

SECONDARY CORRECTION OF INFERTILITY AND ONCOPHOBIA BY MEANS OF PSYCHOLOGICAL INTERVENTION (CLINICAL CASE DESCRIPTION)

© S.A. Salekhov

Yaroslav-the-Wise Novgorod State University, Novgorod, Russia

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The analysis of psychological correction for post-traumatic stress disorder and progressive chronic psychological stress was carried out. Strategy of the first consultation was based on the principle of A.A. Ukhomsky, the theory of functional systems by P.K. Anokhin, A. Maslow's pyramid of needs, taking into account the hierarchy of emotional stress and cognitive function in the structure of PS, social immobilization and the characteristics of the energy supply of the central nervous system. An algorithm for psychological counseling was developed: 1. Provocation to ensure an intense emotional reaction of suppressed aggression to a stimulus (NLP) under the control of the psychological and physiological state (NLP calibration, lie verification and profiling). 2. Inhibition of the activity of the limbic system and zeroing of emotional stress with the use of pattern interrupt (short-term confusion), followed by breathing control under conditions of transient hypoxia and overload of the representative systems. 3. Conducting resource-relaxation trance (Ericksonian hypnosis). 4. Post-hypnotic suggestion, cognitive analysis and embedding of new patterns of behavior and response to stress. 5. Teaching the method of zeroing emotional stress and reaction to external stimuli. Within 3 weeks after a single consultation, emotional stress disappeared, relations in the professional sphere normalized (transferred to a more prestigious job with a slight increase in salary), friendly relations with a neighbor-friend were restored, and mutual understanding was reached with parents. At the same time, against the background of regression of uterine hypertonicity, the painful formation in the pelvic cavity, perceived as an oncological pathology, disappeared, and the woman got pregnant.

Keywords: psychological stress; psychotrauma; emotions; psychocorrection; oncophobia; infertility; hypoxia.

ВТОРИЧНАЯ КОРРЕКЦИЯ БЕСПЛОДИЯ И ОНКОФОБИИ ПОСЛЕ ПСИХОЛОГИЧЕСКОЙ ИНТЕРВЕНЦИИ (ОПИСАНИЕ КЛИНИЧЕСКОГО НАБЛЮДЕНИЯ)

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«Новгородский государственный университет им. Ярослава Мудрого», Новгород

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Описан случай эффективной однократной психологической интервенции у пациентки 23 лет с посттравматическим стрессовым расстройством (ПТСР) и прогрессирующим хроническим психологическим стрессом. Пациентка страдала онкофобией. В течение двух лет получала лечение от бесплодия, отказавшись от него в связи с безрезультатностью. Стратегия проведения консультации базировалась на принципе доминанты А.А. Ухтомского, теории функциональных систем П.К. Анохина, пирамиды потребностей А. Маслоу с учетом иерархии эмоционального напряжения и когнитивной функции в структуре психологического стресса, социальной иммобилизации и особенностей энергетического обеспечения центральной нервной системы. Был разработан алгоритм психологической консультации: 1. Под контролем психологического и физиологического состояния [калибровки нейролингвистического программирования (НЛП), верификации лжи и профайлинга] проведение провокативного воздействия для обеспечения высвобождения интенсивной эмоциональной реакции подавляемой агрессии на раздражитель (НЛП). 2. Торможение активности лимбической системы и «обнуление» эмоционального напряжения с применением «разрыва шаблона» (краткосрочное замешательство) с последующим управлением дыхания в условиях транзиторной гипоксии и перегрузкой репрезентативных систем. 3. Проведение ресурсно-релаксационного транса (эриксоновский гипноз). 4. Постгипнотическое внушение, когнитивный анализ и встраивание новых паттернов поведения и реагирования на стресс. 5. Обучение методике «обнуления» эмоционального напряжения и реакции реагирования на внешние раздражители. В течение 3 недель после однократной консультации у пациентки исчезло эмоциональное напряжение, нормализовались отношения в профессиональной сфере (переведена на более престижную работу с небольшим увеличением зарплаты), восстановились дружеские отношения с соседкой-подругой, достигнуто взаимопонимание с родителями. При этом на фоне регрессии гипертонуса матки исчезло болезненное образование в полости таза, воспринимаемое как онкологическая патология, и наступила беременность.

Ключевые слова: психологический стресс; психотравма; эмоции; психокоррекция; онкофобия; бесплодие; гипоксия.

The effectiveness of psychological correction in conditions of limited ability to obtain information against the background of intense chronic stress coupled with severe psychological and physiological disorders is doubtful. Accordingly, its implementation dictates the need for an integrative approach that provides for the use of diverse methods having a medical, biological, and psychological effect [8].

At the same time, it is necessary to focus on some of the main features of psychological tools, the integrative use of which is advisable when conducting psychological counseling and treating post-traumatic stress disorder (PTSD) and situations associated with psychological stress (PS).

The reaction to a stressful situation, which threatens life and safety, occurs reflexively in the format of the "fight-or-flight" response, which requires immediate, intense physical activity [2, 9]. In this case, the reaction to a stressor's impact has an emotional connotation that determines the psychology of stress [11, 13].

At the same time, the change in human life conditions, accompanied by the transformation of stressors' characteristics and their perception, along with the limiting norms and rules governing socially acceptable behavior patterns, led to a revision of the understanding of the nature of stress, and the patterns of response to it [16].

Attention should be paid to stressors' characteristics and PS's structure [4, 6], modern lifestyle characteristics, and conditions for responding to them within the framework of socially acceptable behavior [7].

The continuously increasing emotional tension and the flow of information, addressed to the human central nervous system have become priority stressors. Stress caused by a real threat to life and safety was replaced by PS. The situation is only perceived as a threat to life, safety, well-being, and the assessment of human behavior by society [8, 11, 13].

Thus, the human response strategy to the impact of psychological stressors addressed by the central nervous system (CNS) has changed. At the same time, the reaction to PS includes not only the use of the reflex, emotionally charged reaction "fight-or-flight," but also the cognitive processing of information, which involves the search for the optimal solution to a specific situation, consideration of additional factors directly or indirectly related to it, an analysis of the short-term and long-term consequences of the decisions made. This response strategy assumes a competitive advantage when exposed to psychological stressors.

Simultaneously, a delayed response to PS, an increase in the time needed to make a decision based on the behavioral patterns and personal life experience learned in the transactional period, reduces the

effectiveness of the response to the requirements. At the same time, the most damaging scenarios for developing events and strategies for their resolution, aimed at minimizing the consequences of one's own actions, are cognitively assessed. Moreover, a repeated replay of the situations' development after a reaction to stressors leads to CNS overload, a decrease in attention focus, an increase in emotional stress against the background of the PS and to the transition of the PS to the chronic phase.

Accordingly, the response to modern lifestyle PS is shifted from the "fight-or-flight" response, which requires an immediate active motor reaction to the stressor, toward coping and suppressing emotional stress, with the subsequent delay of a cognitive reaction [6, 8]. A conflict between the emotional stress hierarchy and cognitive information processing, followed by the adopting and implementing a decision, develops.

It is important to note that the modern lifestyle presupposes that psychological stressors of moderate intensity have a simultaneous or sequential impact on a person in relation to various spheres of his/her life. Due to this, the focus of attention quickly switches from one problem to another without solving the previous one. This switch is accompanied by the accumulation of emotional and cognitive information, the erasure of priority between the stressors' effects, the formation of a state of learned helplessness, and the incorporation of schizophrenogenic patterns. At the same time, energy costs increase sharply when the body's reaction to PS is realized.

In addition, the response to PS is activated in social immobilization conditions, which regulate socially acceptable norms of behavior, despite the intense influence of psychological stressors [7].

The strategy of consulting and providing psychological assistance should be based on the principle of dominance by A.A. Ukhtomsky [10], the theory of functional systems by P.K. Anokhin [1], and A. Maslow's pyramid of needs [3]. This integrative strategy should consider the hierarchy of emotional stress and cognitive function in the PS structure [6], social immobilization, and the characteristics of the energy supply of the CNS [7].

1. According to the principle of dominance by A.A. Ukhtomsky, an intense focus of excitation that has arisen in the CNS due to exposure to psychological stressors is provided with oxygen and an energy substrate in priority order. At the same time, the provision of resources for the rest of the brain is performed under conditions of deficit according to the residual principle.

2. In response to the stressor's impact, it was necessary to switch the focus of attention and form

a functional system, the main task of which would be to achieve the final beneficial result, which, in the context of this consultation, was a decrease in emotional stress and a shift in priority to cognitive processing and situation assessment.

3. In A. Maslow's pyramid of needs, primary (life support and safety) and secondary (social) needs are distinguished. Primary needs located at the first and second levels are priorities. Anxiety arising in response to the psychological impact, accompanied by an intense emotional reaction, which is manifested in the "fight-or-flight" format, perceived as a threat to security and located at the second stage of Maslow's pyramid of needs. At the same time, sleep disorders and a decrease in appetite that develop against the background of an increase in emotional stress are related to the first stage, which reflects the provision of life. So, when conducting a psychological consultation, the priority is the correction of the emotional state.

4. Social immobilization, which prescribes adherence to socially approved patterns of behavior, is aimed at suppressing the "fight-or-flight" reaction. It creates the prerequisites for deterioration of the physiological state and the development of psychosomatic pathology.

5. For adequate energy supply of the CNS, glucose and oxygen are needed. They enter neurons from the blood since the intracellular stores of glucose are low. To trigger aerobic catabolism of one glucose molecule, two ATP (adenosine triphosphate) molecules are consumed, but 38 ATP molecules are synthesized. In contrast, with anaerobic catabolism of glucose at an initial consumption of two ATP molecules, four are synthesized. Therefore, the energy value of aerobic catabolism is 18 times higher than the efficiency of anaerobic catabolism, which is essential for the regulation of excitation and inhibition processes in the CNS. Thus, controlled transient hypoxia can reduce the blood's oxygen content, which will lead to inhibition of the dominant focus of excitation in the limbic system, reticular formation, and amygdala. The consequence of this will be a decrease in emotional stress.

In accordance with the principle of dominance by Ukhtomsky, the emergence of a priority focus of excitation in the CNS will primarily be provided with oxygen and an energy substrate because of the redistribution of blood circulation. This is characterized by an increase in volumetric blood flow in actively functioning parts of the brain. In this case, the priority focus of excitation with simultaneous or sequential exposure to psychological stressors will be formed in the limbic system responsible for the emotional response to the stimulus. It leads to a sharp decrease in the effectiveness of cognitive function.

At the same time, the functional system formed in response to the impact of the first PSor, because of its moderate intensity, does not have time to ensure achieving the final beneficial result when one or several new additional psychological stressors start to have their impact. At the same time, against the background of growing excitement in the limbic system, the reception and cognitive processing of incoming information sharply decreases, but the emotional stress intensity increases.

Accordingly, given the growing number of psychological stressors and the increase of intensity of their impact, the result needed is not the resolution of a specific conflict situation, but the maintenance of readiness to respond according to the "fight-or-flight" format to any impact, regardless of its threat to basic primary needs of stages 1 and 2 of Maslow's hierarchy.

At the same time, an imbalance develops between implementing the "fight-or-flight" strategy, accompanied by pronounced motor activity, and social immobilization, which prescribes the observance of socially acceptable norms of behavior. It leads to an increase in the number of conflict situations with persisting partial motor aggression suppression.

CLINICAL CASE

Patient D., 23 years old, single, applied for psychological help. She lives in a rented apartment with a female friend and has close relationship with her boyfriend. Written informed consent was obtained to conduct a psychological interview and correct the psychological state using a provocative approach, psychophysiological correction of the emotional state, neurolinguistic programming, and Ericksonian hypnosis [6, 8, 14, 15]. A bilateral agreement on non-disclosure of personal data was signed.

During the interview, it was established:

1. Permanent exposure to chronic PS with an apparent violation of the psychological state, manifested by high anxiety, increased fatigue, decreased concentration, psycho-emotional lability (change in the hysterical and moderate aggressive reaction to any standard questions), and pronounced conflict in all spheres of life. Conflicts in professional activities with colleagues and management; in everyday matters with a female friend; with parents (parent-child relations); in private life with a partner.

2. When communicating: episodes of age regression, blaming others for her own problems, refusal to concretize and interpret existing conflict problem situations.

3. Physiological reactions against the background of unaddressed anxiety in the form of sleep and eating disorders (loss of appetite), tachycardia attacks after

conflict situations. During the interview, the tension in the muscles of the collar zone, stiffness of gestures with a quick reaction to external stimuli (external sounds, movements of the interlocutor), closed poses were noted; hypertonicity of facial muscles, with a characteristic manifestation of the emotions of fear, anger, and contempt on the scale of the particular coding AU in the Facial Action Coding System (F.A.C.S.), developed by Paul Ekman, Wallace Friesen, and Richard Davidson in 1978.

4. Obtaining reliable and detailed information was hampered by the patient's unwillingness to provide specific information about psychological problems with people around her, limiting the ability to establish a full-fledged rapport and broadcasting false information (a comprehensive assessment of changes in autonomic reactions, an increase in the number of manipulator gestures, a point of orientational freezing, discoordination of gestures, facial expressions and speech, linguistic and non-verbal leaks: omission, distortion, and omission of information, dynamics of leg gestures in response to specific questions).

It should be noted that indirect information testified to psychological trauma in adolescence. In addition, three years ago, she was diagnosed with infertility. She had been undergoing treatment for two years, and over the last year, she refused to continue it because of the ineffectiveness of the procedures.

Taking into account the combination of psychological and physiological state disorders: high excitability and intense emotional stress in response to external stimuli characteristic of age regression, responses in the "fight-or-flight" format with a low cognitive assessment of various stressful situations [4, 5], a program for the consistent correction of her psychological state was developed.

The main emphasis during the consultation was placed on providing an intense emotional response with the subsequent "zeroing" of the limbic system's activity and its inhibition. After that, it was necessary to perform psychological correction to switch the priority to cognitive function implementation.

Based on this, an algorithm for psychological counseling was developed:

1. Provocation to ensure an intense emotional reaction of the suppressed aggression to the stimulus (NLP) under the control of the psychological and physiological state (NLP calibration, lie verification, and profiling).

2. Inhibition of the activity of the limbic system and "zeroing" of emotional stress using a pattern interrupt (short-term confusion), followed by breathing control under conditions of transient hypoxia and overload of representative systems [5, 12].

3. Conducting resource-relaxation trance (Ericksonian hypnosis).

4. Post-hypnotic suggestion, cognitive analysis, and embedding of new patterns of behavior and response to stress.

5. Teaching the technique of "zeroing" of emotional stress and reaction to external stimuli.

After psychological correction, emotional state normalization, mood improvement, full-fledged rapport establishment, facial muscles, and collar zone relaxation were noted. Gestures became smooth, the reaction to external extraneous stimuli disappeared, and breathing became calm, deep, and rhythmic. Some aspects of personal information have been accessed, and adequate response to humor has appeared. The patient's consent was obtained to analyze additional information and to conduct an extended interview during the next consultation.

Later, by phone, it was decided to hold a second consultation at a later time, in 2–3 weeks.

At the initiative of patient D., the second consultation took place three weeks later. During the time between consultations, emotional stress disappeared, relations in the professional sphere normalized (transferred to a more prestigious job with a slight increase in salary), friendly relations with a friend/neighbor were restored, and mutual understanding was reached with parents.

The integrative interpretation and analysis of the information obtained during the further conversation are of particular interest.

One reason for the "complete closeness" during the first consultation was the following circumstances:

1. At the age of 17, D. was group-raped at gunpoint. She did not tell anyone about this event. Then, she began to perceive all men as a threat. Her attempts to build relationships on her initiative ended in quarrels and breakups.

2. Approximately a year ago, she felt a painful sensation of a foreign body in her pelvic cavity. The pain intensity increased with physical exertion and defecation. A self-conducted rectal examination revealed a dense painful formation, which she perceived as an oncological pathology. She hid the information from her parents and others, decided to stop further infertility treatments, refused to visit doctors, and had no additional examinations.

During the provocative action, the patient re-experienced trauma, identifying the consultant with the rapists, and showed intense aggression toward him. After psychological correction, the reaction to men as a threat disappeared, and, in her opinion, normal relationships became possible.

Against the background of the “zeroing” of emotions, during the relaxation-resource trance with the “setting on the ascending relaxation of the external muscles and internal organs,” she felt that the formation in the pelvic cavity disappeared. At home, during her rectal examination, tumor – the source of oncophobia – was not found.

Having performed an integrative analysis of additional effects after psychological counseling, the author is inclined to explain the presence of a dense formation in the pelvic cavity, previously perceived by the patient as an oncological pathology, by an intense uterine hypertonicity. This is evidenced by the disappearance of the tumor after a relaxation trance, which was regarded as relaxation and normalization of the uterine tone.

The causes of hypertonicity of the uterus were psychotrauma associated with rape, combined with progressively increasing chronic PS, which mutually exacerbated each other. At the same time, uterine hypertonicity played a leading role in the pathogenesis of infertility, which was confirmed by the absence of pregnancy with active regular sexual activity and the ineffectiveness of the treatment performed for two years.

During the interval between the consultations, patient D. built up trust with her partner and got pregnant, which was confirmed by ultrasound examination.

It is difficult to recommend such an approach for widespread use without the appropriate qualifications of a counselor in the field of psychophysiology, clinical psychology, and pathophysiology, access to a wide variety of psychological and physiological methods, ability to maintain and demonstrate complete calmness and confidence in extreme situations, and quickly respond to change.

A prerequisite for working with PTSD and PS should be psychological correction without time limits until a positive result is achieved.

Thus, the integrative approach using psychological and psychophysiological techniques, in combination with the use of respiratory function control with modeling of transient hypoxia and functional overload of representative systems to inhibit the limbic system activity, provided not only a positive psychological effect but also pathogenetically justified correcting oncophobia and infertility as an additional effect when conducting a psychological session.

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◆ Information about the author

Said A. Salekhov – MD, PhD, Dr. Sci. (Med.), Professor of the Department of General Pathology of the Institute of Medical Education. Yaroslav-the-Wise Novgorod State University, Novgorod, Russia. E-mail: ssalehov@mail.ru.

◆ Информация об авторе

Саид Абдуллаевич Салехов – д-р мед. наук, профессор кафедры общей патологии Института медицинского образования. ФГБОУ ВО «Новгородский государственный университет имени Ярослава Мудрого», Новгород. E-mail: ssalehov@mail.ru.