

Security Logical Subjectivity of Mental and Behavioral Disorders and their Social and Specialized Correction

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Abstract

The number of people who suffer from various types and forms of mental disorders is growing rapidly every day. The problem definition by the statistical methods only just outlines the quantitative relations between the numbers of registered mental illness cases and the overall number of people suffering from them. However, it doesn't answer the main questions of the public safety and of the safety of the abovementioned persons as it fails to account for the exogenous factors of the manifestation of the genetically determined and inborn mental disorders that incapacity mostly the children population. In this regard, a necessary condition for public safety is a scientific solution to the problem of the securitylogical subjectivity of the person with mental and behavioral disorders. One of the main reasons for the heavy illnesses of the central nervous system (CNS) and psychic disorders is perinatal cerebrovascular lesions and hypoxic-ischemic cerebrovascular injuries. The problem is, on the one hand, a subject of interest for the psychological, medical and social sciences, and on the other opens the dimensions of both special and social correction. Psychic disorders resulting from the perinatal cerebrovascular lesions and their psychotherapeutic correction are discussed in this article. Clinical investigation of the perinatal cerebrovascular lesions has been conducted using radio diagnostics tools, the mental and behavioural disorders were studied, and the correction methods were presented.

Key-words: Perinatal Cerebrovascular Lesions, Psychiatric Disorders, Radio Diagnostics, Therapy.

1. Introduction

Public safety is basically a tendency inherent in the relationships between the society members to preserve life and health of everyone along with the helper attributes and conditions. However, individual differences in comprehension and use of these possibilities by each member of every society act as a counterweight to the equality taken as an idea and as a mode of behavior. This constitutes a psychological factor of uncertainty and as a result leads to the risks of unanticipation and all connected dangers. The subject area of security has been holistically defined by L. Korzeniowski (2013): “Safety is a subject of interest of many branches of natural, technical, medical, agricultural and social sciences and also of more special sciences whose lineage plunges the depths of the original sources of scientific understanding of reality. Some of them have always placed a human being and her needs in the center of their interests, another ones influenced by the securitylogy are only beginning to value the human subjectivity». On the basis of these methodological guidelines set out by L. Korzeniowski (2013) the problem of the securitylogical subjectivity of the person with mental and behavioral disorders is, on the one hand, a subject of interest for the psychological, medical and social sciences, and on the other opens the dimensions of both special and social correction, which is a necessary condition for public safety.

Statistical problem definition only outlines the quantitative relations between registered mental disorders and the total number of people, who suffer them, according to their social status – disability, military profession, mobilization to the eastern battlefront, belonging to the civilian population of affected by Russia invasion occupied and neighboring territories of Donetsk and Lugansk regions. “In the meantime, in Ukraine there are 1 690 thousands of persons suffering from the mental and behavioral disorders, 254 thousand of them are registered as disabled due to the pathology. According to the Ministry of Defense of Ukraine, in 2014 and the first half of 2015 there were more than 3 000 servicemen who were in action in the antiterrorist operation in the East of Ukraine who needed psychiatric care. This is 75,8% of the total number of mentally diseased. However, as an international experience and the results of several studies show, the number of participants of the armed conflict in eastern Ukraine who will need qualified psychological and psychiatric care, is much bigger and can reach 98%. Recently, due to the economic crisis and the tragic events in the Donbas region, the number of mental health deviations has increased significantly. The reason is first of all is the rise in the occurrences of post-traumatic stress disorder (PTSD) both in the military and civilians. So, just in 2014 disability due to different kinds of mental disorders has been diagnosed in more than 10 thousand persons” (Almost 1.7 million people...2015).

Such extreme complications of human activity caused by the war waged by the Russian Federation on Ukrainian territory are the main exogenous factors of the manifestation of genetically determined and innate mental disorders that mostly incapacitate infant population.

2. Materials and Methods

One of the main reasons for the heavy illnesses of the central nervous system (CNS) and psychic disorders is perinatal cerebrovascular lesions and hypoxic-ischemic cerebrovascular injuries. The frequency of the latter reaches in average 40% and then grows progressively up to 80-85% in inverse proportion to the gestational age of the children (Vatolin, 1995; Dvoryakovsky, 1994; Hill & Volpe, 1992; Cannonrobin & Murray, 1998; Shannon-Bowen & Gatzke-Kopp, 2013).

The diagnostics of the intracranial pathologic processes is significantly impeded by the morph functional immaturity of the neonatal babies' central nervous system. This fact leads to the uniformity and generalization of the clinical manifestations irrespective of the degree and the nature of the lesions. So, the rational employment of the modern methods of the neuroradiological diagnostics to resolve significant ethical problems of reanimation and long-term treatment of severely ill newborns is an obvious problem today.

It's believed that an ultimate solution of the problem comes to the prevention of the lesions of the central nervous system, timely diagnosis and effective treatment of the perinatal pathology. Looking at just the medical dimension one can completely agree with above point. However, fundamentally prevention of chronic human diseases and the formation of lifelong health are based on the securitylogical subjectivity of the society and of the micro social medium where a person is being born and which she is unable to choose. But the natural need for saving the subject's own life constitutes the common securitylogical basis of the existence both of an individual and his micro social medium and the society in its entirety. Hence, the securitylogical subjectivity is inherent in both the individual and in the wholeness of her micro social medium and in the social entity, to which it belongs by the fact of birth. Using the method of induction to discover the securitylogical subjectivity of the person as such, we have conducted an in-depth study of an effect of the pathological agents including psychological factors on the behavior deviations as a menace to the security of the micro social medium that embraces the violator herself. The goal is to achieve social significant correction by the means of biological therapy and psychotherapy.

The methods of the radiodiagnostics for the perinatal cerebrovascular lesions include real-time ultrasonic imaging of the brain structures with fonticulus anterior as an acoustic window for the

neonatal studies; neurosonography (NSG) that permits to examine babies in limited space and allows multiplanar studies; magnetic resonance imaging (MRI) making it possible to acquire promptly images comparable in quality with those histological sections (Gonchar, 1999). Also were used clinical catamnestic method, age dynamic principles, psycho-pathological method, clinical statistical methods. The clinical diagnosis was identified in accordance to the ICD-10 diagnosis criteria.

For certain types of the cerebrovascular lesions to appear the degree of the brain development are of importance and the latter depends on the gestational age of the infant.

One of the premature born brain tissue specifics is the germinal matrix. The blood vessels of the matrix are extremely fragile and can easily be damaged. The germinal matrix leftovers are longest preserved near the blood vessels and the surface of the nucleus caudate. This dictates the frequency and topography of the infant haemorrhages. The blood circulation levels of the cortex and central cerebrum structures equalize only after 34 weeks of gestation.

233 infants and 43 male patients who sustained hemorrhagic and hypoxic-ischemic cerebrovascular injuries with further development of different forms of deviant behavior of nonpsychotic level were studied using the radiation diagnostics methods.

3. Results and Discussion

The neonatal circulation regulation system is imperfect, and some factors can lead to the hemodynamics failures such as the pressure increase or reduction. So, convulsions, apnea and resuscitative measures can cause general pressure increase that is the reason for the passive brain hyperperfusion and haemorrhage. In such situations, premature infants can suffer the rupture of fragile blood vessels of the germinal matrix and, as a result, have intraventricular haemorrhage (IVH). For the full-term babies, germinal matrix or brain parenchyma haemorrhage is a rare event. The cause of such bleedings is a birth injury. In the case of hyperperfusion of the brain in full-term infants hemorrhagic infarction may arise. On the contrary asphyxia and hypoxia lead to the system hypotension and hypoperfusion with the hypoxic-ischemic brain damage or infarction irrespective of the child's gestation age (Uralova et al., 2015). However, prematurely born infants have the most sensitive to the hypoperfusion separation zone between the central and peripheral vascular territories in the periventricular brain white substance where the cerebrovascular lesions and periventricular leukomalacia (PVL) arise.

PVL is a coagulation necrosis of white brain substance with the perifocal reaction in the form of the brain tissue edema. PVL may get complicated by the secondary hemorrhage in the brain

parenchyma or by the intraventricular haemorrhage (24,3%). With time, the edema boils over, the necrotic mass resolves and on its place the pseudocysts arise. Then the small pseudocysts reduce and create glial cicatrices with the white brain substance atrophy. Big pseudocysts merge and create panencephalitis.

In the case of the full-term infants, the changes arise in the brain cortex grey substance and the nucleus basalis. Prolonged deep hypoperfusion with ischemia may cause the damage of the parenchyma in the zones of the blood distribution located in the cortex of the mature brain. Central gray substance and the cerebellum commonly are not damaged. In other cases, more damage receives nucleus basalis with the subsequent gliosis. In the event that there are deep hypoxia and ischemia the diffuse brain lesion may arise with the cell's necrosis, toxic brain edema followed by the brain cortex diffuse necrosis - polycystosis encephalomalacia. Complication of this pathology is the replacement of the necrotic mass with the pseudocysts, development of the microcephaly with the clinical picture of the severe psychomotor lesion. The injury of the white substance near white ventricles of the brain causes the special type of the infantile cerebral paralysis - primary spastic diplegia or tetradiplegia.

The major unilateral IVH may result in the veins occlusion, venous congestion, and local ischemia in the periventricular white brain substance. Due to the reperfusion the secondary hemorrhagic infarction may occur. As opposed to the PVL case it appears more often in the frontal periventricular zone and near the triangles of the lateral brain ventricles. As a result of the PVL, 6,9% of the infants acquire hydrocephalus.

So, the preterm and full-term infants have different brain physiology and pathophysiology of the cerebrovascular lesions. The reason lies in the specifics of brain maturing and the changes in its blood circulation. However, at some interval between the 34th and 36th weeks of gestation the lesion of one of the above types is possible. The exact type depends on the brain development at the time of the injury. Infants can suffer the perinatal cerebrovascular lesions of different types even if the brain injury mechanism is the same.

The brain lesions that directly influence the neural systems may serve as the cause for the pathogenesis of the psychic disorders including those where not only cognitive disturbances but also the behavior deviations and personality violations are present. More than 70% of the children who survived the acute perinatal pathology are considered healthy as after certain time interval they do not show any indicators of encephalopathy (Bowen & Gatzke-Kopp, 2013). However, at the later development stages the violations in the cognition and the social-emotional behavior become evident. And the psychic disorder can show up anytime in the course of the whole life.

Therefore, the most important study objective among different variations of mental pathology is to investigate deviant behavior of children and adolescents from the point of view of the borderline neuropsychiatric disorders of the residual organic origins. The reason is in the broad specter of the behavioral disorders' manifestations, in their high frequency, in the impossibly hard for given cohort problems of the social adaptation.

The real possibilities of the overcoming of the school and social deadadaptation along with the correct estimation of the diagnostic value of the clinical presentations depend to great extent on the timely choice of treatment and therapy. Timely selection of treatments and specialized psychotherapeutic measures depends on the social and micro social assessment of risks and dangers of behavioral disorders in children and youth. And the securitylogical subjectivity and initiative here belong to the family, children's and youth social organizations, police and other social institutions.

Thus, the level of disturbed family relationships in children and adolescents implies the use of four stages of family psychotherapy:

1. Diagnostic (family diagnosis);
2. Family conflict elimination (social, legal and/or specialized psychotherapeutic intervention);
3. Reconstructive (restoration of violated or constructing of socially acceptable family relationships);
4. Maintenance (long-term social, legal, socio-pedagogical and psycho corrective individual patronage).

One important constituent of the psycho corrective individual patronage is deployment of the cognitive-behavioral therapy whose aims are:

1. Functional and behavioral analysis;
2. Changes in self perception;
3. Correction of misaligned behavior and irrational attitudes;
4. Development of competence in social functioning.

Short-term positive therapy focused only on what's positive in the patient's life, on their resources, usage only of positive supports in work with the patients and with their relations.

The special feature of the short-term positive therapy which has to be applied in psycho intervention is that it's focused only on what's positive in the patient's life, on the models of behavior and the ways of solving various social situations and conflicts in the lives of patients, on replenishing their perception of positive actions as a source of possible social behavior modes, on employment of

exclusively positive encouraging supports in the guidelines for the patients, families and people close to them.

Along with the factors of environment and with the genetic factors whose role in the development of psychopathology becomes clearer one should not also exclude the brain lesion as a device facilitating genetic susceptibility. The data of the perinatal cerebrovascular lesions study may help to identify high-risk groups and what's even more important may allow to characterize the biological processes connected with such lesions. Also, these data may be instrumental in development of correspondent pharmacological and therapeutic approaches that can obstruct above processes, reduce the severity of their action and thereby contribute to the improvement of the social adaptation of the cohort of interest.

4. Conclusions

Results of the study reveal a high prevalence of potential risk factors of behaviour disorders in children and adolescents that when growing upkeep and expand the pathological modes of action, and the latter are the source of danger for the public safety and for the actors themselves. Securitylogical subjectivity implies the development and implementation of social and microsocial evaluations of the risks and dangers of the behavioural disorder in children and youth. The initiative here belongs to correspondent subjects of social influence, family, children and youth social units, police, and other social institutions. It is this initiative that the timeliness of the therapy methods and specialized psychotherapeutic measures choice, particularly of the specific radiodiagnosis method or radiodiagnosis complex, depends on. This makes it possible to set the type and stage of cerebrovascular perinatal brain lesions. Implementation of the systems approach based on the biopsychosocial model of mental and behavioural disorders in children and youth allows applying the therapy differentially when trying to achieve social adaptation in people with genetically determined and inborn mental illnesses that show socially dangerous deviations in behaviour.

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