria content, religious obsessions, cleaning compulsions, and inspections compulsions.
It made it possible to define the second group – the group of obsession security. The third axis (axis 3) included 59 patients (n=59). The greatest load was on obsessive thoughts of an aggressive nature, obsessions of sexual content, obsessions of dysmorphophobic content, and compulsive neurotic excoriations. It made it possible to allocate the third group – that of ambivalent obsessions (forbidden motives). The fourth axis (axis 4) included 10 patients (n=10). The main load here came from the other obsessions, from the compulsions of gathering and collecting. It made it possible to define the fourth group – the group of obtrusive accumulation.

In the third and fourth stages of the study based on data obtained we estimated the effectiveness of the therapy. We used the method of psychological diagnostics of taking possession behavior; we were able to evaluate the effectiveness in dynamics during the period of 6 months for both groups. It was found that for the patients of neurotic type group (G1) dominating coping strategies were focused mainly on reducing emotional discomfort: self-control (56.3%), search for social support (60.4%). The therapy during the first 6 months was focused on the identification of the coping strategies. As a result of the therapy (monotherapy, combined therapy), the coping strategies have acquired a different character and expressiveness: confrontation (50%), acceptance of responsibility (50%), planning of problem-solving (55.2%). For the patients of the endogenous type group (G2) dominating coping strategies were distancing (52.5%), self-control (69.5%), and escape-avoidance (79.7%). The therapy for 6 months also focused on these strategies. As a result, the coping strategies have changed: the level of distancing has decreased to 15.3%, self-control has increased to 35.6%, the level of acceptance of responsibility in patients has increased to 20.3%, the increase in problem-solving planning has grown up to 40.7%, and a positive revaluation up to 45.8%.

<table>
<thead>
<tr>
<th>Table 2. Methods for psychological diagnostics of learning behavior.</th>
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<tbody>
<tr>
<td><strong>Indexes</strong></td>
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<td>-----------------------</td>
</tr>
<tr>
<td>Confrontation</td>
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<td></td>
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<tr>
<td>Distancing</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Self-control</td>
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<tr>
<td></td>
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<tr>
<td>Search for social</td>
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<tr>
<td>support</td>
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<tr>
<td>Acceptance of</td>
</tr>
<tr>
<td>responsibility</td>
</tr>
<tr>
<td>Escape</td>
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<td></td>
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</tbody>
</table>
The distribution of the patients under study regarding the frequency of the use of adaptive and maladaptive coping strategies is presented in the Table 2. In the main group, the highest degree of tension was gained by the coping strategies “acceptance of responsibility”, “self-control”, “search for social support”, “a solution problem planning”. In the comparison group, the highest degree of tension was achieved by the coping strategies “escape-avoidance”, “self-control”, “distancing”.

**Discussion**

As a result of the statistical processing of the material, four axes were identified, which explained 69.7% dispersion of characteristics (dispersion analysis).

There is a dependence on the severity of symptoms in the direction of compulsions, which is typical for patients of the non-routine register, who received monotherapy as psychotherapy. When the intensity of the severity of the obsession begins to increase (which is typical for patients both neurotic and endogenous registers), they received a combined therapy. And patients, who received monotherapy as a pharmacotherapy, are patients whose symptoms of OCD were diverse and sharply expressed in the direction of obsessions, and compulsions manifested in the form of pathological collection.

There is a thought that in its turn has an intrusive obsessive character, leading to a decrease of the general level of adaptation that was observed in two groups of patients, it is characterized by an increase of the level of anxiety that leads to distress, that is, an increase of situations that are perceived as stress-induced. Under such conditions, the person creates strong behavioral protective patterns (schemes, stereotypes, models), to express the severity of the investigations, in order to protect the “Ego” from realizing the phenomena that give rise to anxiety. The most commonly used protective coping strategies in the main group of patients with neurotic rectal neoplasm were: reactive formation, intellectualization, projection, displacement, as opposed to the comparison group of patients with endogenous OCD: substitution, displacement, regression.

Other copy-protection strategies were used in rare cases.

Total tension of protective mechanisms was significantly higher in the main group.

Psychopharmacotherapy was prescribed according to the protocol of the American Association of Psychiatrists (APA, 2013). Psychotherapeutic interferences were performed once a week, during 1 hour. An assessment of the effectiveness of therapeutic interferences, the so-called intermediate integration of the patient was conducted in the third (15 sessions) and the sixth (30 sessions) months of the treatment and rehabilitation program.

The first stage is the formation of readiness for the rehabilitation of patients with OCD - makes it possible to assess the interest and determination of the participants. It includes clinical factors: adoption of the role of the patient and the ability to form a working therapeutic alliance. For the formation of rehabilitation readiness, family counseling and psycho-educational program were used.

The second stage is focusing on the patient’s feelings and experiences. Application of tech-
Strategies: exposure with reaction warning, training of adaptability. Work with anxiety is aimed at planning of the development skills, training and programming in patients of the main group and the comparison group. Work with taking responsibility with further aggression.

The third stage is the transfer of skills in real life.

Therapy of hypochondriac disorders represents certain difficulties in therapeutic strategies and drug choice. Among the variety of factors, influencing on such choices and determining therapeutic effectiveness, psychopathological structure of hypochondriac disorders is principal. Also, somatically altered basis takes a great role in defining therapeutic approaches. The most optimal approach represents complex strategy containing psychopharmacological treatment and psychotherapy (gestalt-therapy, CBT, short-term).

Conclusions

The conducted research showed that in the behavior of the patients with OCD prevails coping strategies which are directed primarily to reduce emotional discomfort, rather than at solving the problem situation, and the main coping source is family support meaningful for the personality of people. Such a stereotype of personal responses can be in the basis of disorder of patients’ psychological adaptation and is an important “target” for psycho-correctional effects in OCD clinical.

This gives an opportunity to make a cross-sectional analysis of the dependence of the four selected factors (combination and selection of the most common symptoms), definition of coping resource and use of coping strategies according to each factor that gives an opportunity to differentiate approach for carrying out of therapeutic and rehabilitative measures.

For qualified and timely treatment of patients with hypochondria due to perinatal pathology it is suggested to combine psychopharmacological treatment and psychotherapeutic methods.

The study of the regularities in the dynamics of mental disorders makes it possible to apply more flexible curating tactics to achieve more favorable outcomes at optimal times.

Isolated targets of pharmacological and psychotherapeutic intervention, prognostic criteria of mental pathology are informative for the development of a differentiated program of medical and social rehabilitation that allows optimizing the medical process and improving the quality of life of the patient population.

References


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