

PNP 2021
Personality in Norm and in Pathology 2021**PECULIARITIES OF EXISTENTIAL FULFILLMENT AND
COPING STRATEGIES IN POST-STROKE PATIENTS**Elena Sevostyanova (a)*, Irina Trushina (b), Veronika Artemyeva (c)
*Corresponding author

- (a) Chelyabinsk State University, 129 Bratiev Kashirinykh St., Chelyabinsk, Russia, elena-krka@mail.ru
(b) Chelyabinsk State University, 129 Bratiev Kashirinykh St., Chelyabinsk, Russia, trushina_ia@mail.ru
(c) Baltic Pedagogical Academy, 35 Dekabristov St., S.Petersburg, Russia, veronik_a@bk.ru

Abstract

Diseases in the circulatory system of the brain are not only a medical but also a social problem. Social support is one of the factors for successful rehabilitation and prevention of post-stroke depression (PSD). The purpose of the study is to identify the peculiarities of coping strategies and existential fulfillment in post-stroke patients with speech disorders. The study involved 50 patients with the first occurrence of ischemic stroke (25 patients with both motor and speech disorders, 25 patients with motor disorders without any speech defects). Were applied the Rankin Scale (mRs), the Barthel Index (BI), Existence Scale Questionnaire (A. Längle and C. Orgler), D. Amirkhan's "Coping Strategy Indicator" (adapted by N.A. Sirota and V.M. Yaltonsky), the non-parametric Mann-Whitney U test. The analysis of the results of the coping-strategy examination showed significant differences between groups on the strategy of "seeking social support" ($U = 82,000$; at $p = 0.074$), on the Self-Transcendence subscale ($U = 65,000$; at $p = 0.015$) and the Freedom subscale ($U = 54,500$; at $p = 0.004$). In conclusion, the lack of ability to express their emotions and desires through speech, as well as to interact with people in patients with speech disorders leads to emotional flattening and poor interaction with the world and people, refusal to seek help and social support from family, friends and other important people.

2357-1330 © 2021 Published by European Publisher.

Keywords: Coping strategies, existential fulfillment, post-stroke patients, speech disorders

1. Introduction

Diseases of the cerebral circulatory system are a problem of extreme medical and social importance and a global epidemic that threatens the life and health of the entire world population. During the Covid-19 pandemic, the number of requests for stroke treatment increased because of the development of cerebral ischemia due to such factors as microthrombosis, respiratory and hemic hypoxia (Voronina, 2020) in the background of coronavirus infection. After having a stroke, it is necessary to cope with the arising emotional and motor disorders, speech disorders, etc. Post-stroke patients have to undergo long-term rehabilitation with the involvement of their caregivers.

Disability changes the patient's "quality of life" and brings up new challenges, such as the need to adjust to the disability, make changes in occupation, behavior with their loved ones, and many other problems (Roche, 2016).

The duration of the post-stroke rehabilitation depends on many factors, with psychological factors being modifiable (i.e. available for adjustment).

2. Problem Statement

Post-stroke patients find themselves in a difficult life situation and social conditions where the process of personal coping behavior begins to unfold (Kornev & Agalakova, 2010; Yaroslavskaya, 2011).

When studying the progress of critical situations, the emphasis is most often placed on coping behavior or coping strategies (Sirota & Yaltonskij, 1994; Vasserman et al., 2008). It takes into account such personal resources that enable us to effectively overcome critical situations with minimal damage to psychological health. They include resiliency, optimism, activeness, positive self-perception and idea of human nature, the meaningfulness of life, and existential fulfillment (Frankl, 2016; Leontiev, 2010; Längle, et al., 2003; Längle, 2016; Rasskazova & Gordeeva, 2011; Ukolova et al., 2016).

Existential fulfillment is a term that appeared in the psychology of Frankl. Frankl to describe the quality of a person's life. The wholeness of life is achieved through openness to the world, the freedom to make decisions, being aware of them, and the ability to see and implement opportunities (Krivtsova, 2016).

Being in a state of excessive situational stress leads some post-stroke patients to isolation, fixation on their feelings and desires, a focus on the world of subjective experiences rather than a focus on the world of the real environment. This mechanism of handling the situation prevents taking an adequate role in the treatment process and worsens the rehabilitation (Ermakova, 2016). Difficulties in experiencing long-term somatic burdens, physical suffering, and discomfort, mobility and self-care difficulties, and the need for a long-term recovery activity in some cases lead to impulsive discharge and refusal of treatment, i. e., the patient ceases to implement the available opportunities for rehabilitation. Episodes of impulsive discharge in the behavior of patients are often associated with a lack of faith in treatment, as well as patients' lack of awareness of the lengthy rehabilitation process, and the inability to understand and accept their feelings and to inform others about them (Ermakova, 2018).

We identified a positive correlation of existential fulfillment with such a productive coping strategy as decision planning, and a negative correlation with a number of non-productive coping strategies such as distancing, escaping, and confrontation among mature individuals (Bazarkina, 2013).

To date, there is no unified classification of types of coping behavior. The main classification is considered the one proposed by Lazarus and Folkman. They identified the scale of seeking social support, which includes seeking informational, emotional, and effective help (Vodopyanova, 2009).

According to the existing approaches to the understanding of social support, we can conclude that seeking support from others can also contribute to the active transformation of the situation and improvement of the emotional state. Social support as a coping strategy not only allows to reduce psychological stress but also contributes to the effective handling of a difficult life situation, which allows referring this strategy to the coping resources of the individual (Kornev & Agalakova, 2010).

Speech impairment is one of the factors that reliably aggravates the rehabilitation process of post-stroke patients (Cooper et al., 2015; De Ryck et al., 2014; Jorgensen et al., 2016; Zhang et al., 2020), making it difficult for caregivers to support the patient for an extended period (De Ricket al, 2014). Post-stroke patients have an increased need for the verbal emotional response to an acute stressful situation (stroke) and verbal communication with the caregiver (Cooper et al., 2015; Gaio et al., 2019; Nakase et al., 2016).

Researchers from Chile and Spain have found that dysarthria, an acquired motor speech disorder of neurological origin, is significantly decreasing the quality of life (Aceituno et al., 2019). We hypothesize that difficulties in identifying and verbalizing one's own emotions among post-stroke patients may be related both to the development of vascular pathology and to possibilities of rehabilitation.

The study of the relationship between the success of the post-stroke adaptation of patients and the features of their communication (speech) has not been properly addressed, neither in foreign nor in Russian studies. Therefore, the question of the influence of speech on the rehabilitation of post-stroke patients remains unresolved and topical (Kotov et al., 2019).

3. Research Questions

- What are the peculiarities of existential fulfillment in patients with motor disorders and speech disorders after an ischemic stroke, compared to those who only have motor disorders?
- Are there any differences in the choice of coping strategies between patients with a speech disorder and those with normal speech function? If yes, then what is the reason?

4. Purpose of the Study

The purpose of the study is to identify the peculiarities of coping strategies and existential fulfillment in post-stroke patients with speech disorders.

5. Research Methods

To assess the functional state of post-stroke patients we used the Rankin Scale which allows us to estimate the degree of disability. We also used the Barthel Index (BI) which includes 10 questions related to self-care and mobility that allow us to evaluate the level of daily activity according to the total score.

The "degree" or "level" of existential fulfillment was assessed with the Existence Scale Questionnaire, which consists of 46 questions. The answers to these questions are given by the respondent, who assesses himself and his current life in various aspects. The total score of Overall Fulfillment is the sum of the intermediate scores on the four subscales: Self-Distancing, Self-Transcendence, Freedom, and Responsibility.

We used Coping Strategy Indicator to diagnose the dominant coping strategies of a personality. The questionnaire helped to identify behavioral strategies that are formed in the course of life: problem-solving, seeking social support, and avoidance.

A comparison of the values between the groups was carried out using the non-parametric Mann-Whitney U test.

The study was conducted on the premises of the State Budgetary Health Institution "Regional Clinical Hospital No. 3 of Chelyabinsk". The study involved 50 patients with ischemic stroke. The criteria for inclusion of patients in the study was the first occurrence of ischemic stroke of atherothrombotic genesis in the internal carotid artery, which was confirmed by CT scan of the brain. All patients with ischemic disease (50 people) were divided into two groups. The first group consisted of 25 people: 11 women (mean age 52 ± 2.1 years) and 14 men (mean age 61 ± 3.5 years) who had both motor and speech disorders after an ischemic stroke. The second group consisted of 25 people: 12 women (mean age 59.6 ± 2.5 years) and 13 men (mean age 62.2 ± 3.4 years) who only had motor disorders without any speech defects

6. Findings

Both groups were compared when assessing mean values on the modified Rankin Scale ($p=0.289$) and the Barthel Index ($p=0.305$). Patients in both groups are characterized by a moderate disability in which some assistance is required and a severe disability in which the patient is unable to walk without assistance, and cannot deal with his or her physical needs without assistance, i.e. there is a considerable dependence in daily life.

Patients in both groups had low values on the self-distancing scale, which is often a marker of excessive situational stress or post-traumatic state, i.e., stroke patients could not distance themselves, being fixated on their experiences, feelings, and desires.

The low score on the Self-Transcendence subscale indicates a poor relationship with the world and people, an inability to openly demonstrate emotions among the patients of the first group to a greater extent, in contrast to the patients of the second group ($U = 65,000$; at $p = 0.015$).

Significant differences between groups on the Freedom subscale ($U = 54,500$; at $p=0.004$) indicate that patients of the first group (with speech disorders) had difficulties seeing and using the available

possibilities of the situation, while patients of the second group had a greater clarity of choice and decision-making.

Scores on the Responsibility subscale (R) were also low in both groups, which reflects an inability to independently handle and overcome the obstacles.

The sum of the scores of the Self-Distancing and Self-Transcendence subscales makes up the P (Personality) score. Low P-scores in the first group point to closedness, which may be due to an inability to verbalize emotions and an increased psychological load. In the second group, the score tends to the average, which indicates an increase in openness to the world.

The sum of the F (Freedom) and R (Responsibility) subscales forms the E (Existentialism) score. A low E score in the first group indicates a lack of confidence in decision-making. In the second group, the score tends to the average, which indicates the desire to take responsibility for oneself. In the first group, $F < V$, which reveals a readiness to go out into the world, but there is a sense of unfreedom (may be associated with a speech impairment). In the second group, F and V are more close to each other in terms of values, as life gets fulfillment.

The analysis of the results of the coping-strategy examination showed that the patients of the first group had low values on all three scales, i.e., they did not have any expressed coping-strategy. Patients with speech disorders are not characterized by an active behavioral strategy in which individuals try to use all the available personal resources to find possible ways to effectively resolve the problem.

Patients in the second group choose the strategy of "seeking social support" more frequently, i.e., they tend to actively seek help from society to effectively resolve the problem ($U = 82,000$; at $p = 0.074$). Seeking support from others can help to effectively transform a situation, reduce emotional tension, and assist in dealing with a difficult life situation. We can assume that the lack of ability to express emotions and desires through speech, as well as to interact with people in patients with speech disorders leads to emotional flattening and poor interaction with the world and people, inability to make decisions, insecurity, and lack of certainty in their own decisions, refusal to seek help and social support from family, friends and other important people.

7. Conclusion

The low values on the self-distancing (SD) subscale, which were obtained in both groups of patients, indicate that stroke has become an excessive psychological burden for all patients. Patients with no speech disorders chose a more active behavioral coping strategy, sought support from society, were more open to society (self-transcendence scale), and tried to solve their problems constructively, unlike patients in the first group, which were characterized by more intensive emotional distress.

The findings correlate with Cooper's results that in the post-stroke period, difficulties with strategy and acceptance of emotions were associated with reduced social participation (Cooper et al., 2015).

Therefore, the lack of ability to express their emotions and desires through speech, as well as to interact with people in patients with speech disorders leads to emotional flattening and poor interaction with the world and people, refusal to seek help and social support from family, friends and other important people

References

- Accituno, C., Aranda, S., Palma, G., Pino, C., Villegas, P., Quezada, C., & Toledo-Rodríguez, L. (2019). Quality of life in people with dysarthria. *Revista de Logopedia, Foniatria y Audiología*, 39(1), 27-31. <https://doi.org/10.1016/j.rlfa.2018.07.002>
- Bazarkina, I. N. (2013). Lichnostnyeresursyipatternypovedeniya v kriticheskisituaciyah v yunosheskomizrelomvozzrastah v raznyhkul'turno-istoricheskikhusloviyah [Personal resources and patterns of behavior in critical situations in adolescence and adulthood in different cultural and historical conditions]. *dissertaciinasoiskanieuchenostepenkandidatapsihologicheskikh nauk*. [Master's thesis, The Moscow City University of Psychology and Education]. [In Rus.]. <http://www.psychlib.ru/inc/absid.php?absid=230080>
- Cooper, C. L., Phillips, L. H., Johnston, M., Whyte, M., & Macleod, M. J. (2015). The role of emotion regulation on social participation following stroke. The role of emotion regulation on social participation following stroke. *Clinical Psychology*, 54(2), 181-199. <https://doi.org/10.1111/bjc.12068>
- De Ryck, A., Brouns, R., Geurden, M., Peij, D., Maričn, P., De Deyn, P., & Engelborghs, S. (2014). Poststroke depression and its multifactorial nature: Results from a prospective longitudinal study. *Journal of Neurological Sciences*, 347(1-2), 159-166. <https://doi.org/10.1016/j.jns.2014.09.038>
- Ermakova, N. G. (2018). Psichologicheskayareabilitaciabolnyih s posledstviyamiinsulta v usloviyahvosstanovitelnogolecheniya [Psychological rehabilitation of patients after stroke in conditions of restorative treatment]. *Medical psychology in Russia*, 10(2), 9. [In Rus.]. <https://doi.org/10.24411/2219-8245-2018-12090>
- Ermakova, N. G. (2016). Psichoterapevticeskayasredaprireabilitaciabolnyih s posledstviyamiinsulta – odnaiz form terapiisredoy [Psychotherapeutic environment in the rehabilitation of patients with the consequences of stroke – one of the forms of therapy with the environment]. *Bulletin of SUSU. Series: Psychology*, 9(2), 45-59 [In Rus.]. <https://doi.org/10.14529/psy160206>
- Frankl, V. (2016). *Logoterapiyaiekzistencial'nyjanaliz: Stat'ilekcii*. [Logotherapy and existential analysis]. Alpina non-fikshn. [In Rus.].
- Gaio, M., Buoite, A., Furlanis, G., Naccarato, M., Stefi, D., & Manganotti, P. (2019). Effect of Passive Intervention on Carers of Stroke Survivors during the Early Poststroke Period. *Journal of Neuroscience Nursing*, 51(6), 299-304. <https://doi.org/10.1097/JNN.0000000000000475>
- Jorgensen, T. S. H., Wium-Andersen, I. K., Wium-Andersen, M. K., Jørgensen, M. B., Prescott, E., Maartensson, S., & Kragh-Andersen, P. (2016). Incidence of depression after stroke, and associated risk factors and mortality outcomes, in a large cohort of Danish patients. *JAMA Psychiatry*, 73(10), 1032-1040. <https://doi.org/10.1001/amapsychiatry.2016.1932>
- Kornev, K. I., & Agalakova, A. S. (2010). Rol' social'nojpodderzhkikakstrategiipreodoleniyalichnost'yutrudnyhzhiznennyhsitacij. [The role of social support as coping strategy for overcoming the individual of stressful situation]. *Vestnik Omskogo Gosudarstvennogo Universiteta. Seriya «Psihologiya»*, 2, 12-20. [In Rus.].
- Kotov, S. V., Isakova, E. V., & Sheregeshev, V. I. (2019). Vozmozhnost' korrekciiemocional'nyhipovedencheskihnarushenij u pacientov s insultom v processereabilitacionnogolecheniya [Possibilities for Correcting Emotional and Behavioral Impairments in Stroke Patients during Rehabilitation Therapy]. *Zhurnalnevrologiiipsihiatriiim. S.S. Korsakova*, 119(4), 26-31. [In Rus.]. <https://doi.org/10.17116/jnevro201911904126>
- Krivtsova, S. V. (2016). Vkusiobayaniezrelosti [Taste and charm of maturity]. *Existencialnyii analiz*, 8, 5-8. [In Rus.].
- Längle, A. (2016). Urovnipsichoterapevticheskoyrabotyipriimeneniimetodovexistencialnogoanaliza. [The levels of psychotherapeutic work when applying the methods of existential analysis]. *Existencial analysis*, 8, 9-30. [In Rus.].
- Längle, A., Orgler, C., & Kundi, M. (2003). The Existence Scale. A new approach to assess the ability to find personal meaning in life and to reach existential fulfilment. *European Psychotherapy*, 4(1), 135-151.

- Leontiev, D. A. (2010). Lichnost' v nepredskazuemom mire [Personality in an unpredictable world]. *Metodologiya i istoriya psihologii*, 5, 3. [In Rus.].
- Nakase, T., Tobisawa, M., Sasaki, M., & Suzuki, A. (2016). Outstanding Symptoms of Poststroke Depression During the Acute Phase of Stroke. *PLoS One*, 11(10). <https://doi.org/10.1371/journal.pone.0163038>
- Rasskazova, E. I., & Gordeeva, T. O. (2011). Koping-strategii v psihologii stressa: podhody, metody i perspektivy [Coping strategies in psychology of stress: approaches, methods, perspectives]. *Psychological studies*, 3, 1. <http://psystudy.ru/index.php/num/2011n317/493rasskazo>
- Roche, N. (2016). Auto-rehabilitation at home for stroke patients. *Ann Phys Rehabil Med*, 9(59), 38. <https://doi.org/10.1016/j.rehab.2016.07.088>
- Sirota, N. A., & Yaltonskij, V. M. (1994). Koping-povedenie i psihoprofilaktika psihosotsial'nyh rassstrojstv u podrostkov [Coping behavior and psychoprophylaxis of psychosocial disorders in adolescents]. *Obozr. psihiatr. imed. psihol*, 1, 63-74. [In Rus.].
- Ukolova, E. M., Shumskii, V. B., & Osin, E. N. (2016). TEMMO-oprosnik dlya ocenki existentsial'noy ispolnennosti v meglichnosty i hotnosheniyah: faktornaya struktura, nadyegnost', validnost [TEMIR – A test to measure existential motivations in interpersonal relationships: Factorial structure, reliability and validity]. *Existential analysis*, 8, 151-182. [In Rus.].
- Vasserman, L. I., Iovlev, B. V., Isaeva, E. R., & Trifonova, E. A. (2008). *Metodika dlya psichologicheskoy diagnostiki i sovladaniya s stressovymi i problemnymi situatsiyami. Posobie dlya vrachei i medicinskih psichologov* [Methodology for psychological diagnostics of ways of coping with stressful and problematic situations for the individual. Manual for doctors and medical psychologists]. Saint Petersburg: Psichonevrologicheskij Institut im. V. M. Bekhtereva. [In Rus.].
- Vodopyanova, N. E. (2009). *Psikhodiagnostika stressa* [Psychodiagnosics of stress]. Piter. [In Rus.].
- Voronina, T. A. (2020). Antioxidanty i antihipoksyanty – nedostayushiy pasle effektivnoy patogeneticheskoy terapii pacientov s COVID-19. [Antioxidants/antihypoxants: the missing puzzle piece in effective pathogenetic therapy for COVID-19]. *Infection diseases*, 18(2), 97-102. [In Rus.]. <https://doi.org/10.20953/1729-9225-2020-2-97-102>
- Yaroslavskaya, M. A. (2011). Issledovanie passivnykh vidov sovladayushchego stressa i povneniya kak mekhanizmov adaptatsii/dezadaptatsii k zabolevaniyu u bol'nykh s khronicheskim nespecificheskim zabolevaniyam legkih [Role of passive coping strategies in adaptation /disadaptation to disease of patients with chronic nonspecific lung diseases]. *Vestnik Moskovskogo Universiteta. Seriya 14. «Psichologiya»*, 1, 125-137. [In Rus.].
- Zhang, Q. I., Schwade, M., Smith, Y., Wood, R., & Young, L. (2020). Exercise-based interventions for post-stroke social participation: A systematic review and network meta-analysis. *International Journal of Nursing Studies*, 111. <https://doi.org/10.1016/j.ijnstru.2020.103738>