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PECULIARITIES OF PSYCHOSOCIAL STRESS IN RELATIVE OF CEREBROVASCULAR PATHOLOGY PATIENTS

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Abstract

A disease is stressful situation both for the patient and for his family. **Materials and methods**. On the grounds of PIC at the base of Emergency Medicine Centre of Kharkiv Regional Clinical Hospital during 2016-2018, 252 relatives of cerebrovascular pathology patients were examined. The patients had different stages of the diseases. The psychosocial stress was assessed according to L. Reeder's "Psychosocial Stress Scale". To analyze the potential stressor factors, each group was subdivided according to Boston Stress Test for stress-resistance. **Results**. The appearance of clinical symptoms of somatic illness in a patient was accompanied by an increasing rate of psychosocial stress among family members (1.44±0.63 points in the relatives of patients without disease; 1.51±0.67 points in relatives of cardiovascular risk patients; 1.67±0.65 points in the relatives of transitory ischemic attacks patients and 2.0±0.47 points in the relatives of stroke patients, $p < 0.05$). The components of psychosocial stress were the destabilization of interpersonal communication against the background of manifestations and consequences of the disease, reducing the patient's work capacity and respectively the growing need for physical and emotional support, redistribution of family's roles and responsibilities, and the exhaustion of family resources (psychological, social, physical). It was revealed that increasing stress risk is accompanied by an increasing level of psychosocial stress among family members and jointly creates a psychopathogenetic

basis for the development of family maladaptation in CVD patient's family. **Conclusions**. Medico-psychological measures directed at the families of cerebrovascular pathology patients are an important component of complex help.

Key words: **patents' families, psychosocial stress, stress risk, cerebrovascular pathology, psychological help.**

Urgency. Somatic diseases, especially those that pose a threat to the patient's further life or cause significant limitations, also affect the patient's immediate environment. Study of families of "severe" patients has shown significant changes in the mental health status of those involved in the care of patients [1 - 4]. It is revealed that among families with critically ill, 20% of relatives have mental health disorders: anxiety disorders are up to 11%; mood disorders – 5 - 6%; post-traumatic stress disorder - 3.0% [5]. A threatened illness causes the destabilization of even a harmonious family system. The family is forced to change their usual way of life, adapt to the requirements of the situation and the patient's needs. Violation of family relationships occurs at different levels in the dyads "husband – wife", "parents - child", "child – child". When one of the spouses becomes ill, interpersonal tensions arise, long-standing conflicts are often exacerbated [6].

Psychological components of distress in relatives of the patient are: lack of information; a sense of need for outside help, including psychological assistance; feeling difficult to communicate with the patient; self-assessment of the disease effect on one's own psycho-emotional state and family functioning; activity and behavior model in the healing process [7].

Cerebrovascular pathology (CVP) is a major medical, social and psychological problem due to its prevalence and serious consequences for life and health - high mortality, disability [8 - 10] and is a critical medical. Social and psychological problem.

CVP extremely threatening consequences are first and foremost vascular catastrophes that lead to impaired motor and speech function, sensitivity, cognitive and affective disorders, which significantly impair the patient's quality of life, and are often non-recurrent [11, 12]. Disorders of the motor function cause the disability and self-care of the patient, which determines the need for assistance, loss of autonomy, and therefore dependence on the environment. Speech disorders and organic affective disorders, cognitive dysfunction adversely affect communication and social interaction, exacerbating patient maladaptation. The experience of loss, the awareness of the nonrenewability of a number of functions caused

by the disease, can lead to the deepening of psycho-emotional instability with the development of affective disorders of neurotic genesis.

Accordingly, the role of the severe somatic disease patient's family with severe somatic diseases is very important. Aspects of stress level caused by disease, manifestations of maladaptation, mechanisms of psychological adjustment of the family, and methods of effective medical and psychological assistance should be learned.

The objective: to study the peculiarities of manifestation and severity of psychosocial stress in families members of cerebrovascular pathology patients.

Materials and methods. On the basis of the Emergency and Disaster Medicine Center of Kharkiv Regional Clinical Hospital during 2016-2018 we conducted a psychological examination of 252 relatives of CVP patients. Ethical and deontological principles of the study were taken into account.

The persons under study were formed into the following groups:

- 30 family members of Index Group (IG) persons who could be considered conditionally healthy - RIG;

- 57 relatives of G1 respondents who have high level of cardiovascular risk and development of CVD - RG1;

- 81 members of families of G2 patients with clinically pronounced signs of CVD in the form of transient ischemic attacks (TIA) - RG2;

- 84 relatives of G3 patients who underwent ischemic stroke - RG3.

The study included relatives of patients with various stages of CVD as well as family members of the persons without clinically diagnosed somatic diseases (index group). Relatives who had a history of mental and behavioral disorders were excluded from the survey.

The grouping of interviewees depending on CVD stage development in patients was substantiated by the need to determine the features and dynamics of the disease impact on family functioning and separation of differentiated psychosocial targets of medical and psychological help.

The age range of the respondents ranged from 34 to 62 years. By the relation degree of the examined were spouses, of which 77.8% were wives and 22.2% were husbands.

The level of psychosocial stress was investigated using the "Psychosocial Stress Scale" (L. Reeder). To analyze the potential stressors, each group was divided into subgroups based on the Boston Stress Test: subgroups with moderate (MSR), high (HSR), and ultra-high stress

risk (UHSR). Statistical processing of the results obtained was carried out using MS Excel v.8.0.3.

Results and Discussion. In general, psychosocial stress among RIG, RG1 and RG2 respondents corresponded to the average level of expression, while in RG3 it reached high degree of manifestation (Table 1). The appearance of clinical symptoms of somatic unhealthiness of the patient was accompanied by an increase in psychosocial stress in family members (1.44 ± 0.63 points in RIG, 1.51 ± 0.67 points in RG1, 1.67 ± 0.65 points in RG2 and 2.0 ± 0.47 points in RG3, $p<0.05$).

Table 1

Level of psychosocial stress in relatives of patients with cerebrovascular pathology, $x \pm \delta$

Level	RIG, N=30	RG1, n =57	RG2, N=81	RG3, N=84
psychos.stress	1.44 ± 0.63	1.51 ± 0.67	1.67 ± 0.65	1.67 ± 0.65

The distribution of respondents by the degree of severity of psychosocial stress is given in Table. 2. Low level of psychosocial stress was found in 20.0% of RIG (relatives of respondents without somatic pathology); 21.1% in RG1 (family members of patients with cardiovascular risk); 13.6% in RG2 (relatives of patients with TIA) and 2.4% in RG3 (spouses of patients after cerebral stroke). Moderate levels of psychosocial stress were reported in 56.7% of RIG, 49.1% - in RG1, 49.4% - in RG2, and 47.6% - in RG3, and high respectively in 23.3%, 29.8%, 37.0% and 50.0% of respondents.

The data obtained indicate a higher severity of psychosocial stress in the relatives of patients who have a comprehensive clinical picture of somatic pathology, which may be due to several factors:

- reducing of the patient's working capacity;
- need for outside help and care;
- increasing need for psychological support;
- changing of family roles, responsibilities;
- increasing of interpersonal conflict on the background of somatic stress;
- the factor of a loved human life threat and possibility of his loss.

Table 2

Structure of psychosocial stress in relatives of patients with cerebrovascular pathology,%

Level of psychosocial stress	RIG, n=30	RG1, n=57	RG2, n=81	RG3, n=84
Low	20.0	21.1	13.6	2.4
Moderate	56.7	49.1	49.4	47.6
High	23.3	29.8	37.0	50.0

In Table 3 the results of the study of psychosocial stress severity depending on the level of stress risk: moderate, high and very high are given. It was found that stress risk increase is accompanied by increase in the level of psychosocial stress in family members. In the subgroups with MSR and HSR, higher rates were reported in cerebral stroke patients' families, while in UHSR subgroup each of the groups under study showed high levels of psychosocial stress.

Table 3

Level of psychosocial stress in relatives of patients with different levels of stress risk, $x \pm \delta$

Stress risk	RIG, n = 30	RG1, n = 57	RG2, n = 81	RG3, n = 84
Moderate	0.90 ± 0.37	0.91 ± 0.40	0.93 ± 0.38	1.36 ± 0.33
High	1.43 ± 0.35	1.47 ± 0.36	1.59 ± 0.34	1.80 ± 0.28
Super High	2.38 ± 0.36	2.37 ± 0.30	2.32 ± 0.40	2.43 ± 0.26

Investigating the distribution of respondents with different severity of stress risk, increase in the number of persons with higher levels of psychosocial stress in relatives in the continuum "conditionally healthy - risk group - clinical manifestations - patients after stroke" has been revealed (Table 4).

Table 4

Structure of psychosocial stress in relatives of patients with different levels of stress risk, %

STRESS RISK	RIG, n=30			RG1, n=57			RG2, n=81			RG3, n=84		
	MSR	HSR	UHSR	MSR	HSR	UHSR	MSR	HSR	UHSR	MSR	HSR	UHSR
Low	50.0	7.1	-	45.0	4.6	-	45.5	3.2	-	20.0	-	-
High	50.0	85.8	-	55.0	81.8	6.7	50.0	83.9	10.7	80.0	77.5	2.9
S.High	-	7.1	100	-	13.6	93.3	4.5	12.9	89.3	-	22.5	97.1

In Table 5 the individual components of psychosocial stress are shown. In the group of IG relatives, the basis of psychosocial stress was situational one, mainly related to work, rarely family relationships, creating tension in communication, professional activity, causing physical and mental fatigue.

Respondents from RG1 and RG2 experienced increase in psychosocial stress due to overstrain, mental fatigue, irritation from performing daily activity, and increasing conflicts in the interpersonal sphere. Instability in psychosocial status caused difficulties in communication at work, and especially in the family, which indicated deepening effect of stress and its extension on the personal level of functioning.

In the group of family members of patients after stroke, the state of psychosocial stress had special character, which was caused by severe physical and mental disorders in the patient, need for labor-intensive care for him and, accordingly, a dramatic change in family life, redistribution of responsibilities and resources.

Table 5

Level of psychosocial stress in relatives of patients with cerebrovascular pathology, x ± δ

	Level	IG, n=47	G1, n=47	G2, n=134	G3, n=127
1	Self-estimation of own tension	2.97±0.81	2.98±0.86	2.84±0.83	2.45±0.77
2	Work anxiety	2.50±1.04	2.32±0.93	2.28±0.91	1.96±0.84
3	Nervous tension	2.47±0.82	2.42±0.86	2.11±1.01	1.69±0.76
4	Tension with everyday activity	2.37±0.89	2.30±0.89	2.17±0.97	1.79±0.76
5	Tension at communication	2.47±0.90	2.49±0.89	2.23±0.90	1.98±0.86
6	Fatigue	2.40±0.81	2.42±0.91	2.23±0.90	1.87±0.67
7	Tension in relations	2.73±0.69	2.51±0.97	2.42±0.77	2.24±0.75

Note. Due to the peculiarities of L. Reader Scale constructing, lower values indicate a higher level of stress, a minimum score of 1 (high stress), a maximum of 4 (low stress).

Conclusions. Thus, presence of somatic disease in a family member, accompanied by extensive clinical symptoms, causes increase of psychosocial tension in the family. The components of psychosocial stress are the destabilization of interpersonal communication

against the background of experiencing the manifestations and consequences of the disease, the decline of the patient's work capacity and correspondingly increasing need for physical and emotional support, the redistribution of family roles and responsibilities, the depletion of psychological resources, social resources.

Increased stress risk is combined with an increase in the level of psychosocial stress in relatives of patients, which creates a psychopathogenetic basis for the development of family maladaptation in CVP patients families and makes the problem systemic from the point of view of psychological help.

The family's important role in overcoming the negative effects of the disease and impact of the disease on family's functioning indicate the need to build a complex of family-oriented psychological and psychological assistance, improvement of its adaptation, increase of its supportive and stress-resistant capacity.

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