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Images on the first page represent: Inaugural board of "Socola" Hospital of Psychiatry Iaşi
The cover of the first number of "Bulletins et Mémoires de la Société de Neurologie, Psychiatrie et Psychologie de Iassy"
The image on the first cover represents the main building of "Socola" Institute of Psychiatry Iasi

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The Bulletin of Integrative Psychiatry tries to continue the tradition initiated at "Socola" Hospital in 1919, when a group of intellectuals, medical doctors and personalities from other professions founded the Society of Neurology, Psychiatry and Psychology in Iaşi. Even from its beginnings, the Society edited a journal entitled "Bulletins et Mémoires de la Société de Neurologie, Psychiatrie et Psychologie de Iassy", the first publication of the kind in Romania, which was unique also by its vision and opening towards biology, psychology, sociology and philosophy and by its prestigious board of editors: C. I. Parhon, Gh. Preda, Constantin Fedeleş, Arnold Stocker, P. Andrei, Corneliu Popa-Radu, I. A. Scriban, well known personalities, some of them being physicians of great culture and scientific qualification.

Starting from 1920, the Association and its Bulletin, born and edited at "Socola", due to their remarkable scientific activity have contributed to the organization of 18 congresses, which are mentioned in the description of "Socola" Hospital activities.

In 1947, the last number of "The Bulletin of the Society", edited in French, was banned as a result of the interdictions imposed by extremist tendencies. From its first number in 1919 and until 1947, "The Bulletin of the Society" published 2,412 articles.

The journal or "The Bulletin of the Society" has appeared under several titles: "Bulletin et Mémoires de la Société de Neurologie, Psychiatrie et Psychologie de Iassy" (between 1919 and 1922), then "Bulletin de l'Association des Psychiatres Roumains" and from 1923 it has changed its title several times.

After the year 1947, all publications at "Socola" Hospital were included in the "Medico-Surgical Journal of the Society of Physicians and Naturalists in Iaşi", another prestigious scientific journal which has been published without interruption since 1886.

Starting from 1994, Professor Dr. Tadeusz Pirozynski, Professor dr. Petru Boişteanu, Professor dr. Vasile Chiriţă, Conf. dr. Radu Andrei and Dr. M. E. Berlescu have revived the tradition of publications at "Socola" Hospital, editing the new "Bulletin of Integrative Psychiatry".

At the end of 2014, "Socola" Hospital became the "Socola" Institute of Psychiatry, which has increased its responsibilities regarding medical assistance, scientific research, didactic activity, professional training and also the development of editorial activity.

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Editorial contact: contact@buletindepsihiatrie.ro

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Summary

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Buletin de Psihiatrie Integrativă

Editorial

BPI Bulletin of Integrative Psychiatry
Buletin de Psihiatrie Integrativa

Considerations on quality of life in psychiatry

Ilinca Untu, Roxana Chiriţă

Ilinca Untu – M.D., Ph.D. Student, "Socola" Institute of Psychiatry, Iaşi, Romania

Roxana Chiriţă - Prof., M.D., Ph.D., "Socola" Institute of Psychiatry, Iaşi, Romania

Quality of life means the degree of well-being experienced by an individual or a group of individuals. Unlike the standard of living, it is a much more relative and hardly tangible notion, making it much more difficult to measure directly. The quality of life is based on two essential components, physical and psychological. Physical aspects include somatic health, diet, prevention or fight against pain. The psychological component targets stress, worries, pleasure or other positive or negative emotions. One of the main applications of the concept of quality of life in medicine is to determine whether a particular therapeutic intervention improves the symptoms or improves subjectively and significantly the patient's well-being. Some researchers define the quality of life as the sum of all life experiences, others focus on the absence of disease and on the optimum state of health or on the well-being from the material and social perspectives. Although the notion of quality of life seems to be the field of expertise of all those working in the health services, it does not yet benefit from a unitary, unanimous and complete definition, and the measurement tools are varied, but there is no gold standard.

According to the World Health Organization, five distinct areas of quality of life can be identified: the physical, the psychological, the social, the life environment and the spiritual one. The physical domain refers to chronic pain, motor deficit, sensory impairments, etc., while the psychological field refers to perception of one's own self and cognitive abilities and psychiatric functions- effectory and volitional. The social domain measures the social level of life, interpersonal relationships, social support, socio-familial integration and social interactions. The domain of life refers to living conditions, security, accessibility of medical services and other opportunities and facilities, while the spiritual field evaluates how to relate to divinity.

Quality of life is based on both adaptive functioning, including self-care and social role satisfaction, as well as subjective satisfaction and well-being. Another scientific perspective associates the quality of life and external resources such as living standards and social support. Having so many variants of the meaning of the notion of quality of life, its image and significance has heterogeneous

facets that make it even more difficult to evaluate and quantify.

Quality of life of the psychiatric patient is a social concern with old roots. Thus, there are a number of predictors of the quality of life in terms of medical affections and, moreover, a series of general predictors of a decrease in quality of life in terms of psychiatric disorders such as a decrease in global functionality, severity of positive or negative symptoms in schizophrenic spectrum disorders or the severity of depressive symptoms. However, in psychiatry, simply diminishing or even disappearing symptoms does not automatically bring about a substantial increase in quality of life. In the context of sustained impairment of other components such as social, professional insertion and, of course, stigma, which remains a fundamental problem of psychiatry. Cognitive abilities are associated with functional, social and professional performance, and their decline results in decreased satisfaction. Low cognitive performance and functional status (lack of life partner, poor social functioning, limited social support network) correlate with a dramatic decrease in the quality of life. At the same time, optimal cognitive abilities translate into a good insight of mental illness, which can increase the level of depression and may lower the subjective level of quality of life. On the other hand, in the spectrum of schizophrenia, those with a lower level of education, with a longer duration of illness and higher doses of antipsychotic, report at a subjective level a better quality of life and a higher level of satisfaction, the most probably in the context of a low insight of the underlying disease. Thus, measuring the quality of life of psychiatric patients implies a real challenge when attempting to raise their subjective appreciation over personal satisfaction with therapeutic interventions and therapeutic adherence.

According to the European Pact for Mental Health and Well-being, mental health is among the human rights, which is indispensable for the overall health and quality of life of all individuals; a healthy mind is favorable to learning, work and participation in social life, and an essential resource in economic progress. This requires a new vision and approach to mental health by integrating mental health issues into all public policies, social and community psychiatry, providing medical and non-medical staff as well as adequate protection and treatment of people with mental disorders who need to benefit from the same rights as any other individual.

In addressing psychiatric disorders it is fundamental to involve the patient in the therapeutic approach, along with the treating physician and ideally with the family of the subject. Active involvement in understanding and making therapeutic decisions can significantly increase the therapeutic adherence and, implicitly, the quality of life. This aspect also has an extremely important role for the patient's reinsertion and the possibility of having an independent living, especially with regard to schizophrenia and its spectrum in which global functionality is profoundly threatened in the absence of a correct therapeutic approach.

In order to be able to talk about the quality of life of a psychiatric patient, it is imperative to relate both to the biological, psychological and social dimensions, in the context in which often the remission of the symptoms that can pass as an element of increasing satisfaction, actually brings about self-awareness and reactive depression, which draws the exact opposite. On the other hand, a clinical success may fade in the face of a patient's precarious socio-familial context, risking losing its therapeutic adherence or retreat socially and returning to a low level of satisfaction, or in according to the spectrum of his illness, to

claim a good level of satisfaction on a background of very poor socio-familial and professional integration, in the conditions of a low insight of the disease. This creates a gap between subjective and objective appreciation of quality of life, which could only be compensated by obtaining a gold standard in measuring the quality of life of patients with mental disorders that corroborates both components.

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Articles

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The role of vitamin D in depression

Antoneta Dacia Petroaie, Alexandra Boloș, Elena Adorata Coman, Liliana Barbacariu, Ana Maria Slănină, Livia Petroaie, Adriana Cosmescu

Antoneta Dacia Petroaie- MD, Ph.D., assistant of professor, Discipline of Family Medicine, Grigore T.Popa University of Medicine and Pharmacy Iasi
Alexandra Boloș- MD, PhD, lecturer, senior psychiatrist, Grigore T.Popa University of Medicine and Pharmacy Iasi
Elena Adorata Coman- MD, PhD, senior internist, lecturer, Discipline of Family Medicine, Grigore T.Popa University of Medicine and Pharmacy Iasi
Liliana Barbacariu- MD, PhD, assistant of professor, Discipline of Family Medicine, Grigore T.Popa University of Medicine and Pharmacy Iasi
Ana Maria Slănină- MD, PhD, assistant of professor, Discipline of Family Medicine, Grigore T.Popa University of Medicine and Pharmacy Iasi
Livia Petroaie- student, Grigore T.Popa University of Medicine and Pharmacy Iasi
Adriana Cosmescu- MD, PhD, senior pediatrician, lecturer, Discipline of Family Medicine, Grigore T.Popa University of Medicine and Pharmacy Iasi

ABSTRACT

Vitamin D is an essential vitamin for maintaining a global health condition and has multiple roles due to its complex actions on the human body. The most critical circulating form of vitamin D metabolites with the highest value in everyday medical practice is 25-hydroxyvitamin D. Although inactive, is considered to be the best marker of vitamin D reserves, having a high affinity for globulin DBP (vitamin D Binding Protein). For years, the use of vitamin D in family medicine has been limited to prenatal and postnatal prophylaxis of childhood rickets. In the last decades, new concepts have emerged on vitamin D indications, imposing its administration on various pathologies, including psychiatry.

Currently, mental illnesses represent a significant health problem with a rising prevalence. Depression is one of the most widespread disorders of the third millennium, being perhaps the most studied psychiatric condition. In the family doctor's office, we are increasingly interacting with patients of all ages who are diagnosed with the depressive syndrome. In an attempt to help these patients as much as possible, we recommend blood dosing of 25-

hydroxyvitamin D, starting from the statement that vitamin D, also called, sun vitamin", has a positive effect on the mental state of each. Supplementing vitamin D in patients with deficiencies has produced encouraging results at the declarative level. So, our findings being strictly observative, we wonder if long-term vitamin D administration brings benefits to the clinical evolution of the patient with such psychiatric pathology. This article attempts to centralize recent studies published in the specialty literature on the contribution of vitamin D to proper brain development and functioning, as well as the consequences of vitamin D deficiency on mental illness and especially on depression and seasonal affective disorders.

KEYWORDS:
Vitamin D, depression, seasonal affective disorders

The importance and implication of vitamin D in a variety of physiological or pathological conditions are being discussed more and more in recent years. 25-hydroxyvitamin D, although inactive, is the most crucial circulating form of vitamin D metabolites, has a half-life of three weeks and a plasma concentration of about 1000 times greater than 1,25-dihydroxy vitamin D (calcitriol), the fraction actively responsible for most of the vitamin D actions. Vitamin D needs are assessed by dosing the 25-hydroxyvitamin D in the blood. We define vitamin D deficiency at a level of 25-hydroxyvitamin D equal to or less than 20 ng/mL, insufficiency at a value ranging from 21 to 29 ng/mL and optimal level to a level equal to or greater than 30 ng/mL. To exert its roles, vitamin D requires binding to specific nuclear receptors (VDRs), present in most organs and tissues.

Vitamin D is known to occur primarily in phosphocalcic metabolism, which acts on three target organs: intestine, kidneys, and bone, where VDRs are well expressed. Therefore, vitamin D increases intestinal calcium absorption and phosphorus reabsorption at the tubular level, stimulates the mineralization of osteoid tissue and favors the deposition of calcium and phosphorus in the form of hydroxyapatite crystals. These public actions in the regulation of calcium and phosphorus homeostasis have a great value and practical applicability in the prophylaxis and treatment of rickets, and osteoporosis. However, recent in vitro and in vivo studies have shown that vitamin D exerts other,,non-calcemic", extra-skeletal, significant effects. Antioxidant, anti-inflammatory and immunomodulatory roles, regulation of the renin-angiotensin system, direct effects on pancreatic beta cells, insulin sensitization and stimulation of its secretion, as well as antiproliferative effects by blocking cell differentiation or growth, respectively angiogenesis, should be mentioned. Therefore, vitamin D deficiency is associated with the development of cardiovascular disease, hypertension, neurodegenerative diseases, diabetes, metabolic syndrome and even cancer (1,2).

There is also growing experimental and clinical evidence of the consequences of vitamin D deficiency on mental illness, as well as its contribution to brain development and functioning (3). Vitamin D receptors are prevalent in brain tissue. Thus, the 1,25-dihydroxy vitamin D (VDR) receptors and the genes encoding 1 alpha-hydroxylase, the enzyme responsible for the formation of the active vitamin in the human brain, were found in both neurons and glial cells. VDR distribution is limited to the nerve cell nucleus, while 1 alpha-hydroxylase is distributed throughout the cytoplasm. Many regions are containing equivalent amounts of VDR and 1 alpha-hydroxylase, especially in the hypothalamus and in the large neurons (probably dopaminergic) of the substantia

nigra (4). In the cells of the Meynert basal nucleus and cerebellum Purkinje cells, only 1 alpha hydroxylases were found, while VDR were absent. The large distribution of 1 alpha-hydroxylase and VDR suggests that vitamin D functions similarly to known neurosteroids. Data accumulated to date indicates that 1,25-dihydroxy vitamin D may have autocrine or paracrine properties in the brain (5,6).

Vitamin D acts as an immunosuppressant, limiting hyperimmune or autoimmune phenomena in the central nervous system, by stimulating anti-inflammatory IL-4 cytokine, TGF beta and by inhibiting pro-inflammatory cytokines (IL-6, TNF alpha) (7). In the inflammatory context, 1,25-dihydroxy vitamin D inhibits the excessive synthesis of nitric oxide in the spinal cord and the brain by inhibiting SiON (inducible nitric oxide synthase), suggesting that it could detoxify the brain. At the same time, regulates gamma-glutamyl transpeptidase activity and increases glutathione concentrations in glial cells (8). The neuroprotective and immunomodulatory effects of this neurosteroid-like hormone have been described in several experimental models, indicating the potential value of pharmacological analogs of 1,25-dihydroxy vitamin D in certain neurodegenerative and neuroimmune diseases. It has been shown that 1,25-dihydroxy vitamin D induces the death of glioma cells, which may contribute to a new therapeutic approach to brain tumors (9).

There are in vitro studies that claim that vitamin D plays a role in differentiating and developing neurons in the hippocampus. It remains to be seen if there are critical development windows during which vitamin D is needed. Limited evidence shows that supplementation with vitamin D after a period of deprivation restores cellular activity, then the cell becomes functional. Further research is needed on the early effects of vitamin D deprivation on the development of the hippocampus (10). This area is involved in superior cognitive function, especially in memory processes and effective behavior (11).

The biological effects of 1,25-dihydroxy vitamin D on the central nervous system include biosynthesis of neurotrophic factors and at least one enzyme involved in the synthesis of neurotransmitters. Vitamin D has been shown to increase NGF and NT-3 and NT-4 neurotrophin levels in glial cells, astrocytes and oligodendrocytes (12). Vitamin D influences the synthesis and metabolism of dopamine, as well as the expression of glial cell-derived neurotrophic factor (GDNF) that is crucial for the healthy development and survival of dopaminergic neurons (13, 14, 15). In 2017 a study realized on newborn rats suggests that vitamin D deficiency leads to changes in neurotransmitter systems. So, there have been elevated levels of noradrenaline and serine in many regions of the brain and increased levels of dopamine and low levels of serotonin in certain areas (striatal subregions). Similarly, a ubiquitous reduction in glutamine levels has been observed. Thus, vitamin D may have general and local actions on the developing brain, depending on the investigated neurotransmitter system (16, 17).

There is a growing concern about how vitamin D works to maintain healthy neuronal cells and to prevent certain psychiatric illnesses associated with vitamin D deficiency such as depression or seasonal affective disorder (18). It is still unclear why supplementation with vitamin D improves behavior and cognitive function in patients with psychiatric disorder. It is known that the normal function of the brain depends on a delicate balance between the activity of the excitatory neurons and the inhibitors (equilibrium E-I). The imbalance between them can be a potential triggering factor of depression. In this disorder, the level of glutamate increases, which in turn increases the activity of the excitatory neurons and

decreases the activity and number of GABA-ergic inhibitory neurons. This change is associated with a marked increase in the level of the intracellular calcium ion, which may contribute to the decrease of inhibitory neurons by inhibiting protein synthesis in synapses. Starting from this, we could explain why vitamin D deficiency is considered a risk factor for depression. The phenotypic stability hypothesis argues that vitamin D acts by maintaining calcium homeostasis when vitamin D decreases, intracellular ionic calcium increases and may determine the symptoms of depression (19).

Another important function of vitamin D is to control the formation of serotonin, the neurotransmitter synthesized in the central nervous system by serotonin neurons. Brain serotonin is synthesized from tryptophan by tryptophan hydroxylase 2, which is transcriptionally activated by the vitamin D hormone. Frequently, vitamin D levels are often inadequate, suggesting that serotonin synthesis is not optimal. It has been demonstrated that one of the actions of vitamin D is to induce expression of the serotonin synthase gene or tryptophan hydroxylase 2, respectively, while the expression of tryptophan hydroxylase 1 is repressed. Both tryptophan hydroxylase 1 and tryptophan hydroxylase 2 play an essential role in the mechanism of serotonin production. Therefore, vitamin D interferes with serotonin synthesis and can prevent depression by maintaining normal serotonin levels (20). Some studies highlight the role of vitamin D in modulating the severity of brain dysfunction, along with genetic factors that can affect serotonin levels in the brain. Persons with polymorphisms in serotonin-related genes are already prone to disruption in the synthesis or metabolism of serotonin. Thus, any further decrease in serotonin synthesis due to insufficient vitamin D levels may exacerbate certain behaviors in these individuals.

It seems that people with vitamin D deficiency have a much higher risk of developing depression compared to those with normal vitamin D levels (21, 22, 23, 24, 25). A transversal study published in 2016 that included 1786 Japanese subjects (9% women) aged 19-69 years participating in a nutrition survey, investigated the relationship between vitamin D levels and depressive symptoms. Serum concentrations of 25-hydroxyvitamin D were measured, while depressive symptoms were assessed using the Center for the Epidemiology Depression (CES-D) scale. The conclusion was that in apparently healthy individuals, but with suboptimal vitamin D concentrations (92% of participants), the likelihood of having depressive symptoms is higher (26). In 2016, another comprehensive study on 52228 Koreans reported that there is a statistically significant difference between vitamin D status in depressed patients versus non-depressed persons, a result obtained by calculating the odds ratio (ORs) of depressive symptoms according to vitamin D levels (27).

A randomized, double-blind, controlled trial on 441 overweight and obese, depressed subjects from Norway tried to evaluate the relationship between vitamin D and depression, by comparing with placebo, the patients who received 20,000 IU or 40,000 IU per week for one year. The conclusion was that vitamin D supplementation at high doses might have a beneficial effect on depressive symptoms, indicating a possible causal relationship. However, more complex and more extensive studies are needed to have reliable and firm evidence regarding this issue (28).

Since depression at young persons has been linked to vitamin D deficiency, it is necessary to measure vitamin D levels in school children and vitamin D supplementation among young adults from the general

population. A study of 104 adolescents, aged between 12-18 years old, hospitalized with psychiatric symptomatology at the University of Rochester' Psychiatric Hospital from New York, claims that there is an increased vulnerability to psychotic symptoms, especially in teenagers with mood disorders, which shows vitamin D deficiency. Clinical screening for vitamin D deficiency in adolescents with severe medical conditions is justified by the high risk for both chronic psychiatric disorders and the early onset of cardiometabolic comorbidities. Vitamin D deficiency and insufficiency are both highly prevalent in adolescents with severe mental illness. The preliminary associations between vitamin D deficiency and the presence of psychotic features warrant further investigation as to whether vitamin D deficiency is a mediator of illness severity, the result of illness severity, or both (29).

The severity of late-life depression may also be associated with vitamin D deficiency (30, 31, 32). More controlled, randomized, controlled trials are required because they may respond to this problem (33). Although most data available so far do not seem to support the use of vitamin D for the prevention of end-of-life depression, there is evidence to the contrary. The results of a cross-sectional study published in 2016, involving 2839 Dutch adults aged over 65 show that low vitamin D levels have been associated with higher scores of depressive symptoms (34).

It has been suggested that vitamin D deficiency can determine the stage for both onset and progression of depression, acting synergistically with other factors. The reverse association between serum vitamin D and the risk of depression requires further studies to determine whether this relationship is causal (35, 36). There is empirical clinical evidence showing that depressed mood symptoms have been improved after vitamin D treatment, but controlled longitudinal, randomized studies are needed, to determine any benefit of vitamin D supplementation in the prevention and treatment of depressive symptoms, to clarify the role of vitamin D in its management (37, 38).

On the opposite side, there is contradictory evidence about the relationship between vitamin D deficiency and depression (39, 40). For example, the results of a Korean study published in 2016, that enrolled 2942 participants in urban and rural communities, aged 65 years old or over, suggest that lower concentrations of vitamin D are associated with depressive symptoms in these individuals, independently (41). Supplementing vitamin D to 16 patients with bipolar disorder, included in a randomized, controlled, double-blind study did not significantly reduce the depressive symptoms compared with the patients who received placebo (42, 43, 44). The presence of pro and contra proofs is a challenge for further research in this direction.

In recent years, there have been concerns about the effects of vitamin D deficiency and seasonal affective disorder (SAD). It is a recurrent major depressive disorder, which usually begins in the autumn and continues in the winter months, manifests less frequently in the spring and early summer months. The most common type of SAD is known as,, winter blues" and specifically affects women with vitamin D deficiency and family history of depression, bipolar disorder or SAD. The etiology of the disease involves different biological and psychological mechanisms, which is why it is considered a polyfactorial and polygenetic disorder. Within this concept, vitamin D is given a fundamental role in potentiating the mechanisms associated with depressive and seasonal factors (45). The most common symptoms are sadness, irritability, fatigue, lethargy, decreased ability to concentrate, sleep disorders like

hypersomnia and weight gain, due to overcharging with carbohydrates. Screening tools include the annual assessment questionnaire (SPAQ). Although traditional treatment includes antidepressant medications, light therapy, vitamin D and psychological counseling should be considered equally. Therefore, even in the absence of certainty, it is suggested that daily vitamin D administration would improve the symptoms and the effects of supplementing with vitamin D would be dependent on the daily doses administered(46).

The results of a study of 250 women aged 43 to 72 years who received 400 IU per day of vitamin D for one year showed that the mood had not been improved (47). In another randomized trial of 2117 women given 800 IU per day for 6 months, there was no improvement in the mental health condition (48). On the other hand, in a randomized, blinded study of 130 patients with seasonal affective disorder receiving 600 IU per day (15 mcg) or 4,000 IU per day (100 mcg) of vitamin D time for 6 months, positive results were reported. It was observed that in subjects receiving the high dose of vitamin D (4,000 IU per day), the well-being improved significantly compared to those who received the lower dose of vitamin D (600 IU per day). At the same time, the welfare score improved at both doses of vitamin D, again confirming the hypothesis that vitamin D deficiency might play a significant role in SAD (49).

Another prospective, randomized, controlled study on a group of 15 subjects with SAD also attempted to support the beneficial effects of vitamin D in depression. Eight subjects received daily 100,000 IU of vitamin D and seven subjects received phototherapy. At the beginning of the treatment and after a month of treatment, all subjects were tested using the Hamilton Depression Scale, the SIGH-SAD scale and the SAD-8 Depression Scale. Also, serum vitamin D concentration was measured before and one month after therapy. Subjects receiving vitamin D experienced an improvement in all of the results, while no significant changes were reported in the phototherapy group (50).

In our practice, in patients with depressive disorders, we often find more or less low values that reflect a suboptimal (insufficient or deficient) level of vitamin D. We recommend vitamin D in a daily dose of 2,000-4,000 IU for varying periods of time depending on the particularities of each patient, the answers being satisfactory at the declarative level. Looking only at the positive results from the literature on the benefits of vitamin D in depressive illness and the fact that about 14% of the world's population has insufficient vitamin D levels (51, 52), we consider that the screening for vitamin D deficiency and supplementation with vitamin D should go into the routine of the family doctor and the psychiatrist. So, we support the potential role of vitamin D in preventing and treating depressive disorders, as well as further research on this issue.

CONCLUSIONS

Depression is a significant health problem with a negative impact on quality of life, morbidity, and mortality. Vitamin D has long been synonymous with phosphorus and calcium homeostasis and bone health. Currently, there are many concerns about the role and potential of vitamin D in the prevention and treatment of depression. In recent years, studies have provided more and more valuable evidence on the implications and benefits of vitamin D in depression. There are physiological support and clinical results that confirm the definite link between vitamin D deficiency and depression. The dosage of vitamin D levels would be beneficial, especially in patients with long-term affective symptoms, because monitoring could help reduce the prevalence of clinically manifested depression and would have significant diagnostic and therapeutic implications. The positive effect of vitamin D supplementation may indicate a causal relationship between low serum vitamin D levels and depression. To benefit from strong evidence and conclusions, future research should include large controlled, randomized, high-quality clinical trials. In conclusion, although vitamin D deficiency may be just one contributing factor to depression, we consider vitamin D supplementation to a large extent help high-risk individuals, could influence the onset and clinical outcome of the disease and even could increase the therapeutic effect of antidepressants, bringing only benefits to patients with depression.

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The authors state that they are no declared conflicts of interest regarding this paper

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Correspondence:

Alexandra Boloș,

MD, PhD, lecturer, senior psychiatrist, Grigore T.Popa University of Medicine and Pharmacy Iasi, alex_andra_bolos@yahoo.com

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Quality of life in significant depression – sexual dysfunctions in patients treated with antidepressants

Radu Gavril, Raluca M Gavril, Livia A Lupșa, Lavinia E Bejenariu, Irina Dobrin, Cristinel Ștefănescu

Radu Gavril – Third year medical resident in Psychiatry, Socola Institute of Psychiatry, Iași
Raluca Mihaela Gavril – PhD candidate, psychiatrist, Socola Institute of Psychiatry, Iași
Livia Andreea Lupșa – Fourth year medical resident in Psychiatry, Socola Institute of Psychiatry, Iași
Lavinia Elena Bejenariu – Second year medical resident in Psychiatry, Socola Institute of Psychiatry, Iași
Irina Dobrin – Assistant professor, psychiatrist, Socola Institute of Psychiatry, Iași
Cristinel Ștefănescu – Professor, Chief MD in Psychiatry, Socola Institute of Psychiatry, Iași

ABSTRACT

The human mind can express itself through a chain of molecular processes, but it is not just a matter of molecules. The uniqueness of the individual is not contained in a short formula, and the general rules of contemporary psychiatry and psychology must be taken only as ancillary means to emphasize a provisional visual field in which the individual may or may not feel captured. Depressive disorders often coordinate three major daily issues: social, work and love life. An important aspect of choosing an antidepressant is its safety and tolerability. Before selective serotonin reuptake inhibitors (SSRIs), tricyclic antidepressants (TCAs) were the central pillar of pharmacological treatment for depression. SSRIs have largely replaced TCAs since the 1990s with the hope that the latter will be more effective and have a higher safety profile than the former. Among the side effects of antidepressant medication, the most common are bleeding, cardiovascular diseases, dry mouth, gastrointestinal effects, sexual dysfunction, suicidal risk, liver toxicity, seizures, weight gain, hyponatremia, sleep disturbances. The first reports of the long-term side effects on sexual function of SSRIs date 2006. The mechanisms underlying sexual dysfunction are mostly unknown. A commonly recognized hypothesis asserts that SSRIs and venlafaxine reduce dopaminergic transmission via serotonin receptors in the mesolimbic area, primarily associated with orgasm and sexual desire, hence the link between sexual dysfunction and these drugs.

KEYWORDS:
Depression, serotonin, sexual dysfunction, adverse effects

INTRODUCTION

Since antiquity, humanity has used the term "madness" concerning both acute psychotic disorders and schizophrenia, as well as so-called affective psychoses – mania and depression. In those times, troubled eras for psychiatric patients, "madness" was not considered a psychiatric disorder, but a divine punishment for the demon-possessed individual. For example, the Old Testament tells the story of Saul, who fails to fulfill his religious duties, attracts the wrath of God and loses his mind and kills 85 priests. The fact that the biblical character of David used to play the harp to relieve Saul's suffering suggests that some people thought that psychosis could be treated even in ancient times. In Greek mythology and Homeric epics, "madness" is a similar act of divine punishment. Thus, Hera punishes Hercules, darkening his judgment, and Agamemnon confesses to Achilles that Zeus has taken his intellect away as punishment (1).

The issue of depression has also been the study subject of famous philosophers. Epicure considered that philosophy was primarily aimed at alleviating human misery and that the cause of unhappiness was the ubiquitous fear of death. The unavoidable thought of death present in the human subconscious contradicts absolute happiness, and Epicurus states that many people paradoxically end up hating life, either ending it by suicide or "engaging in frenzied actions without purpose, which is only meant to avoid the pain inherent to the human condition" (2).

CONTEMPORARY PERSPECTIVES

The uniqueness of the individual cannot be contained in a short formula, and the general rules of contemporary psychiatry and psychology must be taken only as ancillary means to emphasize a provisional visual field in which the individual may or may not feel captured. Depressive disorders often coordinate three major daily issues: social, work and love life. These are not accidental, haphazardous problems, but find a permanence around the individual, they are pressing and provocative, and leave no doors for escape. These problems are closely interrelated, and a high dose of social communion is needed to solve them; thus it is understandable that the individual's lifestyle and psychological reactions are reflected more or less in the light of these three burdens (3).

Pietrini notes: "The human mind can express itself through a chain of molecular processes, but it is not just a matter of molecules." Besides the uniqueness of the individual we have approached, one must mention the uniqueness of the mind and the brain, which are not identical. For example, the brain can be "observed" in terms of three aspects – the psychiatric, the psychological and the anatomic-pathological one. It can be removed from the skull and weighed during the autopsy, dissected and analyzed under a microscope. The mind, in turn, is personal, individual, not based on perception, and can only be known from within. Contemporary psychiatrists and neuroscientists frequently use the concept of dualistic explanation, which accepts two different ways of knowing and understanding an individual – psychologically and biologically (3, 5).

Observations about patients' emotional states are a golden mine of information about defense mechanisms developed in depression. The first step in the treatment of depression, both for hospitalized patients and outpatients, is the establishment of a therapeutic alliance.

This requires empathy, sufficient time for the anamnesis and the doctor's understanding of the patient. Some depressed patients will be inadequately compliant or even non-compliant to the pharmacological therapy, either out of stigma or due to low tolerance to side effects (5).

ADVERSE EFFECTS OF ANTIDEPRESSANT MEDICATION

An important aspect of choosing an antidepressant is its safety and tolerability. Before selective serotonin reuptake inhibitors (SSRIs), tricyclic antidepressants (TCAs) were the central pillar of pharmacological treatment for depression. SSRIs have largely replaced TCAs since the 1990s with the hope that the latter will be more effective and have a higher safety profile than the former (6). Studies have initially supported this hypothesis suggesting that although SSRIs do not differ from TCAs in terms of efficacy, they present lower risks for developing side effects, such as fewer anticholinergic symptoms (7). However, safety and tolerability concerns related to the new generation of antidepressants, including SSRIs and selective serotonin-norepinephrine reuptake inhibitors (SNRIs), have increased with recent research (8, 9).

Among the side effects of antidepressant medication, the most common are bleeding, cardiovascular disorders, dry mouth, gastrointestinal effects, sexual dysfunction, suicidal risk, hepatotoxicity, seizures, weight gain, hyponatremia, sleep disturbances. It was hypothesized that antidepressants could affect primary hemostasis by interfering with the platelet-mediated serotonin uptake mechanism in the blood. Serotonin causes platelet aggregation, but SSRIs inhibit serotonin uptake into platelets. Thus, antidepressants with high inhibition of serotonin uptake can cause more bleeding abnormalities than antidepressants with a low serotonin uptake inhibition (10).

SSRIs were initially considered to have a better cardiac safety profile than TCAs. In recent years, new classes of antidepressants have been showed to present a high risk of cardiovascular adverse effects. For example, SSRIs were suspected of having the potential to induce prolongation of the QTc interval and therefore increased the risk of ventricular arrhythmia. A meta-analysis, which included 16 prospective controlled studies, showed that SSRIs prompted a significantly greater QTc prolongation than placebo, by 6 milliseconds. QTc prolongation was also dose-dependent. Moreover, the study showed that TCAs prolong QTc to a greater extent than SSRIs. Of the SSRIs, citalopram had the most significant impact on QTc (11).

TCAs decrease the salivary flow by blocking the effects of acetylcholine on muscarinic M3 receptors, which can lead to the drying of the oral mucosa (12). A meta-analysis showed that all antidepressants increased the sensation of dry mouth compared to placebo. Among these, SNRIs were at higher risk than SSRIs, while fluvoxamine and vortioxetine were not associated with this side effect. Central norepinephrine accumulation from SNRIs might activate alpha-2 receptors while inhibiting the parasympathetic salivary neurons in the cerebral trunk, resulting in decreased salivary flow and dry mouth sensation. SSRIs showed a lower risk for dry mouth because of their low affinity for cholinergic muscarinic receptors, alpha-2 receptors, and norepinephrine (13).

Serotonin and its receptors play an important role in gastrointestinal motility (15). Thus, gastric motility is significantly influenced by drugs that have effects on serotonin receptors or serotonin levels. Nausea, vomiting, diarrhea, weight loss and anorexia were more common in patients treated with fluoxetine than with other SSRIs. TCA treatment has

been reported to be less frequently associated with nausea, anorexia, and weight loss, but more with constipation and weight gain compared to fluoxetine, which may be the result of anticholinergic side effects (16). Among the second generation antidepressants, venlafaxine has consistently shown a higher rate of nausea and vomiting than SSRIs (17).

A quantitative analysis using the pharmacovigilance data from the WHO Uppsala Monitoring Center compared the hepatotoxicity of the antidepressants. The results showed that agomelatine was statistically associated with an increased risk of hepatotoxicity. Among second-generation antidepressants, duloxetine showed an increased risk for hepatotoxicity. Of TCAs, clomipramine and amitriptyline also posed a higher risk for hepatotoxicity than SSRIs (18).

The use of immediate-release bupropion at doses higher than 450 mg may cause a 10-fold increase in the incidence of seizures. However, with the advent of prolonged-release bupropion, the incidence of seizures was reduced. In a study involving 3094 patients treated with doses ranging from 50 to 300 mg, the incidence of seizures was similar to that in the general population (0.07-0.09%) (18, 19). The epileptogenic potential is more significant for TCAs than for bupropion; therefore TCAs are still contraindicated for people with a personal history of convulsions (21).

The risk of suicide in children and adolescents who have received antidepressants has been reported since 2004. A meta-analysis has shown that the rate of suicidal ideation or behavior was 4% for patients who were prescribed an antidepressant compared to the 2% of those treated with placebo. Moreover, 34 studies involving 5260 participants and 14 prescribed antidepressants were analyzed to compare the efficacy and tolerability of antidepressants in children and adolescents with major depressive disorder. There was a significantly increased risk of suicidal ideation or behavior associated with administering venlafaxine, escitalopram, imipramine, duloxetine, fluoxetine and paroxetine (22).

Both SSRIs and SNRIs can lead to weight gain, but mirtazapine showed a lower risk of weight gain than TCAs (23). Of the SSRIs, paroxetine poses the highest risk of weight gain, while among TCAs, amitriptyline does (24).

A meta-analysis further showed that SSRIs including citalopram, escitalopram, fluoxetine, sertraline, paroxetine, and SNRIs, including venlafaxine and duloxetine, were associated with weight loss compared to placebo. However, the effects of weight loss have disappeared in the case of therapies longer than 4 months, and paroxetine has significantly increased weight gain. Amitriptyline and mirtazapine have consistently shown weight gain effects during both short and long term treatment (25).

SEXUAL DYSFUNCTION IN PATIENTS SUFFERING FROM DEPRESSION

Sexual dysfunction in patients with a major depressive disorder is very complicated from a bio-psycho-social point of view. Up to 80% of patients with depression in randomized clinical trials reported adverse reactions in the sexual sphere (26). All antidepressants that have serotonin and/or norepinephrine reabsorption properties cause sexual dysfunction. There are minor variations among these drugs, but no study has confirmed that new antidepressants would have lower rates of sexual dysfunction than TCAs. Instead, one study showed that antidepressants with high selectivity for serotonin, such as citalopram, fluoxetine, paroxetine, sertraline, and venlafaxine, had the highest rates of total sexual dysfunction. Although imipramine exhibited significantly greater sexual dysfunction than placebo, the

rate was lower than that of the previous 5 antidepressants (27). According to this hypothesis, another meta-analysis has shown that bupropion, an antidepressant with no serotonergic but with dopaminergic effects, has a lower risk for sexual dysfunction than other second-generation antidepressants (28).

The first reports of the long-term sexual side effects of SSRIs were cited in 2006 (29). Since 2011, the US leaflet for fluoxetine has warned that "Symptoms of sexual dysfunction occasionally persist after discontinuation of fluoxetine treatment" (30). The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), published in 2013, states that "In some cases, serotonin reuptake inhibitor-induced sexual dysfunction may persist after discontinuation of treatment" (31).

SSRI's ability to induce genital hypoaesthesia is known. In a study by Healy et al., 80% of SSRI-treated patients experienced some degree of numbness in the genital region, often within 30 minutes of the first dose of antidepressant (32). This numbness is comparable to the effect of local anesthetics, such as lidocaine, and supports the use of both SSRIs and local anesthetics in the treatment of premature ejaculation. Two studies have captured this effect on neurophysiological tests. One study looked at the efficacy of clomipramine as a possible treatment for premature ejaculation (33). The study found that the drug increased ejaculatory latency and increased penis sensitivity threshold from 24.4V before treatment to 30.2V (24%) at the end of 30 days. A second study involving fluoxetine caused an increase in the penis sensory threshold from pre-treatment of 4.9 mA to 6.1 mA (24%) after one month (22).

Pretty et al., conducted a 2-year study on 230 patients with anxiety or depression, treated with antidepressants in monotherapy (mirtazapine, sertraline, desvenlafaxine, escitalopram or fluoxetine). All 230 patients received no psychotropic medication at least one month before. Sexual function was evaluated at the starting point, at week 2 and week 6, using the psychotropic-related sexual dysfunction questionnaire (PRSexDQ). As for individual answers to the questionnaire, until week 6, sexual desire improved, but men's erectile and ejaculatory function and orgasmic function in women worsened. Fluoxetine and sertraline have been associated with impairment of sexual function, while mirtazapine has been associated with favorable effects on sexual function. At week 2, mirtazapine and desvenlafaxine were predictors of favorable sexual outcomes, while fluoxetine was a predictor of impairment of sexual function. At week 6, mirtazapine remained a predictor of favorable sexual outcomes, while fluoxetine had a high PRSexDQ score than that evaluated during week two (35).

The mechanisms underlying sexual dysfunction are mainly unknown. A commonly recognized hypothesis asserts that SSRIs and venlafaxine reduce dopaminergic transmission via serotonin receptors in the mesolimbic area, which is associated with orgasm and sexual desire, hence the link between sexual dysfunction and these drugs. This hypothesis supported by the fact that mirtazapine and nefazodone have antagonistic rather than agonistic action on 5HTR2 receptors and do not induce sexual dysfunction (37). Other proposed mechanisms including the reduction of nitric oxide synthesis and the anticholinergic effects of paroxetine may also be involved in the occurrence of sexual dysfunction (38).

It was demonstrated that many new drugs have beneficial effects on improving sexual dysfunction. For example, VML-680, a 5HT1A agonist but with poor 5HT1D agonist properties, causes improvement in sexual function compared to placebo in SSRI-treated patients with sexual dysfunction (39).

Agomelatine is another antidepressant that has direct agonist effects on melatonin MT1 and MT2 receptors and has direct antagonist properties on 5HT2C receptors and has shown greater efficacy than paroxetine in terms of sexual dysfunction (40).

Since antidepressants are the most studied psychotropic drugs in terms of their effects on sexual life, several authors have developed treatment regimes to address the problem of sexual dynamics. In this regard, it was proposed to switch the antidepressant to another with diminished effects on sexual function. A randomized study found that switching to nefazodone for sertraline-induced sexual dysfunction was an effective strategy (42). The introduction of 5phosphodiesterase inhibitors in the treatment of antidepressant-induced sexual dysfunction has a significant positive therapeutic effect, supported by literature (43, 44, 45). A retrospective analysis has demonstrated that sildenafil has been effective in treating antidepressant-induced sexual dysfunction in men (46). Tadalafil has shown similar efficacy in men with erectile dysfunction treated with antidepressants. In a prospective, double-blind study, 20 mg of tadalafil was administered for 12 weeks and compared to placebo; it produced significant improvements in erectile function, sexual satisfaction and orgasmic function (47). No significant clinical changes attributable to tadalafil have been identified regarding side effects and safety measures (48).

Bupropion was tested in a study of 28 women and 7 men who received 150 mg twice daily compared to placebo for 4 weeks and the results tended to favor bupropion but were not conclusive enough (49). Two other randomized and controlled studies using bupropion compared to placebo did not reveal any benefit from bupropion treatment. Further research, study subjects and different doses of bupropion are needed to eliminate contradictory data (50).

CONCLUSIONS

Knowledge on sexual dysfunction caused by psychotropic medication is limited; thus clinicians should continue to apply sexual dynamic monitoring tests to patients treated with oral antidepressants, in order to understand the exact incidence, severity, and mechanisms involved in the development of sexual dysfunction induced by the different types of psychotropic regimens.

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Correspondence:

Raluca Mihaela Gavril,
PhD candidate, psychiatrist, Socola Institute of Psychiatry, Iași
Bucium road 36, Iași, România, ralucafrincu@yahoo.com

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Malignant neoplasia in the oro-maxillo-facial territory and its emotional impact

Loredana C. Catrinescu, Nicoleta Cartas, Violeta Trandafir

Loredana C. Catrinescu-MD, Resident in Psychiatry, Socola Institute of Psychiatry Iași, Romania

Nicoleta Cartas-MD, senior psychiatrist, Socola Institute of Psychiatry Iași, Romania

Violeta Trandafir- Assistant of professor, „Grigore T. Popa" University of Medicine and Pharmacy Iași, Discipline of Cranio-Maxillo-Facial Surgery

ABSTRACT

Malignant neoplasia in the oro-maxillo-facial territory has proved to have a substantial emotional impact upon the patient. For the majority of patients, survival in case of cancer means to live under the permanent threat of relapse, fear of death, disability, disfigurement, dependence on others. Nevertheless, it was found that the reconstruction of substance loss, resulting from surgery, increases the quality of life by improving mastication, deglutition, physiognomy, and phonation. On the other hand, radiotherapy or/and chemotherapy were frequently associated with depression and anxiety. The presence of these psychiatric conditions in oncologic patient decreases the quality of life, which implies prevention or early diagnosis and treatment of psychiatric disorders associated with cancer in the oro-maxillo-facial territory.

KEYWORDS:
Depression, anxiety, cancer in the oro-maxillo-facial territory, quality of life

INTRODUCTION

Malignant tumors in the oro-maxillo-facial territory are the most frequently met cancers which affect males, and it is the sixth cause of death by cancer in the world (1), affecting more than 500,000 persons each year on a global scale (2). Beyond the fact that it is a death threatening condition, cancer occurring in the oro-maxillo-facial territory leads to secondary effects with a substantial adverse effect on various aspects of each patient's life. It may be about functional defects, as difficulties in mastication, deglutition, the opening of the mouth, phonation and the deterioration of the aesthetic aspect. Also, it may be associated with psychiatric disorders as fear, inner tension, state of restlessness and the whole symptomatic picture of the patient

with cancer in the oro-maxillo-facial territory proves a deterioration of the quality of his life and, secondary, depression and anxiety (2, 3).
The present article presents various aspects regarding the association of the oro-maxillo-facial cancer tumor and the treatment for this disease with a depressive and anxious disorder.

THE IMPORTANCE OF THIS TOPIC

The prevalence of depression in patients with head and neck cancer two years before establishing the oncologic diagnosis represents 10.5%. The presence of depression before cancer diagnosis can be an adverse prognostic factor for the continuation or relapse of the psychiatric disorder occurring after or during the specific oncologic therapy (4).
Depression is a condition which affects mainly persons recently diagnosed with cancer, the number of cases with this psychiatric disorder and the severity of negative hyperthymia symptoms is getting worse during several months after surgery (5). Nevertheless, in the case of survivals, the prevalence of this condition decreases so that, after 20 years from establishing the diagnosis of cancer, the risk for patients to develop depression should be similar to that of the general population (6).
The prevalence of depression after establishing the oncologic diagnosis varies considerably between 9 and 66%, modifications occurring according to the type and the stage of the tumor, to the associated comorbidity, social condition, reconstruction or radiotherapy (1, 4, 5, 6, 7). For example, patients with metastases had a double risk to develop depression in comparison with non-metastatic patients (4). Likewise, the risk to develop depression is ten times higher in patients with cancer in the oral cavity with associated arterial hypertension, and it was about 2.5 times higher in patients with oral cancer and diabetes mellitus in comparison with those without these comorbidities (8).
In a study published by Chen et al. (1), 41.1% of patients with surgery for oral cancer had anxiety. The high level of anxiety can prove the overwhelming stress affecting oncologic patients and the acute impact of physical limitations (difficulty in mastication, opening of the mouth, deglutition, cough, etc) and psychological disorders (patients experienced high levels of fear and insecurity (3) generated by surgery). Nevertheless, sometime after surgery, the level of anxiety seems to stabilize (5).
In a recent study (7), published in Oral Oncology journal, on a cohort of over 3466 patients with OMF cancer, it is shown that persons who have depression associated with the oncologic disease had a higher risk of death,1.5 times higher than in patients who did not have this psychiatric condition. This research evaluated the survival rate five years after the identification of the neoplasia and pointed out the necessity to adopt strategies to prevent depression or to diagnose and treat it early. At the same time, these results encourage the implementation of screening procedures during oncologic treatment.

QUALITY OF LIFE

Cancer diagnosis associated with secondary surgery and additional therapies brings about significant changes in the life of each person. Beyond aspects related to survival, this new condition has severe consequences for the physical and psychological level. All these elements can be summarized in what is called “the quality of life” (3).
Quality of life in patients with oro-maxillo-facial cancer signals depression and anxiety more precisely than the other way round (2), which means that a low level of quality of life can increase the risk for the above mentioned psychiatric conditions to occur. Correcting functional or esthetic defects resulting from

surgery improves quality of life, decreasing the risk of developing depression or anxiety (9, 10).

A study (11) conducted on 139 patients published in the British Journal of Maxillo Facial Surgery assessed the quality of life in the long run in patients diagnosed with oral cancer, who undergo surgery, with or without reconstruction with a micro vascularised free flap. The average global score for quality of life, measured by the questionnaire for Quality of life from the University of Washington (version 4) was 73.09 for patients with oral cancer, 75.68 for those with post-surgery reconstruction and 71.00 for those without reconstruction. The element that most negatively influenced the score was the site of the tumor, stage T and the necessity for post-surgery radiotherapy. The same study pointed out that patients with post-surgery reconstruction could chew, swallow and speak better in comparison with those who undergo surgical treatment without reconstruction. At the same time, patients who benefited from reconstruction had better scores for good mood and anxiety in comparison with those who had only surgical treatment, a fact that recommends post-surgery reconstruction as a way of psycho-emotional support.

Anxiety and depression are closely associated with functional impairment and, thus, in correlation with the need for care. Therefore, there is the necessity for advanced supportive oncologic care for patients with oral cancer before the operation, immediately after surgery and after this. This approach would reduce patients' stress and would improve the quality of life (1).

METHODS OF COPING AND FEAR OF CANCER RELAPSE

When patients are confronted with extreme adverse situations, they adopt various coping attitudes. These may be adaptive/functional or maladaptive/dysfunctional. In the first category, there are included behavior and attitudes like acceptance, humor, real comprehension of the context, etc., while in the second group there is negation, intake of substances, renunciation, self-blaming (3).

Quite frequently such methods of coping are not efficient and generate emotional tensions and disequilibrium. In this context, the fear of cancer relapse is present (FCR), which is defined as a fear of recurrence of the disease or its occurrence in the same organ or another part of the body. FCR prevalence varies between 60 and 66% but can reach up to 96% (12).

Those who had cancer and are in remission, memories of neoplasia experience are often present and fuel the fear that neoplasia will come back and they will be forced to adapt to a significant stressing factor of life (13). The interaction between fear of relapse and ruminations was associated with depressive and anxious symptoms; the correlation varies directly proportional (13).

Almeida and al (14) present the situations which can trigger FCR. Here there are included: occurrence of some new symptoms, waiting for an investigation or examination, interaction with certain situations, persons who remind the patient of cancer, a specific form of treatment, or, on the contrary, no treatment, confronted with stress or risky situations.

Once the fear of relapse occurs, patients enter a vicious circle. FCR generates anxiety, and this aggravates worries regarding the prognosis and evolution of the disease (12). Patients feel intense emotions, which are variegated and are described by them as: ”extremely stressing”, ”distressing”, “painful”, “very difficult”, “dramatic”, “devastating”, a “turmoil of emotions”, “frightened”, “perplexed” (14).

For the majority of patients, survival after cancer means to live with the fear of

cancer relapse, of death, dependence on others, disability, disfigurement (14). This condition is complex and challenging and needs immediate psychological and psychiatric support. In such a context, the social support and active methods of coping have a positive influence on the quality of life and diminish the risk of depression and, at the same time, family involvement in psychosocial care is crucial. Both patients and their supporters should be aware of the importance to establish communication regarding their mutual needs (15).

RECONSTRUCTION AND ITS EMOTIONAL IMPACT

After prosthetic restoration, in the case of maxillary resection, and plastic restoration of soft tissue in other situations, there was noticed a significant functional improvement in the following situations: mastication (25%), deglutition (19%), opening of mouth (27%) and phonation (27%) (16). The quality of life for patients with oral cancer can be improved even if only one of these functions is restored (9). For example, correcting the dysphagia, occurring in about 50% of survivors of the neck and head cancer (17), can improve both depression and anxiety (10). At the same time, implementing education measures and training deglutition improves dysphagia and quality of life in patients with tongue resection, who have had further reconstruction (17, 18).

In addition to aspects related to function, aesthetic considerations are important. Researchers are of the opinion that prevalence of anxiety in patients with facial scars is 26%, while for depression it is about 21%, which is more than double in comparison with that in general population (19). In the case of these persons, there is avoidance behavior, poor self-respect, not acceptance of their value, relationship issues, difficulties in finding employment (20, 21). These modifications are determined by the patient's negative body image, as well as, the fear of not being rejected by society. The place of facial deformity after resection-reconstruction can also lead to a non-verbal expression, which further diminishes the patient's involvement in communication (19).

Young persons and women with facial cancer are confronted with higher levels of depression and need longer time to get used to the disfigurement caused by surgery and restoration of the affected soft tissues in comparison with older people or men (19, 22). Likewise, a scar on the central part of the face may be an additional stress cause, because it can be more easily noticed by other people (20).

The reconstructive treatment can continue for a while, one to three years after surgery. During this period, there have been noted significant psychological and psychosocial problems for those who have undergone such procedures, especially the younger persons (22). Even regarding the presence of complications (infections, dehiscence of the flap, vascular deterioration, necrosis, hemorrhage or hematoma), older patients seem to be more protected (23), having better levels of the quality of life when tested (24).

Concluding, Dholam et al (16) noticed that after oral rehabilitation there has been a significant improvement regarding psychological disability (67%) and handicap, followed by physical pain (54%0, psychological discomfort (49%), physical disability (48%), social disability (47%) and functional limitation (45%).

ADJUVANT THERAPIES

It is known that radiotherapy aggravates depression, generating a peak of severity in negative hyperthymic symptomatology about two months from the beginning of radiotherapy. More than that, this adjuvant therapy cannot only aggravate but also cause

depression, the probability for a patient treated by radiotherapy to develop a psychiatric condition being almost twice as more significant than that in patients who did not have this treatment (1). The severity of negative hyperthymic symptomatology is correlated with the dose of applied radiotherapy (25). Female patients, diagnosed with advanced head and neck cancer undergoing radiotherapy, are more prone to low levels of tests that measure the quality of life (19, 26), this condition could cause depression and anxiety (2, 27).

Patients with head and neck neoplasia undergoing post-surgery radiotherapy may present a set of symptoms which seem to coexist, forming clusters. Some of these may exhibit symptoms like radiodermatitis, dysphagia, radio mucosity, xerostomia, changing the taste, fatigue, pain, poor appetite, sleep disorder, dizziness, stress, annoyance, amnesic disorders (28, 29). There is another cluster with gastrointestinal symptoms, which has manifestations like nausea, vomiting, loss of weight, dehydration (28, 29, 30, 31). It is possible that these adverse effects to influence the emotional wellbeing of patients, with the second occurrence of emotional disturbances (4).

S.C. Chen et al. (25) says that three months after the beginning of radiotherapy and chemotherapy the depressive symptomatology improved. This fact may be due to the feeling of hope experienced by patients at the end of a series of aggressive treatments (surgery, radiotherapy or chemotherapy) with relatively stable physical symptoms and less suffering. These results encourage prevention or monitoring psychological stress and, especially, depression associated with radiotherapy and chemotherapy.

Together with the oncologic diagnosis and therapeutic perspective, some other elements are associated, which are not directly related to neoplasia and therapy. When smoking is the main factor in causing oral cancer, patients have higher levels of depression and anxiety in comparison with persons whose carcinoma has a different etiology (32).

The causative factors (32, 33, 34), smoking and alcohol, are forbidden to patients with oro-maxillo-facial neoplasia. Withdrawal from these substances can cause some symptoms like irritability, unrest, impatience, difficulty to concentrate, anxiety and depression (35). Nevertheless, this clinical context can worsen the condition of a psychic already labile, due to neoplasia and next treatment.

CONCLUSIONS

We have tried to point out the strong connection between oro-maxillo-facial cancer and its negative emotional impact on the patient. Facial deformity, functional deficit, fear of relapse have been associated with a decrease in quality of life and increase of the risk of depression and anxiety and, in their turn, these comorbidities enhance the risk of death. The mentioned results underline the necessity for strategies to prevent depression and anxiety as well as early diagnosis and treatment of a patient with oro-maxillo-facial cancer.

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Corespondence:

Loredana C. Catrinescu,
MD, Resident in Psychiatry, Socola Institute of Psychiatry Iași, Romania, Bucium road 36,
loredana.catrinescu@gmail.com

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Improving the quality of life of patients by using imaging techniques

Ioana A Grăjdeanu, Laura Gheucă Solovăstru, Dan Vâță, Laura Stătescu, Tatiana Țăranu, Elena Porumb-Andrese, Ioana A Popescu

Ioana-Alina Grăjdeanu- M.D., Ph. D.student Assistant Professor, Department of Dermatology, Faculty of Medicine, "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania
Laura Gheucă Solovăstru - M.D., Ph. D., Professor, Department of Dermatology, Faculty of Medicine, "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania. Senior Dermatovenerolog in Dermatology Clinic County Emergency Hospital "St. Spiridon" Iasi, Romania
Dan Vâță- M.D., Ph. D., Lecturer, Department of Dermatology, Faculty of Medicine, "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania. Senior Dermatovenerolog in Dermatology Clinic County Emergency Hospital "St. Spiridon" Iasi, Romania
Laura Stătescu - M.D., Ph. D., Lecturer, Department of Dermatology, Faculty of Medicine, "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania. Senior Dermatovenerolog in Dermatology Clinic County Emergency Hospital "St. Spiridon" Iasi, Romania
Tatiana Țăranu- M.D., Ph. D., Associate Professor, Department of Dermatology, Faculty of Dental Medicine, "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania. Senior Dermatovenerolog in Dermatology Clinic, CF Hospital, Iasi, Romania
Elena Porumb- Andrese - M.D., Ph. D., Assistant Professor, Department of Dermatology, of Medicine, "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania. Specialist in Dermatovenerology, Dermatology Clinic County Emergency Hospital "St. Spiridon" Iasi, Romania
Ioana-Adriana Popescu- M.D., Ph. D.student, Department of Dermatology, of Medicine, "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania

ABSTRACT

Skin tumors and chronic inflammatory diseases such as psoriasis vulgaris due to their high incidence and their psychological impact represent worldwide public health problems. Clinical examination and several health-related quality of life instruments like Skin Cancer Quality of Life questionnaire, The Dermatology Life Quality Index -DLQI can be used in order to evaluate the severity of diseases. Furthermore, for improving patients`quality of life, a proper evaluation regarding the accuracy of diagnostic, follow-up and efficiency of therapy can be utilized. Imagistic methods like dermoscopy or cutaneous ultrasonography can be

included in their protocols in order to obtain an optimized and individualized management, with appropriate assessment, tracking and increasing the effectiveness of therapy.

KEYWORDS:
Skin tumors, psoriasis, dermatoscopy, cutaneous ultrasonography, quality of life

INTRODUCTION

Skin tumors are representing worldwide a public health problem regardless of borders or race (1). Skin cancer is the most common human cancer characterized by a malignant transformation of the epidermic cells (2). More people are diagnosed with skin cancer each year in the U.S. than all other cancers combined, and one person dies of melanoma every hour (3). The incidence of cutaneous melanoma is reported by the National Cancer Institute (NCI) with an increasing average of 1.5% annually. Statistical data shows that the number of estimated new cases in 2018 was 91,270 and estimated deaths were 9,320 (4). The most common form of skin cancer is represented by basal cell carcinoma (BCC), and 4.3 million cases of BCC are diagnosed in the U.S. each year resulting in more than 3,000 deaths. Squamous cell carcinoma (SCC) is the second most common form of skin cancer, and more than 1 million cases of SCC are diagnosed in the U.S. each year (5,6). The psychosocial impact on patients with cutaneous tumors is marked by emotional reactions of fear, anxiety, depression and also by inadequacy, posttraumatic stress or intrafamilial conflicts (1). 10-20% of all melanomas of the skin are identified in the head and neck region (4), leading to stigmatization and affecting" self-image" projection.

Psoriasis is an inflammatory and systemic dermatosis characterized by erythematous and squamous lesions, genetically determined and with a continual evolution. It can occur at any age, and it is most common in the age group 50–69 (8). The reported prevalence of psoriasis in countries ranges between 0.09% (9) and 11.4% (10) making psoriasis a severe global health problem. As it progresses with flares is a disfiguring and debilitating disease with a great negative impact on patients' quality of life (QoL) (7).

Patient-reported self-analysis is used to obtain the perception of a disease, its treatment, and its impact on daily living. In addition to the evaluation of clinical manifestations, an essential element in assessing the advancement of the disease and its impact on patients' health and well-being is the health-related quality of life (HRQoL) measure. QoL instruments can estimate the impact of the disease on the mental, physical, functional and social patients' self-evaluation. The Dermatology Life Quality Index (DLQI) is currently the most frequent method used in evaluating QoL for patients with different skin conditions such as psoriasis vulgaris. However, the correlation of impaired QoL scores with current clinical severity can be low, because the impact of psoriasis not always correlates with the severity of skin lesions. For example, in psoriasis, the vascular pattern with "dotted" vessels can be identified analyzing the periungual folds, and this fact represents an infraclinic modification with possible extensions to distal phalanges and joints. Health status and patients' psychological characteristics can be associated with higher levels of HRQOL impairment. The overall impact of cancer diseases in combination with the severity of the disease can be obtained using the Skin Cancer Quality of Life questionnaire (SCQoL). A systematic review of health-related quality of life in cutaneous melanoma showed that the most commonly used

instruments were the SF-36, EORTC QLQ-C30. More recently, a melanoma-specific HRQOL questionnaire (FACT-Melanoma) was introduced (24).

Non-invasive methods, such as high-frequency ultrasonography, classical or digital dermoscopy offer the possibility of complementary pre-surgical tumor evaluation and the establishment of prognostic factors, and therefore they improve patients` QoL. They allow a complex, multimodal approach of cutaneous pathology which completes clinical and histological examinations and may evaluate therapeutic efficacy and the diseases' prognosis (11).

CLINICAL CHARACTERISTICS AND PSYCHIATRIC APPROACH:

Melanoma has a considerable impact on patients' lives, including their health-related quality of life (HRQOL), which the World Health Organization (WHO) defines as "an individual's perception of their position in life in the context of the culture and value system in which they live and in relation to their goals, expectations, standards, and concerns" (24). The course of the disease despite actual immunologic therapy is marked frequently by high impairment and includes anxiety disorders and not rarely depression. Almost 80% of patients will survive melanoma but remain at risk for disease progression for many years, for which there is no successful therapy (24). In melanoma but also in non-melanoma skin cancers the psychological impact results from the disease and the tumor itself or as a result of treatment. Similarly, it should be mentioned the symptoms, functional limitations, destruction of physical image-called cosmetic burden, auxiliary considerations such as the cost of therapy and disturbance to the activities of daily living (25).

Considered today as the "stethoscope" of the dermatologist, dermoscopy is used to evaluate benign tumor lesions (melanocytic nevi, lentigo, seborrheic keratoses, dermatofibromas) and to detect malignant skin lesions such as melanoma, basal cell carcinoma or squamous cell carcinoma. Digital dermoscopy is a modern method of diagnosis and evaluation of skin tumors using video dermathoscope which is a modern and powerful tool with the ability to memorize, analyze images and compare them over a while with the purpose of tracking the evolution of cutaneous lesions.

Currently, early diagnosis and non-invasive treatment of skin tumors are increasingly desirable aims for dermatologists, and intelligent monitoring of pigmentary cutaneous lesions is necessary because it can detect malignant tumors that can be clinically missed. Melanoma can be clinically and sometimes even dermatoscopically non-distinguished by benign lesions, especially in the context of people with multiple melanocytic nevi syndrome. The sensitivity of the digital dermatoscopy analysis was reported to be between 80% and 100% (13) and the specificity between 46% and 98% (14). Also, in the case of atypical tumoral lesions, this method can provide a dermatologist a "quick second expert opinion." Digital monitoring, therefore, offers a double advantage: increasing the possibility of "featureless" melanomas being diagnosed and the number of excisions of benign lesions being minimized. One the one hand, the use of imagistic techniques can improve QoL raising the confidence of patients in their clinicians` diagnosis. In addition, computer-assisted digital assay of skin tumor lesions provides the possibility of follow-up, particularly in patients with multiple atypical nevi (8), the dermatologist having the ability to compare the parameters of tumor lesions (maximum diameters, surface, asymmetry, margins, color variety, score of risk of malignancy- for example, DANAOS score) at

predetermined time intervals. Anxious patients or those with depression can receive in this manner objective information about their tumoral lesions and can diminish their negative approach. On the other hand, the number of excised lesions is reduced, and this can lead to an improvement of their management and their QoL.

Skin ultrasonography is a modern imaging method useful in the "in vivo" skin lesion study that uses as vector ultrasounds. The indications of skin ultrasound are multiple and include the evaluation of benign or malignant tumors, melanocytic lesions as well as inflammatory diseases. Skin conventional ultrasound or High-Frequency Ultrasound (HFUS) are currently increasingly used in the evaluation of cutaneous pathology. It has multiple applications in dermatological pathology: identifying the structure of the skin and nail apparatus; identifying the structures of the interphalangeal joints in inflammatory diseases, identifying the alterations induced by senescence and monitoring the activity and effectiveness of local / systemic therapies by measuring for example, the depth of plaques with erythema and scale (score of disease activity) or the vascular pattern. By using conventional and high-frequency ultrasonography, essential data can be obtained from the dimensions, structure, elasticity, type of vascularization and vascular flow of cutaneous lesions. High-frequency ultrasound can highlight the structure of the skin by identifying tumors with a thickness smaller than 1.5cm. The epidermis is shown as a hypoechogenic line, while the dermis is hyperechogenic and much less shiny. High-Frequency Ultrasound with transducers larger than 13 MHz can confirm clinical diagnosis by providing sensitive data to a benign/malignant pattern in appearance and useful vascularization preoperative data. It can also be used in follow-up and increases, therefore, patient satisfaction (12). The benefits of using this imaging method are repeatability, lack of risk for patients, is a non-invasive method, with minimal cost, and intake of morphological details of cutaneous lesions that cannot be obtained from the clinical or histological examination. In a retrospective study in which the skin tumors assessment protocol was completed with high-frequency ultrasound, the accuracy of clinical diagnostics was estimated to increase from 73% to 97% (20).

In inflammatory skin conditions, high-frequency cutaneous ultrasound may detect their activity and response to treatment. Skin ultrasound also presents indications in autoimmune bullous dermatological pathology along with histopathological examination (23). In vulgar psoriasis, the lesions exhibit thickening of the epidermis and dermis due to keratinocyte proliferation and inflammatory infiltration with a hypoechogenic subepidermic band and a vascular accentuated dermis. In subclinical forms of the disease, the active status of the disease is detected by doppler displaying the certain microcirculation pattern. Psoriasis onychopathy can be detected early by a loss of bimorph aspect, the presence of pitting and irregularities of the surface of the nail plate (15). Vascular changes in lesions can also appreciate the therapeutic response.

The dermatoscopic pattern and the thickness of the psoriasis plaque under systemic or topical treatment can assess the activity and effectiveness of the treatment. Early psoriatic arthritis can be distinguished from seronegative rheumatoid arthritis by pointing “dotted” vessels at the proximal nail fold also in an ultrasonographic and dermatoscopic examination, increasing diagnostic specificity in clinically not well-defined forms of the disease. The need for early diagnosis and improved management with a rapid therapeutic response is sustained by the fact that psoriasis is a cutaneous pathology with a

major psychosocial impact, which has trigger factors such as psycho-emotional stress, alcohol consumption or tobacco use. A study conducted in the United States evaluated seven impact areas of patients with psoriasis: emotional (feelings); sexual intimacy, social (friends, activities); family relations (activities, responsibilities); professional activities, physical functioning, and educational life. Data showed that 98% of patients reported that psoriasis modified their emotional life, 94% their social life, 70% their family life, 68% their career, 38% their physical status, 17% their sexual intimacy and 21% their educational life. The chronic disability caused by psoriasis is correspondent with the "cumulative life course impairment of psoriasis" (CLCI) which is a crucial concept of psoriasis care. It indicates that the chronic disease from childhood to old age can conduct to irreversible and lost opportunities (23).

CONCLUSIONS

Obtaining a correct diagnosis, and improved management of skin cancer or inflammatory skin pathology such as vulgar psoriasis requires imaging methods to target clinical data, to give a rapid, complete diagnosis and similarly in the quantification of disease severity and therapeutic efficacy.

The positive impact of QOL on patients with skin cancer should be a clinical consideration for physicians and should be carefully managed by dermatologists also using instruments such as DLQI questionnaires in association with psychotherapy in order to decrease the impairment of their lives. The quality of life can be improved by better management of therapy, prevention of invasive maneuvers and proper follow-up by using dermoscopy (classic or digital) and cutaneous ultrasonography. They are "real time" markers that can establish extension and evolution of skin cancer.

Psoriasis is not only a dermatosis that causes painful, debilitating, highly visible physical symptoms but also is associated with multiple psychological impairments. The principles of psoriasis management should include in order to improve the quality of life for people with psoriasis psychosocial interventions such as psychological counseling and patient education. Non-invasive methods, such as high-frequency ultrasound, along with digital dermatoscopy, offer the possibility of complete and non-invasive assessment both in terms of diagnosis and therapeutic response.

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Correspondence:

Laura Gheuca Solovastru,
M.D., Ph. D., Professor, Department of Dermatology, Faculty of Medicine, "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania
Address: Dermatology Clinic County Emergency Hospital "St. Spiridon", Bd. Independenței no. 1, Iasi, Romania, lsolovastru13@yahoo.com

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The psycho-emotional impact of patients with autoimmune bullous dermatoses

Ioana-Adriana Popescu, Dan Vâță, Laura Stătescu, Alina Ioana Grăjdeanu, Elena Porumb-Andrese, Adriana Pătrașcu, Laura Gheucă Solovastru

Ioana-Adriana Popescu – M.D., Ph. D student., Department of Dermatology "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania
Dan Vâță - M.D., Ph. D., Lecturer, Department of Dermatology "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania
Laura Stătescu – M.D., Ph. D., Lecturer, Department of Dermatology "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania
Alina Ioana Grăjdeanu – M.D., Ph. D., Assistant Professor, Department of Dermatology "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania
Elena Porumb-Andrese – M.D., Ph. D., Assistant Professor, Department of Dermatology "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania
Adriana Pătrașcu – M.D., Dermatology Clinic County Emergency Hospital "St. Spiridon" Iasi, Romania
Laura Gheucă Solovastru – M.D., Ph. D., Professor, Department of Dermatology "Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania

ABSTRACT

Autoimmune bullous diseases (AIBDs) are a group of disorders characterized by autoantibodies directed against structural proteins present in the desmosome and hemidesmosome of the skin and mucosal membranes. The AIBDs include various forms of pemphigus, bullous pemphigoid, epidermolysis bullosa acquisita, linear IgA bullous dermatosis, dermatitis herpetiformis. Blistering lesions have a substantial psycho-emotional effect for patients and evoke strong negative emotions, troublesome symptoms, and impaired social and professional functioning Treatment can also affect the quality of life of patients with AIBDs. For example, the steroids and immunosuppressive agents used to control AIBDs may cause serious adverse effects. Treatment with corticosteroids may cause multiple iatrogenic psychiatric disorders: anxiety and depressive disorders, psychotic disorders, even suicidal ideation. It is thus of great importance to pay considerable attention to the patients' psycho-emotional impact as well as clinical status.

KEYWORDS:
Autoimmune bullous diseases, corticoterapy psychiatric effects, morbidity, quality of life

ITRODUCTION

The skin is an integral part of the image we project to the outside world, besides providing physical protection, thermoregulation, and sensory perception. Many skin disorders have a significant impact on patients. Dermatologic disease evokes strong negative emotions, troublesome symptoms, and impaired social and professional functioning (25).

The intensity of the effect of skin disease on individual patients varies widely and may be independent of clinical severity. The degree to which quality of life is affected may be related to several factors, including patient demographic characteristics, the natural history, and site of the skin disorder, and time to diagnosis (8).

Autoimmune bullous dermatoses (AIBDs) are a heterogeneous group characterized by the presence of blistering or erosions in the skin, with or without mucosal damage. Autoantibodies in AIBDs target components of the epidermis or dermo-epidermal junction that are responsible for the maintenance of cell-to-cell adhesion. Inflammatory cascade that follows antigen-antibody reaction finally leads to blister formation in the skin. Depending on the level of blister formation, AIBDs are classified into intraepidermal (pemphigus vulgaris) and subepidermal types (bullous pemphigoid, herpetiform dermatitis, herpes gestationes, linear IgA dermatosis) (1,2). The diagnosis of AIBDs is based on clinical features, histology, direct immunofluorescence, and indirect immunofluorescence. Moreover, high-frequency color Doppler sonography is a rapid and noninvasive imaging procedure, which could be useful for evaluating patients with bullous pemphigoid. This non-invasive method can correlate with histological findings (24).

The incidence of autoimmune bullous dermatoses is steadily increasing, being associated with a high degree of morbidity and occasional mortality. AIBDs are severe diseases with an essential psyho-emotional impact of patient and strong repercussions on health status, because of the appearance and diffusion of unattractive lesions, functional problems, disease chronicity, and the need for treatments whose side effects are essential (8).

Several types of questionnaires were used in literature to assess the impairment of the quality of life of patients with autoimmune bullous dermatoses. Of these, the dermatology life quality index (DLQI) is a skin-specific tool which has been previously used to examine the quality of life concerning work productivity. Professor Murrell and her team developed the Autoimmune Bullous Disease Quality of Life Questionnaire (ABQOL) as the first AIBD-specific QoL tool, which is more sensitive compared to the DLQI due to its higher content validity (9).

AIBDs can be quite disfiguring in terms of a patient's appearance due to blistering skin lesions, which leave serious erosions through the opening.

Also, AIBDs harm the workplace and lower work productivity. Tabolli et al. suggested that the presence of blisters favors self-stigmatization.

The unsightly appearance of skin diseases limits social activity and negatively affects self-esteem (9).

The role of treatment in patients with pemphigus vulgaris is to suppress the immune system and prevent the production of pathogens. The immunological response is due to the significant decrease of pathogens in the skin and serum of patients. With adequate treatment, the mortality rate was greatly reduced (at around 5%), most of the causes of

death being due to the complications of immunosuppressive medication. Most dermatoses are treated with glucocorticoids, whose efficacy is well established, but corticosteroid therapy may induce numerous psychiatric disorders. They consist of acute polymorphous psychotic manifestations which may be manic or depressive or, when high doses of corticosteroids are taken, of the organic confusion type. The most frequent, such manifestations are, particularly in women. Symptoms generally begin during the first few weeks of treatment and follow a favorable course when corticosteroids are reduced or discontinued, and the patient receives symptomatic treatment with neuroleptic drugs. Also, have been reported a few studies about psychic dependence on corticosteroids and withdrawal syndromes (10, 11, 12).

CLINICAL FEATURES AND PSYCHIATRIC APPROACH

Pemphigus vulgaris is a rare but severely disabling disorder of the skin and mucous membranes. It typically presents with painful and non-healing oral erosions followed by cutaneous blisters that rupture easily, resulting in burning superficial erosions. Unpleasant and painful lesions as well as the resulting difficulty in eating significantly reduce the quality of life. Epidemiologically, pathology is more common in the Jews and the Mediterranean region. In Jerusalem, the incidence is estimated at 16 cases/1 million people, while in France and Germany it is 1.3 cases / 1 million people (2). Systemic glucocorticoids and adjuvant immunosuppressive drugs are the mainstay of therapy for pemphigus vulgaris. It is known that long-term use of these therapeutic modalities is associated with an additional negative impact on patient' s quality of life. (3)

Several studies have used the Dermatology Life Quality Index (DLQI) questionnaire for patients with pemphigus to evaluate the quality of life (QOL) and psychological status of the patients. Mayrhofer et al. studied QOL in 30 new and untreated pemphigus patients using the German version of the DLQI, and the average DLQI was 10 (±6.6) (4). In comparison, the patients with atopic dermatitis present a high DLQI score of 12.5 ± 5.8 (5);

Atopic dermatitis is a chronic disease with a significant negative impact on physical and mental health of the patients. Pemphigus vulgaris is on the second place after atopic dermatitis.

Terrab et al. used the SF-36 questionnaire to compare QOL in 30 treated pemphigus patients and 60 healthy adults. They also reported an vital impairment in quality of life and the psycho-emotional status of the patients.

In a cross-sectional study of 58 newly diagnosed or treated patients, Tabolli et al. reported the disease impact using the SF-36 questionnaire. They showed a similar pattern of impairment of QOL in pemphigus and psoriasis patients. They observed significantly worse QOL in patients with mucocutaneous involvement.

In another study, realized with 126 patients, Paradise et al. compared the patients with pemphigus vulgaris with healthy controls or psoriasis patients. Patients with pemphigus vulgaris were reported to suffer a markedly impaired quality of life (6).

Bullous pemphigoid is the most frequent autoimmune blistering disease of the skin, usually affecting elderly persons. Clinically, it is characterized by an intensely pruritic rash, dominated by tense blisters arising in urticaria-like lesions. It may be localized to one area, or widespread on the trunk and proximal limbs. The incidence of bullous pemphigoid varies from 2.8 cases / 100,000

people in the United States to 4.28 cases / 100,000 people in the UK, most commonly seen in the elderly (over 80 years) (19).

Bullous pemphigoid is a chronic dermatosis and has a lot of psychological and social implications for the patient. As in the pemphigus vulgaris, the effects of treatment can have a substantial impact on physical and emotional status. They may lead to functional limitations, a need for increased family support, stress, and exclusion from social activities.

In the literature, there are few reports about the patients' quality of life, but these are frequently underestimated by clinicians (7). Anargyros Kouris et al. performed in a case-control study with 57 patients with pemphigoid bullous that DLQI score was 9.45±3.34, confirming that the condition impairs quality of life (7).

Daily activities, such as walking, home cleaning, changing clothes and social life are significantly affected and cause a decline in quality of life and self-esteem for patients. Patients feel frustration due to the passive and unfulfilling daily routine, and they have a negative body self-image (feeling unclean and physically unattractive) (20). The cutaneous damage and the symptoms like discomfort, pain, and itching can harm sleep, mood and enjoyment of life, representing further cause for depression in patients (20).

Dermatitis herpetiformis is also a chronic autoimmune bullous dermatosis, clinically characterized by an intensely pruritic skin rash, with predominant localization on the extension faces. Characteristic blisters are not always present because they are destroyed by scratching.

In Caucasians, the prevalence varies from 10 to 39 cases/ 100,000 people. It occurs more frequently in people aged 30-40 years. In the elderly, Duhring-Brocq dermatitis may be paraneoplastic (22).

It is closely related to gluten intolerance, both of which are characterized by the presence of IgA autoantibodies against transglutaminases, which, in the case of herpetiform dermatitis, are deposited in the superficial papillary dermis. Thus, all patients diagnosed with dermatitis herpetiformis must maintain a gluten-free diet. Besides the restrictive part, this has a negative emotional impact on patients.

PSYCHIATRIC COMPLICATIONS OF CORTICOTHERAPY

Corticosteroids are widely used in dermatology, mostly to treat autoimmune bullous dermatoses, but can result in troubling psychiatric side-effects. Dermatologists and psychiatrists should be aware of the potential for these side-effects, possible means of prevention, and efficacious treatments (13). Some psychiatric side-effects are sometimes seen in patients treated with corticosteroids. The pathophysiology of these reactions is not well understood, but a proper clinical diagnosis may prevent and treat them.

Psychiatric complications of corticosteroid treatment are quite common in medical practice and range from clinically significant anxiety and insomnia, to psychotic disorders, even suicidal ideation. If these side effects occur, lowering doses or discontinuing corticosteroid therapy is indicated. If psychiatric impairment is severe, it is recommended to initiate the psychotropic treatment (12, 13).

There are not many recent studies about the incidence of psychiatric effects of corticotherapy. The Boston Collaborative Drug Surveillance Program materialized psychiatric complications in 1.3% of 463 patients treated with 40 mg/ day or less of prednisone, 4.6% of 175 patients dosed with 41–80 mg/day, and 18.4% of 38 patients receiving doses higher than 80 mg/day (13). A few years later, Lewis and Smith reported

an incidence of 5,7% of severe psychiatric symptoms across 13 studies involving 2555 patients treated with corticosteroids.

Other authors believe that the most common symptoms are mania or hypomania (13). Also, in chronic exposure to corticotherapy, increases the risk of depression. There is a correlation between the doses and the corticosteroid psychiatric side effects. Chan et al. reported psychosis in 8% of patients receiving prednisone 90 mg/day compared to 3% of patients receiving 30 mg/day (14). Wada et al. described 18 patients who developed mood disorders or psychosis after receiving 30– 60 mg/day of prednisone-equivalent, also reported a strong association with dose, although they noted that some patients had a recurrence of depression or mania related to psychosocial stressors rather than to dose changes or resumption of corticosteroids (15). Also, in another study, Appenzeller et al. reported that all patients with corticosteroid treatment presented psychosis were taking prednisone 0.75–1.0 mg/kg/day (16).

The psychiatric side effects of corticosteroid therapy may be increased when certain drugs, such as Clarithromycin, are associated. Finkbine and Gill reported a case of mania induced by adding clarithromycin to prednisone and after 5 days when both drugs were stopped the mania resolved (17).

It is essential to educate patients and their families about the risks of developing psychiatric side effects during corticosteroid therapy and the need to monitor these patients. The treatment of corticosteroid-induced psychiatric symptoms should start whenever possible with dose reduction or stopping the drug. Lewis and Smith report that naturally progressive dose reduction dose to zero resolved the psychiatric symptoms in 94% of 36 cases (18).

Thus, the psychiatric complications of treatment with corticosteroids include psychosis, mania, hypomania, depression, apathy, anxiety, panic, depersonalization, delirium, confusion, hallucinations, delusions, paranoia, cognitive impairment, and dementia. The psychiatric symptoms typically come on within 1–2 weeks after starting high-dose corticosteroid steroid treatment. Hypoalbuminemia, similar to other drugs that may slow the metabolism of the corticosteroid, may be risk factors for corticopsychiatric symptoms.

All the involved parties, the dermatologist, psychiatrist, patients, and their families should work together to improve awareness of the limited available knowledge and to stimulate research aimed at improved methods of prevention, recognition and treatment (13).

CONCLUSIONS

Nowadays, although they are considered rare diseases, the incidence of autoimmune bullous dermatoses is steadily increasing, being associated with a high degree of morbidity and occasional mortality. The cutaneous damage such as bullae formation, pain, itch, and associated functional limitations have a psyho-emotional impact on patients and can severely affect the patient’s quality of life. These symptoms, by their despicable character, can have a significant burden on social function, independent of clinical severity.

Moreover, the autoimmune bullous dermatoses harm work productivity and daily activity. Stigmatization was common in the workplace which leads to increased stress, itself a stimulator of pemphigus.

Most patients feel frustration due to the passive and unfulfilling daily routine, and they have a negative body self- image. The cutaneous damage and the symptoms like discomfort, pain, and itching can hurt sleep, mood and enjoyment of life, representing further cause for depression.

Most AIBDs are treated with corticosteroid therapy, but sometimes these drugs may induce numerous psychiatric side effects. The studies have shown that psychiatric symptoms during corticosteroid therapy are dose-dependent, often appear within the first 2 weeks and include mania, depression, mood lability, and psychosis. If these side effects occur, the gradual decrease of doses to zero is indicated. If psychiatric impairment is severe, it is recommended to initiate the psychotropic treatment. Dermatologists and psychiatrists should be aware of the potential for these side-effects, possible means of prevention, and efficacious treatments.

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Correspondence:

Dan Vâţă,

M.D., Ph. D., Lecturer, Departament of Dermatology „Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania Adress: Dermatology Clinic County Emergency Hospital "St. Spiridon", Bd. Independenței no. 1, Iasi, Romania, Email: dan.vata@umfiasi.ro

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Studying the risk for psychiatric/psychological deficiencies in the context of medical rehabilitation

Roxana Elena Bliuc, Roxana Chiriţă, Irina Dobrin,

Romeo Dobrin, Vasile Chiriţă

Roxana Elena Bliuc-PhD student „Grigore T. Popa" University of Medicine and Pharmacy, Iasi, ROMANIA
Roxana Chiriţă- MD, Ph.D., senior psychiatrist, professor, „Grigore T. Popa" University of Medicine and Pharmacy, Iasi, ROMANIA
Irina Dobrin- MD, Ph.D., senior psychiatrist, Assistant Professor „Grigore T. Popa" University of Medicine and Pharmacy, Iasi, ROMANIA
Romeo Dobrin -MD, Ph.D., senior psychiatrist, lecturer, „Grigore T. Popa" University of Medicine and Pharmacy, Iasi, ROMANIA
Vasile Chiriţă -professor, Honorary Member of the Romanian Academy of Medical Science

ABSTRACT

Lately, there is an increased awareness for the risk of psychiatric/psychological dysregulations in the context of medical rehabilitation. In this way, the main issues associated with this matter are represented by life-ending sensations, the loss of interest in other activities, the loss of self-esteem, difficulties in organizing one's own life, difficulty in initiating sleep, fragmented sleep with numerous nighttime awakenings, nightmares, restless sleep, impulsivity or emotional lability. Thus, considering these associated risks for psychiatric/psychological dysregulations in the context of medical rehabilitation, we decided in the present report to evaluate some patient as judged from this perspective, by using 115 patients, which we refer to various specific scales and questionnaires.

KEYWORDS:

Medical rehabilitation, psychiatric manifestations, psychological counseling therapeutic approaches.

INTRODUCTION

Lately, it is considered, as our group also previously suggested(1), that there is a real psychiatric/psychological risk in the context of medical rehabilitation, which suggests the importance of psychiatric interventions and psychological counseling services in the medical recovery sections, but also the need to evaluate the patient from this perspective.

In this way, some previous examples regarding this matter, as described in the literature (however the studies in this area of research are very reduced) showed that these patients have a pathological aspect associated with accuse life-ending sensations. The loss of interest in other activities, the loss of self-esteem, difficulties in organizing one's own life (1,2,3), as well as mental fatigue, a decrease of psycho-energetic resources, daytime fatigue, difficulties in completing initiated activities are the main aspects here. That can seem more difficult than they are, difficulty in initiating sleep, fragmented sleep with numerous nighttime awakenings, nightmares, restless sleep, waking up early in the morning, without the possibility of going back to sleep(1,4,5).

Besides, these people may accuse irritability, nervousness, low tolerance to frustration, impulsivity, emotional lability, easily crying (1, 6,7,8,9,10,11) and may have various nociceptive deficiencies (12,13,14) or digestive problems (15, 16,17,18).

Moreover, all the aspects as mentioned above can refer to both the patients, as well as the associated caregiver(1).

Thus, considering these associated risks for psychiatric/psychological dysregulations in the context of medical rehabilitation, we decided in the present report to evaluate some patient as judged from this perspective, by using 115 patients, which we refer to various specific scales and questionnaires.

Methods

As mentioned, we used 115 patients, which were referred to various specific scales and questionnaires during October 2012 and December 2015, from the Clinic Hospital CF Iaşi.

We used as the main including criteria: patients older than 18 years old, which were part of the hospital as mentioned above, during various rehabilitation processes.

The exclusion criteria were mainly referring to patients who were not able to write and read, unable to sign the necessary informed consent and severe dementia.

The various questionnaires which we used in this study are based on closed questions, with their answers mainly referring to the perception of the patients on some social, medical and ethical elements on their quality of life.

Data analysis was performed by using the specific software SPSS 18.0.

RESULTS AND DISCUSSION

Regarding the importance of the medical rehabilitation for the study group that we used, we could notice that this was considered psychologically important by 89 of the selected patients, which represented 77,4 % from the group. Only 7 % considered this aspect as being non-important, with the rest being non-decided.

Interestingly, from the patients considering that this is very important (psychological importance in the rehabilitation process) 83.1 % were female and 77,5 % from the rural area, while also 83.1 % were married.

Some of these aspects can also be seen in Table 1.

Table 1. The importance of medical rehabilitation in correlation with the demographics of the patients.

Characteristics	**Lack of importance** (n=8)		**Somehow important** (n=16)		**Moderately important** (n=2)		**Very important** (n=89)		**Kruskal Wallis test (p)**
	n	%	N	%	n	%	n	%	
Female	6	75,0	14	87,5	-	-	74	83,1	**0,022**
50+ years old	6	75,0	12	75,0	-	-	45	50,6	0,073
Urban area	2	25,0	13	81,3	-	-	69	77,5	**0,001**
Married	6	75,0	14	87,5	-	-	74	83,1	**0,050**
Lack of education	-	-	5	31,3	-	-	18	20,2	0,441
With medical insurance	8	100,0	16	100,0	2	100,0	85	95,5	0,753

Regarding the feelings of trust towards the process of medical rehabilitation, we did notice that almost 21 patients (19%) did not have any trust in this process, while 42,6% of them have reduced trust in their chances of recovery.

Table 2. The level of trust from the patients in the recovery process as correlated to the demographic data.

Characteristics	**Lack of trust** (n=22)		**Decreased trust** (n=27)		**Moderated trust** (n=35)		**Total trust (very increased trust)** (n=31)		**Kruskal Wallis test (p)**
	n	%	N	%	n	%	n	%	
Female	15	68,2	24	88,9	26	74,3	29	93,5	**0,050**
50+ years old	20	90,9	4	14,8	24	68,6	15	48,4	**0,001**
Urban area	11	50,0	21	77,8	24	68,6	28	90,3	**0,011**
Married	20	90,9	25	92,6	30	85,7	19	61,3	**0,002**
Lack of education	5	22,7	4	14,8	13	37,1	1	3,2	**0,001**
With medical insurance	22	100,0	27	100,0	34	97,1	28	90,3	0,157

Regarding the importance of the psychological and psychiatric counseling in this context, this is considered as being very important by 17,4% of the patients (n=20), with 52,2% of them considering the psychological and psychiatric intervention important (moderately or very important) and 21,7% of the selected patients (n=25)

declaring that this aspect has no importance at all.

As regarding the social and demographic aspects behind these data, we can mention that 90 % of the women are considering the psychological and psychiatric intervention important (moderately or very important), while the person older than 50 years old are stating for decrease importance of this interventional process (Table 3).

Table 3. The importance of the psychological and psychiatric intervention as correlated to social and demographic data.

Characteristics	**Without importance** (n=14)		**Somehow important** (n=30)		**Moderately important** (n=40)		**Very important** (n=20)		**Kruskal Wallis test (p)**
	n	%	N	%	n	%	N	%	
Female	13	52,0	24	80,0	39	97,5	18	90,0	**0,001**
50+ years old	15	60,0	22	73,3	23	57,5	3	15,0	**0,001**
Urban area	9	36,0	17	56,7	38	95,0	20	100,0	**0,001**
Married	21	84,0	23	76,7	32	80,0	18	90,0	0,581
Lack of education	6	36,0	14	46,7	-	-	-	-	**0,001**
With medical insurance	24	96,0	29	96,7	38	95,0	20	100,0	0,800

Also, regarding the psychological and psychiatric counseling in this matter, we could mention that 100 % of the selected patients from the urban area are considering this as being important, while 36 % of the patients with a reduced level of education are considering the psychological and psychiatric counseling non-important in this context.

Also, regarding the main scores which we obtained from the evaluation of the general psychological state for the selected group (by evaluating the answers it was generated a scale where 4 means a major increased psychological risk, while 15 means no psychological risk at all). We can mention here that 8 of the selected patients presented a severe psychological and psychiatric risk (having scores between 4 and 6), while 53 patients (46,1 % from the entire group) did present a moderate risk, by exhibiting scores between 7 and 10.

Also, 15 patients (13%) had no psychological modifications, with their specific score being 15.

Also, regarding the connections with the socio-demographical data, there was a reduced specific psychological and psychiatric score in the males of the group, over 50 years old of age, coming from the rural environment and having a reduced educational level (Table 4).

Thus, these results as mentioned above are suggesting once again that the medical recovery specialty consists of a wide range of medical conditions and includes patients of all ages, and also social categories with different sufferings and needs.

It also harmoniously combines medical practice with the principles of medical ethics, elements of social sciences and psychology in a collaborative approach in order to alleviate the patient's suffering.

Table 4. The primary data regarding the psychological state evaluation of the selected patients

Parameters	N	average	St. Dev.	St. error	The degree of confidence 95%		Min	Max	Test F (ANOVA) p
					-95%CI	+95%CI			
The hall group	**115**	**10,45**	**2,78**	**0,26**	**9,94**	**10,97**	**4**	**15**	**-**
Sex									
Male	**21**	**9,24**	**3,03**	**0,66**	**7,86**	**10,62**	**4**	**14**	**0,026**
Female	**94**	**10,72**	**2,66**	**0,27**	**10,18**	**11,27**	**4**	**15**	
Age									
< 50 years old	**52**	**11,38**	**2,76**	**0,38**	**10,62**	**12,15**	**4**	**15**	**0,001**
50+ years old	**63**	**9,68**	**2,57**	**0,32**	**9,04**	**10,33**	**4**	**15**	
Background									
Rural	**31**	**8,77**	**2,45**	**0,44**	**7,88**	**9,67**	**4**	**13**	**0,001**
Urban	**84**	**11,07**	**2,65**	**0,29**	**10,50**	**11,65**	**4**	**15**	
Marital status									
Married	**94**	**10,43**	**2,82**	**0,29**	**9,85**	**11,00**	**4**	**15**	**0,167**
Unmarried	**21**	**9,58**	**3,18**	**0,92**	**7,57**	**11,60**	**4**	**13**	
Decreased educational level									
No	**92**	**11,78**	**2,91**	**0,43**	**10,90**	**12,65**	**4**	**15**	**0,001**
Yes	**23**	**9,56**	**1,01**	**0,34**	**8,78**	**10,33**	**8**	**11**	

Thus, as we previously demonstrated (1) the use of psychological and psychiatric intervention in patients in medical recovery services helps during the recovery period. In order for the patient to adapt to the new medical reality they are living in and also helps to find practical solutions to ordinary problems, so they can easily overcome them, not only during therapy but also after the end of psychotherapy sessions (2-8).

This could further result in changes in the cognitive process that will also improve the well-being of the patient, who will be more confident in his ability to cope with problems. Therefore, the data we presented here is showing that the main psychiatric manifestations and associated therapeutic approaches in the context of medical rehabilitation have fundamental importance in the well-being of the patients.

CONCLUSIONS

Thus, it seems that the risk of psychiatric complications are increasing among patients in medical rehabilitation therapy, which requires prompt identification and treatment when these conditions are clear.

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Correspondence:

Irina Dobrin
MD, Ph.D., senior psychiatrist, Assistant Professor „Grigore T. Popa" University of Medicine and Pharmacy, Iasi, Romania, dobrin.irina@yahoo.com

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Beyond the borders of mental disorders – redefining the social and medical phenomenon

Alina-Ioana Voinea, Ionuţ-Dragoş Rădulescu, Mirona-Letiţia Dobri, Petronela Nechita

Alina-Ioana Voinea– M.D., Resident in Psychiatry,"Socola" Institute of Psychiatry, Iaşi, România
Ionuţ-Dragoş Rădulescu – M.D., Resident in Psychiatry,"Socola" Institute of Psychiatry, Iaşi, România
Mirona-Letiţia Dobri– M.D., Resident in Psychiatry,"Socola" Institute of Psychiatry, Iaşi, România
Petronela Nechita– M.D., Ph. D., Senior Psychiatrist,"Socola" Institute of Psychiatry, Iaşi, România

ABSTRACT

Migration is a significant social phenomenon but at the same time a tool capable of changing aspects in an entire nation's infrastructure and development. Mass relocation brings forward economic, anthropological and medical concerns that prove otherwise challenging, as they come with a high number of variables influencing the interested individuals, as well as the communities they are a part of. Studying statistical data from a powerful psychological and social point of view, we can begin to understand the complexity of the factors we encounter with an increasing frequency in the daily clinical practice. Female patients with a history of moving abroad with the purpose of finding new work opportunities represent part of a vulnerable group, the quality that predisposes them to mental health issues and generates a clear course of discussion in the field of psychiatry. To understand the response one may resume to in front of an impacting social event, such as migration, would be to establish new behavioral patterns and from that point on, probable mental health disorders and their outcome in such a scenario. Thus, we, as clinicians, might benefit most from being able to predict our patients' needs or concerns partially and to foresee the best possible case management. Still a novelty, given the current state of knowledge, examining the „social brain" of patients and approaching cases from a holistic perspective may prove useful in gaining better insight on the diagnosed disorders, which is a critical point in developing a more precise care plan and setting higher standards for our hospital practice.

KEYWORDS:
Migration, Acculturation, Resilience, Social Deafferentation, Psychosis, Depression

EUROPEAN MIGRATION FLOWS – A STATISTIC

Inserting the migration concept into a proverbial box, wrapped tightly and neatly, proved problematic, as we are dealing with a phenomenon that includes people who move for various reasons across different spaces. Because it occurs under different conditions, demographers lack a universal definition of this concept. A migrant may be a person who moves to another city or town within a nation; a job seeker who crosses an international border in search of better economic opportunities; a refugee who flees his/her country in order to escape religious or political persecution. However, although complex factors make a single, operational, definition impossible, in general, we can say that migration is an ongoing process in which an individual or a group shifts residence from one place to another. Apart from the spatial dimension, migration also implies the disruption of daily life activities, usual patterns, and routines (1, 2).

As far as voluntary migration is concerned, we could name a few important types of migrants that make the subject of this concept. The most representative category is the so-called economic migrants. Often referred to as "labor migrants" or "migrant workers," they are mainly people working outside their home country. The term may also be used to describe someone who migrates within a country, possibly their own, in the act of internal migration, in order to pursue work offers (3). Labor migration contributes to growth and development in both source and destination countries, having a high impact on the world economy. Every year, migrant workers send home to developing countries large volumes of remittances meant to support their families and communities, while at the same time contributing to the economic growth and prosperity in host countries(4).

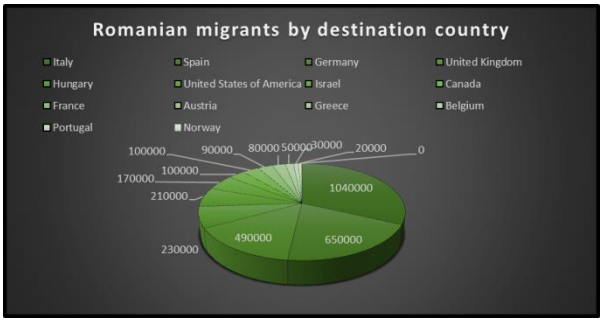

Fig.1. Romanian migrants by the destination country. The difference in numbers is underlined, with Italy hosting more than 1 million Romanian migrants. Data Source: United Nations, Department of Economic and Social Affairs, Population Division (2017). Trends in International Migrant Stock: The 2017 Revision (5).

Women today make up about half of all migrants in the world, and this has been the case for several decades. They include both international migrants, who move to other countries, as well as internal migrants, who relocate in other parts of their own countries (2, 5).

Even though the population trend used to be in that females followed other family members in the migration process, nowadays increasing numbers of female migrants relocate on their own. They are the principal wage earners for themselves and their families. Most women move voluntarily, but a significant number are displaced people who have fled conflict, persecution, environmental degradation, natural disasters and other situations that affect their habitat and livelihood (6). The increase in the share of women migrants is often considered to be the result of the growing importance of family

and refugee migration, in which women usually outnumber men. Alongside women's increasing participation in conventional labor migration, specific female forms of migration have emerged. The existence of gender-specific economic niches for immigrants and the tendency of migration to present itself in particular designs has made room for linkages between individual countries, based purely on the overwhelmingly female migratory rate (7, 8).

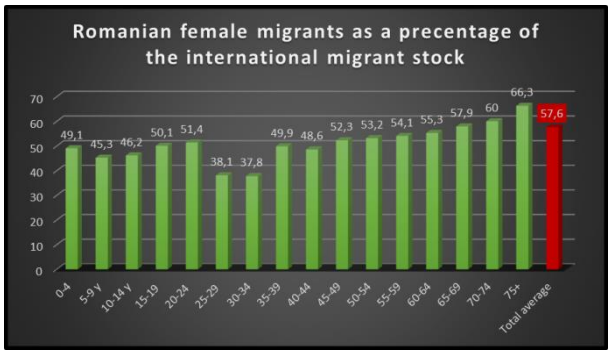

Fig.2. Romanian female migrants as a percentage of the international migrant stock. Except for ages 25-34, most groups registered almost a statistical mid-point, and the total average sits just above that half percentage at 57,6%. Data Source: United Nations, Department of Economic and Social Affairs, Population Division (2017). Trends in International Migrant Stock: The 2017 Revision (5).

THE COMPLEXITY OF INTERNATIONAL MIGRATION

National identity is an enormous concept, with multiple facets, and its intensity, character, and origins vary with time and place. Along the centuries, some areas of Europe were entirely ambivalent for national sentiment, while populations elsewhere could be considered exceedingly patriotic (9). Different classes could display varying degrees of national identification, and there could be differences between urban and rural populations as well. While the development of national identity remains a problematic historical problem, several general conclusions may be offered. In the early modern mind, "nation" primarily referred to the place of birth, yet it also carried cultural weight: one's nation connoted perhaps ethnicity, perhaps language, but almost certainly religion (10).

One can state with fair certainty that most people saw themselves as part of a wider community, one that was occasionally national in scope and that religion, language, and local political structures played prominent roles in determining that identity. At their arrival in the new country, immigrant groups, as well as immigrant individuals, have different attitudes about retaining their culture of origin and about becoming part of the new society, about how much of their identity they are willing to give away and to what extent they are willing to replace old habits with new ones (11, 12). Of course, the transition is supposedly more natural and less problematic in those cases in which the old and the new country share common, or very similar, culture and values.

The process that takes place when immigrants enter a new society and consequently give up some elements of their culture of origin and assimilate into the new culture is referred to as a process of acculturation (13, 14). Four acculturation strategies can be defined, based on the degree to which two factors – cultural heritage and assimilation to the new culture, modify themselves:

1. **Integration:** the cultural background is maintained and, at the same time, relations are being developed with the larger society;
2. **Marginalization:** is the exact opposite of integration, as the cultural heritage is gradually lost, but new cultural values are not being acquired from the host society;
3. **Assimilation:** immigrants give up most of those elements belonging to the cultural

heritage and gradually assimilate elements belonging to the new culture;

4. **Separation:** immigrants stick to their cultural background and refuse to acquire an element belonging to the host society.

As common sense dictates, integration has been considered the most adaptive mode of acculturation and has been associated with positive mental health outcomes, whereas marginalization is more likely to be associated with poorer mental health indicators. [15] It remains inconclusive as to which acculturation pattern tends to be strongly associated with more positive or negative mental health outcomes. Even less known is the underlying mechanism as to how acculturation influences mental health (16).

Resilience is another powerful concept that has been widely applied and found to predict the prevalence of psychiatric afflictions among the vulnerable group (17). As a process, resilience refers to positive adaptation despite exposure to significant risk and adversity. Resilience involves characteristics and competencies that allow one to maintain positive functioning and thrivesuccessfully, even in adverse circumstances, as well as to identify and access resources in the environment that provide appropriate support. In the context of migration, resilience involves positive adaptation to the stressors and challenges encountered in a new environment through persistent coping. Higher levels of resilience have been found to result in enhanced self-esteem, lower depression and anxiety, and better psychological well-being.

ROMANIAN WOMEN IN THE DOMESTIC WORK TRADE

Domestic work, at least in its live-in form, is not compatible with maintaining a family nearby (18), forcing immigrant women to either renounce motherhood or leave their children with husbands and relatives in their home country. Indeed, women are generally the principal caregivers within their families, and their departure deprives the neediest of care – i.e., children and elder parents.

Members of transnational families usually employ a series of compensatory strategies which reduce the negative influence of care drain and ensure the continuity of relationships (19, 20). Nevertheless, the solutions put in place by migrant parents prove insufficient, and the care shortage does not cease to exist. Despite receiving remittances and phone calls from parents abroad, children often report feeling alone in the country of origin. The family members or relatives in which care these children are being placed are not always capable of offering adequate support. The generation gap between grandparents and grandchildren may prove to be too high, thus both groups finding themselves in difficulty.

Another problem that often arises, in cases such as these, is that of elder abuse. The dysfunctionality in the domestic environment may bring forward issues in which the more fragile individuals, not getting the help they need, and finding themselves carrying all alone the burdens of authority over the younger minds, suffer injustice at the hands of their relatives (21) ¯ a majority of the elder abuse cases identified by the Forensic Institute of Tg. Mures, in a study from 2017, was confirmed to have been committed by aggressors living at the same address as the victim (41,66%). Situations like these are not pending for every migrant's family, of course, but relatives of individuals working abroad for long periods are sensibly called at risk for specific deviant, impulsive reactions and types of behavior.

THE „SOCIAL BRAIN" AND THE INDUCTION OF PSYCHIATRIC SYMPTOMS

Prominent impairments in social functioning characterize several - perhaps most - psychiatric and neurological illnesses. These range from impaired processing of faces in autism and prosopagnosia to unusual tendencies to approach strangers in Williams Syndrome and strange beliefs that one's spouse has been replaced by an impostor in Capgras syndrome (22). Indeed, difficulty in social functioning is a key diagnostic criterion for several psychiatric disorders. Social cognition refers to processing that is elicited by, about, and directed towards other people (or, more species-general, towards conspecifics). Thus, the term 'social' must be anchored in the processing demands made by particular classes of stimuli. Looking at a face and thinking about what somebody will do next are both social; looking at an apple, thinking about the weather, and driving a car on an empty road is not (23). Such distinctions at the level of stimuli and behavior naturally lead to similar distinctions in social cognition and its neural substrates, distinctions that are moderated not only by dissociations observed in healthy brains but also by the dissociations caused by several disorders. It is essential at the outset to clarify the various 'social' phenomena commonly referred to in the literature – the social brain, social cognition, social behavior, and social functioning – and how they relate to one another.

Social behavior, the anchor for all these different levels of explanation, comprises the readily observable interactions between an individual and other people (or, more generally, an animal and conspecifics or even individuals of another species) (24, 25). Social cognition, in turn, refers to the various psychological processes (both conscious and non-conscious) that underlie social behavior. We use the term 'social cognition' relatively broadly here, to include any cognitive processing (perception, reasoning, memory, attention, motivation, and decision-making) that underlies a social ability or social behavior, but that is to some degree distinct from broader, nonsocial abilities and behaviors. The processing of social stimuli and the generation of social behavior typically engage some processing that appears to be relatively specialized for the social domain (recognizing faces, thinking about what another person is thinking, hearing somebody call one's name) and other processes that also participate, but are more general in function.

Mapping the social/nonsocial distinction at the behavioral and cognitive levels onto the brain poses a challenge, however (26). The 'social brain' historically refers to those brain structures that subserve social processes, often in a relatively domain-specific way: regions in the temporal lobe for processing faces, the temporoparietal junction and medial prefrontal cortex for representing other people's beliefs, and so forth.

STRUCTURES. Many brain regions are now known to be involved in social cognition. Some of these are implicated because damage to them impairs aspects of social cognition and behavior; others are implicated because they are differentially activated in healthy brains when people perform human tasks in an MRI scanner (26). (TPJ - temporoparietal junction; dMPFC - dorsomedial prefrontal cortex; STS/STG - superior temporal sulcus/gyrus, FFA- fusiform face area; VMPFC/OFC - ventromedial prefrontal cortex/orbitofrontal cortex.)

NETWORKS. Several core social cognition networks have been described. One is a network centered on the amygdala; the functions of this network (which will likely fractionate into several that are linked to

specific amygdala nuclei eventually) range from triggering emotional responses to detecting socially salient stimuli to affiliative social behavior s (27). A second is the so-called „mentalizing network", a collection of structures correlated at rest and activated by thinking about the internal states of others. A third is recruited when individuals empathize with others. A fourth network is activated during observation of the actions of others, including their emotional expressions.

Multiple neuroanatomical segments were not distinguished in function until the more modern era of imaging and neurosciences (28). Even so, as Turliuc et al. (2017) state, as late as the seventeenth century, the involvement of the corpus callosum in mental function was admitted when Thomas Willis described it as a pathway allowing cerebral spirits to travel from one hemisphere to another. The brain, or minor parts of it, were considered as a transitional, if not resting, place for superior cortical functions of the human being. Far more than being a home for the soul, the cerebral hemispheres and their connectivity represent the networks through which we encounter the world around us and integrate information that builds, brick by brick, our personality, social engagement and dictates our survival.

In his article, Hoffman sustains a social deafferentation hypothesis for the onset of positive psychotic symptoms. Analogous to hallucinations produced by sensory deafferentation, such as a phantom limb, the SDA hypothesis assumes that high levels of social withdrawal/isolation in vulnerable individuals prompt social cognition programs to produce spurious social meaning in the form of complex, emotionally compelling hallucinations and delusions representing other persons or agents (26).

Persons with schizophrenia obviously do not suffer from sensory deprivation / deafferentation per se. Nonetheless, social withdrawal arises in most cases before manifest illness, which is likely to curtail information flow to neural systems responsible for generating complex social meaning (27). We know from rodent studies that complex brain changes can be induced by experimentally induced social withdrawal which, when applied during rearing, produce some aspects of schizophrenia such as impaired prepulse inhibition.

We also know that central lesions can produce deafferentation in brain regions other than purely sensory cortical regions (e.g., hippocampus and striatum) that trigger dramatic neuroplastic effects. Therefore, it is at least plausible that severe social withdrawal in humans during critical developmental periods induces deafferentation-like reorganization in regions of association cortex underlying social cognition that consequently produce spurious experiences with social meaning.

A diversity of causes contributing to social withdrawal in the pre-illness phase is likely (e.g., impairments in social cognition and other neuropsychological deficits, personality factors, depression, anxiety, personal loss, or traumatic events). However, this diversity of causes does not rule out the possibility of a final common pathway leading to initial emergence of schizophrenic psychosis, namely a reorganization of the ‘‘social brain’’ occurring in response to the relative absence of information inflow. To consider the ideas of reference example discussed above, neuroplastic shifts driven by social isolation could cause determination of gaze direction of others to be biased toward detecting eye contact when none occurs in order to generate new (spurious) social meaning (29). Along similar lines, even though hallucinations and delusions tend to be experienced negatively, they correspond to emotionally charged meaning is seeming to derive from other

persons that could provide a functional replacement for poor social experience.

Taking all this into account, we can conclude that the environment, the human interactions one is having daily, and the simplest of tasks completed amid a group, are one of the strongest predictors of the mental health status of an individual. When writing down a patient's history, a psychiatrist should always consider the risk factors being hinted to by their work ethic, family or social and economic background. The high complexity of cases addressed by psychiatry, the increased number of causes and effects treated, represent a fertile ground for both ethical and deontological problems (30). Many of these issues also exist due to the high degree of subjectivity regarding important aspects like socio-economic status, psychological status, and biological variables. Therefore, being in line with a patient's marital status, home situation, work schedule, and conditions is not only a chore for the on-call professional but a vital piece of the care, support and treatment puzzle we need to mend for our patients.

CONCLUSIONS

As the human is but a mammal, and our basic reflexes and instincts are guided by years of natural evolution, the presence of higher, more complex and refined behavioral patterns need to be reassured by the passage of time. Collapsing all our evolutionary beliefs in front of ongoing changes brought on by industrialization, modernization, and developing sciences, might be inevitable and even welcomed in the end. If we escape, through the windows of neuroscience, the rigorous principles of human dichotomy, we could, perhaps, come to a better understanding of the causes, effects, and burdens of what an individual is. To keep in mind, at all times, the surrounding events and interactions of our patients might be the key to redefining mental health as we know it today, therefore enabling us to devise different care plans, and discovering new manners of treatment. Using all of our resources with the purpose of bettering our knowledge is only one of the conclusions we propose, in hope that this will bring new light on issues not fully understood yet.

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The authors declare that they have no potential conflicts of interest to disclose.

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Corespondence:

Mirona Letiţia Dobri,
Resident Psychiatrist, „Socola" Institute of Psychiatry, Bucium St., no.36, Iaşi, România,Tel.: +40 724 554 270, mirona.dobri@gmail.com

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Modifications of intelligence quotient during pre and post-psychotic period in men with schizophrenia

Valentin Oprea, Ecaterina Ojog

Valentin Oprea – MD Ph.D. Associate Professor, State University of Medicine and Pharmacy, Chișinău, Chair of Psychiatry, Narcology and Medical Psychology, Republic of Moldavia
Ecaterina Ojog – psychiatry resident, State University of Medicine and Pharmacy,Chișinău, Chair of Psychiatry, Narcology and Medical Psychology, Republic of Moldavia

ABSTRACT
Background: Many studies tried to find a connection between schizophrenia and intelligence; it is a vastly stigmatized chronic disease did not raise that type of questions. Either there a cognitive decline after the onset of the pathology or the changes in cognition that accompany the disease prevents the individual from manifesting one's intelligence. Even if there are certain modifications in the measured intellect, it does not necessarily mean that schizophrenia is a disease that leads to inevitable dementia. It is not clear whether that decline is due to the pathological process of schizophrenia or an existent low premorbid IQ.
Materials and methods: We selected ten patients that satisfied the inclusion criteria. All of the patients were hospitalized in the IMSP Clinical Psychiatric Hospital in the men acute ward in the period between 10.11.2016 – 01.06.2017. The patients were tested three times during their hospitalization: 1-3 day, 10-13 day and 21-30 day. Patients were asked to solve Raven's Colored Progressive Matrices. After which the PANSS scale was applied for grading the positive symptoms during the psychotic and post-psychotic stages.
Conclusions: We concluded that people with schizophrenia, the mental activity, practical actions are preserved, the memory and attention are not affected; instead the capacity to formulate own correct conclusions based on a personals analysis is compromised. In the acute psychotic phase, because of the thought chaos, mentism, the slowing of the ideational process. Suffers the general capacity of manifesting an adequate amount of intelligence, but there is no insufficiency in intellect. There seems to appear an incapacity to separate the essential from unessential, or just what is considered essential in the real empiric world. So it means there is a diminished productivity of thought process with a circumstantiality tendency and not a deficit of intelligence.

KEYWORDS:
Schizophrenia, intellect, intelligence, IQ, dementia.

INTRODUCTION

Intelligence can be generally defined as a cluster of abilities that the brain possesses. In particular, learning from experience, the adaptation to environments, as well as the selection and the shaping of them, can perhaps be considered as essential aspects of that cluster (20). For the sake of convenience, it can also be defined as ‘’general cognitive ability’’ (21). Its importance as a construct is emphasized through the fact that it is a core concept in some scientific fields, such as differential psychology, behavioral genetics, as well as cognitive neuroscience (22). There are individual differences in human intelligence, which have a significant contribution to human psychology as a whole (23), and make it one of the most accurate predictors regarding individual life outcomes, such as health, both mental and physical, occupational and educational patterns, and even mortality (2). Indicatively, a study consisting of 33536 men and 32229 women who were participants in the 1947 Scottish Medical Survey and they were all born in the year 1936, associated childhood intelligence inversely with the entirety of significant causes of death (24).

The variations that exist in the intelligence of humans have been associated with differences between their genetics. By taking advantage of the similarities in family genetics, behavioral studies have concluded that factors linked to genetics contribute to approx — 50 % variation in intelligence by the age of 10, on a population level. There is a proportional increase by the end of adolescence (approx. 70%), and the numbers remain in similar heights throughout most of adult life (25). The increased general cognitive ability or high intelligence can perhaps showcase the essential role that intelligence has in the molding of human history, as it has been attributed as being a valuable human capital for the advancement and maintenance of human society in the age of information (2).

Perhaps creativity, the construct that can be defined by usefulness and novelty (26), contributes to the influence that intelligence has to the shaping of society, as it has consistently been correlated with it, with a common possible explanation being the similarity of the executive processes of the two (27). The threshold hypothesis, which is prominent in studies associated with intelligence and creativity, presents the idea that above average intelligence is a necessary condition for high levels of creativity (28). In similarly themed studies the importance of the contribution of executive cognitive functions to the performance of cognitive tasks that can be deemed as a complex is emphasized, and it is also thought to serve as a representation of a basis in regards to individual differences when it comes to intelligence (7).

Genetics is not the only factor that influences intelligence. Evidence provided from twin studies consistently indicates that there are environmental factors that substantially influence individual intelligence, though the specifics in regards to those factors and the amount of their influence are deemed as unclear (29).

It is well known that low IQ is associated with a worse outcome in schizophrenia whereas a higher one is associated with a more benign evolution of the disease (9). In the previously conducted studies, the cognitive deficit is defined not by some form of dementia or a decline in score on repeated testing but a slower gain in repeated. The cognitive deficit in people with schizophrenia is expressed more in a slower score gain at repeated testing when compared to the healthy control group (14). Thus, schizophrenia is characterized by a relative difficulty in the accumulation of new cognitive abilities at a global level over time, not the loss of the already possessed

intellect in general (15). Some time ago schizophrenia was considered to be a neurodegenerative pathology resulting in the deterioration of both intelligence and intellect. However, extensive studies have shown that all neurological changes that occur are a consequence of inadequate, outdated treatment or other factors. There is no direct evidence of toxic effect of the psychosis on brain tissue, and the occurring changes are a consequence of antipsychotic medication, alcohol, cannabis use, smoking, hypercortisolemia, and low physical activity, factors that contribute to changes in cortical and ventricular volumes. The fact that means that at least some of the consequences can be reversible (19).

Intelligence plays an essential role in the evolution of schizophrenia and its manifestations. Irrefutably, previous studies had shown that people that developed schizophrenia had a low IQ score before the onset of the disease, compared to healthy peers (31). However, the general level of intelligence does not interest us. The possible constancy of the IQ throughout the illness is intriguing phenomena. That hypothesis, in our opinion, can lead to a better understanding of the pathological process, delimitations of cognitive areas affected by it and consequently better treatment and management of individual cases. In this study, we wanted to see if there are any changes in one's occurring during the pre and post-psychotic period.

OBJECTIVES

To study the modifications, the deficits of the intelligence quotient in the psychotic and post-psychotic period in patients with Paranoid Schizophrenia

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MATERIALS AND METHODS

We selected 44 patients that satisfied the inclusion criteria. All the participants were hospitalized in Clinical Psychiatric Hospital, the wing of acute male psychosis, in the period between 10.11.2016 and 01.06.2017. The patients were tested in 3 stages during the time of the hospitalization in the department, in 1-3 days, 10-13 days and 21-30 days. During that period, 34 individuals were eliminated from the study for various reasons. The evaluation consisted of 10 patients who passed all 3 stages. They solved the Raven's Colored Progressive Matrices. After which the PANSS scale was applied for grading the positive symptoms during the psychotic and post-psychotic stages. The literature we used in our study is included in the reference section. We performed thorough research using scientific data basis: Pubmed, Google Academics, Medscape, Update. Our keywords were: (*schizophrenia, intellect, intelligence, IQ, dementia, neuropsychology, study, cognition*). We included some gray literature related *to intelligence and schizophrenia* to provide theoretical support to the study.

INCLUSION CRITERIA:

1. F20.01 Paranoid schizophrenia. Acute exacerbation.
2. Age between 18-34 years
3. Lack of comorbidities
4. Presence of patient compliance
5. The informed treatment and investigation agreement

EXCLUSION CRITERIA:

1. Lack of compliance
2. Psychiatric comorbidities
3. Other types of schizophrenia or a malignant course of the disease
4. The incapacity to finish the test at any stage of the study
5. Mechanical, random response
6. Pronounced adverse effects of treatment

RESULTS

The average age at onset (figure 1) in our studied lot of patients is 20,9 years (S.D. ±2,5). Data that coincide with the characteristics of paranoid schizophrenia and a study performed by Magdalena Linke et al. regarding the onset of the disease in case. Her results suggested that the mean age at onset of illness was 23.1 (S.D.± 6.2) (30). We did not find any relevant data connecting the number of hospitalizations during lifetime, since the onset of the illness (figure 1) and the level of intelligence, however, it has a correlation with the family and social situation, we do not possess more information it not being one of the purposes in the study.

It seems the worse are the relationships with the siblings, the higher the number of hospitalizations. The average number of hospitalizations since the onset of schizophrenia in our study is 5,1 (S.D.±2,9) (figure 2). That theory seemed to show in the subject that scored maximum on all three times of the study (see below the results). Even though he was a part of an integral family, he was unhappy with his current living situation and wished to live independently because of the "tension in the family." One subject (10%) out of 10 had a college degree education level, 2 (20%) obtained middle school diploma, 4 (40%) finished high school obtaining a diploma of baccalaureate and 3 (30%) achieved bachelor's degree in different areas of expertise.

Employment rate looks like this: 3 (30%) of the studied patient was officially working at the time of the study, and 7 (70%) were unemployed, although some of them engaged in unofficial labor from time to time. Those who did not wish to find jobs because they did not have the drive, motivation or desire to work, manifested higher negative symptoms scores on the PANSS scale in the post-psychotic period. Many lack the much-needed support from the close entourage.

Only 2 (20%) obtained the disability degree, the other 8 (80%) refused it continuously providing different motives: they do not want to lose their job, be stigmatized by the society, one of the reasons is the belief that the pay is not worth it, some are building their decision based on their delirious ideas and false beliefs which they act upon onto. We examined the intrafamilial relationships, knowing it as an essential factor in the evolution of the disease. We collected that, 3 (30%) lived alone and independently, 4 (40%) lived with their mother, 3 (30%) lived within the integral family.

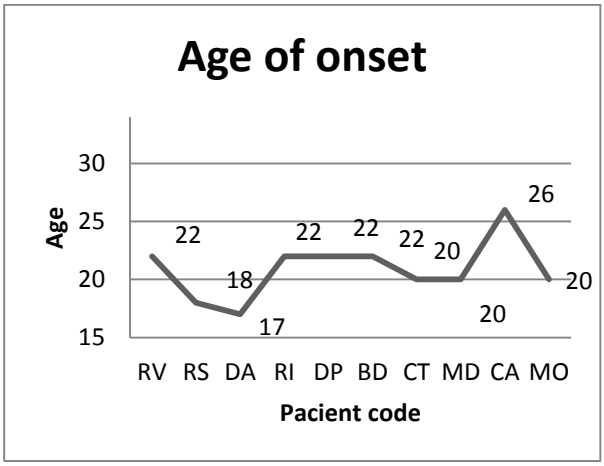


Fig.1 (In this figure we present the age of the first episode of schizophrenia)

We did not find any relevant data connecting the number of hospitalizations during the lifetime. The onset of the illness (fig.2) (average 5.1) and the level of intelligence, however, it correlates with the family and social situation, we do not possess more information it not being one of the purposes in the study, though it will be mentioned in the discussions. It seems the worse are the relationships with the siblings, the higher the number of hospitalizations (18).

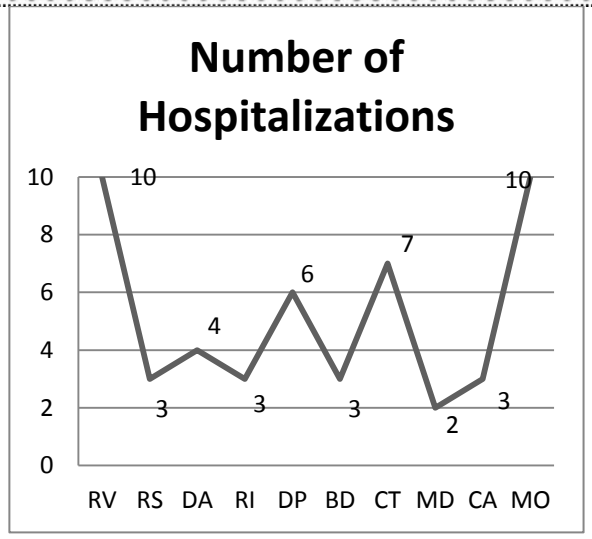


Fig. 2 (Here is the total number of hospitalizations of the patients enrolled in the study)

	Haloperidol	*Levomepromazine*	*Chlorpromazine*	*Risperidone*	*Clozapine*	*Phenazepam*	*Diazepam*	*Amitriptyline*	*Venlafaxine*
RV	+	+	+	+	–	–	–	–	+
RS	–	–	–	+	+	–	–	–	+
DA	+	–	+	+	–	–	+	–	–
RI	+	+	–	+	–	–	–	–	–
DP	+	–	+	+	–	–	–	–	–
BD	+	+	–	+	+	–	–	–	–
CT	+	+	+	+	–	–	–	–	–
MD	+	+	–	+	–	–	+	+	+
CA	+	+	–	+	+	–	+	–	–
MO	+	–	–	–	+	+	+	–	–
T	9	6	4	9	4	1	4	1	3

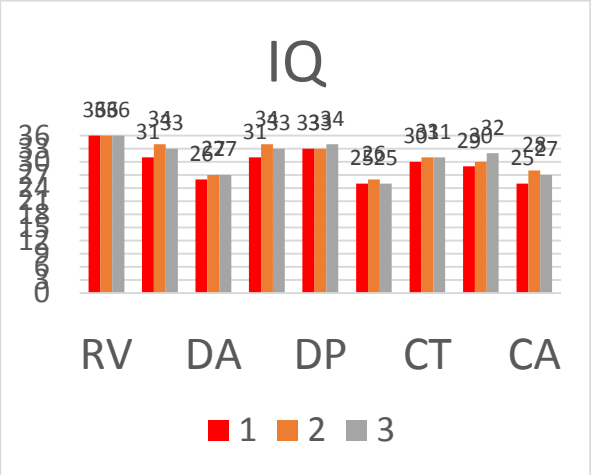
(Fig.3) In this table we present all the medication administered to the patients during the hospitalization)

As seen in the figure above, (figure.3), 9 patients (90%) were treated during the length of their stay with: Haloperidol, 6 (60%) Levomepromazine, 9 (90%) Risperidone, 4 (40%) Clozapine, 1 (10%) Phenazepam, 4 (40%) Diazepam, 1 (10%) Amitriptyline, 3 (30%) Venlafaxine. Out of 44 individuals, 34 were eliminated from the study because they could not complete the test at some stage of the study. One of the predominant factors were the unmotivated dosages and combinations of medication. The secondary negative symptoms and the adverse effects were the main barriers. The patients were highly sedated, fatigued, exhibited mild to pronounced tremor often presenting complaints of akathisia. The combination of medication was unfortunate as well. Most of the patients received a "patterned" treatment consisting of a long period of combined classical antipsychotics that followed an abrupt change to second-generation medication. That unfortunate finding makes it difficult clinically to distinguish the true negative symptoms caused by the malfunctioning glutamate receptors in the frontal cortex from the adverse effects caused by the medication. The dosages of the administered medication varied along the hospitalization but were not recorded by us as the detailed analysis of the liaison between medication and IQ was not our main objective, but leaves unanswered questions for the future.

Forty-four hospitalized patients fulfilled the inclusion criteria. Of these, 34 could not complete the tasks at some point of the stages, so they were eliminated from the study because of the high dosage of medication. Unjustified combinations of typical and atypical antipsychotics, the much-exceeded duration limit of administration of classic antipsychotics lead to excessive sedation, the latency of thoughts, diminishing the attention of the patients making them unable to finish the task laid before them. Patients were continually complaining of fatigue, somnolence, asthenia, fatigue, extrapyramidal

adverse effects of the medication and akathisia. Some of the patients gave us interpretations of the test based on their delirious ideas, hallucinatory experiences, which they could not ignore even when asked politely to do so. These patients, being in acute psychotic state fixate on their subjective perceptions completely ignoring the empiric, real-world giving the test a "magic" interpretation making the results null. So we remained with ten patients who passed the tests at all the required steps.

The average results of an entire lot of the patients (figure 5): Stage I – 29.6 ±3.53; Stage II – 31.3 ±3.43; Stage 3 – 31.2 ±3.64. When being out of the psychotic state the patient found it easier to perform the tasks, not being distracted by ones' psychotic experiences, there were fewer tendencies to correct his work. The interpretations gained a logical compound as seen in the slightly increasing results of the test. However, in general terms, there is no grand difference in the results at hospitalization and discharge. The intelligence quota seems to oscillate insignificantly (Fig 4). We also noticed that in the intermediary period some patients displayed higher results that in the post-psychotic period, which can be attributed to the mild state of hypomania caused by the switch from conventional to atypical medication



(Fig.4 In this table we presented the results of the test given at three times. The first column is the psychotic period, second column – intermediary, last column post psychotic)

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CONCLUSIONS

We encountered difficulties in performing the planned study. Because of the peculiar dosages, the number, quantity, quality and the combination of the antipsychotic medication which caused sedation, latency, sluggishness, and a decrease of attention and the capability to concentrate upon the given task, we had to eliminate 34 subjects from the study. Very often the patients complained of fatigue, somnolence, and asthenia and were not capable of finishing the test. Some patients, during the psychotic period, offered a symbolic and delusional interpretation of the test and were fixated on the "magical" interpretation of the fragments of the progressive matrices. The intelligence bears an essential role in the evolution of schizophrenia and its manifestations.

The psychotic period, it is characteristics, refrains upon itself the subject's attention, rather than destroying the integrity of the learning process or the course of thinking and the taken decisions. The patient's efforts were put into the compensation mechanisms, the constant search for support upon which is based on the integrity of perception and the logic of the intellectual process. The increased tendency of the patient to circumstantiality and to correct his actions makes it more difficult to execute the cognitive process and therefore, offers it an interrupted form, In the post-psychotic period, we can observe an elevation of the result by 1,5. Outside the psychotic episode, they perform the tasks more easily not being distracted by their psychotic experiences; there were fewer tendencies to correct their results. The interpretations gained o logical structure. We managed

to conclude that in patients with schizophrenia, the mental activity, the practical actions are preserved, the memory and attention are not affected but instead is compromised the capability to synthesize individual, correct conclusions made after a personal analysis. In the psychotic period, because of the thought chaos, a flight of ideas, latency of thinking and other quantitative disturbances of the thought process, suffers the capacity to demonstrate an adequate level of intelligence, but there is no intellectual deterioration. There appears the inability to separate the essential essence, or just what is considered essential in the real, empirical social world. So it is more of particular productivity of the thinking process with a tendency towards circumstantial thinking and not an intellectual deficit. There is currently no compelling neurobiological, psychometric and clinical evidence of the decline in intelligence in schizophrenic patients. In patients, is found difficulty in manifesting intelligence and not decreasing the potential of the intellect. Mental operations and practical actions in patients with schizophrenia are preserved, but the mechanism of synthesizing correct, independent conclusions is corrupted. However, further studies and investigations are needed to elucidate and confirm the presented issue.

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Correspondence:

Valentin Oprea,
MD PhD Associate Professor, Chair of Psychiatry, Narcology and Medical Psychology,
dr.valentin.oprea@gmail.com

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Perceptions regarding Persons with a Psychiatric Diagnosis

Aurelia Borzin

Aurelia Borzin- PhD student, Faculty of Philosophy and Social-Political Sciences, "Al.I.Cuza" University, Iasi, Romania

ABSTRACT

Studies demonstrate that our perceptions and attitudes towards persons with a psychiatric diagnosis are influenced and shaped according to the way mass-media deal with subjects related to mental diseases. In the Republic of Moldova, the perceptions towards persons mentally ill are mainly reduced to stereotypes and prejudices, a fact which leads to the existence of a rather significant social distance towards such persons. In the present article, we will review the material published in mass media in the Republic of Moldova, and we will try to find out the promoted stereotypes and how they correlate with the perceptions present in society towards mental diseases. Finally, we will analyze several statistic data from the Ministry of Interior regarding the criminal offenses committed by persons under psychiatric evidence in order to change the false image "of being a criminal," cast upon a person with a psychiatric diagnosis as it is publicized in the press.

KEYWORDS:

Mass-media, persons with psychiatric diagnosis, perceptions, prejudices, stigma

SOCIAL IMPLICATIONS OF A PSYCHIATRIC DIAGNOSIS

In this article, it is not our aim to discuss the diagnosis per se, but to deal with the social implications of the psychiatric diagnosis for a person with such a condition, having in view his circle of relationships and his position in the community where he belongs. In other words, we will analyze the social-cultural dimension of the psychiatric disease, adopting the opinion that this "is the most solitary suffering experienced by people, but it is also the most social malady for those who study its effects"(1).

Certain social norms, and also the whole institutional apparatus of psychiatry, make the persons with psychiatric diagnosis be circumscribed to a certain group, different from other categories of patients, due to a scientific and medical discourse which has a

symbolic authority. “A whole neuro-scientific discourse induces us (involving especially psychiatrists – a.n.) to perceive the individual ”to be wrongly identified with his diagnosis.(2) As a result of the fact that the mental malady affects the organ endowed with reason and judgment, persons with a psychiatric diagnosis, unlike other categories of patients, are confronted with prejudices created not only by society but also by some members of the staff in the Clinical Hospital of Psychiatry in Chișinău. Even by some representatives from the Ministry of Health, Labor and Social Care (under whose auspices the Clinical Hospital of Psychiatry operates)(4). One such prejudice implies that these patients do not have the capacity of reasoning, to speak in a logical way and to have an acceptable behavior in society. Another false opinion is to consider such persons as being “aggressive" and "dangerous."

According to a study (5), persons with mental and intellectual disabilities in the Republic of Moldova are allotted to the most rejected groups, after those with LGBT and Aids. The median value of the social distance concerning these is 4 out of 6, the same as that for ex-convicts. In other words, more than half of the respondents consider these patients to be somewhat "citizens of the country" than a "work colleague", "neighbor", "friend," "member of the family." According to the same study, the negative attitudes and perceptions towards such persons rely on elements that indicate invalidity, misfortune, retard, danger, incapacity to take care of themselves, a necessity to be isolated. Therefore, there is a divided representation between two poles: misfortune, with all its consequences (which cause sentiments of mercy) and danger (which induces a defense reaction by rejection and social marginalization). At the same time, several studies demonstrate the interdependence between attitudes and perceptions towards mentally ill persons and their image promoted by mass-media. (6)

A REVIEW OF THE MATERIALS FROM MASS-MEDIA

After 2000, there is an increasingly critical discourse in our press regarding the abuse and violation of rights and the poor care conditions in the whole system of psychiatric hospitals and psycho-neurological care houses in the Republic of Moldova. This discourse is becoming more comprehensive as a reform in the field of mental health is developed(7). In this period of time, public national advocates (ombudsman)who represent the interests of the public publish the reports of national and international non-governmental organizations for human rights, which presented in a critical way the situation existing in the psychiatric institutions in the Republic of Moldova in an attempt to overcome the reported problems(8). The Centre for Journalistic Investigations and Freedom House put into light fraud schemes which estimate that hundreds of persons with psychosocial disabilities admitted in psycho neurological care houses were declared in no legal capacity and were dispossessed of their houses with the complicity of justice(9). According to several investigation reports, such schemes of fraud were also used in psychiatric hospitals (10), but in the absence of a systematic investigation, the amplitude of the phenomenon is not known. After 2010, many medical experiments were conducted in the hospital, which involved about 260 patients, a fact that led to new reactions from the press because of their illegal character (11). In 2013, it was revealed the drama of the 18 women patients from the psychoneurological care house in the town of Bălți, who had been raped by the chief doctor of the institution for many years, that outraged the whole society

and mobilized the civil society organizations(12). Despite the reforms made in the last years in the whole health system, especially in the Clinical Hospital of Psychiatry, this hospital is still perceived as an institution where treatment is made under poor conditions and with less efficient methods and patients are deprived of their freedom.

EITHER VICTIMS OR DELINQUENTS

Articles published in the press about the disorders in the psychiatric system in the Republic of Moldova have contributed to promoting the image that patients with a psychiatric diagnosis are victims of a corrupt, abusive and inefficient health system. In parallel, media materials dealing with opening the Community Mental Health Centers have counterbalanced this image and have contributed to shifting the focus to a more positive and inclusive perspective upon the psychiatric system in the course of development, which is still confronted with an acute shortage of specialists (13).

Nevertheless, media institutions focus on topics that consider persons with a psychiatric diagnosis to be aggressive. Quite often articles published in the press make a direct association between the delinquent behavior and the mental illness (14). Media presentations of mental illness promote and reinforce stereotypes. In the press, the image of persons with mental disorders is linked to aggressive behavior, if not even to a criminal one. However, as some studies suggest, in cases in which "the mental illness is frequently associated with certain behavioral manifestations and these are considered to be the main character features, excluding other features, these manifestations become the only method to define that person and the main issue of the story"(15).

DATA AND PERCEPTIONS

According to the data provided by the Ministry of Interior(16) offenses committed by persons with mental and behavior disorders in the Republic of Moldova represent a small minority. Even more, the number of persons registered with a psychiatric diagnosis and the number of delinquencies has not been related in the last 12 years. So the principal offense committed by persons with psychiatric diagnosis is not murder, as the press tries to present, it is theft, which is the primary way of survival for a category of persons with mental disorders, who are at the limit of existence. However, the press keeps silent about this

… .

THEFT AS A WAY OF SURVIVAL. CONFESSION

We have been here (in the Clinical Hospital of Psychiatry – a.n.) for robbery, too.

We stole two car wheels. In fact, we did not steal, they were deposited in the storage closet of the block of flats! They were not new; they were worn out. I took them, and I sold them! 100 lei for both. It was proved that those wheels belonged to my neighbor and he sued me. I did not get a fine in the Court, they sentenced me to a year for "coercive treatment in the hospital of psychiatry"(39-year-old male urban patient in the Clinical Hospital of Psychiatry)

"Neighbors in the block of flats used to take him to help them see that he has no place of work. He washed the car for one; he slept in the bar of one or under the window of another one. People used to give him some money, 10, 15 or 20 lei. Later on, finding that no one asked him to do something for them, what did he start to do? He used to stay at the corner of the block, watching people going to work, pushed them against the wall, placed his hands upon their shoulders, kept them like this and asked them for money. Some gave it

to him; some did not. Also, again, they took him to the hospital of psychiatry (patient's mother).

100 lei in Moldova the equivalent of 5 Euro

10, 15, 20 lei in Moldova the equivalent of about 50, 75 cents and 1 Euro

E. Goffman, referring to mentally ill persons, spoke in his book about stigma, a disagreement between the two social identities of such patients, a real one and a virtual one(17), promoted by the press in this case.

Instead of a conclusion, I have a question: when are we to find in the press and reports that persons with a psychiatric diagnosis are" common" people in whose case the diagnosis is not defining their real identity. Otherwise, if we and the press assign them a virtual identity, we continue to place them at the edge of society by means of a significant social distance.

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Corespondence:

Aurelia Borzin
PhD student, Faculty of Philosophy and Social-Political Sciences, "Al.I.Cuza" University, Iasi, Romania, aurelia.borzin@gmail.com

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Social psychology in a world dominated by the game of alternatives

Mihai Şleahtiţchi

Mihai Şleahtiţchi- Ph.D. in psychology and pedagogy, Associate professor International Free University Republic of Moldova

ABSTRACT

Considering that the observations of several experts in problems of human interaction, one may say, at present, social psychology cannot be viewed as a "contact," "connective" or "interference," in other words, a "borderline" science, any longer. The fundamental and permanent changes in progress in the world require a thorough reconsideration of its zones of interest, resizing of its research area, elaboration of a new methodological approach, a new interpretative platform, a different condition, and another status-quo. More specifically, social psychology should become a sui-generis field of knowledge, always and permanently addressing the simultaneity of personal reality as well as of the social one. While taking into account the defining characteristics of the contemporary world (spontaneity, alert pace of events, diversified languages, high levels of social involvement, etc.) and combining the binary reading of reality [on one hand - the "ego"/the individual, and on the other - the "object"/the social phenomenon] with that of ternary extraction [on the same side, in the same context - the individual subject (ego) + social subject (alter) + physical/social object, real or imagined (object)].

KEYWORDS:

Social psychology, psychological social psychology, sociological social psychology, psychological sociology

One of the observations made in a previous study(1) was that we are all making our way towards a future whose social «stage» will be dominated by the game of alternatives, free-thinking, a variety of interpretations. The formulated final-conclusions according to the comments of F.Fukuyama, R. Dahrendorf, and A. Toffler on the tendencies registered. In the last decades, in the new life of the human species: freedom

of thinking and faith, a critical vision and an impressive relational diversity, the possibility of looking at life in unexpectedly various ways. The diminished political expansionism, noteworthy encouragement of private interests; in parallels with a large-scale endorsement of the most important sectors of public life (within which economy, religion, ethics, and education hold a top position). Alternatively, an ever increasing number of phenomena and events indicate a long-term establishment of a society which will value both the differences and the profound links manifested at the level of cultural identity, a society within which individualism will harmoniously coexist with collectivistic attitudes. How the "generations of tomorrow" will live will not hint at the communist society" proposed by K. Marx or at the "stationary condition" of J. Mill, but a "policy of controlled conflicts and a social economy is maximizing the chances of an individual life." In the office, in the supermarket, in the bank, in front of executive desks, in the church, hospitals, schools or at home, the old patterns of social life get modified, along still unknown directions and orientations. Both the superior of an office and the superintendent of a factory come to discover that their clerks and workers do not obey their orders blindly, as they used to do in the past. They ask questions and demand answers. The same holds for officers, in their intercession with the troops, or for law enforcement officers vs. their agents. Teachers vs. their students, doctors vs. patients, a.s.o. From one day to another, human society is facing more and more evident and urgent manifestations of emancipation and laicization.

The more recently registered tendencies – to be also traced, as already seen, in the interpretations of most prestigious philosophers, sociologists, political analysts or economists of today – bring into discussion the substantial re-evaluation of the knowledge we have on the human nature as such and on the relations people develop or intend to develop in various social contexts. Against this background, worth mentioning are, more and more frequently, the metamorphoses in progress in the field of social psychology. Within the so-called bridge-territory, which "takes over the social aspects of psychology and the psychologic ones of sociology," and were important is not ”the individual, as a separate entity, or the community, as an autonomous social structure," but firstly the "individual-community interaction." It is exactly this area - characterized by multiple questions on the nature and consequences of interhuman relations. That should corroborate such a significant shifting of concerns, a reconfiguration capable of conferring another compass and a different meaning to a science focused on the systematic study of ”individuals feeding a continuous relationship with their fellow men and with the cultural-ideologic milieu within which they live." If the game of alternatives, free thinking or the variety of interpretations – and not a secluded awareness or dynamism approach – come to represent the essence of people's daily life. If discontinuity, relativism or dynamism – and not stereotypy or preconceived ideas – appear, more and more frequently, as landmarks of one’s behavioral attitudes and strategies, then it goes without saying that the modifications as mentioned above are not only essential but equally inevitable.

Apparently, it was S. Moscovici the first one to mention directly and in extremely concrete terms the defining characteristics of the new psycho-sociological science. In the second half of the XXth century, the one considered the founder of modern social

psychology, the most brilliant representative of contemporary social psychology, a worldwide-reputed scientific authority and one of the most valued anthropologists and theoreticians of ecology and philosophers of science*, launched the idea that the psycho-sociology of today is expected to shift its concerns from the "stable", coherent, organized and systematic society (which has actually "lived its life") to an "unstable", dynamic and rambling, rising world, so that a new area of research, – the street, the dynamics of social groups, social innovations, behavior of active minorities, – is emerging.

The traditional investigation patterns created in laboratories, spaces dominated by an artificial, and not real life, can no longer be accepted and applied. From now on, S. Moscovici states firmly. One should consider seriously the authentic relation the individual develops with the society in which he lives, and, more than that, the unavoidable conflict always manifested between the individual and the society. Observable in the time-serving pressures of the people of the majority, in the deviations from mass orthodoxism, in the inter-group discussions conducted for the elaboration of common decisions or in the monopolization of the individual by some community. Accordingly, the new social psychology should be redefined as a "discipline analyzing the interactions between social change and choice", as a "domain of knowledge involving a thorough examination of all phenomena related to ideology and communication.Organized according to their genesis, symmetry and functions" or as a "scientific branch studying the ideology of time, inquiry, fables and faith documents, of the daily manner of thinking and feeling" (2, 3, 4, 5). Sharing, on the whole, the conception of S. Moscovici, A. Neculau** Makes the following observation: the times characterized by their capacity of "setting people in motion," or"awakening" them and of "pushing them on the stage" (thus convincing them to get engaged, in full responsibility, with pleasure or even anger, in various searchings, (self) explanations, building up and social involvement actions). Create the premises for the establishment of social psychology interested not only in an isolated study of individual or social aspects (a situation quite frequently observed with North-American researchers) but mainly in a study focused on the identification and elucidation of the anxieties, confrontations, contradictions, and social "combats." He states that, nowadays, social psychology should "leave the laboratory" and "go in the open," participating to "real life." Under the new historical conditions, it is obliged to take into account the spontaneous character of daily realities, the alert rhythm of events, the new language of people, focusing on a most rigorous analysis of the movements occurring as a contrecoup to secluded, stone-still, isolated societies (6). In the opinion of A. Neculau (7, 8), it is the moment in which the psychosociological science is obliged "to get rid" of the obsession of socialization and to reorient itself towards a minute examination of social non-homogeneity, of the factors and mechanisms which urge people to think and act in unique ways. Stating that the psychosociologist of our time are confronting with less ordinary – and, respectively, quite different from the old preconceived ideas on the individual-society cleavage - questions. (How are the notions of «justice," «truth," «opinion," «faith» established in the mind of each person? Why different opinions, attitudes, theories are registering concerning the same phenomenon or event? Why each social performer is convinced, when divergent opinions are debating, that he and only he is right, and the other one is wrong? How are the theories upon reality elaborated?, a.s.o.), the distinguished Romanian researcher

considers that finding correct answers to such issues might establish a new conception about the world we are living in (mainly about the so largely diffused yet hardly studied intolerant attitudes vs. fellows with a manner of thinking and behavior different from ours).

The Russian scientist V. Novikov (9), president of the International Academy of Psychological Sciences, sharing the ideas of S. Moscovici and A. Neculau, states that the anxieties of the contemporary world — especially the situations characterized by unrest and incertitude — appear in the context of a more and more apparent social polarization. On one side, says he, social life is the life of millions of simple persons (a life full of problems, troubles, and hopes) while, on the other, it is also the life of the high and mightiest (a life guided by interests and aspirations utterly different from those of the crowds). Against the background of such a discrepancy, inevitable in an existential climate decisively influenced by the ethos of competition, a many-sided examination of the situation in which the social performers are bound to act, of the manner in which they build up their relations with the surrounding world – for attaining spiritual comfort and a decent material status - is absolutely necessary. According to the above-cited author, acknowledging the importance of such a type of analysis should necessarily lead to the design and substantiation of a new type of psychosociology, meant at describing, in a systemic and well-grounded manner, the ordinary life of individuals, groups or communities, in all its complexity and dynamism.

Another essential idea of the present study is that S. Moscovici, A. Neculau or V. Novikov are not the only ones to declare for social psychology centered on a sound analysis of the spontaneity, conflictual condition and diversity of the human universe. In respect, here are some of the other field specialists ideas:

- **J. Maisonneuve**: the specific domain of social psychology should include the interactions and relations – considering all meanings of such terms, as well as the social and psychic factors which intervene in concrete individual behaviors; social psychology is expected to study all communication and influential phenomena, their cognitive, affective and axiological aspects, viewed from both a pragmatic and symbolic perspective (10);
- **R. Lindesmith, A. L. Strauss, N. Denzin**: contemporary social psychology should take upon itself a thorough study of the interface between individual life and the social structure or – precisely – a detailed analysis of how people live the experience of freedom and coercion in their daily life (11);
- **R. A. Baron, D. Byrne**: authentic social psychology should appear as a domain of scientific research attempting at understanding and explaining the behavior of individuals in different social situations (12);
- **H. H. Kelley**: the exact domain of social psychology should be limited to the study of human interactions and of their immediate consequences (13);
- **S. Chelcea** defines social psychology (or psychosociology) as the study of the interaction between the present and past - real or imaginary in a social context - behaviors; equally, meant at studying, too, the results of such an interaction: the collective psychic states and processes, group situations and personality - as a product of social interactions (14).

As a result of the mentioned changes mentioned above, social psychology should consolidate its positions and eventually reconsider its controversial statute of "many-sided science." If, up to now, its classification into psychological, social psychology (15), sociological social psychology (16) and psychological sociology (or sociopsychology) (17) were, in a way or another, accepted and even encouraged, starting with today such a situation cannot be accepted, any longer. The nature of the anticipated changes requires harmonization of these three perspectives as a unitary structure never permitting their separation, once again (18). Acquiring, in this way, the attributes of a complex mechanism for the analysis and explanation of certain phenomena which, in the words of S. Moscovici, "are simultaneously psychological and social," the new social psychology will assert its conformity. While focusing, concomitantly and in equal parts, upon the "real or fictitious presence of other persons" and upon the "interpretation people give to the objective characteristics of the environment", upon the "interaction between individuals" and upon "society or culture viewed in all their complexity", upon "human groups", upon the "problems which affect a large number of social performers", upon "human nature" and upon the "social building up of reality". The analyses will have a similar and transcultural character, which means, as observed by M. Hewstone and A. S. R. Manstead, editors of the famous The Blackwell Encyclopedia of Social Psychology (19), a better understanding of ourselves and the events occurring around us.

To conclude one may say that, at present, social psychology cannot be viewed as a "contact", "connective" or "interference" science (20). The fundamental and permanent changes in progress in the world require a thorough reconsideration of its areas of interest, resizing of its research area, elaboration of a new methodological approach, a new interpretative platform, another positioning, and another status-quo.

More specifically, social psychology should become a sui-generis field of knowledge, always and permanently addressing the simultaneity of personal reality as well as of the social one. While taking into account the defining characteristics of the contemporary world (spontaneity, alert pace of events, diversified languages, high levels of social involvement, etc.) and combining the binary reading of reality [on one hand - the "ego"/the individual, and on the other - the "object"/the social phenomenon] with that of ternary extraction [on one and the same side, in the same context - the individual subject (ego) + social subject (alter) + physical/social object, real or imagined (object)].(21)

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15. Psychological, social psychology attempts at understanding social behavior through analysis of immediate stimuli. Of mental states and specific traits of personality.
16. According to the formulation of R. M. Farr, which defines it as a "specifically American phenomenon", this branch of science analyzes the modifications intervening in the life of individuals under the influence of other individuals, of the group (to which they belong or to which they refer) and of the society, in general. Essentially, the individual hinted at by social psychology involves the concept of "social cognition,' attempting at discovering and interpreting "human nature" (and mainly the manner of processing the information "about oneself" and "about the others").
Bringing into a discussion, in such a context, the name of W. Doise and the four levels of analysis of the social phenomena he put forward. It is clear that social psychological psychology makes use of the notion of "intraindividual." Study of the psychic mechanisms for the organization of perceptions and attitudes or of that of "interindividual" study of the reciprocal influences exercised by individuals in different circumstances and contexts, and not of that of "social-positional" analysis of the extra-situational differences manifested at individual or group levels.
More details on social psychological psychology are in Branaman A. Self and Society. Malden: Blackwell Publishers Inc., 2001. p. 1–5; Chelcea S. Psihosociologia – domeniu de studiu interdisciplinar // S. Chelcea (coord.) Psihosociologie: teorii, cercetări, aplicații. IInd edition, revised and enlarged. Iași: Polirom, 2008. p. 15–35; Delamater J. (ed.) Handbook of Social Psychology. New York: Springer, 2006. p. IX – XI; Farr R. M. The Roots of Modern Psychology: 1872-1954. Oxford: Blackwell Publishers Ltd., 1996. p. 5–15; Franzoi St. L. Social Psychology. Boston: McGraw Hill Companies Inc., 1996 (2000). p. 3–36; Iluț P. Psihologia socială – un domeniu deschis și dinamic // P. Iluț. Psihologie socială și sociopsihologie: teme recurente și noi viziuni. Iași: Polirom, 2009. p. 35–59; Ralea M., Hariton (Herseni) T. Introducere în psihologia socială. București: Scientific Publishing House, 1966 and Stephan C., Stephan W. Two social psychology. Homewood: The Dorsey Press, 1985. p. 7–10.
17. Social, sociological psychology aims at explaining the behavioral attitudes of individuals starting from a careful analysis of societal variables (states, positions, values, beliefs, norms). According to some specialists – the first to be mentioned in this respect being A. Branaman –, it focuses mainly on aspects treating (a) the social construction of reality, (b) sociology of emotions and of thinking, (c) the self in a social context and (d) the interactions and inequities. In opposition to social psychological psychology, the social, sociological psychology ignores how the factors of personality contribute to the answers given to social influence or to the mode in which processing of information "about oneself" and "about the others." Considering only how individual thinking, behavior and, personality was determined by the place one occupies in the social structure. In the opinion of A. Branaman, the most important questions the type of person had in view by social psychology tries to answer are the following: Why, in some society, in a historically-determined moment, certain beliefs, values, norms, and categories of persons exercise a greater influence than others? Which is the relation established between culture, language, and thinking? Which is the content of the norms directing the daily behavior of people? Do psychosocial processes play in the role of manifestation and perpetuation of social discrimination? The same author states that "study of the interrelations between the self, social interaction and social structure represents the distinctive element of social, sociological psychology." Coming back to W. Doise and the four

levels of analysis of social phenomena he proposed, we may conclude: one may say that social, sociological psychology is centered on "social positional" or on "ideological" [= level at which the system of beliefs, representations and social norms assumed by the human subjects. Not on "intraindividual" [=level at which the psychic mechanisms involved in the organization of perceptions and attitudes investigated] or on "interindividual" [=the level at which the mutual influences exercised by individuals in various circumstances and contexts studied] levels.

Additional information on social, sociological psychology in Branaman A. Self and Society. Malden: Blackwell Publishers Inc., 2001. p. 1–5; Chelcea S. Psihosociologia – domeniu de studiu interdisciplinar // S. Chelcea (coord.) Psihosociologie: teorii, cercetări, aplicații. IInd edition, revised and enlarged. Iași: Polirom, 2008. p. 15–35; Delamater J. (ed.) Handbook of Social Psychology. New York: Springer, 2006. p. IX–XI; Franzoi St. L. Social Psychology. Boston: McGraw Hill Companies Inc., 1996 (2000). p. 3–36; Iluț P. Psihologia socială – un domeniu deschis și dinamic // P. Iluț. Psihologie socială și sociopsihologie: teme recurente și noi viziuni. Iași: Polirom, 2009. p. 35–59; Ralea M., Hariton (Herseni) T. Introducere în psihologia socială. București: Scientific Publishing House, 1966 and Stephan C., Stephan W. Two social psychology. Homewood: The Dorsey Press, 1985. p. 10–14.

18. Specialists in the field state that psychological sociology (or sociopsychology) "distinguishes itself by the attempt at connecting the macrosocial level of analysis with the individual one, in favor of quantitative aspects (of psychosociological inquiries type), to the detriment of the qualitative one." Unlike social psychology, focusing on the "interface between the intraindividual states and conditions and the social contexts," it is especially interested in the "interface between the psychosocial characteristics, processes and mechanisms and the social determinants." In other words, the researches outlining this "side" of social psychology "try to understand the behavior of crowds by both psychosocial-structural variables (groups, social structures, values, formal and informal norms, social networks, etc.), and psychosocial variables of interaction and processes (the manner in which the social and emotional charge works, trust, involvement in action, social movements, etc.)".

19. A more ample discussion on psychological sociology (or sociopsychology) in Borgotta E. Social Psychology // R. Corsini (ed.). Encyclopedia of Psychology. New York: Wiley and Sons, 1994. p. 441–443; Chelcea S. Psihosociologia – domeniu de studiu interdisciplinar // S. Chelcea (coord.) Psihosociologie: teorii, cercetări, aplicații. IInd edition, revised and enlarged. Iași: Polirom, 2008. p. 15–35; Delamater J. (ed.) Handbook of Social Psychology. New York: Springer, 2006. p. IX–X; House J. The three faces of social psychology // Sociometry. 1977. no 40. p.161–177; Iluț P. Psihologia socială – un domeniu deschis și dinamic // P. Iluț. Psihologie socială și sociopsihologie: teme recurente și noi viziuni. Iași: Polirom, 2009. p. 35–59 and Iluț P. Sociopsihologia și Antropologia familiei. Iași: Polirom, 2005.

20. How can this separation be explained?, is the question S. Chelcea – author of some remarkable works: Personalitate și societate în tranziție (1994), Vademecum în psihosociologie (1997), Un secol de cercetări în psihosociologie, 1897-1997 (2002), Psihosociologie. Teorie și practică (2006), Psihosociologia publicității. Despre reclamele vizuale (2012) - repeatedly asks himself and asks us. The answer provided by the reputed Romanian analyst is the following: "Division of psychosociology into two or three directions explains why, nowadays, in their departments of psychology, the universities develop education and research programs different from those of sociology departments. Such a splitting involves even claims on their representative personalities. For social psychological psychology, for example, the «pioneers» and «heroes» are Floyd H. Allport, Gordon W. Allport, Solomon Asch, Donald Campbell, Leon Festinger, Kurt Levin, Stanley Schachter while, for social sociological psychology – Robert Bales, John R. P. French, Erving Goffman, George C. Homans, George H. Mead. In the main journals of psychosociology, Journal of Personality and Social Psychology, issued by the American Association of Psychology, and Social Psychology Quarterly, issued by the American Association of Sociology, the works written by the representatives of the other «side» of the field mentioned." Fissuring of social psychology into several distinct worldsaverts S. Chelcea, and does not serve the advance of knowledge.

See, in this respect, Chelcea S. Psihosociologia azi // S. Chelcea (coord.) Psihosociologie: teorii, cercetări, aplicații. IInd edition, revised and enlarged. Iași: Polirom, 2008. p. 27.

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23. For better understanding, the significance of each of the two modalities of reading reality and also of the substitution of one of them = binary with the other = ternary, cited below is a fragment written by S. Moscovici:

"Once grasped the content of science, its specificity, namely what distinguishes it from

It is a challenging problem to solve, no fully satisfactory answer being possible. Any answer has a slightly artificial character. The only assurance is that no precise border distinguishes social psychology from other domains of

psychology, such as the psychology of the child, clinical psychology and even what we use to define as general psychology. Equally, no precise borders can be between social psychology and anthropology. All these disciplines have in common, to a considerable extent, the interest in human interactions and human groups. More than that, they have numerous common concepts, such as those of representation, influence, learning. Having all these in view, how can one distinguish social psychology from these disciplines? In the search for answers, various historical and logical analyses could perform, all of them of utmost importance, leading, nevertheless, to top scientific theories. However, without neglecting the role of theory, one should observe that, in the real world, our discipline is different less by its territory, and more by a specific perspective. In this context, the first thing to be grasped by practitioners and researchers in the domain is the particular manner of looking at phenomena and relations, so that the assertion may be about the existence of a psychosocial point of view - an idea demonstrated in the following. Let us begin with how the psychologist and, quite frequently, the sociologist, look at the world around them. Both of them usually apply a binary pattern of lecture, corresponding to the separation of the subject from the object, which considered and defined independently on one another. More precisely, the psychologist situates the "ego" (the individual, the organism) on one side and the "object" on the other, in other words. On one side a series of answers and on the other, the stimulus: E – O or R – S. When studying, for example, visual perception, considered in the analysis are the visual apparatus and the color or intensity of a light spot, and the manner in which the eye reacts to the bright stimulus. In the same way, when analyzing intellectual processes, the interest is focused on how our brain processes a piece of information coming from the outside and on how it gets it, organizes and transforms it into a well-defined behavior.

In this way, the schematic representation of the relationship established:

Individual subject (ego, organism) Object (environment, stimulus)

An almost similar scheme is present in the field of sociology, the only difference being that the subject is not an individual, any longer, but a community (group, social class, the state) or even a multitude of changing subjects which negotiate, share the same ideas about the world.
As to the object, it has, in its turn, a social value, representing some interest or an institution; in some cases, it is formed of other persons or groups, creating the so-called social ambient milieu.
Obviously involved in all these cases are a subject, and an object differentiated according to economic or political, ethical or historical criteria. Whichever the type of differentiation, it is essential to know the manner in which various categories of individuals behave in society, how do they reproduce the existing hierarchy, share their richness or exercise the power, or the manner in which the action of each – guided by his interests and scopes – becomes a collective action. One may nevertheless imagine, beyond any explanations and analyses, a mode of thinking guided by the following pattern:

Collective subject differentiated according to economic or historical criteria	**-**	**Object differentiated in social/non-social**	

Undoubtedly, this is a much-simplified vision. We should need a whole volume for defending each assertion and for demonstrating the extent to which it corresponds to reality. We should necessarily add that a significant number of specialists in social psychology made use of similar schemes, which explains a series of errors and misunderstandings.

Despite the interest and importance of the works which they inspired, their partial character remains. Even worse: they reduced the psychosocial phenomena to psychological ones and the social ones - to individual phenomena. However, the psychosocial approach still exists, being manifested by a ternary lecture of facts and relations. Its main characteristic is that of substituting a two-term relation – subject/object, taken over from classical philosophy, with a three-term one: individual subject – social subject – object.

In other words, the – undoubtedly differentiated - Ego-Alter-Object assumes a constant mediation, a "Tierney", to cite the term of the American philosopher Peirce:

a. OBJECT
b. (physical, social, imaginary or real)
c. ↗ ↖
d. Ego → Alter

However, this relation from subject to subject vs. the object may be itself conceived either statically or dynamically, more precisely it may correspond to a simple "co-presence" or an "interaction" involving modifications related to the manner of thinking and behavior of each. Two mechanisms, which illustrate this distinction perfectly, may be distinguished, namely: social facilitation, on one side, and social influence, on the other. All these permit a more exact appreciation of how alterity (the individual or the group) may be viewed, for subsequent analysis of its relations with reality, with the social or non-social, real or symbolic object. Indeed, involved here is either a similar one, an alter ego or a different one, simply an altar. Therefore, distinct phenomena are considered. One may also assert that the theoretical and research directions are opposing to each other, as a function of the concept they develop about the "alter." Thus, most of the researches devoted to groups are inclined to view it as an "alter ego" similar to an "ego." In psychodrama or theatrical parts, the performers are asked to adopt the attitude of the other, to enter – let us say this – under one's skin. What happens then is analyzed as a function of one's capacity of assuming such an attitude as, in studies on conformity, mention is made of the tendency of subjects to compare themselves with someone similar, or with whom any similitude wished. Especially the persons with a deviating behavior (the so-called deviants), who, principally, have neither opinions nor convictions of their own, try to formulate their opinions and behavior according to the large mass of people or to a person embodying the power, for being like this privileged alter-ego. Different from this, the directions of research considering only a pure and simple "alter", are characterized by a clear-cut difference, such as the investigations upon innovation, for example, in which the minority, the individual persons have opinions and judgments of their own. They are confronted with a majority or with authority, whose own opinions and judgments represent the norm or the orthodoxy. The primary objective of these minorities and individuals are recognition of their specific identity and a well-established difference. One may observe that the two fundamental psychosocial mechanisms that of social comparison and that of social recognition correspond to two different manners of perceiving the other within the social milieu.
These few examples evidence a conception and a perspective which, going beyond the "subject-object" dichotomy, covers a broad range of mediations operated by the fundamental relationship with the other.

We admit the small distance taken from the typical pattern of reading in psychology and sometimes in sociology, and even in classical social psychology, influenced by behaviorism. However, this distance produces fundamental changes. Firstly, it makes specific the psychosocial perspective about which Maurice Merleau Ponty wrote: "By simple practicing of social psychology, we remain outside the objective ontology, and the only way of remaining within it is of exercising, upon the selected «object,» a constraint which affects the investigation … If it is interested in seeing our society exactly as it is, social psychology cannot start from the postulate which is itself part of the Western psychology while, if adopting it, the conclusions to be reached will be anticipated". Secondly, such a movement assures shifting from the so largely spread binary conception upon human relations, to the ternary conception, known as equally complex and rich".

See, in this respect, Moscovici S. Punctul de vedere psihosocial // S. Moscovici.
Psihologia socială sau Maşina de fabricat zei / Translated by O. Popârda; text selection and afterword by A. Neculau. Publishing House of the "Al. I. Cuza" University of Iași, 1994. p. 8–11.

Corespondence:

Mihai Şleahtiţchi
Ph.D. in psychology and pedagogy, Associate professor International Free University Republic of Moldova, mihaisleahtitchi@yahoo.com

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Family abandonment – a possible cause of addictive behaviour

Mădălina Elena Prisacaru, Cozmin Mihai

Mădălina Elena Prisacaru -M.D., Resident Psychiatrist, Institute of Psychiatry, "Socola", Iași, România
Cozmin Mihai M.D., Ph.D., Psychiatrist, Institute of Psychiatry, "Socola" Iași, România

ABSTRACT

Acute psychotic disorder induced by psychoactive substances is characterized by delirium and hallucinations, emerging throughout or within a month from intoxication with or withdrawal from a particularn psychoactive substance.(1) Differential diagnosis must take into account, first of all, the medical conditions (central nervous system infections, vascular disorders, degenerative diseases), then the schizophreniform disorder and mood disorders (bipolar disorder).

This paper features the case of a young woman aged 24, addicted to psychoactive substances – mainly synthetic cannabinoids – who came to the Psychiatric ER on an emergency basis, with symptoms of delirium and with hallucinations. The young woman's addictive behavior was based on an unhappy childhood, as her parents had abandoned her at the age of 2 and she was left in her grandmother's care. Her parents divorced; the father refused to keep in touch with her or her sister, and their mother works in Italy, and she is indifferent to them. Since they had no parent figure from such a young age, both daughters experienced feelings of sadness, despair, which was a possible cause of addictive behavior. The female patient smoked since the age of 17 ten cigarettes a day; at 21, she began using cannabis, cocaine, and heroin, while at the age of 22, she started using synthetic cannabinoids, to which she became soon addicted. She bought the psychoactive substances from her paycheck; subsequently, upon leaving her job, she started stealing assets from the house in order to buy drugs.

KEYWORDS:

Psychotic disorder, addiction, psychoactive substances, family abandonment.

THEORETICAL BACKGROUND

Substance abuse is a cluster of psychotic phenomena that occur during or immediately after psychoactive substance use. This are characterized by vivid hallucinations (typically auditory, but often in more than one sensory modality), misidentifications, delusions and/or ideas of reference (often of a paranoid or persecutory nature), psychomotor disturbances (excitement of stupor), and an abnormal affect, which may range from intense fear to ecstasy. The sensorium is usually clear but some degree of clouding of consciousness, though not severe confusion, may be present. The disorder typically resolves at least partially within one month and fully within six months. (2)

The ICD-10 criteria define abuse or physical dependence on psychoactive substances as follows:

Substance abuse is a maladaptive pattern of its use, leading to pain or a significant dysfunction. The diagnostic criteria are as follows:

A). Loss of control overthe the use

B). Cognitive, social, occupational pain/dysfunctions

C). Lack of tolerance and withdrawal

D). The presence of at least one of the following criteria:

- Poor performance at school or on the job or in the family, due to the repeated use of a psychoactive substance;
- The recurrent use of a substance in potentially harmful situations (i.e., while driving);
- The individual continues using the drug despite the (social, interpersonal) harmful consequences entailed/ worsened by substance use;
- repeated legal issues caused by substance use.

Substance dependence generatesmore significantr pain and difficulties, to which the signs of physical dependence (tolerance and with drawal) are added. The diagnostic criteria identified are the following: the presence of at least three symptoms of those stated below, throughoutf at least 12 months:

-symptoms of tolerance (the acute need for significantly increased amounts of the substance to achieve intoxication or the desired effect, or a markedly diminished effect with continued use of the same amount of the substance);

-symptoms of withdrawal, cut by the administration of a new dose of the substance in question;

-loss of control in the *pattern* of using the substance, manifested by one of the following symptoms:

a) the substance is often taken in more significant amounts or over a more extended period than intended by the patient;

b) a persistent desire or unsuccessful efforts to reduce or control substance use;

c)consequences of use (at least one of the following):

- a great deal of time is spent in activities necessary to obtain, take or recover from the effects of the substance;

-essential alternative pleasures or interests (social, occupational, recreational) being given up or reduced because of substance use;

- Persisting with substance use despite clear evidence of the somatic and mental problems caused or exacerbated by the substance.(3)

The DSM 5 criteria define acute psychotic disorder induced by psychoactive substances as follows:

A. The disorder represents asymptomatic,a a clinically significant manifestation of a primary mental disorder.

B. There is evidence from the history, physical examination, or laboratory findings of both conditions below:

1. The disorder developed during or within a month after substance intoxication or withdrawal or after exposure to medication; and

2. The involved substance/medication is capable of producing mental disorder in question.

C. The disturbance is not explained by an obsessive-compulsive and related disorder that is not substance/medication-induced. Such evidence of an independent obsessive-compulsive and related disorder could include the following:

1. The symptoms precede the onset of the substance/medication use; or

2. The symptoms persist symptomatically for a substantial periode (e.g., about one month) after the cessation of acute withdrawal or severe intoxication. This criterion does not apply to substance-induced neurocognitive disorders and hallucinogen-induced persistent perception disorder, which continues after the cessation of acute withdrawal or severe intoxication.

D. The disturbance does not occur exclusively during a delirium.

E. The disturbance causes clinically significant distress or impairment in social, occupational, or other critical areas of functioning. (4)

Synthetic cannabinoids are a mixture of powders or dried herbs sprayed with various chemicals. They contain traces of amphetamines, methamphetamines, mephedrone, cocaine, heroin, synthetic cannabinoids (that mimic the action of THC, but their effect is three or four times stronger). The proportion of these substances is different from one sachet to another, a reason for which consumers risk-taking impure substances, harmful mixtures or they can overdose. The intake of powders from sachets containing "synthetic cannabinoids" may lead to physical and mental dependence from the first dose, especially in the case of substances comprising methamphetamine. (5)

Synthetic cannabinoids are a heterogeneous group of psychoactive substances known as “Spice”, “synthetic cannabinoid substances”, “K2”, “Black Mamba”, “Aroma” “Synthetic Marijuana”, “Mr. Nice Guy”, “Dream”, similar in terms of pharmacological profile to cannabis, but with enhanced effects. Similarly to cannabis, synthetic cannabinoids increase the risk of psychosis in genetically vulnerable people. Upon comparing the psychosis-inducing potential of cannabis and Spice-like substances, it is proven that synthetic cannabinoids determine psychotic episodes more frequentl, because they contain higher concentrations of THC (tetrahydrocannabinol). Tetrahydrocannabinol (THC) associated with inducing psychosis in persons with genetic susceptibility and with the subsequent onset of schizophrenia, and increased concentrations of CBD (cannabidiol) is associated with the emergence of multiple psychotic episodes. THC is an agonist of subtype 1 and 2 cannabinoid receptors, but the action mechanism of CBD has remainedd unknown for the most part. In low concentrations, CBD antagonizes the action of CB1/CB2 receptors (THC included).

Synthetic cannabinoid substances contain an unknown amount of cannabinoid receptors agonist, and they are more prone to inducing psychosis given their increased affinity for CB1 receptors compared to their main compound THC and the lack of CBD.(6)

The range of synthetic cannabinoids changes constantly; new compounds emerge, while others are controlled and regulated. Whereas the chemical base of these drugs has changed over the years, a pharmacological truth still stands – synthetic cannabinoids have higher efficacy over CB1 receptors than THC.

Because the agonists of CB1 receptors can regulate the function of dopaminergic, serotonergic and glutaminergic systems involved in schizophrenia and psychosis, synthetic cannabinoids can modify to a greater extent the function of these three neurotransmitter categories. Furthermore, some synthetic cannabinoids have been found to express a relativet pharmacological affinity for receptors associated with psychosis, including D2, 5-HT2A or NMDA. Whereas the original drug does not act upon these receptors itself, some active metabolite may do this. (7)

Immediate effects upon the ingestion of synthetic cannabinoids include psychomotor agitation, tachycardia, euphoria, angina pectoris, nausea, puking, mydriasis, tremor, dizziness, decreased appetite, insomnias, obsessive-compulsive ideation, logorrhoea, increased libido, irritability, panic attacks (8).

Chronic effects following long-term use of synthetic cannabinoids include mental dependence, physical dependence, weight loss, psychotic disorders with hallucinations, delirium,behaviorall strangeness, incoherence, increased risk of cerebrovascular accidents (9).

GENERAL CASE PRESENTATION

This case refers to a female patient of urban background, aged 24, unemployed, a Romanian citizen, high school degree, not married, and admitted for the second time at the "Socola" Institute of Psychiatry Iași; a former patient of a psychiatry clinic in Italy.

Upon her first admission, the female patient came on a psychiatric emergency basis, accompanied by the ambulance and the police, for a symptomatology manifested through psychomotor agitation, delirious-hallucinatory psycho productive phenomena, bizarre behaviorr, unmotivated laughter, verbal hetero aggressiveness, disorganized speech, interpretativye, suspiciousness, dissociation of expression and effect, persecutory delusions, delusions of grandeur, weakened logical associations and reasoning, self-harming ruminations, stereotyped speech and movement, social isolation tendencies, persistent mixed insomnias and integrative-adaptive deficit in the socio-familial environment. A month or so after, she came back to the psychiatric ER, brought by her grandmother following the voluntary ingestion of several drugs. The young woman displayed the following symptomatology: psychomotor agitation, physical and verbal aggressiveness, delirious - hallucinatory behaviorr, suspiciousness, and insufficiently censored impulses. The female patient stated that she had taken her medication, but that she could not give up on synthetic cannabinoids and, due to a conflicting situation with her sister, she ingested "a handful of the psychiatric medicatio."

Her personal pathological history highlighted the diagnosis of paranoid schizophrenia, a diagnosis established by her GP in Italy in August 2016. Because of her drug use, the female patient ended up twice a month apart to the ambulatory of a psychiatric clinic in Italy, with decompensation manifested through psychomotor agitation,disorganizedd behavior, auditory hallucinations. The doctor recommended treatment with Paliperidone injections (Xeplion).

Her family history had shown that her sister is a former synthetic cannabinoids addict, but that she quit them when she decided to become pregnant. The girls' uncle is also a chronic user of synthetic cannabinoids, while their mother had a depressive nature caused by a troubled life, which included a divorce and financial problems.

As for her living and work standards, she lived alone in a two-room apartment. She worked in a factory in England, then as a *call center* operator in Italy, but she did not keep either job for more than two months, because

"I felt that people were talking behind my back, that my colleagues gave me a side eye, so I decide to leave because I felt I didn't belong there".

She finished the middle school in Romania, and she graduated from high school in Italy; she said that she was an average student, with many absences, a reason for which she did not want to go to college.

The female patient began smoking at the age of 1, and she smokes 10 cigarettes a day. When she was 21, she began consuming marijuana, cocain, and heroin: "I used all the money I had in my pockets to buy drug."

He has been consuming synthetic cannabinoids for 2 years; the first time, she was tempted by her sister and her uncle, who were old consumers. She smokes one sachet of synthetic cannabinoids a day, from the money sent by her mother, and when she had no more money left, she started selling the furniture in the house and other assets. Even though she had 8-months periods of abstinence, she started using again because "I gained weight plus, when I smoke, I enter a state of meditation, and if I talk to someone, I feel that I understand that person perfectly. I access that person's brain", "the last time, I started using again because I felt very lonely: my sister does not want to speak to me anymore, she avoids me, and my mother only contacts me when I get into some trouble". Before her first stint at our clinic, she was not on any medication, but she had previously taken 100 mg Xeplion every 28 days for two months, prescribed by a psychiatrist in Italy, who had diagnosed her with paranoid schizophrenia. While she was on Xeplion, she wasall rightt, but had to leave the country because she had no money, and she stopped taking the prescribed medication.

The clinical examination on apparatuses and systems revealed no pathological modification, and her paraclinical tests ranged within normal parameters.

Concerning the psychiatric evaluation, the psychodiagnostic of the expression showed a partially cooperative attitude; the female patient had a hard time establishing and maintained eye contact with the examiner intermittently, thus not respecting the reciprocity of the dialogue. She had clean attire, specific to the hospital setting; she maintained personal hygiene; the mimic and pantomimic were hypermobile; she laughed for no reason throughout the psychiatric interview. She stared at one specific point, and her voice had a low, monotonous tone, with vague affective modulations.

Concerning sensation, the examiner noted irritability, irascibility, low tolerance to minor frustrations, verbally aggressive behaviorr towards her grandmother, whom she offended repeatedly. The female patient reported auditory hallucinations, "There is this voice telling me to repeat her word", "other times, I hear voices calling my cat," "I hear voices ordering me to take my own lif." Sometimes she recognizes the voices, but most of the times these voices are unknown.

The female patient displayed spontaneous and voluntary hypoprosexia, accompanied by an incoherent account of facts, fixation hypomnesi, and hypermnesic mentalism. In what regards thought, the examiner observed an accelerated flow and rhythm of ideas, accompanied by words thrown together, neologisms. "How can one turn a normal person with the head inside a madman, simple, you just have to live it", "and I proprio lived it as a trauma, which I did not believe on the road from England to Romania because detto decod (the entire word a television)", persecutory delusions (the patient's grandmother said that she had become aggressive toward a little girl who played with a laser in front of the block of flats; the female patient justified her verbally aggressive behaviorr by stating that the child watched what she did in the house), delirium

of grandeur: “I wrote numerous successful books about life and money”, a statement denied by her grandmother; weakened logical associations and reasoning, incoherence in the topic of discussion, circumstantiality, tangentiality, interpretativity, self-harm ruminations “I thought about throwing myself in front of the cars in the street many times” and a self-harm attempt by ingesting a mix of pills; imagination with bizarre contents.

The analysis of the effective function showed discordant, affectively ambivalent mood concerning her grandmother, of whom she says, “she pisses me off, she should admitted here, she has some bizarree ideas, but I have to be there for her because she raised since I was little and now she needs me”. She preserved the affective tone concerning her mother, “I get along well with my mother, but I do nott like that she makes time for me only when I get into trouble”; slight affective flattening, psychoemotional lability, irritability, irascibility, low tolerance to minor frustrations are obvious. The appetite and defense instinct were reduced; she had mixed insomnias with superficial sleep and reduced sexual drive, “I have not had any relationships, I have never been interested in the."

The activee function: hypobulia, stereotyped speech and movement, social isolation tendencies, “I like to stay alone in the house, to watch TV and to play on my computer”, “I don’t have close friends, just friends to smoke with”; behavioural strangeness (she speaks with the TV).

Throughout the psychiatric interview, the examiner noted that the female patient had an introvert personality, most likely caused by the absence of both parents in her life. Her father never formally recognizedd her as his daughter; her mother left them when they were very young; her grandmother was the one who took care of her and her sister. The female patient was deeply affected by her parents’ abandonment, which she tried to ignore by consuming psychoactive substances by writing prose, “And we were absorbed by one another. We loved and respected each othe; I miss those moments”. “We are like the Adams family, but I, her daughter Cosmina, ruin anything beautiful."

During the psychiatric evaluation, the female patient was disoriented in space and time, from a mental perspective, and she was not aware of her mental illness.

POSITIVE DIAGNOSIS

After the psychiatric evaluation corroborated with the psychological evaluation, we set the diagnosis of *Acute psychotic disorder induced by the use of synthetic cannabinoids*. We had our concerns with keeping the diagnosis of *Paranoid schizophrenia* set by the psychiatrist in Italy because the female patient was at her first visit to a psychiatric clinic in Romania. There is no solid history of the disorder, and it is impossible to know for sure whether the chronic use of psychoactive substances caused the psychotic disorder manifested in Italy.

We initially tried to certify the addiction to synthetic cannabinoids and to use this addiction as a cause for the psychotic disorder. The young woman reported an acute need to increase the dose in the past 24 months, in order to get the desired effect, namely to escape the world around her. In this period, she tried to quit drugs due to the lack of money, but she experienced nasty symptoms specific to withdrawal, and she resumed using drugs. Hence, she eventually lost control over the pattern of using psychoactive substances. She took higher doses and over a more extendedr period than initially intended; she ended up spending all her money buying these psychoactive substances.

The consequences of using psychoactive substances consisted in the loss of her two

jobs in less than two months after beginning working, withdrawal from social activities and the emergence of conflicts with her grandmother and her sister. Moreover, the last use of synthetic cannabinoids caused a conflict with the neighbors, who called the police; the latter decided to get her to the ER of the psychiatry clinic. In the emergency room, the young woman displayed psychomotor excitement; she reported auditory hallucinations, persecutory delusions and she had disorganized speech. Even though the female patient was aware that the addictive behavior causes mental and social problems, she continued using them; she ended up selling the furniture and other valuable assets in the house for meager prices, only to buy sachets of synthetic cannabinoids.

THERAPEUTIC CONDUCT

Upon her first admission, the female patient followed a treatment with atypical antipsychotic (Olanzapine 10 mg, one pill a day), a thermostabilized (Valproic acid 300 mg, 2 pills a day), a benzodiazepine targeting her manifested psychomotor excitement (Bromazepam 1.5 mg, 3 pills a day) and a hypnotic(Clonazepam 0.5 mg, 1 pill in the evening, before bedtime). Subsequently, upon her second admission, she kept the same therapeutic scheme.

EVOLUTION AND PROGNOSIS

After the first discharge, her evolution was good for a month, but then she started using drugs again. She was balanced again during the second admission, and we suggested to her mother to invite her to live together in Italy, in order to support and to monitor her closely. A month after her second discharge, we contacted the patient's mother, who stated that the young patient had a good evolution, that she took her medication, that she exercised, went to psychotherapy and intended to get a job. The patient's prognosis is good, if she has her mother's support and if she follows the psychiatric treatment. However, if she starts using synthetic cannabinoids again, the female patient is highly prone to mental decompensation, thus developing an even more severe disorder, such as *schizophrenia* (10), brain tumours, thus increasing the risk of suicide attempts, of heart attack, of generalized convulsive seizures (11), pulmonary thromboembolism, acute kidney failure, cerebrovascular accidents and rhabdomyolysis (12).

CONCLUSIONS

Synthetic cannabinoid substances are a heterogeneous group of psychoactive substances with a pharmacological profile similar to cannabis, but with enhanced effects, thus determining psychotic episodes frequently. The use of synthetic cannabinoids determines an addiction syndrome from the first doses and in evolution, it may be the underlying cause of acute psychotic disorder and subsequently of schizophrenia.

The psychotic disorder induced by the use of psychoactive substance emerges during or right after the ingestion of the drug and it manifests itself through symptoms such as psychomotor excitement, auditory and visual hallucinations, misidentifications, persecutory delusions, the delirium of grandeur and abnormal effect, which may vary from intense fear to ecstasy.

The correct delimitation of the causes determining the acute psychotic disorder is essential in diagnosing the patient correctly and in establishing a proper treatment.

ACKNOWLEDGMENTS AND DISCLOSURES

The authors state that they are no declared conflicts of interest regarding this paper

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Corespondence,

Mădălina Elena Prisacaru,
M.D., Resident Psychiatrist, Institute of Psychiatry, "Socola", Iaşi, România,
mada_md05@yahoo.com

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Book Review

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Severe personality disorders in people deprived of their liberty

Author: Cozmin Mihai
Review signed by Prof. Vasile Chiriță

Vasile Chiriță – Prof., M.D., Ph.D., "Socola" Institute of Psychiatry, Iaşi, Romania, Honorary Member of Academy of Medical Sciens

The present book called *"Severe personality disorders in people deprived of their liberty*," written by Psychiatry Dr. Cozmin Mihai under the guidance of his scientific coordinator and university professor Dr. Roxana Chirita, represents intense research amongst the north-east prisons of Romania, which was presented during the author's doctoral studies of 2017.

This complex study that surfaces significant results, is bringing a new light upon social problems as well as helping to understand more the psychiatric pathology of the inmates. Severe personality disorders are being formed and being started during childhood, is usually characterized by using lies, neglecting the regular age duties, running from home, stealing, looking for trouble, lacking remorse. As well as alcohol or substance abuse, small crimes, and illegal behavior, so that all the above to be enhanced during the adolescence period and ending up being identified merely at the adult phase. In the same time, all that was previously mentioned are usually underlined by a lack of empathy, exaggerated self-esteem, and superficial charm. This type of individuals usually have difficulties to keep a job, stay out of debt and can end up without a home or spend many years in prisons. More often, the whole picture can be more complicated by making the person have suicidal thoughts or even attempts.

A significant percentage of people in this situation can be found amongst chronic alcoholics or inmates.

This research represents the first complex examination of this topic, focuses on the study of personality disorders in prisons and summarises the results of a thorough survey in Romania.

The author believes that it is strictly necessary to know the risks to which a child is subjected from childhood and adolescence through the toxic mode of growth and education in dysfunctional families as well as the life course of such an individual exposed to the risks of the life course for him, for family and society.

A significant enclosed part it is represented by the utility, detection and early treatment for predisposed individuals or the ones diagnosed with this type of disorders.

The intention is to raise the awareness on the risk factors that are usually neglected, which frequently lead to these disharmonious behaviors from a young age, with the power to develop risks and complications for the family and society throughout the years.

Thereby, this book becomes of paramount importance for understanding the delinquency

path of an individual by detailed investigation and exposure of its key elements. The problems of the detention system, the associated risks as well as the treatment of the inmates, help to complete the importance of this long-awaited study throughout Romanian prisons.

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Lecturer Alexandra Bolos: Institutul de Psihiatrie “Socola” Iasi, Șos. Bucium 36, 700282, Iasi, jud. Iasi; E-mail: **contact@buletindepsihiatrie.ro**