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**PSYCHOSOCIAL REHABILITATION**

**OF PEOPLE POST STROKE**

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## CONCEPTUAL BENCHMARKS OF RESEARCH

**The topicality and importance of the researched topic** results from the global character of strokes, determined by the frequency of this disease. The World Stroke Organization has declared stroke a global public health emergency, already reaching epidemic proportions and being the second leading cause of death worldwide and the leading cause of disability in adults, with a physical, psychological impact, major social and financial impact on patients, families, the health system and society as a whole - a major medical-psycho-social problem of humanity. The World Health Organization's World Disability Report presents approximately one billion people with disabilities (ie 15% of the population), associated with advanced functional disabilities, social restrictions, with 110 million people representing 2.2% [100]. Vulnerability of people after stroke (55% -75%) is explained by certain functional motor limitations, cognitive disorders (35%), affective dysfunctions (80%), severe disability (26%), adaptation difficulties (44%), social withdrawal (40%) which affects their quality of daily life, including professional activity and social inclusion [5; 62; 219]. The opportunity for research on stroke is clearly increasing, being a significant concern of specialists in various fields around the world, which increases the life expectancy of the target category [61; 265].

Internationally, the psychology literature attests research on the psychosocial rehabilitation of people after stroke, the subject being in the attention of researchers since the beginning of the last century. Relevant international acts, in this sense, promote norms, goals, principles, scientific models, concrete solutions and methodologies specific to the post-stroke rehabilitation process: White Book on Physical Medicine and Rehabilitation in Europe - legislative document on rehabilitation; World Disability Report - WHO; International Classification of Functioning, Disability and Health (WHO)- statistical, research, and clinical investigation tool, policy, education, Team Approach Model; Rehabilitation model Dysfunction – Invalidity– Disability, Integrated and multiprofile model - current international trends and WHO recommendations, Long-term care model, etc. [43, pp. 116, 118; 46, pp. 29-32, 79, 106-114, figures 4, 5, 6, 7]. A strategy for the overall development of the international community for rehabilitation, improving the quality of life, equal opportunities and social inclusion of all persons with disabilities is reflected in the Joint Position Work on Community-Based Rehabilitation (CBR), prepared by the International Labor Organization (ILO), UNESCO and the World Health Organization (WHO). Community-based rehabilitation targets all age groups, implemented through the efforts of people with disabilities, their families and the communities to which they belong, as well as the existing educational, medical, psychological, social and professional services at the community level [43, p. 106, 111 , 112-114; 46, pp. 69, 106, 119, 125].

In the Republic of Moldova, psychosocial rehabilitation has recently become a scientific concern of researchers, continuing to prioritize medical rehabilitation. At the current stage, the

change in social and economic conditions at the national level has a profound impact on people in difficulty. The national clinical protocol “Medical rehabilitation of patients with stroke” (2012) [84] is limited, being oriented, mainly, towards determining the level of functional-kinetic rehabilitation and only sporadically towards psychological evaluation and intervention. In accordance with the international requirements for the competent approach of post-stroke people, it is obvious the need to promote social policies and rehabilitation interventions, aimed at strengthening the individual potential of post-stroke people based on an integrated non-discriminatory concept, which would ensure quality of life in the social environment. Services in this regard must be adequate and equitable, open to change and modernization [34, p. 61; 43, pp. 23, 50-53, 58, 61; 46, pp. 34, 39].

**Description of the situation in the field of research and identification of the research problem.** The rising interest in the well-established study of the problem of psychosocial rehabilitation of people with special needs has become a topic of research in contemporary sciences: medicine, neuroscience, physiology, philosophy, sociology, rehabilitation, pedagogy and psychology [34, pp. 55, 63, 70; 43, pp. 50, 129, 146; 46, pp. 9, 29]. At the same time, the analysis of the theory and practice of post-stroke rehabilitation, allows the finding regarding the approach of the targeted problem from the perspective of contemporary anthropology [43, p. 64, 74, 75; 46, pp. 29]. Investigations focused on the complex rehabilitation of people, their adaptation and social inclusion have led over the years to involvement of well-known names from different meridians of the world, including in Romania and the Republic of Moldova. The complex issue of people after stroke has aroused the interest of famous researchers: Лурия А.Р. [149; 150; 151], Цветкова Л.С. [161; 162; 164], Хомская Е.Д. [159; 160], Гальперин П.Я. [125], Батова Н.Я., Ахутина Т.В. [115], Выготский Л.С. [122; 123; 124], Коган О.Г. [143], Найдин В.Л. [143], Глозман Ж.М. [130; 131] Dănilă L. [24], Golu M. [60], Iamadescu I.B. [68; 69], as well as representatives of humanistic psychology: Rogers C., Maslow A., Allport G. [169], Seligman M. [239], Lopez E. [265], who highlighted certain values of post-stroke rehabilitation (personal growth, self-knowledge, self-search, tendency and mobilization towards the achievement of certain goals, individualization, psychological development, tendency to increase the potential for personal adaptation and social independence), these being inevitable to ensure harmony with oneself and the world, necessary to give meaning to life and for social adaptation, regardless of the condition of people after stroke [34, pp. 15, 16; 43, pp. 9; 46, pp. 11-15].

The conceptualization of the psychological rehabilitation of people after stroke is based on fundamental psychological theories such as the neuropsychological and psychophysiological theories of famous scientists: I.P. Pavlov, P.K. Anohin; A.A. Uhtomshii, V.S. Russinov; N.P. Behterev; M.E. Sandomirskii, L.S. Belgorodskii; M. Livanov [113; 122; 145; 147; 150; 166; 189; 213; 240].

Important and valuable contributions in the field of psychological and social rehabilitation of people with stroke are the investigations carried out by V. Miftode, Ștefăroi P., C. Zamfir and L. Stoica, St. Cojocaru, A. Cozmovici, C. Enăchescu, I. Holdevici, I. Mitrofan, V. Robu, L. .; medico-sociale - Pendefunda, G. Onoze, D. Gherman, O. Pascal, St. Groppa, V. Lisnic, E. Zota, V. Bernic, Al. Gasnaș and other authors [6; 25; 27; 61; 66; 75; 81; 82; 87; 88; 92; 93; 94; 104; 108].

The value of the researches dedicated to the rehabilitation of people after stroke is indisputable, most of the investigations in the field being oriented only towards establishing the level of functional-kinetic rehabilitation. Of real epistemological utility for researching the peculiarities of people after stroke are the investigations regarding the psychological manifestations of people with special needs: N. Bucun [14], I. Racu [98], A. Bolboceanu [8], A. Racu [97], Paladi [90], V. Botnari [11], P. Jelescu [71] and those referring to the dimensions of socio-affective life: M. Borozan [10], M. Șlehtițchi [103], Iu. Racu [97], C. Platon [96], V. Chetrari [96], O. Cobâlescchi [19], D. Antoci [1] and other authors who theoretically supported the description of the implications of post-stroke disability at the level of some psychological variables: personal abilities, optimism, affectivity, will, motivation, skills, self-esteem, level of aspirations and personality peculiarities of this group of people: Bucun N., Paladi O, Racu A, Cobîleanschi O, Platon C., Chetrari V. , Anțibor L. [12; 13; 14; 19; 29; 90; 91; 96; 97; 98].

**The theoretical support of the research** aims at: the neuropsychological theories of Лурия А.Р., Цветкова Л.С., Хомская Е.Д., Гальперин П.Я., Выготский Л.С., Коган О.Г., Найдин В.Л., Глозман Ж.М., Dănilă L., fundamental psychological theories: theories of personality (A. Maslow, C. Rogers, B. Skinner), theories of emotions (M. Arnold, W. Cannon, R. Lazarus, П. К. Анохин, П.В. Симонов), crisis theories (E. Erikson, Б.Г. Ананьев, Л.С. Выгодский, А.Н. Леонтьев), theory of specific conflicts (F. Alexander), theories of psychic factors intervention in the etiopathogenesis of diseases (M. Balint, I.-B. Iamadescu), stress theory (H. Selye); the humanistic conceptions of Rogers C, Maslow, Allport, Seligman M, Lopez, the psychophysiological theories of I.P. Pavlov, P.K. Anohin, A.A. Uhtomschii, N.P. Behterev, M. Livanov et al., Who guided the investigative approach to design and implementation of the process of post-stroke psychosocial rehabilitation [43, p. 9, pp. 74-75; 46, pp. 11-12].

Modern scientific thinking, which reflects the concerns for monitoring and restoring the health of people after stroke, no longer accepts purely physiological approaches, urgently requiring theoretical interpretations of human personality at the level of consciousness, psychic, connected to the social environment, especially the problem of rehabilitation, which cannot be examined only as a psychosocial one. Multiaspective scientific interpretations and multidisciplinary approach are required, that would fully capitalize on the medical, psychological, pedagogical and social experience to restore the lost abilities of people after stroke [43, p. 116]. The integrative approach of the concept of post-stroke psychosocial rehabilitation allows the highlighting and scientific

interpretation of psychological terms on self-knowledge, emotional problems, causes of dysfunctional behavior, factors that support psychological health, the role of interpersonal dynamics in adaptation and therapy of psychological changes and therapeutic changes in social context [46, pp. 29, 34].

In the Republic of Moldova, the issue of psychosocial rehabilitation of people after stroke was practically not investigated, no doctoral theses were developed in this field that would reflect the types and sources of psychological disorders, analysis of the peculiarities of psychosocial rehabilitation of people after stroke, which would allow complex description of the psychological portrait; there are no conceptual models of post-stroke psychosocial rehabilitation, intervention programs and specific therapies aimed at reducing post-stroke psychological disorders, strengthening personal reserves, ensuring adaptation, streamlining social integration and improving the quality of life of the target category [43, p. 50; 46, pp. 29]. These insufficiently researched problems block the understanding of how to overcome the inhibitory mechanisms that block brain regeneration and the mechanisms that facilitate the post-stroke rehabilitation of affected or lost functions [28].

Analyzing the psychological rehabilitation factors (capacity for perception, attention, memory, affective, volitional, motivational processes, skills, character, etc.) we conclude that they affect the post stroke rehabilitation process at all stages, rehabilitation after stroke is considered to be a complex process of medical, physical, psychological, social, educational and professional interventions, which must be adapted to individual particularities in order to achieve the particular objectives of rehabilitation [46, p. 25].

The management of post-stroke psychosocial rehabilitation is extremely important for formulating criteria that would allow the evaluation of significant rehabilitation, this being an indisputable advantage for rehabilitation planning and motivating the person for this long and difficult process. Currently, post-stroke rehabilitation prognoses are made primarily based on clinical examination, the initial degree of motor deficit being considered the most important factor in functional recovery [192; 267; 275]. Particularly important in the rehabilitation of people after stroke is the widespread use of psychological methods that can provide valuable information about the psychological status of people, their social adaptation and their quality of life, an important place for psychological assessment [34, p. 108, 186; 257, pp. 229-231]. There is a need for perfecting the content of the post-stroke psychosocial rehabilitation program, for the creation of models, unique combinations of methods that can increase the personality of the person; 263; 276]. Thus, complex psychosocial rehabilitation after stroke remains a major problem, being vital in improving the quality of life of this group of people. Or, this favors the increase of the possibility of obtaining a total or at least partial restoration.

In the last decade, in the Republic of Moldova, according to the National Bureau of Statistics, there is an increase in the number of people with primary disabilities caused by stroke and, respectively, first place in the structure of the population with disabilities, statistical increase in post-stroke morbidity, determining the incapacity for work of 13% of the vocational active persons [85; 261; 262]. Nowadays legislative framework of the Republic of Moldova defines evasively the register of Rehabilitation service activity and estimating the stringent needs of recovery remain unclear, so the unsatisfactory ways of organizing the state programs create premises for worsening the psychophysical condition, including post stroke [17; 64]. At the national level, there are deficiencies in the evaluation of the characteristics of the disability after stroke, the monitoring of the medical-psycho-social rehabilitation being incomplete nowadays. For these reasons, the conceptualization and implementation of new programs to optimize the psycho-social rehabilitation of people after stroke, remains current, confirming the need for the formation of organizational directives of the service of psycho-social rehabilitation based on research. The exclusion of impediments in achieving this desire remains opportune with the aim of reducing the dysfunctionality and socio-professional inclusion of people after stroke [7; 22; 106; 107]. The devastating consequences of stroke demonstrate that current post-stroke rehabilitation strategies, especially psychosocial rehabilitation, a very important dimension for improving quality of life, are not effective, requiring content reconsideration of psychosocial rehabilitation programs aimed at improving social adaptation of people after stroke [27; 63; 100; 274].

Therefore, stroke is a major medical, psychological and social problem both in the world and in the Republic of Moldova, which determines the consolidation of efforts in the field of post-stroke psychosocial rehabilitation, the implementation of intervention strategies aimed to effective rehabilitation at all stages of the disorder to minimize the undesirable impact on society, rehabilitation being less expensive than not being involved in this process of socio-familial interest [67]. The directions outlined by the World Health Organization (WHO) stipulate the idea that "psychosocial rehabilitation must be considered a health insurance strategy in this century" is an essential area of post-stroke management. At all organizational levels, the WHO insists on providing complex rehabilitation assistance: medical, psychological and social care for post-stroke people in order to promote social adjustment and the abolition of the impediments resulting from health and social interference [100; 258; 264; 268; 270; 273; 274]. Although the system of complex bio-psycho-social rehabilitation, surveillance and assessment of stroke risk has developed rapidly in recent years, there are still obstacles generated mainly by financial constraints and the lack of a coherent system of multidisciplinary approach and tracking people at risk of stroke in many parts of the world, especially in developing economies [105; 106; 110; 168; 174; 269; 272].

The individualized and multidisciplinary psychosocial approach of post-stroke subjects would provide a true axiological picture with which the therapeutic approach will be evaluated,



offering scientific explanations of pathogenic attitudes and behaviors, the multifactorial complex that generates disability and limits the human being in his freedom of moving, action and enjoying life [34, p. 179; 43, pp. 50; 89; 101; 102; 252]. The unitary and systemic vision of individualized post-stroke psychosocial rehabilitation involves innovative measures related to the clinical and psychosocial spectrum, but also to multidisciplinary research efforts, which are key concepts that define the current needs to reduce post-stroke disability and its massive implications at human, social and economic level worldwide [18; 22; 43, pp. 146; 65].

Major advances in the evolution of neuroscience and rehabilitation, psychology and social work do not completely rule out the multitude of unresolved issues, requiring convergent multidisciplinary efforts to reduce stroke-related disability in an era in which progress in diagnostic techniques and decoding of pathogenic mechanisms is experiencing an unprecedented boom [48, pp. 400-403; 75; 78; 137; 144; 183; 196; 256, pp. 226-228]. Considering the importance of stroke in the world and in the Republic of Moldova, we find insufficiently researched the problem of psychosocial rehabilitation of people after stroke in the context of new social realities, and detailed study of the influence of psychological and social factors on rehabilitation, adaptation and quality of life of these people, is an effective tool for optimizing therapeutic management. The described condition generates the **research problem**: What are the theoretical and conceptual landmarks of the psychosocial rehabilitation of people after stroke? What methodologies can be trained to diagnose psychological disorders in people after stroke? What directions can be used in the Psychosocial Rehabilitation Program to improve the quality of life after stroke?

**The aim of the research** consists in the elaboration, theoretical substantiation, experimental validation of the Conceptual Model of psychosocial rehabilitation and of the Psychosocial Rehabilitation Program for improving the quality of life of people after stroke.

**Research objectives:**

1. determining the theoretical foundations regarding stroke and post-stroke rehabilitation through psycho-social approaches to risk causes;
2. elaboration of the paradigm of psychosocial rehabilitation of people after stroke;
3. elaboration and scientific foundation of the Conceptual Model of psychosocial rehabilitation of people after stroke;
4. identification of the determining factors of the psychosocial rehabilitation of the persons after stroke;
5. establishing and experimental application of the methodology for diagnosing psychological disorders of people after stroke and formulating scientific conclusions on psychosocial rehabilitation;
6. description of the psychological profile of post-stroke people reflected in the dynamics of the decisive functional parameters for optimizing the psychosocial rehabilitation;

7. conceptualization, implementation and experimental capitalization of the Program for psychosocial rehabilitation of people after stroke in the perspective of ensuring the quality of life.

**Research hypothesis:** The management of psychosocial rehabilitation of people after stroke will be done at a qualitatively new level given that through psycho-social approaches to risk causes: the theoretical foundations of stroke and post-stroke rehabilitation will be identified; the paradigm of psychosocial rehabilitation of people after stroke will be developed; will be elaborated and scientifically based The conceptual model of psychosocial rehabilitation of people after stroke; the determining factors of the psychosocial rehabilitation of people after stroke will be identified; the methodology for diagnosing psychological disorders of people after stroke will be established; the psychological profile of people after stroke will be researched experimentally and described; the particularities of post-stroke people will be reflected, based on the dynamics of the decisive functional parameters for the optimization of psychosocial rehabilitation; will be conceptualized, implemented and capitalized experimentally the Program of psychosocial rehabilitation of people after stroke in the perspective of ensuring the quality of life; conclusions will be drawn regarding the psychosocial rehabilitation of people after stroke.

**The methodology of scientific research** results from the purpose and objectives of the investigation and consists of: theoretical methods (factor analysis, induction and synthesis of literature, hypothetical-deductive method and modeling), empirical methods (observation, interview, test, inventory and questionnaire, experiment, psychological interventions), mathematical calculation methods and statistical methods (Pearson linear correlation coefficient calculation method, Mann – Whitney U test,  $\chi^2$  test, T - Student test and Wilcoxon test). The study of the psychological peculiarities of people after stroke was performed by administering the following tests, inventories and questionnaires: Mini mental test for mental state examination (MMSE), Montreal Cognitive Assessment Scale (MOCA), Western Aphasia Battery (WAB) test, DSM V criteria for depressive and anxiety disorder, Hamilton Depression Scale (HAM-D), Hamilton Anxiety Scale (HAM-A), Eysenck Personality Inventory Questionnaire (EPI), Voluntary Personality Research Technique, Motivational Interview and Intrinsic Motivation Inventory (IMI), Rosenberg Self-Esteem Scale, Dispositional Optimism Test, Viability Test, General Self-Efficiency Scale, World Health Organization Quality of Life Scale (WHO-QoL).

**The novelty and scientific originality of the research** consists in the design, construction and launch of a unique epistemo-empirical conception with reference to the management of psychosocial rehabilitation of people after stroke. The investigation presents the first psychosociological study that offers an interdisciplinary vision on the principles, conditions and methods of complex psychosocial rehabilitation of people after stroke. Deriving from an original system of ideas of the reference authors in the field and having as reference the multivalent concept

of psychosocial rehabilitation, the elements of originality and novelty of the research are represented by:

- determining the theoretical foundations regarding stroke and post-stroke rehabilitation through psycho-social approaches to risk causes;
- scientific elaboration of the paradigm of psychosocial rehabilitation of people after stroke in terms of concepts, models and theories that explain the phenomenon of post-stroke rehabilitation;
- systematization of psychological, social, psychosocial conceptions regarding post-stroke rehabilitation;
- interpretation of psychosocial rehabilitation models based on a new scientific opinion on psychosocial rehabilitation of people after stroke;
- designing and capitalizing on the Conceptual Model of post-stroke psychosocial rehabilitation;
- reconsidering the significance of the operational concepts of the research: post-stroke rehabilitation and defining the concept of psychosocial rehabilitation of people after stroke;
- integrative inter- and multidisciplinary approach to psychosocial rehabilitation of people after stroke;
- elaboration of the methodological support of post-stroke psychosocial rehabilitation, reflected in scientific conclusions regarding the general, particular, traditional, non-traditional elements and recommendations of the specialists involved in this complex process;
- elaboration of the psychological profile of the persons with post stroke status;
- scientific argumentation of the determining role of psychological intervention programs in streamlining the psychosocial rehabilitation of people after stroke.

**The mainly new scientific results that led to the establishment of a new research direction, Psychology of social rehabilitation after stroke:** elucidation of the positive dynamics of psychosocial rehabilitation of people who suffered stroke by designing and capitalizing on psychological intervention programs to optimize management post-stroke therapy and quality of life improvement. For the first time in the Republic of Moldova, a holistic vision was based on post-stroke psychological disorders, deduced from the approach of the psycho-social determinants of post-stroke rehabilitation. Through the experimental study, the psycho-social peculiarities of the people who suffered a stroke were complexly evaluated with reference to the gender characteristics, age, location of the stroke focus, determinants in the evolution of psychosocial rehabilitation. The study facilitated the production of additional scientific knowledge on the evaluation of factors and preconditions for the psychosocial rehabilitation of subjects after stroke, ensuring individualized prediction of the probability of recovery; psychosocial rehabilitation has been scientifically

interpreted through the prism of investigating the distinct way of psychological manifestation of people after stroke in cognitive, affective, personality, motivational, volitional, self-manifestation, use of personal reserves; the specifics of psychosocial rehabilitation of post-stroke people in the integrative context of the interaction of socio-familial factors (social support, family involvement and family climate) and personality dimensions (self-esteem, self-confidence, social adaptation and initiation of social contacts) were presented. In order to develop the paradigm of post-stroke rehabilitation, was developed and scientifically based *The conceptual model of psychosocial rehabilitation of people after stroke*, was developed the concept of psychological rehabilitation intervention aimed at capitalizing on psychosocial and individual factors that condition through the family and community in favor of social and professional inclusion. The developed conceptual model can be applied in the practice of complex psycho-social rehabilitation and involves a careful evaluation and a multidisciplinary management of the rehabilitation of subjects after stroke. The category of mainly new results also includes the elaboration of the psychological profile of people after stroke, which was the main scientific landmark in the elaboration of the *Post-Stroke Psychosocial Rehabilitation Program*. The described results can also be used for the early identification of the individual recovery potential, which will create premises for capitalizing on the post-stroke psychosocial rehabilitation program and complementary treatment therapies at all stages of post-stroke rehabilitation management, these being recommended for integration in Existing institutional and national specialized protocols. The work advances a problem of major interest in the agenda of the scientific community, and, through the new scientific values produced and the original theoretical-practical solution formulated and experimentally validated in research, significantly completes an unexplored area of contemporary social psychology. In accordance with the requirements of a pioneering research in the Republic of Moldova, the work creates opportunities for new and important inter-, multi- and transdisciplinary studies on psychosocial rehabilitation of people after stroke.

**The theoretical significance of the research** is confirmed by: development of the theory of post-stroke rehabilitation by developing the *Conceptual Model of psychosocial rehabilitation of post-stroke people* based on the holistic definition of psychosocial rehabilitation from the perspective of gender, age, distinct ways of disability, synthesis of determinants (psychosocial and individual) and changes in personality traits; conceptualizing the psychosocial rehabilitation of post-stroke people through the prism of its legitimacy and explanatory mechanisms relevant to the cognitive, affective, personality, optimism, motivation, will and self-esteem development; establishing the psychodiagnostic methodology for researching the specifics of psychosocial rehabilitation of people after stroke; elucidation of the psychological peculiarities of people after stroke; description of the impact of the complex rehabilitation of people after stroke as a result of capitalizing on the *Conceptual Model of psychosocial rehabilitation and the Program of*

*psychosocial rehabilitation after stroke* that improves the quality of life. Through the new scientific knowledge, produced in research, we contribute to the consolidation of the theoretical foundations of the psychology of post-stroke social rehabilitation; designing and conducting an extensive clinical-psycho-sociological research focused on the training of a representative group of independent samples; elaboration of a system of scientific conclusions regarding the post-stroke psychosocial rehabilitation; elaboration of some recommendations regarding the perspective researches in the field of psychosocial rehabilitation of the persons after stroke.

**The applicative value of the research** results from:

- establishing the specific methodology for experimental diagnosis of post-stroke psychological disorders;
- finding the determining factors of post-stroke psychosocial rehabilitation (demographic, behavioral with impact on stroke dynamics) and individual factors (cognitive, affective, personality, motivational, volitional, personal reserves, social adaptation, quality of life);
- conceptualization, implementation and experimental capitalization of the Psychosocial Rehabilitation Program reflected in the positive dynamics of the quality of life of people after stroke;
- the possibility of using the research results in the process of psychosocial rehabilitation of people with disabilities in various fields, these contributing in a significant way to the expansion of epistemological boundaries and the diversification of psychological rehabilitation strategies;
- formulating scientific conclusions of a praxiological nature and practical recommendations on post-stroke psychosocial rehabilitation;
- the theoretical and experimental values of the research could serve for the initial and continuous professional training of psychologists;
- the importance of the results of the investigation for the elaboration of the curricular resources (textbooks, guides and works for popularizing science);
- formulating recommendations to medical staff, rehabilitologists, psychologists and those responsible for post-stroke people and other categories of people with special needs;
- conceptualization of an individual psychodiagnostic methodology that can be extended in the clinic to investigate the cognitive, affective and post-stroke personality.

The experimental results and conclusions of the research are usable in reconsidering the existing conceptions aimed at the psychosocial rehabilitation of post-stroke people at different stages (acute, post-acute and sequelae) within the institutional and national specialized Protocols. Or, the research results offer opportunities to capitalize on the Conceptual Model of psychosocial rehabilitation and the Psychosocial Rehabilitation Program to improve the quality of life of people

after stroke, and revealing the psychological features and problems associated with them, allows determining the essential directions for optimizing their psychosocial rehabilitation.

In the same vein, we admit the possibility of capitalizing on the results in the context of elaboration, improvement and teaching specialized university courses (compulsory, optional, facultative) within the faculties of medicine, psychology and clinical psychology, in the process of continuous professional training of specialists in the process of organizing and carrying out training and information activities anchored in the issue of rehabilitation and intended for various categories of social actors (social workers, psychological and social counselors, members of people with special needs, NGOs).

**Main scientific results submitted for support:**

- interpretation of the epistemological foundations regarding the stroke and the psychosocial rehabilitation of the persons after stroke;
- building an integrative conception on the psychosocial rehabilitation of people with post-stroke disorders through psycho-social approaches;
- issuing the generalized scientific vision on the psychological disorders of the persons with post stroke status manifested according to age, gender, psychosocial and individual factors;
- elucidation of the paradigm of psychosocial rehabilitation of people after stroke;
- delimitation of the mechanisms of occurrence of the stroke from the perspective of the contextual factors of the post-stroke disabilities;
- identification of the psychosocial characteristics of people after stroke and operational presentation in a qualitatively new scientific construction - psychological profile after stroke;
- description of the management of post-stroke psychosocial rehabilitation based on national and global experiences of improving the psychosocial condition of people after stroke;
- elaboration of the Conceptual Model of psychosocial rehabilitation of post-stroke people scientifically founded by reconsidering psychological concepts and post-stroke rehabilitation models;
- conceptualizing the indicators of post-stroke psychosocial rehabilitation based on the essential parameters of quality of life;
- identification of psychosocial factors (demographic, behavioral, involved in the evolution of stroke) and individual factors (cognitive, affective, personality, motivational, volitional, personal reserves, social adaptation) determinants in post-stroke psychosocial rehabilitation and quality of life improvement;
- scientific and empirical argumentation of the dynamic interdependence of the factors of social adaptation of people after stroke: psychosocial factors (family, relatives, medical

system, social assistance) and individual factors (self-esteem, self-confidence, social courage, initiation of social contacts);

- establishing the methodology of empirical research of the psychological peculiarities of people after stroke;
- scientific interpretation of the experimental results regarding the psychological peculiarities of post-stroke people (at the level of cognitive status, language and communication disorders, affective disorders, specific personality manifestation, volitional sphere, motivation, self-concept of post-stroke people, personal resources and the quality of life of people after stroke);
- the scientific foundation of the conception regarding the determining role of specially organized psychological interventions that can positively influence the quality of life after stroke, favoring the development of the determinants of post-stroke psychosocial rehabilitation - self-awareness, development of rehabilitation compliance, vital and social activism, optimism, courage, elimination of inhibitions, contributing to the efficiency of rehabilitation, adaptation and social inclusion through community intervention;
- elaboration and implementation of the Psychosocial Rehabilitation Program for people after stroke oriented towards ensuring the positive dynamics of the functional parameters of post-stroke psychosocial rehabilitation;
- experimental argumentation, through comparative statistical values, of the effectiveness of the post-stroke psychosocial rehabilitation program based on the improvement of the quality of life, adaptation and social inclusion;
- formulating recommendations on post-stroke psychosocial rehabilitation;
- creating research perspectives by developing and advancing the methodology of psychosocial rehabilitation intervention through complementary cognitive therapies (personality disorders, depression and social anxiety after stroke).

**The implementation of scientific results** was reflected:

- in the practical activity of neurologists within the Neurology and Neurosurgery Clinic of the Institute of Emergency Medicine;
- within the state programs and national projects „Systemogenesis of risk factors, optimization of the healthcare service, sustainable evaluation and mathematical modeling of Strokes”, 2017-2019; "Implementation of therapeutic and endovascular treatment methods in emergency care of patients with ischemic stroke", 16.00418.80.10A.
- in scientific publications on this research (5 author monographs; 109 articles in journals in the country and abroad; 53 articles on the thesis (last 5 years) in specialized journals in the country and abroad; 12 works and theses (in the last 5 years) appeared in the volumes of national and international scientific meetings;

- in the elaboration and teaching of university courses: “Psychological evaluation and psychodiagnosis”, “Health psychology”, “Psychological counseling”, “Social inclusion of people with disabilities” - Tiraspol State University, master; "Basics of psychotherapy and family therapies", "Stress management in social and health services", "Counseling the family in difficulty", "Psychopedagogy of motor disorders" - SPU "Ion Creanga", master; "Psychological aspects of palliative care", "Psychosocial rehabilitation" - SUMF;
- coordination of master's and doctoral theses in the specialties: Social Psychology and Developmental and Educational Psychology.

**The approval of the research results** was made in accordance with the fundamental stages of the study. The research results were discussed and approved during the meeting of the Psychology Sector of the Institute of Educational Sciences, held on May 12, 2021 (minutes no. 3), within the Ad-hoc Scientific Seminar, held on July 2, 2021 (minutes no.3), as well as in national and international conferences, listed in the bibliography of the paper.

**Publications on the topic of the synthesis work:** 5 author monographs, 53 articles in specialized journals in the country and abroad: 10 articles in international scientific journals, 15 articles in scientific journals, 32 reports and theses of reports in volumes of national and international scientific meetings.

**Keywords:** stroke, disability, rehabilitation, psychological evaluation, psychological profile, conceptual model, rehabilitation program, quality of life.

**The structure of the synthesis work** reflects the content of scientific works published during postdoctoral studies (2019-2020) and scientific works published during 2015-2021, and consists of: table of contents, conceptual landmarks (where to find: topicality and importance of the topic, description of the situation in the research field and identification of the research problem, purpose and objectives of the work, research methodology, novelty and scientific originality of the work, results that determined the creation of a new direction of scientific research, theoretical significance and applicative value of the work, main scientific results for support, implementation and approval of scientific results, publications on the topic of the synthesis work, description of the structure of the synthesis work, keywords of the work), content of the work in five chapters, general conclusions and recommendations, bibliography of the work with the author's publications and on the topic of the synthesis work, annotations (in Romanian and English).



# **1. THEORETICAL FUNDAMENTALS REGARDING PSYCHOSOCIAL REHABILITATION AFTER STROKE**

This chapter presents the theoretical basis of psychosocial rehabilitation after stroke by: examining the conceptual delimitations of stroke and rehabilitation, explanatory theories relevant to the issue, synthesis of the main changes that accompany the stroke physiologically, psychologically and socially, description of levels intensity and types of manifestation of post-stroke disability. Also, in this chapter we made the synthesis of the fundamental and psychological theories of post-stroke psychosocial rehabilitation, integrating aspects related to the development of the physical, psychological and social field.

## **1.1. History of stroke**

The clinical condition that we define as stroke has been known since ancient times. In the writings of the ancient Greeks, "apoplexy", the old term for stroke, was considered a condition caused by an imbalance of vital moods: blood, phlegm, black bile and yellow bile. Hippocrates (460-377 BC) made the first complex description of the symptoms, noting that apoplexy generally affects the elderly. The cause of this disease was considered by Aretaeus of Cappadocia as the congestion of blood vessels, and by Galen of Pergamus (129-199) as the interruption of the activity of the vital spirits of the brain [34, p. 19]. The first description of ischemic cerebrovascular disease belongs to Morgagni. He describes in 1761 the "non-bleeding" form of apoplexy, characterized morphopathologically by "softening" of the cerebral substance, accompanied by arterial changes [43, pp. 22-23]. Described and classified on topographic lesion criteria since 1927 by Foix and Levy [190], today the diagnosis of stroke is brought to near perfection due to modern means of non-invasive investigation, thus allowing the adoption of the most appropriate therapeutic attitudes [2; 94; 250]. Unanimously accepted is that most people with stroke have indications for rehabilitation interventions [199, pp. 188-190], made with the help of a specialized multidisciplinary team, aimed at limiting the impact of stroke on quality of life, involving the use of a set of therapeutic and psycho-behavioral measures, rehabilitation being a complex of processes, based on the participation of several disciplines [34, p. 19; 43, pp. 8-9; 46, pp. 29].

## **1.2. The evolution of the concept of stroke**

Stroke is a serious acute neurological condition, resulting from blocked blood supply to a cerebral area or by cerebral hemorrhage [43, p. 15], [46, p. 16]. It was first described by Hippocrates with the term apoplexy, a term that is occasionally used today. Etymologically, of Greek origin, apoplexy has the meaning of "hit", "fall". Synonymous is the term apoplectic stroke. Translated into English, apoplexy has the equivalent of stroke, which means attack, access, blow [34, p. 19]. In Romanian, the term "cerebral vascular accident" is used, which is a generic term, expressing an acute event of vascular cause, transient or persistent, in a defined area of the central nervous system, designating one or all forms of vascular disorders including cerebral infarction, intracerebral hemorrhage or subarachnoid hemorrhage [46, p. 16]. According to the Dictionary of

Medicine, (2007), stroke lasting more than 24 hours is a localized focus, which is caused by a lesion of the cerebral vessels [79; 142; 156]. On the other hand, stroke is characterized by a non-traumatic brain injury, caused even by the rupture or occlusion of cerebral blood vessels, which suddenly causes the onset of a neurological deficit manifested even by loss of motor control, altered sensations, language deficit and cognitive deficit, loss of balance or even death [34, p. 25; 43, pp. 13; 46, pp. 23].

Contemporary experts have kept the term stroke due to the sudden and surprising nature of the disorder, accepting that stroke is associated with known risk factors, and that both acute and rehabilitative health care can reduce mortality and degree of disability [43, p. 13]. The most recent definition [120; 167], considers a stroke as if, either the symptoms last more than 24 hours or the symptoms subside below this interval, but the brain imaging shows a brain injury [43, p. 14].

In recent years, according to studies [180; 227; 208], stroke has become the leading cause of severe neurological disorders, the leading cause of physical and mental disability and one of the leading causes of mortality, which can cause multiple brain injuries, leaving physical, psychological, cognitive and social dysfunctions [43, p. 13 , 17]. Stroke, according to specialized sources [74; 232; 233], is classified into 2 major categories: ischemic stroke and hemorrhagic stroke. Most strokes are ischemic (87%), being caused by a thrombosis or an embolus, and the rest are hemorrhagic (13%), being caused by a ruptured blood vessel or an aneurysm [43, p. 17]. The World Health Organization defines stroke as a neurological deficit that persists for more than 24 hours or results in death within the first 24 hours of onset, with a variety of focal deficits that can be: altered consciousness or impaired sensory, motor, cognitive, affective, perceptual or language, and motor deficit, classified as paralysis (hemiplegia) or paresis (hemiparesis), occurs in most cases [254; 255]. The severity of post-stroke disabilities depends on the location and extent of the lesion, the collateral circulation and the promptness of the rehabilitation and care intervention [43, p. 17; 46, pp. 16]. Despite the devastating impact of stroke and advances in science, there is no definite definition of the term "stroke" in either practice or clinical research. The classical definition is mainly clinical and does not take much account of progress in the field of science and technology [46, p. 25, Table 1, p. 26, Table 2].

### **1.3. Contextual factors of the phenomenon of disability after stroke**

The growing number of people with post-stroke disabilities requires an increasing consumption of care-oriented social force. It becomes imperative to find solutions to ensure complex rehabilitation interventions and quality care for those in need, without blocking a significant workforce in the care sector [34, pp. 66-70]. Disability means not only high consumption and costs, both social and for care, but it means a ruined life, in all respects, and affects not only the person suffering from the post-stroke condition generating disability, but also the whole family of the person, the entire social and economic environment of the person [34, p. 108]. Post-stroke

disability is not a personal problem, it is a social condition, a problem of society. Therefore, we must use rehabilitation resources and strive to discover new tools to help people with disabilities regain their functional skills and tools that can help them reintegrate into socio-professional life [34, p. 71 , 108, 160]. The concept of disability imposes integralist, holistic approaches to the human being, referring to the complexity of a phenomenon in dynamics. The biopsychosocial approach recommended by the WHO, the designers of the International Classification of Functioning, Disability and Health, allows the definition of disability as a complex of impairments, activity limitations and participation restrictions derived from them in contextual factors [34, p. 69; 46, pp. 61]. Functioning capacity and level of disability are presented as dynamic results of the interaction between the person's physical and psycho-emotional health and contextual factors [46, pp. 61-63].

Contextual factors represent the complete context of an individual's existence, being elements, conditions and circumstances that determine the appearance of a process, of an action, of a phenomenon. Contextual factors have two components - environmental factors and personal factors: environmental - represent the background of a person's life and life situation, forming the physical, social and attitude environment in which people live and live their lives, being external to individual and may represent a means of facilitation or a barrier for that person. Environmental factors interact with the function and structure component of the body and with the activity and participation component [46, p. 64, Table 8]. Disability is characterized as a result or effect of complex relationships between the health of the individual, personal factors and environmental factors that represent the life circumstances of that individual [34, p. 66]. Thus, an environment that has barriers or does not provide facilitators will restrict the performance of the individual, and other environments that provide facilitators may increase the performance of the individual. Society can obstruct an individual's performance either because, on the one hand, it creates barriers or it does not offer those elements of facilitation [43, p. 50; 46, pp. 61].

Personal factors are contextual factors relating to the individual (age, sex, social status, life experiences, etc.) and represent that particular context of an individual's life and living conditions that are not part of his or her health or its adjacent states. [34, p. 53]. Their contribution may have an impact on what results from the various interventions [43, pp. 129-146; 46, pp. 62-63]. Thus, risk factors can be described both as personal factors (eg, lifestyle, genetic background) and as environmental factors (eg, construction barriers, living and working conditions). Risk factors are not only associated with the onset of the disability-generating process, but interact with it at every stage [34, pp. 50-53].

Facilitators are the factors in a person's environment that, through absence or presence, improve functioning and reduce disability. These include issues such as: an accessible physical environment, the availability of relevant assistive technologies, people's positive attitudes towards disability, as well as services, systems and policies aimed at increasing the level of involvement of

people facing disabilities. Facilitators improve the concrete way of carrying out the action, despite the problems faced by the person, in terms of capacity for action [46, p. 63].

Obstacles are factors in a person's environment that, through absence or presence, limit functioning and create disability [46, p. 64, Table 8]. Post-stroke disability affects all aspects of the affected person's existence, in fact indicating the person's limited ability to manifest in life situations and is not only a functional impairment of the person, but also a problem of society itself [34, p. 55]. The entities generating disability or associated with it (favorable, aggravating, factors that prevent or delay rehabilitation) are multiple [43, p. 64]. There are no mutually agreed methods for estimating the direct and indirect costs of disability. Currently, it is accepted that stroke is associated with frequent risk factors and psychosocial rehabilitation care can reduce the degree of disability [34, pp. 52-53, p. 55].

#### **1.4. Mechanisms of stroke**

A stroke occurs when the blood supply to one part of the brain is interrupted or reduced, depriving the brain tissue of oxygen and nutrients. Without oxygen, brain cells begin to die within minutes. [242] If brain cells die or are damaged, the symptoms appear in the parts of the body that these brain cells control (sudden weakness, paralysis or numbness of the face, arms or legs). There are two main types of stroke: ischemic, caused by lack of blood flow and hemorrhagic, due to bleeding [46, p. 25, 27]. Mechanisms of stroke, according to the World Stroke Organization (WSO, 2000), can be varied: from blockage of an artery, atherosclerosis of the arteries leading to the brain, rupture of an artery (hemorrhage), thus decreasing blood flow to the brain being most often caused by the spontaneous formation of a clot in a blood vessel that feeds the brain [46, p. 27, Table 4]. Thus, the consequences of the phenomena that lead to disability after stroke, being of three levels - 1) biological (morphofunctional status different from the one accepted by the norm); 2) organic (by limiting mobility, social interaction, body control, behavioral control, decreased self-service capacity); 3) social (social deficit reflected by broken relationships with family, relatives, society [46, p. 47] Although some philosophers have stated that mental processes can never be measured and physiology was the first to describe the lower psychic processes (perceptions, reflexes), later psychophysiology appearing, today we can not challenge the modern means of exploring the human body, and advances in genetics, rehabilitation, psychology, psychopedagogy [43, p. 155].

#### **1.5. Psychological and social peculiarities of people after stroke**

In researching the psychological peculiarities of people after stroke, we started from the fact that chronic disease influences the personality, it is an intervention for the body with important cognitive, affective, relational and social consequences [128, pp. 74-79]. The long duration of post-stroke disorders causes the adaptive personality mechanisms to be activated, which in the long run can lead to personality changes [197, pp. 9-14]. We emphasize that in this framework, the formation of social behaviors predisposes to a psychological purpose, encompasses the processes that

maintain these behavioral patterns after identifying disease and disability and allows the conceptualization of psychosocial behavior [43, p. 176].

Post-stroke disorders influence the whole "social development situation" by: changing the possibilities in carrying out activities, limiting relationships with people in the environment, limiting activities in general, changing the "internal position" of the affected person towards the environment, intrapsychic and social functioning. Social functioning also has active and varied influences and gives a pole of reference to any approach [34, p. 63]. The influence that the attitudes of the social environment exert on the person after the stroke was approached through the prism of the theory of social constructivism of Л.С. Выготский [124] according to which the social interactions that the individual benefits from in the development process will influence his personality and psyche [34, p. 55, 70, 241]. Living with a disabling disorder involves immense stress, both for the person after the stroke and for his family. Physical and mental health are interdependent, and psychological aspects must not be neglected. However, the adaptation strategies of the individual after stroke and his family to the disease, compliance, non-compliance with treatment, as well as particular stressful situations are the main psychological coordinates that we must take into account in an analysis of the post stroke person's evolution over time [43, p. 146]. Thus, the study of psychological peculiarities of people after stroke, presents a psychodiagnostic approach, seeking to identify the presence of attributes or specify the sources of disorders of psychological functioning of a particular individual with special needs, while assessing strengths and weaknesses, specific to potential adaptive and rehabilitation of a person [34, p. 78].

The goal of post-stroke psychological evaluation is to contribute together with the other applied fields of psychology to the detection of those conditions or characteristics that ensure the adaptive potential of people to the most diverse demands [34, p. 79; 43, pp. 176]. Post-stroke psychology focuses on the intellectual, emotional, personality, psychological, social and behavioral aspects of human functioning, in various cultural contexts and at all socioeconomic levels, thus highlighting the following general characteristics: it is integrative, holistic and applicative [43, pp. 176-258]. It requires in-depth integrated information from all fields of psychology, especially from psychopathology, psychopedagogy, psychotherapy, aiming to address all aspects of a person, from biological to social and cultural, from normal to pathological, aiming to conceptualize the individual case to achieve an intervention plan. Carrying out the activities of psychological evaluation, diagnosis and intervention for the prevention of emotional and personality disorders, as well as the phenomena of maladaptation to the social and professional environment, aims to optimize human functioning and quality of life of people after stroke [34, p. 78, 80, pp. 108-160]. The psychological profile resulting from the psychological evaluation of the person after stroke, is an essentialized one, focused on a series of hypotheses or fundamental questions, related to psychological functioning, being a high act of gnosis, because its realization requires situating the

individual case in a real universe of psychological knowledge [34, p. 78; 38, pp. 148, 152; 43, pp. 294]. There is almost no physical condition in which a certain emotion or a certain mental function is not involved, directly or indirectly, as an effect or cause. Alfred Adler [139; 146; 166] stated that "Man knows more than he understands" and that "psychic balance" is constantly threatened, due to the fact that man seeks perfection and completion, so life increasingly requires the ability of man to adapt to different situations" [43, p. 294].

The main problem caused by stroke, both personally and population-wide, is that of disability - over 40% of survivors remain with a varying degree of functional impotence, which requires continuous recovery [14; 21]. With the multiplication of the number of these people, there is the acute problem of a quality psychological assistance, able to maintain as much as possible their autonomy, dignity to live, social connection and, more generally, quality of life. Regarding the psychological side of the care of these patients, it includes complete strategies and approaches [43, p. 295]. The concept of post-stroke psychological profile refers to a profile of the individual characteristics that a person tends to manifest, which reflects his emotional predispositions, motivations, attitudes, values and behaviors [33, pp. 79-93; 57, pp. 150-156; 68]. When elaborating the psychological profile of a person after a stroke, all the psychic mechanisms compete: motivational, intellectual, affective, volitional, etc. The substantial-qualitative nature of the organization of a psychological profile demands and imposes on a psychological level specific types of relationships: cognitive, relational-practical, affective, ethical, aesthetic, etc. [34, pp. 254; 38, pp. 148; 43, pp. 296].

### **1.6. Terminological clarifications on psychosocial rehabilitation after stroke**

Rehabilitation of people with stroke has an important role to play in reducing the social burden of long-term care. Some authors (Nica A., 1988; Onoze G., Pădure L., 2008; Pascal O. 2009, 2013) [86; 88; 93] define rehabilitation as the physical, mental, social, economic (work capacity) restoration of the person's integrity [46, p. 29, 34]. At the same time others [100; 105] include in the concept of "rehabilitation" the development of activities aimed at returning man to his normal life, post-stroke rehabilitation being an extremely effective therapeutic concept, holistic approach, integrating means of treatment and recovery for body, mind and soul [46, pp. 29]. The opinions of some [111; 202; 237] emphasizes that the rehabilitation of people should mean the restoration of health in clinical, functional and social terms, and others consider the professional adaptation of the person after rehabilitation, the return to work of people with partial loss of professional skills, returning to social life even of individuals with complete loss of professional skills [46, pp. 29, 39, 43]. Thus, the term "rehabilitation" [80] implies a wide range of activities that should be used by the institutions responsible for health and social assistance, public and production organizations to manage the complications of the disorder, restoring the health and work capacity of people with disabilities [46, p. 29].

Taking into account the modern concepts of rehabilitation [46, pp. 32-34, Table 5] and arising from the need to customize the planned activities and optimize the evaluation of the results obtained, we highlight the rehabilitation as a specialty, which should include a series of therapeutic and social activities directed towards the healing of the person (social and professional), practicing together with the functional recovery therapy – social, psychological, pedagogical activities [46, p. 34]. Rehabilitation has a specific substrate through sanogenetic mechanisms in their bio-psycho-social unit, this consistent sanogenetic conception being described by Furdui T. [26], the author describing sanogenesis, as a dynamic system of defense and adaptation mechanisms (physiological in nature). and psychological), which occur in the stage of "pre-existing disorder", which develops during the process of the disorder and which aims to restore the human body through self-regulation. Thus, we consider the rehabilitation a process that includes the application of the complex pharmacological, surgical, physical, climatic, psychological, pedagogical and other measures, which ensure the restoration of lost or weakened body functions [46, p. 38].

According to some authors [36, pp. 421-425; 39, pp. 37-43], vocational rehabilitation, is the training or retraining of persons who have lost more or less part of the work capacity available to them, due to health reasons and their rational employment, this was described as socio-professional rehabilitation too. In this context, rehabilitation also includes a series of psychological and social measures of production, designed to restore the general health of people, their employment, or other socially useful work, medical, professional and social rehabilitation being seen as stages of a unitary and consistent process [46, p. 43]. Thus, social rehabilitation provides for the reintegration of people into society, rational employment, reduction of economic losses (IIIrd WHO Report of the Commission for Rehabilitation), some authors [35, pp. 3-9; 127, pp. 16-25] perceive social rehabilitation as the employment of people with disabilities. According to the World Health Organization (WHO), rehabilitation is "the use of all means to reduce the impact of conditions generating disabilities and to enable people with disabilities to achieve optimal integration into society." We consider that the notions of "functioning" and "participation" represent, together with the "contextual factors" - environmental and personal - basic elements in any rehabilitation process [46, p. 34].

European Union of Medical Specialists (EUMS) - Rehabilitation section, defines rehabilitation as "an independent specialty concerned with promoting physical and cognitive functioning, participation, including quality of life and changing personal and environmental factors". Thus, we can conclude that psychosocial rehabilitation is the present and the future of the person. In this context, we came up with our own definition of psychosocial rehabilitation of people after stroke: "post-stroke psychosocial rehabilitation is a complex system of psychological and social interventions through specific methodology, aimed at restoring the functionality of people in difficulty, which guides the insertion in psychological, social and cultural plan and ensures the

positive dynamics of quality of life on the family, professional and social axes and civic responsibility of the community to combat maladaptation and social marginalization of people after stroke "[34, pp. 50-55; 43, pp. 50; 46, p. 32, Table 5].

### **1.7. Fundamental theories of psychosocial rehabilitation after stroke**

The content of this section reflects the degree of knowledge of the post-stroke rehabilitation paradigm described in the literature at the level of theories, principles, models and mechanisms, the notions being analyzed synthetically and reconsidered theoretically from the perspective of new scientific knowledge, accumulated from their practical application. We come with the main results of the theoretical psychological research of stroke, as a phenomenon specific to the contemporary era [46, p. 6]. We considered as a priority, determining the theoretical bases of psychosocial rehabilitation of people after stroke with its integral components - fundamental theories for the development of rehabilitation, the concept of successful rehabilitation, the theoretical-methodological model of rehabilitation efficiency, resources for evaluating the rehabilitation process, related to philosophical, physiological, social, psychological theories, defining the rehabilitation from the philosophical perspective of the phenomenon, as well as some aspects such as: its mission, sources, models, values, specific practical orientations [46, p. 50]. Philosophy through values: freedom, responsibility, self-determination, dignity, happiness, creativity, uniqueness, etc., but also the social sciences: psychology, sociology, pedagogy, are the fields that theoretically and methodologically feed rehabilitation [46, p. 48]. The analyzed theories of rehabilitation refer to the philosophical substantiation of the rehabilitation process that starts from the concept-value of HUMAN, consequently, from that of humanism, social humanism and human solidarity. Humanist philosophical theory, in its broadest sense, is grounded and defined by a large number of ideas and values such as the human being, the person, human relations, dignity, self-determination, responsibility, human development, spirituality and culture, empathy, attachment etc., which determines the condition and the rehabilitation action [46, pp. 50-51]. Therefore, under the broad umbrella of this approach, there are ideologies that philosophically underpin the great movements of contemporary humanistic inspiration or social sciences and practices called "humanistic" such as humanistic psychology and humanistic psychotherapy, humanistic sociology and humanistic social assistance, humanistic pedagogy and humanistic education etc. [34, pp. 103; 46, pp. 51].

Self-determination, development and empowerment of the person are crucial values and resources of practice in contemporary rehabilitation. In this sense, action theory, as both an epistemological and praxiological solution, promotes human and social action, social activism, changing structure, immutability, highlights the fact that only when the "person-patient" is empowered by their own internal forces and human resources stimulates the therapeutic action of rehabilitation [183; 226]. Thus, the values of: participation [121], psychosocial development [189],



personal development theories [217] as well as the system of support theories, such as: attachment theory, care theory, participation, social action theory, empathy theory, happiness theory [108], are part of the universal theory and methodology of rehabilitation [43, p. 64; 46, pp. 52]. Carl Rogers, V. Frankl, Abraham Maslow, Gordon W. Allport, C. Buhler, representatives of humanistic psychology, consider the tendency of self-actualization, the fundamental spring of personal and individual human development, of adaptation, integration and social autonomy [43, pp. 66-67; 46, pp. 52-53].

The conclusion that emerges in the context of approaching psychological theories in the psychosocial rehabilitation of people after stroke is based on a series of fundamental psychological theories: theories of personality (A. Maslow, C. Rogers, B. Skinner), theories of emotions (M. Arnold, W. Cannon, K. Izard, R. Lazarus, П. К. Анохин, П. В. Симонов), theories of crises (E. Erikson, Б. Г. Ананьев, Л. С. Выгодский, А. Н. Леонтьев), the theory regarding the affiliation of each of the psychosomatic diseases to a certain type of personality (F. Dunbar), the theory of specific conflicts (F. Alexander), the theories about the study of the intervention of the psychic factor in the etiopathogenesis of diseases (M. Balint, I.-B. Iamadescu, B. Luban-Plozza, A. Meneghetti), stress theory (H. Selye) [46, p. 59]. The cognitive theory issued by M. Arnold and then outlined by R. Lazarus [23; 70; 139; 175; 204] completes the previous cognitive-physiological theories, based on the data of an experience in which it operated with two factors: neurovegetative components of the cognitive-social cortex, followed the way in which a certain informational dubbing, accompanying the controlled physiological changes, determines the type of subjective evaluation in the evolutionary process [43, p. 74]. Stanley Schachter and Jerome E. Singer (1962) developed a theory that expresses the relationship between physiological and psychological factors, explaining that emotions come from the undergone physiological changes and the interpretation given to events that occur in the usual environment; so it includes social and cognitive factors, finally called the cognitive-physiological theory of emotions [46, p. 60]. Theories of personal development or self-actualization, according to scientists Kurt Goldstein and Gheorghii Ghiurdjiev [46, p. 60] is a broad concept, which includes the person's tendency to discover and develop personal qualities, self-development to achieve goals, personal growth, being a self-knowledge, self-search, tendency and mobilization towards the authentic, towards certain meanings, individualization, psychological, spiritual development, tendency to increase the potential for personal adaptation, self-confirmation, social independence [46, p. 60]. Personal development, self-knowledge, self-control are inevitable for a harmony with oneself and the surrounding world, to find the meaning of life and place in society, regardless of situations [43, pp. 74-75]. A priority role in psychosocial rehabilitation belongs to the theory of subject mounting, through the specific role of the internal state of action and the factors of orientation, direction and determination of consciousness, presenting the mechanisms of personality activism [34, pp. 93-103]. Rehabilitation

of post-stroke people focuses primarily on the psychological-spiritual side of the person, on suffering, existential stalemates, personal dramas, moral, socio-human, cultural and spiritual aspects of personality and it is absolutely necessary for personality to be distinguished by empathy, spiritual well-being, spiritual sensitivity, multiculturalism, etc. [43, p. 75].

**In the conclusion** of the theoretical investigative approach on post-stroke psychosocial rehabilitation, we mention that rehabilitation is a complex process of human health, which is established around the philosophical idea of human being with the two established meanings: on the one hand -Self, personality, uniqueness of existential law, but limited temporally and spatially, by the subject and direct experience, determined interaction and coexistence, with the attribute of free will, freedom and responsibilities; on the other hand, value with the attribute of human, spirituality, species and superior existence with the attributes of rationality, intelligence, empathy, altruism, creation, etc. [34, pp. 102; 46, pp. 51].

## **2. CONCEPTUAL DIMENSIONS OF PSYCHOSOCIAL REHABILITATION AFTER STROKE**

The content of this chapter reflects the degree of knowledge of the post-stroke rehabilitation paradigm described in the literature at the level of theories, principles, models and mechanisms, the notions being synthetically analyzed and reconsidered theoretically from the perspective of new scientific knowledge, accumulated from their practical application. The theoretical contribution, through new scientific knowledge to the development of psychosocial rehabilitation of people after stroke is the result of translating into life the requirements of the new methodological guidelines, respectively, the valorization of the principles of interdisciplinarity and complementarity, interdisciplinarity becoming increasingly important contemporary in the approached field.

### **2.1. The paradigm of rehabilitation after stroke**

Against this epistemic background, we paid more attention to the explicit study of the evolution of the concept of paradigm and psychosocial rehabilitation, from which we intend to deduce the decisive value of the rehabilitation model based on psychosocial approach for adaptation and social inclusion of people with post-stroke disorders, as well as improving their quality of life [43, p. 64]. In structuring the theoretical discourse on the concept of paradigm, we start from the idea of Thomas Kuhn [211], adhering to the dictionary meaning of the term: "by paradigm, in general, we mean a complex phenomenon", which helps us to understand the structural and functional organization of the concept [211]. Or, we understand the field of psychoneurology, social psychology within the concept of rehabilitation of people after stroke, advancing and progressing through the accumulation of new knowledge in this field [43, p. 64; 46, pp. 48]. In the perspective of our theme we rely on aspects related to process and social structure, dynamics and socio-human functioning such as: social structure, social relations, community, social reality, social functioning,

psychic mechanism, spheres or psychic levels (affective, cognitive sphere, etc.), psychological type, personality, etc. [43, pp. 65; 46, pp. 48-49].

The essence of psychosocial rehabilitation is in the representation as an existential human phenomenon through vulnerability, resilience of the situation of difficulty defined as socio-human problems and not only purely social, the object of evaluation and intervention being, in this order of ideas, suffering, unhappiness, personal failure, failure, pain, separation, maladaptation, loneliness [43, p. 65; 46, pp. 49]. Beyond any philosophical considerations, the authors [81; 171] represents social rehabilitation as a set of practices, services, institutions, activities of help and protection and preparation for normalization, reintegration of people in difficulty, which due to social, personal reasons (biological, psychological) etc. they do not have the capacity to benefit, through their own opportunities and approaches, from a somewhat normal life, within the decent limits of socio-human well-being [43, p. 65; 46, pp. 48, 49].

In the Republic of Moldova, the national rehabilitation system functions as a set of institutions, measures and actions through which the state, as well as civil society, intervene to prevent or eliminate the effects, temporary or permanent, of situations that may generate marginalization or social exclusion of the person [43, pp. 65]. The post-stroke rehabilitation system mainly includes state and private services for families in difficulty, services and institutions for people with disabilities, institutions and services for the elderly, services for people with economic and adaptation difficulties, services for different socio-professional categories [46, pp. 49-50]. The review of the latest scientific literature reflects the rehabilitation based on a very large number of ideas that propose the solution of a coexistence based on values such as solidarity, help, humanism, attachment, empathy; ideas and values based on the concept of qualitative social inclusion [43, p. 66]. In the research we refer to the paradigm of rehabilitation of people based on psychosocial approach, and the arguments converge towards a consensus on the significance of paradigm shifts based on the main problems of rehabilitation: from the priority of the goals for the development of rehabilitation, to the quality of rehabilitation team actors, to the methodology of psychosocial rehabilitation, flexible design and the priority of psychosocial rehabilitation programs in rehabilitation management [43, pp. 64-69].

### ***2.1.1. The concept of personality in the rehabilitation process***

The central conception of rehabilitation is that of personality, which in our opinion, is a coherent organization and a set of information of the person, constitutional, structural, psychological and intellectual sources of the qualities and behaviors of adaptation, integration and inclusion of the person [126, pp. 185; 193, pp. 41-46], the theories of humanistic personality representing the personality and the person as a whole studies them focusing on paradigms and problems such as: human personality, human development, uniqueness, spirituality, ideographic approach, soul, ego, ontogeny, constructionism, altruism, empathy, attachment, existence in itself

[43, p. 76, 46, p. 55]. We use the concepts of person and personality with a double approach: existentialist-positive and spiritualist-humanitarian, the field of psychological-sociological synthesis in which the theoretical field that studies human personality is approached with predilection, incorporating knowledge, ideas, theories in the field of humanistic thinking and culture, of humanistic psychology, humanistic sociology and other sciences and practices of humanistic orientation, developing, consequently, a multidisciplinary perspective, on the human phenomenon [46, p. 55]. The post-stroke rehabilitation paradigm incorporates personality, focusing on concepts and issues such as strong personality, personal development, level of self-control, optimal experiences, hope and optimism, happiness, well-being, satisfaction, adaptability, self-determination, effectiveness, perseverance, creativity, emotional intelligence, positive emotions, meaning in life and involvement in a success-oriented goal [43, p. 98; 46, pp. 55]. The central concept of human personality is a spiritually oriented unitary organization and existence, a transmergent sum of human values, based on a set of formations such as soul, human ego, human consciousness, human character, and others - structural-constitutional and psychological-intellectual sources of the human features and human and spiritual behaviors of the person [43, p. 70; 46, pp. 55].

### ***2.1.2. General principles of post-stroke rehabilitation***

The general principles of rehabilitation promote autonomy, the ability of people to live their own lives according to an integral concept, ensuring a good quality of life. The services provided must be adequate and equitable, open to change and learning, by respecting ethical principles of psychosocial rehabilitation, respectively respect for autonomy, non-violence, promotion of justice, increasing the quality of services [43, p. 86; 46, pp. 46, Figure 3]. We consider as general principles of rehabilitation the following: the principle of autonomy; the principle of continuity; the principle of accessibility; the principle of equity; the principle of responsibility; the principle of coordination; the principle of efficiency; the principle of individualization and orientation of rehabilitation assistance services towards the particular needs of the person; the principle of integrative vision; the principle of service quality, etc. [43, pp. 86-87; 46, pp. 82]. Equally important we considered the principles of neuropsychology, proposed by the Russian scientists M. Kabanov and L. Tvetcova [140; 163]: the principle of unity of biological and psychological methods of influence and multilateralism of actions for the realization of the psychological, professional, family, pedagogical, educational rehabilitation program, emphasizing the important role in the system of rehabilitation programs [43, pp. 89-90; 46, pp. 83]. A system of principles of psychosocial rehabilitation, taken as a basis, is proposed by the scientist L. Tvetkova [163], presenting the psychophysiological, psychological and psychopedagogical principles of rehabilitation [140], describing the possibility of complex rehabilitation intervention - psychological, social, psychopedagogical and psychophysiological [46, p. 153, annex 6]. There are also important clinical principles in the

rehabilitation of post-stroke people: early recovery, early intervention, awareness and active participation of the beneficiary, compliance of the beneficiary-rehabilitation team, individualization and complexity of the rehabilitation program, compliance with rehabilitation stages, continuity, succession and progression of interventions complexes, interdisciplinary cooperation, evaluation of the effectiveness of the rehabilitation program at various stages and evaluation of the results of the final rehabilitation [43, p. 88; 46, pp. 84].

### ***2.1.3. Psychosocial factors determining post-stroke rehabilitation***

Social factors, internalized during the life of the individual, represent a group of factors, which would have an important role in triggering diseases, especially provocative factors of strokes, as well as an impediment in rehabilitation [43, p. 146; 129, pp. 88-96]. Scholars C. Buddeberg, J. Willi [177; 191] consider that the ecological niche favorable to the set of social relations determined by his position in family, profession, society, is the one in which the individual feels good, and which produces a new positive affective tone of the individual [49, pp. 29-33; 50, pp. 60-61]. Social approval, higher material status (hygiene, school education, medical education, low level of stress of material worries, with superior possibilities of medical care, etc.), professional satisfaction, positive psychosocial experiences (hobbies, major or frequent eustress, contact with art, nature, etc.), favorable educational influences (family, school, academic, self-taught) - are a group of psychosocial factors that influence both the evolution of stroke and the success of psychosocial rehabilitation [43, p. 147]. Psychological fundamental satisfied needs, as a group of psychosocial factors in the evolution, but especially in stroke rehabilitation are considered the ability and possibility of appropriate use of social support, which is of 4 types: 1) emotional, 2) informational, 3) material, 4) of social esteem (prestige) [43, p. 147]. Vulnerability to stress [170] is a set of biological, psychological and social parameters capable of promoting the installation, amplitude, persistence and negative consequences of stroke [43, p. 148]. Health anxiety is often associated with stroke, a common symptom in individuals [170]. The main aspect of anxiety about one's own health may be the presence of irrational and dysfunctional beliefs about health and illness. This concept refers to general fears related to the disease, concerns related to pain, concerns related to the body and the tendency to amplify somatic sensations [43, p. 148]. Factors that offer a vulnerability to mental stress for people after stroke [198, pp. 15-19] are psycho-individual, psychosocial, biological and conjunctural in nature. According to Selye, "it doesn't matter what happens to you, but how you react to what happens to you." Stress fuels negative emotions such as anxiety and depression, the process being reversed: both anxiety and depression can accentuate feelings of stress [43, p. 148].

Anxiety and depression, like all emotions, have cognitive, neurobiological and behavioral components [203], and the post-stroke psychosocial impact of anxiety is a negative emotion, which occurs in response to perceived threats, threats that may come from internal sources or external and

can be real or imaginary [43, p. 149]. Depression is associated with a more unfavorable prognosis of rehabilitation, acting as a strong influence on individual behavior, having a lower degree of motivation and energy in performing physical activity, while seeking specialized help with greater weight and latency [43, pp. 150-151]. Post-stroke depressive symptoms are also a factor of discomfort in terms of social relationships and an impediment in adopting the appropriate coping mechanism, leading to social isolation of people with stroke [68; 200; 205; 210; 243]. Depression is considered the most common psychological consequence of a stroke, installed in the first 6-24 months after it [190; 200; 209; 220], representing a rehabilitation impediment, being associated with an increased cognitive impairment, the main cognitive deficits being at the level of executive functioning, memory, language and processing speed [43, p. 151, 152]. Also, a higher mortality rate, increased impairment of physical function and language, prolonged hospital stay and decreased quality of life have been reported in people with post-stroke depression in the rehabilitation process [43, p. 151]. A synthesis of psychosocial factors that contribute to post-stroke rehabilitation also indicates conditions such as excessive demands (quantitative and qualitative), lack of decision-making, lack of social support, low material, psychological and social rewards [43, p. 148]. Unemployment, likewise, is the psychosocial context with an extremely favorable role for illness and rehabilitation, being a major stressor that depends on a complex of factors [265]: the level of aspirations and possibilities of the individual, the level of basal anxiety, the financial level, possibilities of professional retraining, social support (informational and emotional). The distress created by unemployment is manifested both in the pre-rehabilitation stage (very high anxiety) and in the post-stroke social integration, the search for a new job adapted to disabilities, re-professionalization (depression, in case of prolonged duration and negative conditions), the effects on health being major [43, p. 148].

The psychosocial echo in people in the process of post-stroke rehabilitation shows physical symptoms that prevent them from fulfilling their recovery program. Their concerns are related to various aspects of daily life, such as health, financial problems, rejection or performance, influencing their thinking and behavior [43, p. 153].

#### ***2.1.4. Psychosocial approach of rehabilitation after stroke***

Each theoretical orientation is characterized by the conception of human nature, the formation and development of personality, human motivation, psychopathological understanding, the concept of mental health and therapeutic ways of approaching mental problems [34, p. 103]. The psychodynamic approach contributes by understanding the deep internal dynamics of the person responsible for the installation of psychic symptomatology - internal conflict, defense mechanisms, the appearance and manifestation of disturbed relational patterns and background emotional feelings [34, p. 96]. The cognitive-behavioral approach brings the perspective of learning in explaining psychopathological behaviors; proposes a model of scientific analysis of behavior

(functional analysis) and ways to investigate the cognitive level of mental functioning; brings a scientific approach to the psychic evaluation of the person [34, p. 98]. The humanistic-experiential approach contributes to the understanding of the internal, personal experiences of the individual, of the role of internal emotions and meanings in the person's current experience, of the importance of the working alliance for any investigative process [43, p. 102]. Theoretical models contribute to the guidance of the psychosocial rehabilitation process, but no theoretical construction can include all aspects of a phenomenon [43, p. 104]. By their nature, theories are selective about the factors they emphasize or ignore. The postmodern approach assumes that practitioners avoid "clinging" to a single theory and accepting alternative explanations and multiple meanings of psychological phenomena, mentioning those aspects of the theory that "focus on the viability of multiple perspectives" [34, p. 105]. Post-stroke psychological assessment methods and techniques are a natural result of understanding the particular person in a psychological, existential, unique moment. In this sense, we consider that all the necessary methods and approaches must be subordinated to the empathic and respectful working alliance, but also to the creative and open thinking of the specialist [46, p. 34].

We consider it opportune to approach the complex process of psychosocial rehabilitation of people after stroke, accepting the rehabilitation of people as an integrated system with comprehensive methods and measures for restoring human skills, completely or in certain parts in terms of daily life, social interaction and professional activity [46, pp. 36-37, Table 6]. The increasing use of complex rehabilitation services for post-stroke people, as well as the growing awareness of the role of psychosocial rehabilitation in the community, have stimulated both the desire of specialists and researchers and the pressure from insurers and political decision makers to demonstrate the effectiveness of rehabilitation. As a consequence, the literature has recently witnessed a growing interest in scientific investigations on the effectiveness of stroke rehabilitation [46, pp. 38-39, Table 7].

## **2.2. The conceptual model of post-stroke psychosocial rehabilitation. Scientific structure and content**

Anyone with post-stroke disorders, in order to avoid the state of difficulty, should benefit from a minimum of biological, psychological-spiritual, economic and socio-cultural conditions, these being constitutional dimensions of human existence, which must be taken into account in the policy of psychosocial rehabilitation. The analysis of the situation shows us that social rehabilitation focuses on the socio-economic side and less on the psychological-individual side, the interest being focused on help and care (mostly physical) but the spiritual, human, emotional, spiritual aspect being much neglected [43, pp 106-107; 46, pp. 117]. In conceiving the post-stroke psychosocial rehabilitation model, we approached the visions of humanistic psychology, which brings to the fore ontological-human congruence "personality and social environment", the emphasis being on knowing the human phenomenon through concepts and ideas such as: social freedom, hope for a

better society, social self-determination, focusing on the special aspects of socio-human existence. We focused the Model on the concept of human being with the two consecrated meanings: on the one hand - self (individuality, personality, uniqueness), on the other hand - being (value with the attribute of human, spirituality, species and higher existence with the attributes of rationality, intelligence, empathy, altruism, creation, etc.) [43, p. 107].

The experience of applying different models and programs of rehabilitation and change, intended for vulnerable categories, shows that the efficiency of the activities undertaken is largely conditioned by the degree of involvement and participation of the subjects [112], and personal development, through human development, and empowerment, through spiritual development, they are fundamental objectives of the practice of rehabilitation. Spiritual, socio-human, socio-affective development, emotional intelligence, realism and balance, hope, positive thinking and optimism, resistance to failure and frustration, interpersonal moral development, existential balance, adaptability, matured personality - are factors of resilience and qualities that they constitute predictors of the efficiency and socio-human adaptability of people after stroke [43, p. 108; 46, pp. 117-118]. In the elaboration of the Conceptual Model of post-stroke psychosocial rehabilitation, we used the concepts of person and personality, with a double approach: existentialist-positive and spiritualist-humanitarian [131; 132], the human personality and the person, reflected in a complex way, incorporating knowledge, ideas, theories from the sphere of humanistic, existentialist thinking and culture, of humanistic psychology. Thus we managed to develop, consequently, a multidisciplinary, interdisciplinary, profound, human perspective on the phenomenon of human rehabilitation as an individual and personality. The scope of applicability of the knowledge and solutions promoted by the Model is very wide but the focus is on areas such as social assistance, education, organizational management, psychotherapy, community, etc. [43, pp. 108-109; 46, pp. 115]. Satisfaction, hope, optimism, emphasis on building an active personality - are ways proposed by the Model to facilitate a person's access to social integration and self-satisfaction, positive living, being a source of energy, which provides comfort and dynamism, improves the social climate, general inter-staff [43, pp. 109-110]. To create a Conceptual Model of psychosocial rehabilitation of people after stroke, we focused on studying the effectiveness of models already tested in this process. Thus, the “Dysfunction – Invalidity – Disability” Model [43, p. 111, Figure 2.1] is based on the classification of disability, impairment and disability. The World Health Organization proposed the International Classification of Functioning, Disability and Health in 2001 (ICF) [43, p. 112]. From the perspective of rehabilitation, the functioning and health of the person is seen as being associated with, and not just a consequence of, the state of health and disorder. In addition, functioning is not only a result, but also the starting point for clinical evaluation and intervention, which is also important for quality management [43, pp. 111-112].



Other rehabilitation models, which formed the basis of the Conceptual Post-Stroke Rehabilitation Model, were: The bio-psycho-social model of post-stroke care [43, p. 112, Figure 2.2]; The model of the team approach [43, p. 113, Figure 2.3], focusing on the person and the rehabilitation process; The model of the rehabilitation process, the systems approach [43, p. 114, Figure 2.4], where in the center of the model is the person and the unique factors for the individual that influence his response to a certain situation or stress, being: organic factors, inherent individual, such as genetics or family history, psychosocial factors, including lifestyles, belief systems, personality styles or cultural influences, environmental factors, subsuming the physical environment, the patient's income, access to health care, transportation, or educational resources [43, p. 114; 46, pp. 112]. Summarizing the ideas of rehabilitation, we come to the designation of rehabilitation models based on the activism of the person after stroke. They include four methods: specific, general, personal, neuropsychological rehabilitation [43, pp. 114-115]. The specific model is characterized by a selective action on the deregulated functions, respectively the rehabilitation is oriented, specifically, on the “deregulated” function [43, p. 114; 46, pp. 115]. The general model presupposes a broad action on the beneficiary in all directions of rehabilitation, being a complex, in essence - a specific one [46, p. 115]. The personal model predicts the impact on the personal side of the individual, but also the formation of the locations of the objectives on the effective recovery (especially, through the methods of rational psychotherapy) [43, p. 114; 46, pp. 115]. A synthesis example of the general-total model is considered the rehabilitation of people after stroke, proposed by О.Г. Коган, В.Л. Найдин [143]. These authors consider that “the rehabilitation of people after stroke is a combination of medical, psychological, social activities, including all the periods of the recovery process and its various forms” [43, pp. 115-116; 46, pp. 115]. The model of neuropsychological rehabilitation, developed by Л.С. Цветкова [163], presupposes the organization of a true development of the beneficiary in new living conditions for him., Л.С. Цветкова [162] characterizes the objectives of this model as “the restoration of disturbed psychic functions” (by no means adaptation to the defect) and as “overcoming the changes of the individual's personality, of the negative reactions”, their solution being obtained through restoration training [43, pp. 115- 116]. Based on the comparison of different models of efficiency of the rehabilitation process of people after stroke, we developed a Conceptual Model of psychosocial rehabilitation after stroke, which involves elements of a system with: goals and objectives, principles, actions, psychosocial resources, ways of organizing activity, evaluation of the activity, ways of regulation, human and material resources, etc. [46, pp. 117]. Valorization of the conceptual model of rehabilitation aims at several stages, actions, has normative value and methodological instrumental dimensions, etc. In a conceptual theoretical sense, any action provided by the Model must include: a systemic approach, documentation and conceptual elaboration, reflective and applied research, creative affirmation, goal setting, action organization, strategy development and methodology design, leadership,

implementation guidance, intervention design; completion of the action, implementation, evaluation of results by various methods, monitoring of the development process [43, pp. 116-127; 46, pp. 129, Figure 10].

### **2.2.1. *The conceptual-theoretical dimension***

The conceptual-theoretical dimension of the Conceptual Model of post-stroke psychosocial rehabilitation focuses on fundamental theories of several sciences - philosophical, physiological, social, psychological (theories of humanistic philosophy, humanistic sociology, humanistic psychology, theory of psychosocial development of the person, theories of humanistic personality, fundamental psychological theories: theories of personality, theories of emotions, theories of crises, theory of stress, cognitive theory, theories of personal development, etc.) [43, pp. 117-118; 46, pp. 117]. Through Conceptual Model, we approach rehabilitation as a complex system of influences on changes in the quality of life of people after stroke using special methods, which direct the appeal to his personality and the social-therapeutic group formed to support them, being directed first of all to accountability of higher psychic, to solve problems that would achieve the ultimate goal - rehabilitation of personal and social status, return to normal social environment [46, p. 118]. We consider the use of all means meant to reduce the impact of disability and handicap conditions, to allow people with disabilities to achieve optimal social integration, by minimizing disability, increasing the degree of functional independence, social integration, increasing quality of life [46, p. 117]. The model focuses on rehabilitation principles (early initiation, continuity, stages - levels, complexity - multidisciplinary, person-centered approach); criteria - (specific, measurable, achievable, realistic, timely; rehabilitation functions being the use of all means designed to reduce the impact of disability and disability conditions and allow people with disabilities to achieve optimal social integration. The contents of the rehabilitation include evaluation, setting the objectives of the intervention program, techniques and methods, work priorities, duration of the program, efficiency of the applied program, the need to modify the intervention program. Indicators of rehabilitation are physical, cognitive, behavioral functioning, adaptation, quality of life, change in personal and environmental factors [43, p. 118; 46, pp. 43]. The theoretical-ideological framework was completed by international and national documents, such as: The White Book on Physical and Rehabilitation Medicine in Europe - Legislative Document on Rehabilitation [16]; World Report on Disability, presented by WHO [100]; International Classification of Functioning, Disability and Health (WHO) [254], but also of models already tested in this process: ICF model (International Classification of Functioning Disability and Health) - statistical, research, clinical investigation, policy, and education tool [43, p. 112, Figure 2.2]; Team approach model [43, p. 113, Figure 2.3]; Rehabilitation Model (1980) Dysfunction – Invalidity – Disability [43, p. 111, Figure 2.1]; Integrated model and multiprofiles - current international trends and WHO recommendations; The model of long-term care [43, p. 118]. We approach quality in rehabilitation when the structures

involved in services generate improvements in the functioning, health and quality of life of people, beyond any improvements that would be achieved through non-professional care [43, p. 119].

### ***2.2.2. The organizational-regulatory dimension***

The main desideratum of people rehabilitation is the provision of complex quality services, which involves a variety of human, material and financial resources. The insufficiency or lack of some of these resources will result in a decrease in the quality of rehabilitation care, with repercussions on the health of people [43, pp. 119-120, p. 126, Figure 2.6]. In order to optimize the rehabilitation, we propose to increase the person's involvement in this process, by the multidisciplinary therapeutic team, whose mission is to organize, administer, apply and evaluate the rehabilitation program of the beneficiaries, and the whole psychosocial rehabilitation process is organized and supported by several structures. [43, pp. 119-120]. In order to improve the quality of the post-stroke psychosocial rehabilitation process, we propose the interested involvement of community members, using different methods of training members involved in the rehabilitation process, including communication efforts with rehabilitation specialists, communication and beneficiary-centered care, which determines a greater satisfaction and compliance with rehabilitation; information about the condition of the person with post-stroke disorders and intervention options, responsibility for managing the care process [46, pp. 121-122].

### ***2.2.3. The methodological - instrumental dimension***

The instrumental-methodological dimension of rehabilitation represents the policy of development and optimization of rehabilitation and includes several stages [46, pp. 122-123]: 1) Policy estimation, 2) Strategies, 3) Action plan. As dimensions of rehabilitation are considered those: medical, psychological, professional, socio-economic, legal, ethical, aesthetic [43, p. 120; 46, pp. 122]. The proposed model comes in response to the rehabilitation policies, to the imperatives of the new changes with a methodology of the set of actions: 1) diagnostic evaluation of the functional residual; 2) psychodiagnostic evaluation (cognitive, affective, personality, personal resources, language and communication, motivation, will, self-esteem, quality of life, etc.); 3) designing the rehabilitation intervention; 4) implementation of rehabilitation intervention (cognitive behavioral therapies; educational therapies; relaxation therapies; personal development therapies, etc.); 5) optimization of rehabilitation; 6) psychofunctional re-evaluation; 7) rehabilitation monitoring [43, p. 121]. This Model meets two key dimensions: the theoretical and the practical, being the starting point in the theoretical and praxiological substantiation of psychosocial rehabilitation. Thus, the conceptual model of post-stroke psychosocial rehabilitation is flexible and supports the advanced concept, according to which the elements in the rehabilitation activity present all the stages of its functioning, being in permanent change [43, p. 121, Figure 2.5; 46, pp. 124, Figure 9].

The design of the rehabilitation intervention, for the rehabilitation of post-stroke people with complex problems and different personal conditions, involves the design and a certain degree of adaptation of the rehabilitation plan to the individual. In this case, the involvement of the

beneficiary is particularly important, because the involvement of the person's motivations is essential for the success of the therapies. The implementation of a rehabilitation project involves quality assurance and the improvement of systematic quality in rehabilitation, with the implementation of processes that use new scientific methods in the intervention plan [43, p. 122; 55, pp. 188-189]. Psycho-functional re-evaluation is the evaluation of the recovery program and the measures for monitoring the results. Re-evaluation systems have been designed to provide an overview of the results of the program, and monitoring the results of rehabilitation programs is part of the conceptual basis of the functional evaluation, provided by the model [43, p. 123]. Personality rehabilitation at biological, psychological, social, spiritual level, personality being a critical determinant in the rehabilitation and adaptation of people after stroke, and psychosocial adaptation, following the rehabilitation process, is associated with social support programs, employment, job insurance, protected houses and other necessary aspects for people with disabilities and their families [43, pp. 122-123].

Quality of life represents the maximum possible maintenance of health, the improvement of health indicators, the prevention and reduction of the level of temporary and stable incapacity for work, through the coordinated and combined application of rehabilitation measures: medical, clinical, functional, psychological, social and pedagogical- an effective rehabilitation, rehabilitation of personality at the biological, psychological, social, spiritual level, a favorable psychosocial adaptation and improvement of the quality of life [43, p. 123]. The design of the rehabilitation model is a managerial process based on reporting to: current needs, health system perspectives, generated by societal developments and formulated in various health policy documents, current trends and generally accepted international criteria in the field of health reforms [43, p. 124].

#### ***2.2.4. Indicators of post-stroke psychosocial rehabilitation based on essential parameters of quality of life***

The conceptual model of post-stroke psychosocial rehabilitation is a complex system of influences and changes in the quality of life of people after stroke with the help of special methods, which direct the appeal to his personality and to the social group. Responsibility for higher mental functions to solve problems that would achieve the ultimate goal - rehabilitation of personal and social status, return to social environment, work and inclusion in society, are the result of a difficult process [43, pp. 117-118]. Results can be achieved by applying a complex assistance program (medical, psychological, pedagogical, social), which would stimulate the functional potential of the beneficiary [46, p. 120, Figure 8]. Efforts to improve the quality of rehabilitation services address elements of a basic cycle: evaluation, programming, intervention, measurement [46, p. 124, Figure 9]. The practice of rehabilitation involves stages, including verifying the success of any previous sequence of diagnosis-programming-intervention, and indicators of rehabilitation are considered physical, cognitive, behavioral functioning, social adaptation, changing personal and environmental factors, quality of life [43, p. 118; 46, pp. 120; 59, pp. 82-94]. The classical results-oriented method

involves the routine evaluation of results: "result of quality of life", in the general sense of restoring the role and quality of life; "Quality of life associated with health" and "care outcomes" or "rehabilitation outcomes". An overview of the results of the rehabilitation program is provided by the monitoring of the results of the rehabilitation programs - a component part of the conceptual bases of the functional evaluation, provided by the proposed Model [43, pp. 122-123]. Personality rehabilitation at biological, psychological, social, spiritual level, personality being a critical determinant in the rehabilitation and adaptation of people after stroke, are the indicators around which are organized the other variables of adaptation, socialization, inclusion [29, pp. 3-9 ; 46, pp. 125-126]. Psychosocial adaptation, following the rehabilitation process, focusing on aspects related to competence, successful adaptation means achieving self-actualization. In the present case, we are dealing with an autoplasmic adaptation, achieved by changing the body, but especially with an alloplasmic adaptation, achieved by actively modifying the environment [43, p. 123; 46, pp. 126; 58, pp. 143-145]. The indicators of the quality of life of people after stroke represent 4 important areas: physical, psychological, social and environmental relations. 1. The physical field includes data on daily activities, adherence to rehabilitation interventions, energy and fatigue, pain and discomfort, sleep and rest, mobility and work capacity. 2. The psychological field aims at the presence of positive and negative feelings, self-esteem and body image, spirituality, religion and personal beliefs, thinking, memory, attention and learning. 3. The field of social relations includes data that evaluate the interpersonal relationship, the presence of social support. 4. The field of environment includes the management of financial resources, personal freedom and physical security, quality and accessibility of social and health services, opportunities for learning and acquiring new information and skills, opportunities to participate in recreation and leisure activities, environmental characteristics (pollution, noise, traffic, climate) and transport conditions [37, pp. 139-143; 38, pp. 126; 41, pp. 27-28].

**In conclusion**, the Conceptual Model of post-stroke psychosocial rehabilitation is a complex system of influences and changes in the quality of life of people after stroke with the help of special methods, which direct the appeal to his personality and to the social group. Responsibility for higher mental functions to solve problems that would achieve the ultimate goal - rehabilitation of personal and social status, return to social environment, work and inclusion in society, are the result of a difficult process [43, pp. 117-118]. Quality of life, by improving health indicators (physical, psychological, social and environmental), preventing and reducing the level of temporary and stable incapacity for work, by coordinated and combined application of measures in the field of rehabilitation: medical, clinical, functional, psychological, social and pedagogical - represents the basic indicator of psychosocial rehabilitation [30, pp. 89-93; 43, pp. 123-124; 46, pp. 126-127].

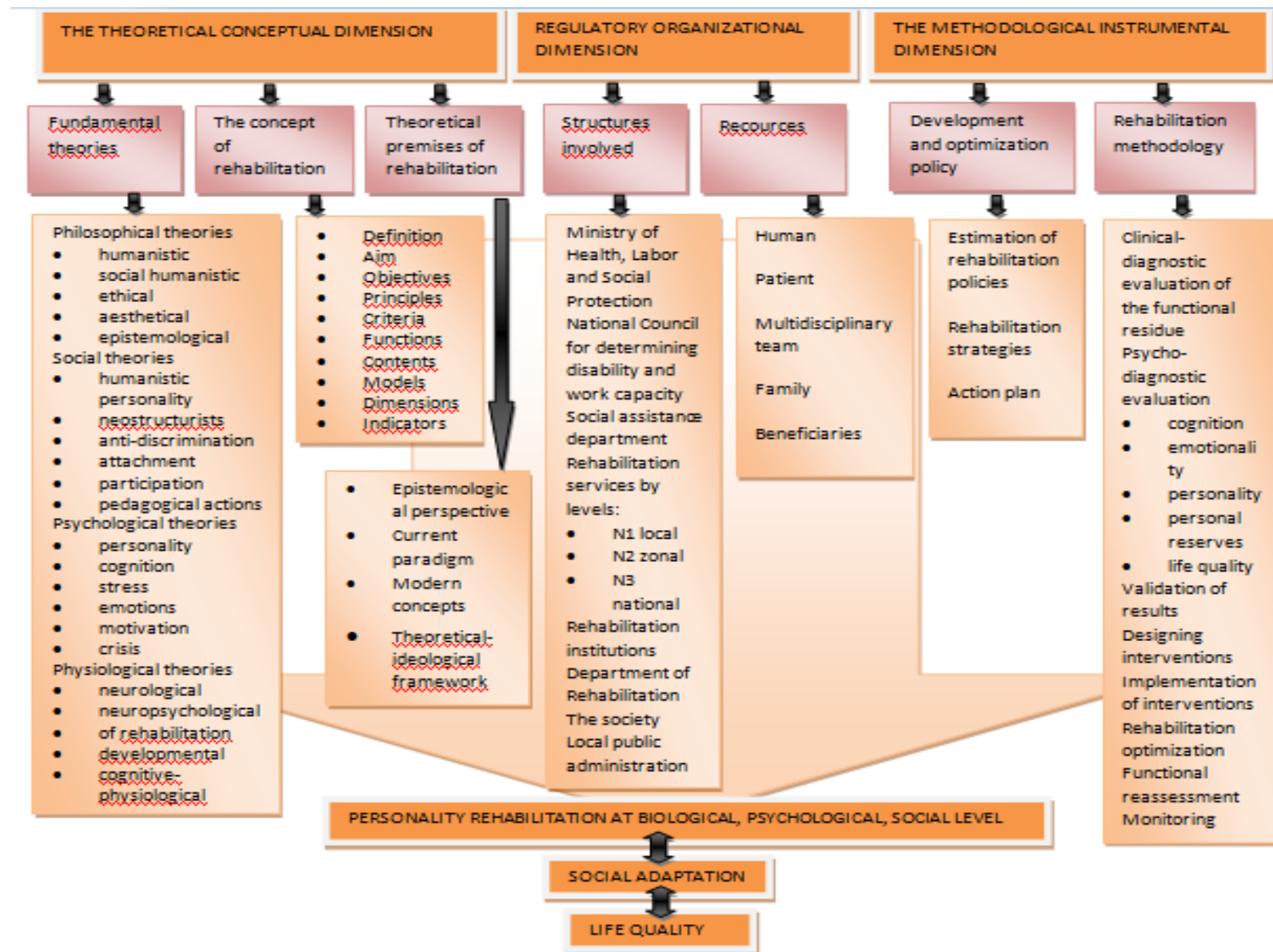


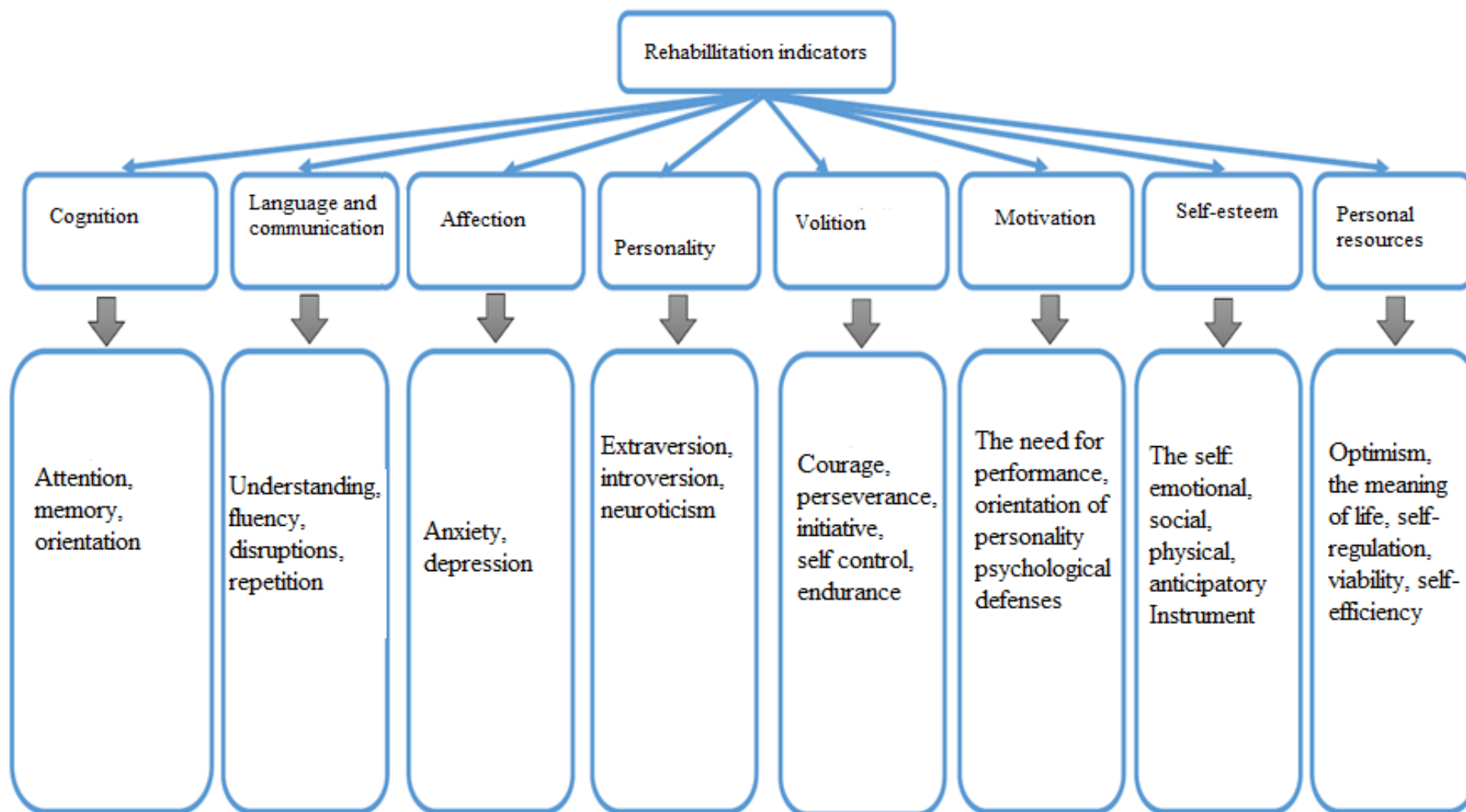
Fig. 2.1. The conceptual model of psychosocial rehabilitation of people after stroke

### **3. METHODOLOGY OF PSYCHOSOCIAL RESEARCH OF PERSONS AFTER STROKE**

#### **3.1. The experimental approach of researching the psychological peculiarities after stroke**

For the design of a psychological program for the intervention of optimizing psychosocial rehabilitation and evaluating the effect of a program of psychosocial rehabilitation of people after stroke, which shows disorders of cognitive functions, language and communication, affective, personality, motivational, volitional, self-concept, personal resources and quality of life [43, p. 175], it was necessary to evaluate psychologically the stroke patient, being a complex and staged process of psychological investigation, performed with specialized methods, implying ethical-methodological principles [34, pp. 78]. The psychological evaluation of people after stroke was a psychodiagnostic approach [52, pp. 49-53], its purpose being to identify the presence of attributes or specify the sources of disorders of the psychological functioning of a particular individual with special needs, while being a balance of the strengths and weaknesses, specific to the adaptive and rehabilitation potential of a person [34, pp. 78, 108; 38, pp. 10]. The data collected through a great diversity of methods, end up taking the form of answers to questions regarding the psychological functioning of the evaluated individual [34, p. 78; 38, pp. 6]. The psychological profile, resulting from the psychological evaluation of the person after stroke, is an essential one, focused on a series of hypotheses or fundamental questions, related to psychological functioning, being a high act of gnosis, because its implementation requires the individual case being placed in a true universe of psychological knowledge [38, p. 152; 40, pp. 93-103], [43, pp. 294]. The prospecting of a psychological profile of the person after stroke, in this paper, was based on an integrative approach to the laws and constitutive mechanisms of stroke and their correlates and allowed the design and validation of a new model of psychological and social interventions aimed to social adaptation and improving the quality of life after stroke through implications on the factors that cause psychological disorders [38, p. 148; 43, pp. 296].

The targeted chapter contains methodological-applicative data of maximum relevance aiming at the key concepts of the research: the psychological profile of the person after stroke. Thus, in the experiment (finding stage) we had as objectives the determination of the psychological peculiarities of people after stroke by selecting a methodological set of psychodiagnosis. This boosted the research on determining the aspects that were not sufficiently reflected in the literature and recording the existing situation of the psychological peculiarities of people after stroke in the current period [34, p. 108; 38, pp. 10; 43, pp. 297]. The indicators of post-stroke psychological rehabilitation presented in Figure 3.1 [38, p. 14] served as a real scientific utility for describing the psychological peculiarities of people after stroke.



**Figure 3.1. Indicators of psychosocial rehabilitation after stroke**



The methodology of scientific research of post-stroke people consists of theoretical methods (analysis and synthesis of the literature; hypothetical-deductive method for interpreting and explaining the results obtained in research); empirical methods (observation, conversation, test, inventory and questionnaire, finding and control experiments, psychological interventions); mathematical and statistical methods. The conceptualization of a psychodiagnostic model for the integrated and deep study, allowed us to investigate the psychological disorders after a stroke, the psychosocial and individual determining factors and the personality traits of this group of people [34, p. 78; 38, pp. 10].

The research was conducted between 2015 and 2019, at the Institute of Emergency Medicine (IEM) in Chisinau, the purpose of this work is to study the psychological peculiarities of people with stroke, so the general objectives of the study aiming to highlight: cognitive peculiarities, disorders of language and communication, affective features, personality features, motivational features, emotional-volitional sphere, features of self-esteem and self-image, personality reserves and quality of life of people after stroke [38, pp. 15, 16, 17; 43, pp. 176]. The design of the research, structured on nine studies derived from the objectives, had as final goal the identification of a psychological profile of people after stroke. The studies were exploratory and aimed people after stroke and medical documentation, using: Patient observation medical records, "Hippocrates" medical data information system for hospitalized subjects, psychometric tests to identify issues related to the incidence of cognitive, emotional, personality disorders, motivation, will, personality resources, aphasia, self-esteem and self-image, quality of life in people after stroke [38, p. 15]. Study participants were subjects with stroke, selected for each study with a required number of participants, recruited from hospitalized, and subsequently monitored in the community [38, pp. 15-16]. Inclusion criteria served subjects with stroke diagnosed clinically and confirmed by head computed tomography: age over 18 years and under 85 years; knowledge of the Romanian language; an adequate level of verbal comprehension to be able to read and answer the questionnaires; no total aphasia, no hearing or visual impairment that would not allow adequate test performance; the informed consent [38, pp. 15-16]. The methodological approach of the study aimed at the initial psychological evaluation of people with stroke with the registration of psychological evaluation data, with emphasis on the areas of interest, described in the work. The tools and working materials were selected for each study [38, pp. 17-18, Table 1.1].

**Table 3.1. Methodology of experimental psychological research of people after stroke**

<i>Dimension</i>	<i>Sample</i>	<i>M</i>	<i>W</i>	<i>Age</i>	<i>Investigation methods</i>	<i>Areas of interest</i>
Cognitive	125	75	50	68	<i>Mini mental test (MMSE)</i> <i>Montreal scale of cognitive assessment (MoCA score)</i>	Learning, temporo-spatial orientation, immediate memory, attention and mental calculation, short-term memory, executive function, reading and writing. Memory, attention and concentration, ability to abstract.
Language-communication	126	73	53	63	<i>Western Aphasia Battery Test(WAB)</i>	Clinical forms of aphasia (Broca, Wernicke), fluent, non-fluent, motor, expressive, sensory, mixed
Affective	200	70	130	67	<i>DSM-5 criteria for assessing the presence / absence of depression and anxiety</i> <i>Hamilton Depression Rating Scale, HAM-D</i> <i>Hamilton Anxiety Rating Scale sau HAM-A</i>	Presence / absence of depression and presence / absence of anxiety. Depressive mood, behavior during the interview, the presence or absence of symptoms, severity. Anxious mood; tension; phobias; somatic symptoms; vegetative symptoms; behavior during the interview.
Personality	150	75	75	65	<i>E.P.I. questionnaire (Eysenck Personality Inventory)</i>	Extroversion - introversion, Emotional stability - instability (neuroticism)
Volitive	120	68	50	63	<i>The technique of researching the volitional qualities of the personality (N.E. Stambulova)</i>	Ability to achieve goals, courage, ability to make decisions, perseverance and firmness, initiative and independence, self-control and endurance.
Motivational	100	50	50	64	<i>T. Ehlers methodology</i> <i>Performance need assessment scale, Iu.M. Orlov methodology</i> <i>D. Marlow, D. Krown scale, B. Bass</i> <i>Questionnaire "Personality Orientation"</i> <i>Kellerman-Plutchik questionnaire, investigation of psychological defenses</i>	Motivation to avoid failure The need for performance Motivation for approval Orientation towards activity, towards oneself, towards communication. Denial, substitution, regression, compensation, protection and rationalization.
Self concept	115	56	59	63	<i>Rosenberg self-esteem scale</i> <i>Berkeley personality inventory</i> <i>Observation of the general aspect</i>	Self-esteem, Self-image Appearance, facial expression, personal care, clothing, body posture, emotional responses.
Personal resources	84	40	44	65	<i>Orientation test on the meaning of life, (Leontiev D. A. )</i> <i>The test of dispositional optimism, (Gordeeva T. ), Viability test, (Leontiev D. A.)</i> <i>General self-efficacy scale, (Romek V. G.)</i>	Orientation in the sense of life Optimism Viability, General self-efficiency
Quality of life	75	34	41	64	<i>WHO scale of quality of life (WHOQOL-BREF)( domains: 1.physical, 2. psychological, 3. social relations, 4. related to the environment)</i>	Daily activities, dependence on medication, energy and fatigue, mobility, pain and discomfort, sleep and rest, work capacity. Appearance and body image, negative feelings, positive feelings, self-esteem. Interpersonal relationships, social support, sexual activity. Financial resources, freedom, physical safety, security, health, social care.
<b>Total</b>	<b>1095</b>	<b>541</b>	<b>554</b>	<b>64</b>		

### 3.1.1. Psychodiagnosis of cognitive status after stroke

Stroke results in a wide range of deficits, including those that affect cognitive functioning [56, pp. 484-488]. The prevalence of the presence of cognitive deficit after stroke varies between 20% and 80% and is related, on the one hand, to demographic factors: age, sex, level of schooling, profession and, on the other hand, to vascular factors [135; 247; 248]. Previous studies emphasize the crucial role of cognitive deficit as a predictor of impairment of participatory capacity and social integration of the person who suffered a stroke and confirm the need for early detection, recommending periodic screening of cognitive status [42, pp. 107- 114; 223]. Determining the cognitive abilities and limits of the person who suffered a stroke is of real use in establishing the recovery program, the therapeutic intervention can be guided so that the appropriate, constant stimulation of poor cognitive functions to make a positive contribution to the recovery process [38, p. 19; 43, pp. 176; 45, pp. 40-48; 195, pp. 46-50].

**Table 3.2. Cognitive status after stroke**

Nr.		Cognitive status after stroke
1.	Aim	Presentation of a cognitive profile of people after stroke
2.	Results	80% of the evaluated demonstrated cognitive disorders at different level (40% women and 60% men), (43% average age of 68.8 years), (76% urban, 24% rural), (level of schooling - 48% higher education and 38% high school education).
3.	Profile	The cognitive profile of the group of study participants indicates the presence of cognitive deficit, on such areas of interest as: temporo-spatial orientation, attention and ability to concentrate, memory and mental calculation, visual-spatial integration, executive functions, abstract thinking, logical reasoning, the averages calculated for these scores being relatively low compared to the maximum score for each test.
4.	Conclusions	The remaining deficits of a stroke delimit a general profile of the problems with reference to the affected cognitive fields of interest: attention (concentrated, sustained, selective, distributive); memory (visual, auditory, working, semantic, etc.); executive functions (speed of information processing, problem solving, etc.); perception (temporo-spatial, visual-spatial orientation, apraxia, agnosia, inattention).

The information obtained from the psychological study gave us a complete and complex picture regarding the cognitive status of the person after the stroke, the rehabilitation being dependent on the severity of the initial symptoms and the cognitive reserve. Achieving the cognitive

profile of people after stroke, allows the efficiency of cognitive optimization intervention in the psychosocial rehabilitation of people with stroke [38, pp. 23-29, 30].

### **3.1.2. Post-stroke language and communication disorders. Experimental study**

Strokes are the most common causes of aphasic language disorders, which cause a lack or difficulty in interpersonal communication, representing a disorder in the primary field of language (vocabulary, semantics, phonology, syntax and morphology), which can be manifest in spoken or written language, but which cannot be attributed to a global motor, sensory or cognitive deficit [51, pp. 57-60; 53, pp. 9-14]. According to some data [214], it can occur in about 40% of people who have suffered a stroke [38, p. 31; 43, pp. 189; 188]. We can appreciate the presence of post-stroke aphasia as just as serious, or maybe even more serious, than the hemiplegic or hemiparetic motor disability, because the way a person exposes the information he has, expresses his personality, and aphasia can mean social isolation [38, pp. 31-32; 47, pp. 211-213].

**Table 3.3. Language and communication after stroke**

Nr.		<b>Language and communication after stroke</b>
1.	Aim	Presentation of clinical forms of aphasia in strokes.
2.	Results	Aphasia in strokes occurred in several clinical forms, the most common forms of post-stroke aphasia, falling into three basic categories: Broca - 51.3% of cases; Wernicke - 38.6% of cases; mixed (global) aphasia - 6.4% of cases; other types - 3.7% of cases.
3.	Profile	The presence of forms of aphasia - motor, expressive, sensory or mixed, is an important part of the profile of the person after stroke.
4.	Conclusions	Considering the main forms of post-stroke aphasic types studied, we can emphasize that the incidence of motor, expressive aphasic types is higher in the population, compared to sensory or mixed types.

The literature, with reference to post-stroke forms of aphasia, reports the same incidence of subtypes of aphasic disorders in the stroke population: motor aphasia (expressive) predominates, followed by sensory aphasia (receptive), then mixed aphasia in a smaller percentage [73; 284]. In this study we emphasize that the incidence of motor aphasia, expressive pictures, is higher in the population, compared to sensory or mixed pictures. The variety of aphasic syndromes observed in the study reflects the diversity of directions in which the present vascular disorders act on the cerebral cortex. The establishment of a form of aphasia, the initial semiological elements, as well as the remaining ones were of great value for the subsequent specification of speech therapy methods, individually for each aphasic person, with stroke [38, pp. 37-40].

### **3.1.3. Affective disorders after stroke. Experimental study**

Stroke produces a wide range of functional deficits, which have a significant impact on a person's affectivity, and emotional reactions create difficulties for those involved in the rehabilitation of people after stroke [43, p. 199]. Stroke is associated with increased prevalence of

affectivity, which is manifested by depression, anxiety, panic attacks, sleep disorders, and in some cases delusional or psychotic disorders, so people with stroke have a higher prevalence of emotional disorders compared to the general population [38, p. 41]. The most common affective disorders in post-stroke people are depression and anxiety. Understanding the mental and social factors associated with anxiety and depression is essential to ensure adequate medical and social care for this group of people [205; 235]. The risk of post-stroke depression and anxiety is related to several factors, namely: biological, demographic, economic, psychological factors, personal psychological history, location, type and volume of stroke [38, p. 41]. The literature [231] does not reach a consensus regarding the prevalence of post-stroke depression, as there are very large differences between studies in terms of the type of stroke considered and how to assess depression, the prevalence ranging from 20 -65% in the first two years after stroke [38, p. 42; 43, pp. 201]. Studies suggest that depression after a stroke negatively affects people's rehabilitation, as it influences not only motivation and willpower, activism, but also cognitive function and contributes to increasing the burden of the disease on the person's family [116; 225; 221]. People who overcome depression also have a better level of recovery in the field of cognitive functioning [38, pp. 46-47].

**Table 3.4. Depression after stroke**

Nr		<b>Depression after stroke</b>
1.	Aim	The characteristic of affectivity as a mental factor associated with post-stroke depression.
2.	Results	Depression - 60% of the subjects studied (34% severe depression, 24% - high, 18.72% - medium), 49.3% were men and 50.7% were women.
3.	Profile	Post-stroke psychological profile with a combination of negative emotions, sadness, cognitive symptoms: hopelessness, guilt, worthlessness that are accompanied by numerous physical symptoms.
4.	Conclusions	Stroke is associated with increased prevalence of depression.

The study showed that mood disorders and especially depression can be a complication that occurs after stroke [38, p. 48], manifesting a combination of negative emotions, sadness, cognitive symptoms: hopelessness, guilt, lack of value that are accompanied by numerous physical symptoms. According to the literature, these affective changes are associated with a slower recovery, lower level of functioning, lower quality of life [218] and increased mortality [201; 205; 241].

Anxiety is also present in people who have suffered a stroke with a prevalence of 14-21%. Some authors find a 12% prevalence of anxiety disorders in men and 28% in women, demonstrating that disorders in the post-stroke anxiety spectrum include characteristics of excessive fear, worry, anxiety, or avoidance behavior and associate a certain cognitive pattern, being correlated with behavioral disorders [43, pp. 199-200]. Anxiety syndrome affects cognitive status by decreasing the

ability to concentrate, increasing the ability to concentrate selectively on the subject with anxiogenic potential [38, p. 45].

**Table 3.5. Post-stroke anxiety**

Nr		Post-stroke anxiety
1.	Aim	The characteristic of affectivity as a mental factor associated with post-stroke anxiety.
2.	Results	Anxiety - 18% of the subjects studied, 50% of the total subjects with moderate and severe anxiety, (56%) women and (44%) men.
3.	Profile	Post-stroke psychological profile with excessive fear, worry, anxiety, avoidance behavior that associates a certain cognitive pattern, being correlated with behavioral disorders, accompanied by symptoms in the somatic spectrum.
4.	Conclusions	Stroke is associated with increased prevalence of anxiety.

The information obtained from the psychological study gave us a complete and complex picture regarding the affectivity profile of the person who suffered a stroke, demonstrating increased prevalence of affectivity, which is manifested by depression and anxiety. Achieving the profile of the affectivity of people after stroke, allows the efficiency of the psychosocial rehabilitation intervention of this group of people [38, pp. 48-50].

### **3.1.4. Peculiarities of personality after stroke. Experimental study**

In the research of the psychological peculiarities of the mature personality after stroke, we started from the fact that the stroke represents for the organism an intervention with important consequences on cognitive, affective, relational and social level, influencing the personality. The multitude of symptoms, the disability, the long duration of the disease, make the adaptive mechanisms of the personality to be put into operation, which in the long run can cause personality changes [43, p. 210]. Stroke causes a wide range of physical and cognitive deficits [136; 168]. Personality disorders and emotional reactions of affected people create difficulties for those who deal with their rehabilitation after stroke [155; 187]. Personality changes are the most annoying sequelae after a stroke, in a broad sense "personality" means the stable tendency of behavior that includes emotions, attitudes about oneself and about the world and stable ways of thinking [32, pp. 38-42] . If they are affected, the interpersonal and social functioning of the individual is negatively influenced [246]. Scientists believe that personality disorders, common in people who have suffered a stroke, have a greater influence on social functioning than cognitive impairment [215], as it is manifested by problems in behavioral control, especially control of social behavior, goal-oriented behavior, decision-making, and emotion modulation [184]. According to the authors, the incidence of personality changes can be present in 42% of people after stroke, and that of disturbing behaviors for relatives in 35% of affected people [178; 238]. Thus, in the experiment, we had as major objective the examination of personality traits of people after stroke, this impelling research to

determine aspects that have not been sufficiently treated and reflected in the literature and record the existing situation of mental traits of post stroke personality [38, pp. 53, 56].

**Table 3.6. Post-stroke personality**

Nr.		Post-stroke personality
1.	Aim	Identifying the psychological personality profile determined by the specifics of the stroke.
2.	Results	Extraverts (50.71%) - 48.13% women and 51.87% men; introverts (14%) - 73.17% men and 26.83% women; neuroticism (35.36%) - (66.67%) women and (32.32%) men; by age group (56-75 years) - 54.17% extroverted, 17.25% introverted, 28.58% neuroticism.
3.	Profile	Determined by the structure of extraversion-neuroticism (emotional instability), the subjects of the study are characterized as evolving from sensitive, restless, excitable, aggressive to changeable, impulsive, hyperactive, which would correspond to the sanguine temperament.
4.	Conclusions	The study reveals the existence of the three personality types in post-stroke people and an increasing share, from introversion, to neuroticism and extraversion, the last two representing most of the subjects, compared to introverts.

Post-stroke symptoms greatly increase the difficulties that the sick person has to overcome in order to achieve optimal social progress, all changes in post-stroke personality leading to an increase in the burden felt by the rehabilitation team and relatives of people who have suffered a stroke [43, pp. 213, 221]. From the analysis of studies on this topic, we can draw the conclusion that each personality factor has an important and well-defined role in achieving the success of post-stroke rehabilitation [38, pp. 59-62]. Knowing the personality profile has a positive effect on the post-stroke rehabilitation performance, and the training of post-stroke people-patients must also include an optimization and personal development program [38, p. 64].

### **3.1.5. Experimental study of the emotional-volitional sphere after stroke**

Will, according to psychologists, is considered a characteristic or a capacity of the personality in action [109]. The importance of the research problem in this study is determined by the psycho-clinical changes of people after stroke, which have a sustained impact on all spheres of personality, including the will [38, p. 66; 43, pp. 222]. According to the literature [9; 77; 121; 146; 148], the impact of post-stroke disorders, resides in disturbances from the emotional-volitional regulation of behavior, observing the instability of emotional reactions, lack of vivacity of emotions, people becoming impulsive and indecisive, there are emotional changes conditioned by present disabilities and unfavorable psychosocial factors. All these deviations create a particular style of behavior: it is difficult to adapt to the situation and the requirements of rehabilitation [43, p. 223]. Determining the psychofunctional state of emotional-volitional regulation in post-stroke rehabilitation activity is particularly important for practice, according to the research of A.N.

ЛЕОНТЬЕВ [146], and the formation of capacities for emotional-volitional regulation is special for socialization and socio-professional inclusion [43, pp. 223-226]. The study of the literature reveals that achievements in the field of post-stroke rehabilitation psychology are limited, and emotional-volitional regulation is explored episodically, requiring multidimensional studies that offer new conditions for exploring the potential of these people, because this phenomenon has a complex structure and a wider area than the cognitive domain [38, p. 67]. As a superior form of self-regulation, the will expresses a way of functional organization of the entire personality system and, as a result, highlights a number of specific attributes or qualities, whose influence is exerted on the entire psychic life [141]. These qualities can be evaluated and expressed in objective units of measurement: force, time, frequency, the main criteria according to which we appreciate the will, being: 1) force; 2) perseverance; 3) consistency; 4) firmness; 5) independence [38, p. 70].

**Table 3.7. Emotional-volitional field after stroke**

Nr.		<b>Emotional-volitional field after stroke</b>
1.	Aim	Studying the peculiarities of the emotionally volitional sphere in post-stroke people, in order to elucidate the specific peculiarities.
2.	Results	All study participants (100%) show low willpower: medium (40%), low (60%); there is a lower level of will in older people: 66-75 years, where all patients with stroke had a low level of will (100%); age 56-65 years - low level - 13.3%, medium - 20%; age 45-55 years - medium level - 26.7%, low - 6.7%.
3.	Profile	A characteristic specific to the post-stroke person's profile attests to a low level of will at all parameters: "courage and ability to make decisions", "self-control and endurance", "ability to achieve goals" and "perseverance and firmness", "initiative and independence" .
4.	Conclusions	Willpower in people with stroke is low and depends on the age of the person - the older the age, the lower the willpower; in the youngest - there is an increasing level of willpower.

The analysis of the basic data of the experiment allowed us to establish that in adults with stroke there is a disorder of the structural components of emotional-volitional regulation, a characteristic specific to the profile of the person after stroke [38, pp. 72-74, 75]. We consider that the elaboration and implementation of psychological models for the development of the emotional-volitional regulation process in post-stroke people would increase the psychofunctional potential and would favor psychosocial rehabilitation, determining the compensation, correction and development of the emotional-volitional sphere of these people [38, pp 75-76; 43, pp. 231].

### **3.1.6. Motivation of people after stroke. Experimental study**

Analyzing the problem of motivational features of personality, many scientists have found that motivation designates all the factors that trigger human activity, selectively directs it to certain goals and supports it energetically [119; 146; 157; 166; 169; 271]. With reference to post-stroke



people, motivation is the probability that individuals begin, continue and adhere to a specific strategy of change or specific behaviors that direct them to a certain goal, being a key element in streamlining the therapeutic process of people in rehabilitation post stroke [43, p. 231]. From the perspective of scientists [166], motivation is the extent to which a persistent effort is directed towards achieving a goal, and for people with post-stroke disabilities, the first aspect of motivation is the strength of rehabilitation behavior or the amount of effort the person submits in the rehabilitation process, the perseverance shown by individuals in performing rehabilitation tasks and the direction of behavior related to the rehabilitation effort, ultimately any motivated behavior with certain goals or objectives to which the person is directed after stroke [38, pp. 77 -78]. The motivation of the person after the stroke, in the process of rehabilitation, is a form of “psychological contract” based on the expectations that the respective parties have and the extension of those that are achievable [38, p. 81]. For people with post-stroke disorders, motivation designates all the factors that trigger their activity, directs it to the basic goal - rehabilitation - and supports it energetically [43, p. 233]. Several scholars [146; 167; 204] were concerned with describing the generalized psychological portrait of post-stroke people, demonstrating that personality qualities directly influence the peculiarities of motivation and self-motivation, and self-motivation in the therapeutic process is related to their own level of initiative in setting post-stroke recovery goals , confidence in skills and competences to achieve the proposed goals [38, p. 80; 43, pp. 234]. The availability of post-stroke people to actively participate in the rehabilitation process, compliance with recovery, is assimilated as a motivational indicator, and non-compliance with treatment was associated with lack of motivation, these limits being difficult to quantify in clinical practice [38, pp. 79-80; 43, pp. 234].

**Table 3.8. Motivational sphere after stroke**

Nr		<b>Motivational sphere after stroke</b>
1.	Aim	Highlighting the motivational peculiarities specific to the subjects in the process of post-stroke rehabilitation.
2.	Results	Men in the experimental group are much more likely to avoid failures, the need for higher performance, a higher need for social approval, than women; personality orientation towards activity is higher in women; orientation towards lower communication in men; psychological defenses used more frequently in men; denial and substitution as a method of psychological defense, more commonly used in women.
3.	Profile	Modified in the motivational sphere by needs, in the emotional-volitional, intellectual and communicative spheres, which diminishes the level of pretensions, forming various pathological defense reactions, which lead to the social alienation of the personality.
4.	Conclusions	In post-stroke subjects, the motivational level is lower than in healthy people, among the levels of motivation for success (very high, high, medium and low), with medium and low levels predominating.

In post-stroke people, emotional motivation may come in the form of accepting tasks and procedures out of a desire not to be considered incompetent or malicious, and intrinsic motivation is to get the person involved and make an effort in rehabilitation, as from these processes he obtains satisfactions that belong to him, to his personality. The extrinsic motivation of this group of people is to expect praise, reward for effort, desire to join, normative tendencies, fear of unpleasant consequences (failure to achieve the proposed rehabilitation objectives), ambition and the need for higher status [38, pp. 83- 88, 89].

### **3.1.7. The self-concept of people after stroke. Experimental study**

The concept of self (Rozenberg, 1982) represents what a person thinks about himself at a given time and includes personality characteristics, social values, physical characteristics and is influenced by interpersonal relationships and our perception of how we appear to others [60 ; 77]. The psycho-clinical model of self-concept focuses on 4 components: physical self (body image), social identity (social role played), personal identity (moral or ethical self, intellectual self and emotional self) and self-esteem [38 , pp. 90; 43, pp. 243]. Subjects with low self-esteem accept a negative reinforcement much more easily and a positive reinforcement more difficult, compared to subjects with a strong self-esteem. Post-stroke individuals with low self-esteem are better able to explain negative events by invoking internal causes and feel more responsible for their failure compared to their high-self-esteem counterparts [38, p. 91; 43, pp. 244]. Ch. Cooley [182], advances a hypothesis according to which self-esteem is a social construction, and the evaluation of one's own person is guided by social and linguistic interactions with those around one, starting from childhood. The self-esteem of a person with post-stroke disorders increases as those around them have a better opinion of them. A person with a balanced self-esteem will have a stable way of thinking about himself and will not risk being destabilized by approval or criticism [43, pp. 245-246]. The overall self-esteem of the person after stroke is built from the assessment made on each of the following dimensions: the emotional, social, physical and anticipatory self [38, pp. 92-93]. If we consider that self-esteem is the attitude of the individual towards his own person, the attitudes being measurable, we can conclude that self-esteem is also measurable [43, p. 248]. The concept of self can influence all aspects of post-stroke behavior, including behavior that can be modified through rehabilitation interventions [38, p. 96, 98; 43, pp. 248-249].

**Table 3.9. The self-concept after stroke**

Nr		<b>The self-concept after stroke</b>
1.	Aim	Assessing self-esteem in post-stroke individuals and studying the psychosocial aspects of the relationship that is established between the qualitative level (structural and functional) of self-image and self-esteem in this group of subjects.
2.	Results	Of the total group, 46.8% subjects with positive self-image and 53.2% with low self-image; women have a higher percentage of positive self-image

		(53.8% women - 46.2% men), and men have a higher percentage of low self-image (61.3% men - 38.7% women) ; the determinant - positive self-image, predominates younger people (18-55 years), and the size - low self-image, predominates older people (56-75 years).
3.	Profile	With a low level of self-esteem, being reserved, more restrained, anxious, conventional and conservative, with an opinion about oneself that depends on circumstances and interlocutors, reacting emotionally to failure, feeling rejected, justifying oneself after obtaining a failure in the rehabilitation process, having strongly affected the performances in the rehabilitation activities.
4.	Conclusions	The level of self-esteem strongly affects the performance in post-stroke rehabilitation activities: those with a high self-esteem have a higher confidence, they mobilize more, which strengthens the good opinion about themselves; low self-esteem increases the risk of failure, leading to an even more grim view of oneself.

The level of self-esteem strongly affects performance in post-stroke rehabilitation activities. Depending on the disturbances found in the concept of "self", assumed roles and established social relationships, the therapeutic team must be promptly involved through specific interventions, channeled in order to strengthen a positive self-image and a "healthy" personality of the patient [38, pp. 100-104, 105].

### **3.1.8. Personal resources of post-stroke subjects. Experimental study**

Stroke makes a large number of personality demands raising the issue of studying the positive potential of personality, contributing to optimal functioning in society, personal development and professional reintegration [43, p. 258; 44, pp. 197-203]. The concept of "personal resources" is a factor that determines the behavior of adaptation in stressful situations, such as the post-stroke situation, and contributes to maintaining the psychological well-being of the personality. The authors treat the personal resource as a factor in maintaining mental health and the success of the activity in everyday life, however, open questions remain regarding the determining factors, which represent the resources of the personality - coping strategy [118; 213; 260] life strategy [114; 133], activity and behavior regulation factor [134; 145], coping strategy [146; 147; 239]. Researchers recognize this concept, using terms such as: general resistance resources (Antonovsky, 1979), personal coping resources (Aldwin, 1994), psychological resources (Taylor, Kemeny, Reed, Bower, 2000), psychological capital (Luthans, Youssef, 2007), personal potential (Leontiev DA, 2011), mental resources (Hazova SA, 2014) [153; 152; 158], and the personal qualities, oriented to the destructive ones, (vital resistance, optimism, achievement of goals, locus control, etc.), also represent the psychic reserves of the person [13, pp. 215-221; 38, pp. 107-108; 43, pp. 259-260]. We highlight three groups of personal resources, which are realized in the individual experience of the subject after stroke, represented by resistance resources, self-regulation resources and instrumental resources [38, p. 109; 43, pp. 260].

**Table 3.10. Personal resources after stroke**

Nr.		Personal resources after stroke
1.	Aim	Highlighting personal post-stroke resources with a key role in the development of post-stroke rehabilitation.
2.	Results	Established low levels of retention of personal endurance and regulation resources, represented to a greater extent by endurance resources, which allow to cope with stress for longer periods; insufficient self-regulation resources do not allow the person to cope with the negative emotional consequences of stressful situations caused by stroke.
3.	Profile	is characterized by dissatisfaction with the results of activity and life; inability to control personal life events; physical and mental fatigue; emotional instability; rapid mental exhaustion; the preponderance of the coping strategy "anticipatory sadness"; dissatisfaction with their own skills, flexibility and ability to make decisions in the situation they are in, etc.
4.	Conclusions	The results confirm that personal resources determine post-stroke adaptive behavior and contribute to updating the personality's abilities in achieving the proposed goals for rehabilitation.

The results confirm that personal resources are a systemic entity, which includes a complex of cognitive, emotional and behavioral constructs, which determine adaptive behavior in post-stroke stressful situations and contribute to updating personality abilities to achieve goals, thus contributing to its optimal functioning [38 , pp. 114, 125]. Stimulated personal resources would play an important role in maintaining hope for the future of life, the goals of one's life, thinking in a positive way, while demonstrating an increase in the level of self-efficacy and subjective vitality after stroke [43, p. 275].

### ***3.1.9. Experimental study of the quality of life of people after stroke***

Quality of Life (QoL) is defined by the World Health Organization (WHO) as "the perceptions of individuals about their social situations, in the context of the cultural value systems in which they live and depending on their own needs, standards and aspirations" [255 ; 259]. In the evaluation of the quality of life, a series of dimensions are followed, which exhaustively describe both the daily activity and the state of health, the psycho-emotional and relational balance [54, pp. 154-161; 76; 132; 266; 270]. The quality of life of people after stroke is the overall assessment of the individual, taking into account the well-being associated with events or conditions influenced by the application of treatment, long-term rehabilitation, so the quality of life means physical, mental and social well-being, as well as the ability of post-stroke people to perform their usual tasks, in their daily existence [38, pp. 126, 127; 43, pp. 276]. The literature states that stroke is a disease that through multiple disability (physical, mental, social), has severe consequences on daily life, quality of life being a goal but also a standard of services that a post stroke person benefits from [179]. There is very little data describing the long-term rehabilitation and evolution of post-stroke people

in our country, therefore little is known about their quality of life, the socio-economic circumstances in the Republic of Moldova being very different, and they have a significant impact on stroke recovery and quality of life of these people [38, p. 130; 43, pp. 279-280]. Data from the literature show that the quality of life in people with stroke is lower than in healthy people in the general population, the levels of functioning in individuals with stroke being below those of people in the general population [38, p. 130; 43, pp. 280]. Thus, we aimed to evaluate and then describe the components of quality of life in people who suffered a stroke at least a year ago, in order to compare the quality of life and the level of functioning of healthy people [38, pp. 130-131 ].

**Table 3. 11. Quality of life after stroke**

Nr.		Quality of life after stroke
1.	Aim	Measurements of quality of life in four areas: physical, psychological, social relations and environment.
2.	Results	The total score on the quality of life questionnaire is significantly lower; satisfaction with the quality of life - 33.3% of the subjects consider that they have a very poor quality of life, 10.7% consider that they have a poor quality; satisfaction with physical health - 24.0% of subjects are very dissatisfied and 42.7% are dissatisfied with their physical health; the quality of life is worse for women than for men.
3.	Profile	The quality of life after stroke is lower in all areas - physical, psychological, social relationships, environment.
4.	Conclusions	Physical, mental and social well-being, as well as the ability of people to perform their usual tasks in their daily lives, represent low levels of quality of life after stroke. Maintaining the highest possible level of functioning through psychosocial rehabilitation is an indicator of the quality of life of people after stroke

Quality of life includes a vast set of physical and mental characteristics in the context of social life and is dependent on multiple factors, the degree to which individual life is perceived as meeting some internal, explicit or implicit standards. Stroke produces both physical and psychological, social problems, having a great impact on the ability of people to perform activities of daily living and quality of life [38, pp. 132, 147; 43, pp. 276].

### **3.2. Psychological profile of people after stroke**

Life demands more and more the possibilities of human adaptation to different situations. Alfred Adler (1927) states that "Man knows more than he understands" and that "psychic balance" is constantly threatened, due to the fact that man seeks perfection "[43, p. 294]. Thus, the social sciences try to explain the social events in a person's life that can have decisive influences on the psyche and implicitly on the physique, observing the close connection between the predisposition to disease of those who do not have a favorable mental climate [43, p. 295 ]. Stroke, with its disabling

sequelae, is probably unique in the world, in time and space, which does not take into account age and political color, not even any system of beliefs or religions, the main problem it causes, both in personal as well as social level, being that of disability - over 40% of the survivors remain with a variable degree of functional impotence, which requires continuous rehabilitation [38, p. 148].

*The concept of post-stroke psychological profile* refers to a profile of the individual characteristics that a person, who has suffered a stroke, tends to manifest, either constantly and coherently, and which reflects the predispositions in emotional, motivational, attitudinal terms, its values and behaviors [38, p. 149; 43, pp. 295]. When elaborating the psychological profile of a person after stroke, all psychic processes and mechanisms compete: cognitive, affective, motivational, intellectual, affective, volitional, etc., the substantial-qualitative nature of organizing a psychological profile, imposing psychologically specific types of relationships: cognitive, relational-practical, affective, ethical, aesthetic, etc. [38, pp. 149-150; 43, pp. 295-296]. In order to draw a more complete psychological profile of the person after stroke, we went through the processes, activities and psychic features, to create an objective profile based on clinical interviews, results of psychological tests, observations on human behavior, evaluation of medical documents, the significant features being deduced according to the results of the studies performed [38, p. 152; 43, pp. 297]. The description of the psychological profile aimed at problems of psychological evaluation, directions of psychological intervention and evolution of the clinical condition of people, in order to formulate post-stroke rehabilitation programs [38, p. 149, 152, 155, Figure 3.1].

**In conclusion**, considering the ones presented in the previous chapters, we can draw the psychological profile of the person after stroke, the significant features being deduced according to the results of the studies performed [38, p. 152]. Physical, mental and social well-being, as well as the ability of people to perform their usual tasks in their daily lives, represent low levels of quality of life after stroke. The creation of a psychological profile of the person after the stroke involved the indication of impairments in cognitive, affective functions, personality (motivation, will, self-esteem) and personality resources, allowed the application of psychotherapeutic methods to help the person to understand the inclination to endure unpleasant situations, taking responsibility for his reactions, along with a better adaptation to the environment [38, p. 155, Figure 3.1].

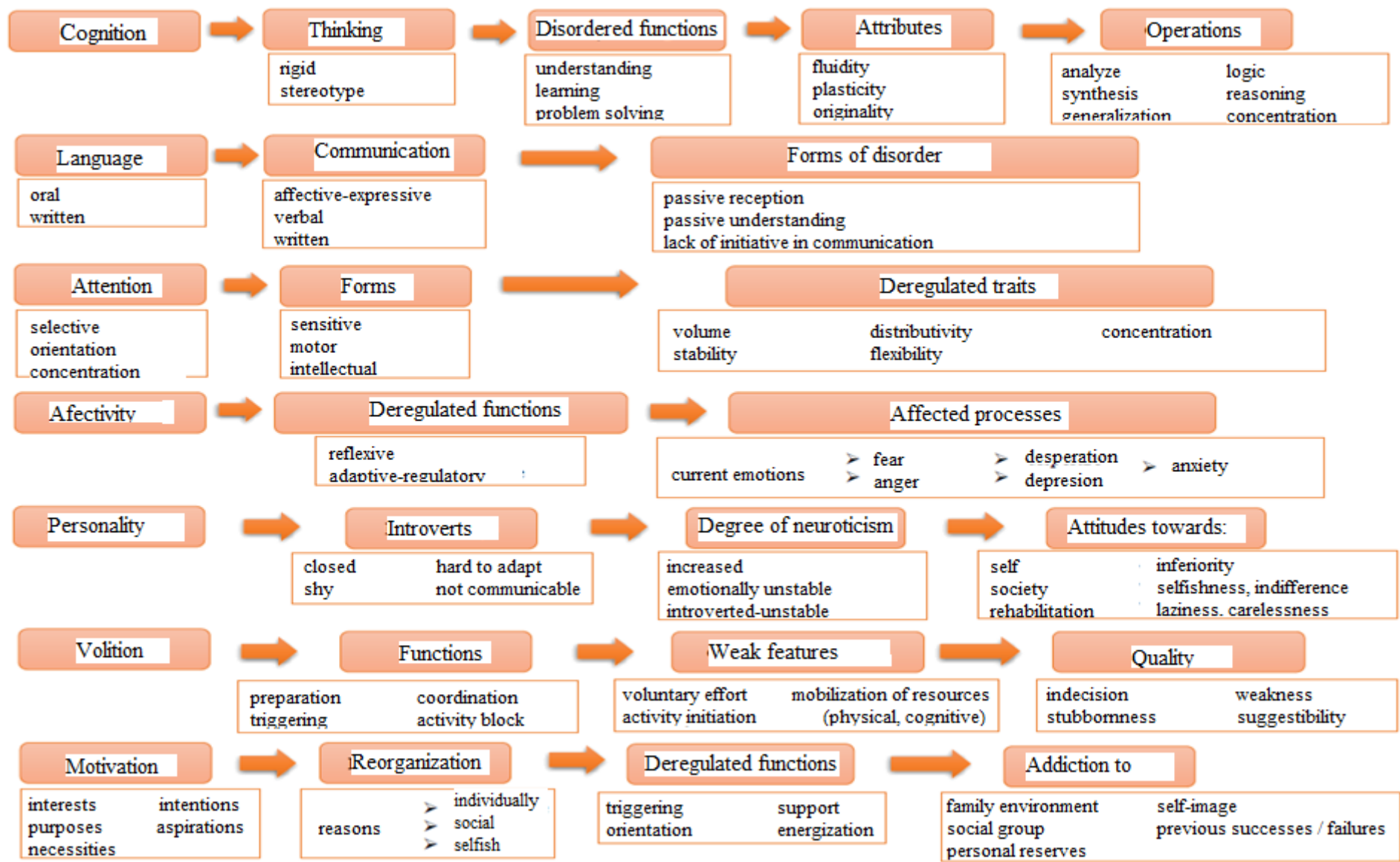


Figure 3.2. The psychological profile of the person after stroke

## **4. PSYCHOSOCIAL REHABILITATION PROGRAM FOR PEOPLE AFTER STROKE**

### **4.1. Priorities and experiences of psychosocial rehabilitation after stroke**

The most important cause of adult acquired disability, either nationally or internationally, is stroke; 100]. Thus, stroke is one of the main contemporary medical-psycho-social problems, because it creates stressful situations and a huge burden on the affected people, their families, also on the society, involving huge expenses [34, p. 55; 140; 163]. Thus, the aim of the management, which is a mass of activities done for the reaching the objectives of people with post-stroke disabilities, is increasing functional independence and also decreasing the rehabilitation period [38, pp. 55-56]. The rehabilitation of the person after stroke is done by introducing in a complex and individualized recovery plan, unlimited by time, which starts in the hospital and continues in a medical recovery clinic then at the person's home, in the community, the rehabilitation aiming to give the chance to people with disabilities to maintain their physical, intellectual, mental and social functions at an optimal level [34, p. 56], thus rehabilitation of people with stroke having an important role in reducing the social burden represented by long-term medical care after stroke [41, pp. 8-9; 31, pp. 274-283; 34, pp. 55].

The United Nations (UN) has a number of special rehabilitation programs, which are implemented by WHO, IOM, UNESCO [86; 87; 88; 92; 93; 100], defining rehabilitation as the physical, mental, social, economic restoration (work capacity) of the person's integrity, as well as the development of activities aimed to return the patient to his normal life [43, p. 50]. The main objectives of a rehabilitation program are: to regain the capacity lost due to the appearance of disability; regaining functional independence; family and social reintegration in the community; improving the quality of life [34, p. 56]; prevention of irreversible disability; reducing the maintenance costs of the disabled person; the possibility to continue the professional activity by the family members, involved in the care process; socio-professional reintegration of the disabled person in case of good recovery of lost functions [43, p. 60]. And the key principles for implementing a post-stroke recovery program are: early initiation, complexity, multidisciplinary, person-centered approach, continuity on stages and levels [43, p. 60, 61, Figure 1, 7; 99].

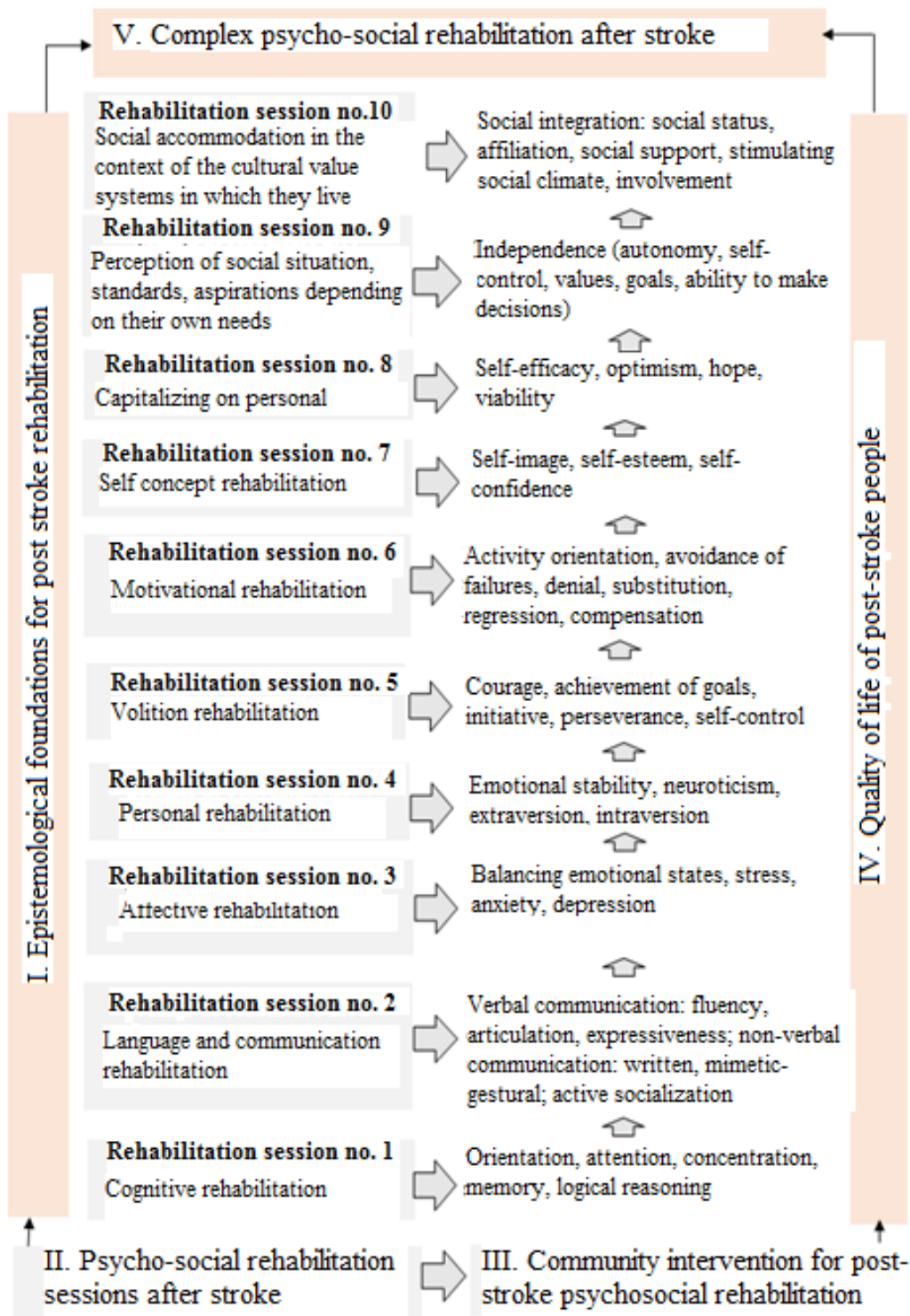
The number of studies on therapeutic intervention programs for people after stroke is increasing, with several studies comparing the effectiveness of rehabilitation interventions applied in a variety of situations, such as rehabilitation at home, in the community, outpatient clinics or day inpatient programs [83; 212; 228]. In general, these studies indicate that post-stroke individuals with long-term disabilities can achieve significant functional improvements through participation in



psychosocial rehabilitation programs, and that complex therapy applied at home or in the community may be effective [43, p. 58]. Studying different types of organized and standardized rehabilitation programs, implemented both in specialized institutions and at home and in the community, regarding effectiveness, we found that the implementation of organized rehabilitation programs demonstrates higher levels of functional status for people post stroke [43, pp. 56-59]. Likewise, we established that many of the factors influencing the results of therapeutic program intervention after stroke, (such as level of motivation, adaptability and coping style, learning ability, number and severity of comorbidity, level of family support or other persons and the presence of community resources), are specific to each person and do not depend on the rehabilitation intervention [43, p. 55]. Approaches to a structured rehabilitation intervention program, a team-based approach to care, with well-targeted and early rehabilitation efforts, the active participation of beneficiaries' family members and their training, will depend on achieving a higher level of independence. regarding self-service (personal hygiene and clothing), gait, adaptation and socialization [43, pp. 56, 59].

Rehabilitation services through organized intervention programs are the most important mechanism, which promotes the functional rehabilitation, becoming independent, adaptation and the post-stroke social integration. There is growing evidence that rehabilitation programs improve the outcomes of people with post-stroke disabilities [186; 219]. The factors that play an important role in the success of the rehabilitation program are the immediate initiation of the process, the positive attitude of the beneficiary, the active involvement of the family, the multidisciplinary approach [34, p. 58, 59, Figure 1.12]. The success and dependence of the rehabilitation program on psychological factors is indisputable in the rehabilitation of people after stroke, taking into account the fact that stroke with many disorders and symptoms, is accompanied by emotional disorders, catastrophic reactions to events, depressive and hypochondriac reactions, as a result of professional injury, domestic and family ties, the phenomenon of daily social dependence, which entails a serious obstacle to the success of rehabilitation [43, p. 61]. Rehabilitation through organized post-stroke programs continues to be the prototype of the therapeutic intervention effort that targets almost all disability issues, and this process requires the effort of all members of society to make rehabilitation more efficient [43, p. 63]. We can say that the last decades are marked by the efforts of scientists to discover and implement new effective methods of post-stroke rehabilitation, being extensively researched the principles of rehabilitation of these people, but also the focus of investigations of psychosocial aspects of this process. on the spiritual side, the relations and socio-human behaviors contextual to the life and the situation of difficulty in case of stroke, the

identification of the psychological resources of rehabilitation, etc. remains in the shadows [41, pp. 5-6, 8; 43, pp. 63-64].



**Figure. 4.1. Psychosocial rehabilitation of people after stroke**

## **4.2 The multidisciplinary team in the psychosocial rehabilitation of people after stroke**

A multidisciplinary approach to the rehabilitation of a person who has suffered a stroke is imperative. The rehabilitation team includes neurologists, rehabilitation specialists, physiotherapists, psychologists, speech therapists, nutritionists, occupational therapists, social workers, nurses, family doctors, lawyers, as well as other specialists as needed. Each has an important role in the rehabilitation process, the intervention program being personalized and adapted to the individual needs of each beneficiary [34, p. 60; 46, pp. 160, appendix 11]. At international levels, some sources as National Clinical Guidelines for Stroke (2012) highlights that the rehabilitation needs to be multidisciplinary and that there is a need for high-level post-stroke rehabilitation. Multi-disciplinarity is based on knowledge from different disciplines, and multidisciplinary team must be functional in a coordinated and collaborative way[8; 245; 130]. In Republic of Moldova, according to the latest national report “Medical rehabilitation of the person with stroke” (2012) [84], rehabilitation team is multidisciplinary. The individual rehabilitation program must be elaborated and implemented according to specific needs of the patient and, in this proces, the multidisciplinary team for post-stroke intervention has a special responsibility [34, p. 63]. For increasing the quality of intervention of multidiciplinary team the International Classification of Functioning, Disability and Health (ICF) was aproved [254].This classification represents a bio-psycho-social model that was adopted by 191 countries members of WHO, it remaining a globally accepted model [236]. Thus, a rehabilitation program elaborated on ICF, with a multidisciplinary approach, will allow a better directioning of short and long-term aims and rehabilitation objectives, and his interventions will be implemented gradually, according to case complexity [34, p. 62, Figure 1.13].

Social participation and importance of the psychological factor in rehabilitation after stroke is one of the most relevant results of a rehabilitation program, implication in a life situation, participation being objectives of intervention programs in the context of post stroke rehabilitation programs, oriented to gaining of independence as much as posible, regaining lost abilities and learning new ones, in correlation with quality of life, multidisciplinary team observing this aspect. The role of multidisciplinary, interdisciplinary teams, including community, is inevitable in succesful post stroke rehabilitation, aiming a quality of life and a comunity participation degree similar with that before the disability, because functional disability creates stressful situations and a huge burden on the affected person, his family, also on the society, imposing big expenses [34, p. 63, 64].

### **4.3 Descriptive coordinates of the post-stroke psychosocial rehabilitation program**

The complexity and dynamics of psychosocial rehabilitation is constantly increasing through the permanent emergence of new models of therapeutic intervention, probing new areas of care for people in difficulty [41, p. 8]. This chapter describes the experimental context of capitalizing on the Conceptual Model of psychosocial rehabilitation of people after stroke for the scientific foundation of the Psychosocial Rehabilitation Program through complex psychological interventions, aimed at improving the quality of life. The content of the paper presents scientifically based arguments through experimental data on the effectiveness of the program designed to involve, social adaptation and improve the quality of life of people after stroke [41, pp. 5-7]. The importance and praxiological value of the Post-Stroke Psychosocial Rehabilitation Program results from: preventing the progression of the disease, stimulating the regression of chronic disabilities, their return to a lifestyle in accordance with quality of life standards. The design and achievement of objectives for optimizing the social integration of people who have suffered a stroke and the successful use of psychosocial rehabilitation programs will lead to involvement, social adaptation and improving the quality of life [41, p. 5]. The originality of this paper consists in the development of a specific work strategy for the intervention of optimizing the rehabilitation process in the case of people who have suffered a stroke and are subject to a Psychosocial Rehabilitation Program.

We assumed that the application of a specially designed training rehabilitation program will positively contribute to streamlining the post-stroke rehabilitation process, by improving psychological variables, social adaptation and increasing the quality of life of these people, through a complex approach - meeting the theoretical part with the empirical [41, pp. 9-10]. The research, the results obtained and the conclusions formulated allowed us to conclude that people with stroke have an increased prevalence of psychological disorders over the general population, and understanding the psychological and social factors associated with psychological disorders are essential to ensure adequate care of people after Stroke, because it has dysfunctions in certain areas: cognitive, affective, personality, etc., which is why, if they are not treated, people will have a low rehabilitation rate, thus - a poorer quality of life and lower social inclusion [41, p. 10]. Based on the above-mentioned studies on the psychological portrait of people after stroke and how to treat them, we aimed to improve through a Psychosocial Rehabilitation Program the values of the components: cognitive, affective, personality, quality of life, these premises of the research being completed by the hypothesis that: by establishing the intervention through a post-stroke psychosocial rehabilitation program, there will be a decrease in the intensity of negative psychological variables, the intervention being associated with increasing quality of life indices [41, p. 11]. The proposed

psychological intervention is a system of psychological means, methods, procedures and techniques, which aims to reduce psychological disorders in people after stroke, often accompanied by a series of disorders in the mood-emotional sphere [41, pp. 10-13]. The study of psychological peculiarities in people after stroke highlighted the relationship between them and quality of life. For these reasons, in the training experiment called "Psychosocial rehabilitation program after stroke", [41, p. 17; p. 141, annex 2] exercises were included to improve the level of adaptation in crisis situations, change negative thoughts, relaxation [43, p. 351]. At the same time, the experiment highlighted certain personality factors, which contribute to perseverance by capitalizing on the potential of the personality, we resorted to exercises that would allow people after stroke to overcome certain psychological barriers (self-confidence, self-image, motivation, will ) and to capitalize on their personality qualities that could contribute positively to the rehabilitation of disabilities, the development of capacities for adaptation, socialization and improvement of the quality of life [41, pp. 15-16].

The rehabilitation program, through psycho-recovery therapies, includes individual therapy sessions with various content: relaxation exercises, elements of short-term psychotherapy, activities focused on behavioral and emotional therapy, breathing exercises, awareness and problem solving activities through the method of transactional analysis, role play, exercises and situations regarding the training and development of psychosocial structures, which determine the effectiveness of the process of adaptation and reduction of the affective-behavioral sphere in people after stroke [41, p. 18, pp. 29-63].

#### **4.4 Community intervention in post-stroke psychosocial rehabilitation**

In order to support the independent life in the community of people after stroke, by identifying, capitalizing and amplifying a variety of internal and external resources, we proposed community interventions of psychosocial rehabilitation, which were based on case management [41, p. 64 ]. The community rehabilitation intervention supposed the involvement of several professionals: family doctor, outpatient neurologist, psychologist, social worker, nurse, etc. The management of the community team was provided by the family doctor, who also coordinated the intervention, the services being provided both at home of the assisted persons, in the community and at the level of the sectoral outpatient [41, pp. 64-65]. The objectives of the assistance plan referred to the identified problems, with the stipulation of specific activities to address them [41, pp. 65-66].

The planning and provision of services within the community intervention included: integrated needs assessment with emphasis on the assessment of personal and family (values, interests, skills) resources (social support network, stressors and present difficulties, available community resources or opportunities); intervention planning; activities to inform the professionals from the community of origin of the person after the stroke regarding the assistance plan, the specific needs and the identified problems. The information was provided with the consent of the beneficiary and his family, through letters and working meetings; the implementation of the intervention aimed at the implementation of the intervention plan and the way of providing the care services that were expected [41, pp. 64-65]. The medical-psycho-social assistance services provided were grouped into the following categories: basic medical services; social support and support services; physical and psycho-emotional rehabilitation services; specialized counseling services [41, pp. 65-68]. The monitoring was performed through: home visits, telephone calls, letters or emails, meetings with other professionals involved, analysis of observation sheets and medical records from the outpatient clinic and monitored whether: the objectives of rehabilitation plans are met; there is effective coordination between the professionals involved in the provision of rehabilitation services; there is an effective communication and collaboration with the relatives; the services respect the quality parameters and the professional ethics; there are (even minor) variations in the health status or general functioning of the participants [41, pp. 68-69].

**In conclusion,** the applied post-stroke psychosocial rehabilitation program is a system of psychological and social means, methods, procedures and techniques, which aims to overcome certain psychological and social barriers to capitalize on personality qualities that could positively contribute to disability rehabilitation, development abilities to adapt, socialize and improve the quality of life [41, pp. 15-16]. And in order to support the independent life in the community of people after stroke, by identifying, capitalizing and amplifying a variety of internal and external resources, we proposed community interventions of psychosocial rehabilitation, which were based on case management [41, p. 64].

## 5. COMPARATIVE EXPERIMENTAL VALUES OF PSYCHOSOCIAL REHABILITATION AFTER STROKE

In this chapter we present the results of the evaluation of the efficiency of the post-stroke psychosocial rehabilitation program developed and implemented to optimize the psychosocial rehabilitation of people after stroke in order to improve the quality of life of subjects. In order to estimate the efficiency of the Program, we repeatedly administered to the subjects the questionnaire elaborated by the World Health Organization, for the evaluation of the quality of life - WHO-QoL (World Health Organization Quality of Life). The WHO Quality of Life Scale (WHOQOL-BREF) assesses the quality of life of people with chronic disabilities. We made measurements in four areas: physical, psychological, social relations and environment [41, pp. 142-146, annex 3]. The investigation of the efficiency of the post-stroke psychosocial rehabilitation program was performed in the following directions: comparing and highlighting the differences obtained in the subjects: the experimental test group (ETG) and the experimental retest group (ERG); from the control test group (CTG) and the control retest group (CRG) and from the experimental retest group (ERG) and the control retest group (CRG) [41, p. 70].

### 5.1. Socio-demographic characteristics

The control group (CG) consisted of men and women with a mean age of 58.91 years and the experimental group (EG) consisted of men and women with a mean age of 58.46 years. The control group is composed of 46.8% men and 53.2% women, and the experimental group is composed of 35.6% men and 64.4% women. The groups are equivalent in terms of male / female ratio ( $\chi^2 = 1,201, p > .05$ ) [41, p. 70]. Most subjects have a medium level of education, only 10.6% of subjects in the control group (CG) and 4.4% of those in EG have higher education. There are no statistically significant differences between the two groups in terms of level of education,  $\chi^2 = 7.674, p > .05$ . The majority of EG subjects did not have a partner at the time of the study, 31.1% were unmarried, 17.8% were divorced, and 8.9% were widowed. Only 44.7% of the subjects in the CG and 42.2% in the EG are married. There are no differences between the two groups in terms of marital status,  $\chi^2 = 2,477, p > .05$  [41, p. 71]. The analyzed data are presented in the following table.

**Table 5.1. Socio-demographic characteristics of the research subjects**

Demographic characteristics			Grup		Total	X <sup>2</sup>	P
			CG	EG			
Diagnostic	Post hemorrhagic stroke	N	26	17	43	2.538	.38
		%	55.3%	34.6%	47.3%		
	Post ischemic stroke	N	21	27	48		

		%	44.7%	61.4%	52.7%		
	Total	N	47	44	91		
		%	100.0%	100.0%	100.0%		
Sex	Male	N	22	15		1.201	.297
		%	46.8%	35.6%			
	Female	N	25	29			
		%	53.2%	64.4%			
Education	4 grades	N	0	2		7.674	.175
		%	0.0%	4.4%			
	8 grades	N	6	12			
		%	12.8%	26.7%			
	10 grades	N	6	3			
		%	12.8%	6.7%			
	high school	N	13	15			
		%	27.7%	33.3%			
	Vocational school	N	17	11			
		%	36.2%	24.4%			
	Higher education	N	5	2			
		%	10.6%	4.4%			
Marital status	Unmarried	N	11	14		2.477	.649
		%	23.4%	31.1%			
	Married	N	21	19			
		%	44.7%	42.2%			
	Unmarried couple	N	2	0			
		%	4.3%	0.0%			
	Divorced	N	9	8			
		%	19.1%	17.8%			
	Widower	N	4	4			
		%	8.5%	8.9%			

The analysis of the living conditions of the subjects allowed us to highlight the connection between the health status of the subjects after the stroke and the living and working conditions. The information collected during the research allowed the analysis of the socio-economic situation of the person, as well as establishing the impact of various rehabilitation programs in such studies. The information collected in this research complements the socio-demographic profile of people after stroke [41, pp. 70-73].

**Table 5.2. The living conditions of the research subjects**

Living and working conditions	Grup		X <sup>2</sup>	P
	CG	EG		



The house is connected to utilities					
Connected	N	44	37	2.836	.092
	%	93.6%	82.2%		
Unconnected	N	3	8		
	%	6.4%	17.8%		
Who the patient lives with					
Alone	N	10	8	.239	.887
	%	21.3%	17.8%		
With his family (husband, wife, children)	N	25	24		
	%	53.2%	53.3%		
With family of origin (parents)	N	12	13		
	%	25.5%	28.9%		
The type of housing owned by the patient					
House	N	34	30	.350	.554
	%	72.3%	66.7%		
Apartment	N	13	15		
	%	27.7%	33.3%		
The environment of origin					
Urban	N	20	20	.033	.855
	%	42.6%	44.4%		
Rural	N	27	25		
	%	57.4%	55.6%		
Area served by transport					
Yes	N	42	35	2.261	.133
	%	89.4%	77.8%		
No	N	5	10		
	%	10.6%	22.2%		
The patient has his own car					
Yes	N	7	3	1.606	.205
	%	14.9%	6.7%		
No	N	40	42		
	%	85.1%	93.3%		
Occupation					
Sick retiree	N	27	33	10.093	.121
	%	57.4%	73.3%		
Farmer	N	2	0		
	%	4.3%	0.0%		

Unskilled worker	N	1	3		
	%	2.1%	6.7%		
Worker with professional qualification	N	1	0		
	%	2.1%	0.0%		
Worker with high professional qualification	N	1	0		
	%	2.1%	0.0%		
Age retiree	N	6	7		
	%	12.8%	15.6%		
Unemployed	N	9	2		
	%	19.1%	4.4%		
Sources of income of patients				6.495	.165
Illness pension	N	29	33		
	%	61.7%	73.3%		
Salary	N	3	2		
	%	6.4%	4.4%		
Social aid	N	3	3		
	%	6.4%	6.6%		
Without	N	6	0		
	%	12.8%	0.0%		
Old age pension	N	6	7		
	%	12.8%	15.6%		
Average monthly income				T	P
	N	47	45	1.318	.191
	Average	474.2979	554.6444		
	AS	357.42892	202.74897		

According to the table presented above, we can say that most of the subjects in the selected groups live with their own family, in houses and apartments in blocks of flats, in areas served by transport, without any significant differences. Most of the subjects are sick retirees, the main source of income being the sickness pension, the monthly income being very low [41, pp. 72-73].

## 5.2. The evolution of the quality of life of people after stroke

Next we present the statistical description of the variables in the compartment: The evolution of the quality of life in post-stroke control group (CG) subjects [41, pp. 74-76]

**Table 5.3. Types of distribution for quality of life scores (CG)**

Quality of life scores	Shapiro–Wilk		
	Statistical indices	Freedom degree	P
Quality of life (physical health) after 1 year	.958	21	.482
Quality of life (psychological field) after 1 year	.964	21	.595
Quality of life (social relations) after 1 year	.962	21	.561

Quality of life (environmental field) after 1 year	.984	21	.967
Quality of life (physical health) initially	.933	21	.159
Quality of life (psychological field) initially	.966	21	.654
Quality of life (social relations) initially	.947	21	.298
Quality of life (environmental field) initially	.928	21	.123
Quality of life (total) after 1 year	.981	21	.939
Quality of life (total) initially	.952	21	.374

The Shapiro-Wilk test shows that the data is distributed normally, the pair t test will be used for comparisons.

**Table 5.4. Quality of life score (CG physical health field)**

Quality of life score	Average	N	AS	t	p
Quality of life in the field of physical health after 1 year	12.16	21	2.28	2.81	.01
Quality of life in the field of physical health initially	11.53	21	1.88		

Subject averages (CG) of scores were compared at the WHO quality of life subscale in the field of physical health initially and after 1 year using the t-pair test. The t-pair test ( $t = 2.81$ ,  $p < .05$ ) shows that there is a statistically significant improvement in quality of life, the field of physical health, after one year of standard rehabilitation [41, pp. 74-75].

**Table 5.5. Quality of life score (CG psychological field)**

Quality of life score	Average	N	AS	t	p
Quality of life psychological field after 1 year	12.57	21	2.64	2.83	.01
Quality of life psychological field initially	11.68	21	2.19		

We compared the averages of the scores obtained by the subjects to subscale the WHO quality of life in the initial psychological field and after 1 year using the t-pair test. The t pair test ( $t = 2.839$ ,  $p < .05$ ) shows that there are significant differences between the initial scores and after 1 year, the score on the quality of life in the psychological field improves [41, p. 75].

**Table 5.6. Quality of life score (CG social relations field)**

Quality of life score	Average	N	AS	t	p
Quality of life in the field of social relations after 1 year	11.49	21	3.16	2.75	.012
Quality of life in the field of social relations initially	10.53	21	3.18		

At the subscale the quality of life, the field of social relations, the averages of the scores obtained at the initial evaluation and after 1 year were compared with the help of the t-pair test. The

t-pair test ( $t = 2.75$ ,  $p < .05$ ) shows that there are significant differences between the initial scores and after 1 year, the score on the quality of life in the field of relationships improves [41, p. 75].

**Table 5.7. Quality of life score (CG environmental field)**

Quality of life score	Average	N	AS	t	p
Quality of life (environmental field) 1 year	13.5782	21	2.06747	2.904	.009
Quality of life (environmental field) initially	12.7891	21	1.73771		

The averages of the scores obtained by the subjects at the WHO quality of life subscale of the environmental domain obtained initially and after 1 year of rehabilitation were compared using the t pair test. The t-pair test ( $t = 2,904$ ,  $p < .05$ ) shows that there is a statistically significant improvement in quality of life, environmental field.

**Table 5.8. Total quality of life score CG**

Quality of life score	Media	N	AS	t	p
Total quality of life after 1 year	49.80	21	8.01	2.75	.000
Total quality of life initially	46.54	21	7.11		

The comparison of the averages of the scores obtained by the subjects on the scale of the total WHO quality of life, initially and after 1 year was performed using the t-pair test, given the symmetrical distribution of the data. The t-pair test ( $t = 2.75$ ,  $p < .05$ ) shows that there is a statistically significant improvement in quality of life after one year of standard rehabilitation [41, p. 76]. In the following tables we present the evolution of the quality of life by domains in subjects after stroke experimental group (GE) [41, pp. 76-78]:

**Table 5.9. Types of distribution for quality of life (EG) scores**

Quality of life scores	Shapiro-Wilk		
	Statistical indices	Freedom degree	P
Quality of life (physical health) after 1 year	.922	27	.053
Quality of life (psychological field) after 1 year	.946	27	.172
Quality of life (social relations) after 1 year	.973	27	.685
Quality of life (environmental field) after 1 year	.935	27	.093
Quality of life (physical health) initially	.957	27	.309
Quality of life (psychological field) initially	.981	27	.890
Quality of life (social relations) initially	.971	27	.634
Quality of life (environmental field) initially	.975	27	.730

Quality of life (total) after 1 year	.948	27	.195
Quality of life ( total) initially	.968	27	.555

The Shapiro-Wilk test shows that the data are normally distributed, the t- pair test will be used for comparisons [41, p. 76]. The following are the scores on the quality of life scale by domain in the experimental group (EG) [41, p. 77]:

**Table 5.10. Quality of life score (EG physical health field)**

Quality of life score	Average	N	AS	t	p
Quality of life (physical health) after 1 year	13.52	27	2.30	3.421	.001
Quality of life (physical health) initially	12.35	27	2.91		

The mean scores obtained by EG subjects at the WHO physical health quality of life subscale at the initial and final assessment were compared with the t-pair test. The t-pair test ( $t = 3,421$ ,  $p < .001$ ) shows that there are significant differences between the initial scores and those obtained after 1 year of psychological intervention. After one year of intervention, the quality of life in the field of physical health improves following the application of the Post-Stroke Psychosocial Rehabilitation Program [41, p. 77].

**Table 5.11. Quality of life score (EG psychological field)**

Quality of life score	Average	N	AS	t	p
Quality of life (psychological field) after 1 year	12.54	27	2.91	2.971	.006
Quality of life (psychological field) initially	11.67	27	3.12		

We compared the averages of the scores obtained by EG subjects at the WHO quality of life subscale in the initial psychological field and after 1 year using the t-pair test. The t-pair test ( $t = 2,971$ ,  $p < .01$ ) shows that there are significant differences between the initial scores and after 1 year, the score on the quality of life in the psychological field improves. The test of statistical significance indicates that this increase is due to the application of the Post-Stroke Psychosocial Rehabilitation Program [41, p. 77].

**Table 5.12. Quality of life score (EG social relations area)**

Quality of life score	Average	N	AS	t	p
Quality of life (social relations) after 1 year	11.45	27	3.66	1.412	.17
Quality of life (social relations) initially	10.96	27	3.64		

The t-pair test ( $t = 1.412$ ,  $p > .05$ ) shows that there are no significant differences between the initial scores and after 1 year. After 1 year of rehabilitation, there is an improvement in the quality of life in the field of social relations, but this is not statistically significant [41, p. 77].

**Table 5.13. Quality of life score (EG environmental domain)**

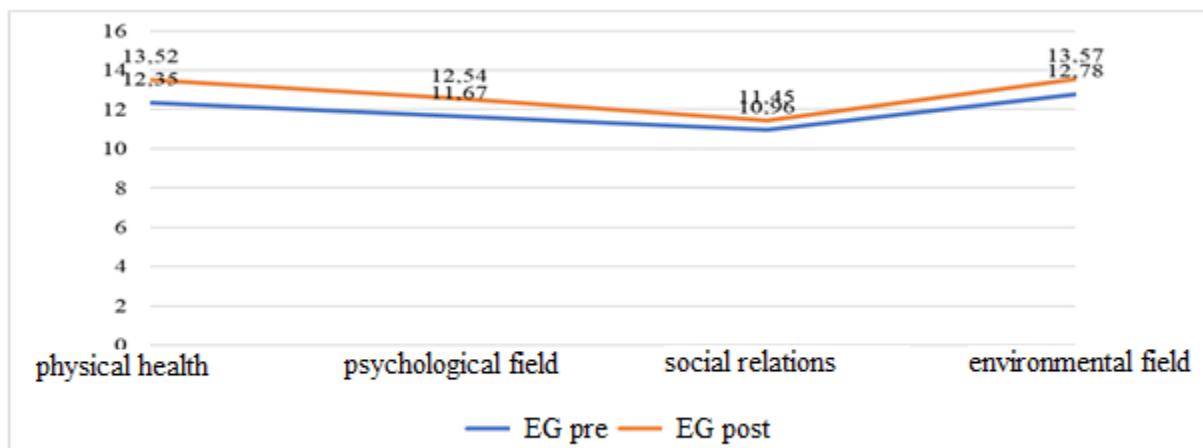
Quality of life score	Average	N	AS	t	p
Quality of life (environmental field) after 1 year	13.57	21	2.06	3.846	.001
Quality of life (environmental field) initially	12.78	21	1.73		

After a year of intervention, there is an increase in the quality of life, the average area. The t-pair test ( $t = 3,846$ ,  $p < .001$ ) shows that this improvement is statistically significant [41, p. 78].

**Table 5.14. EG's total quality of life score**

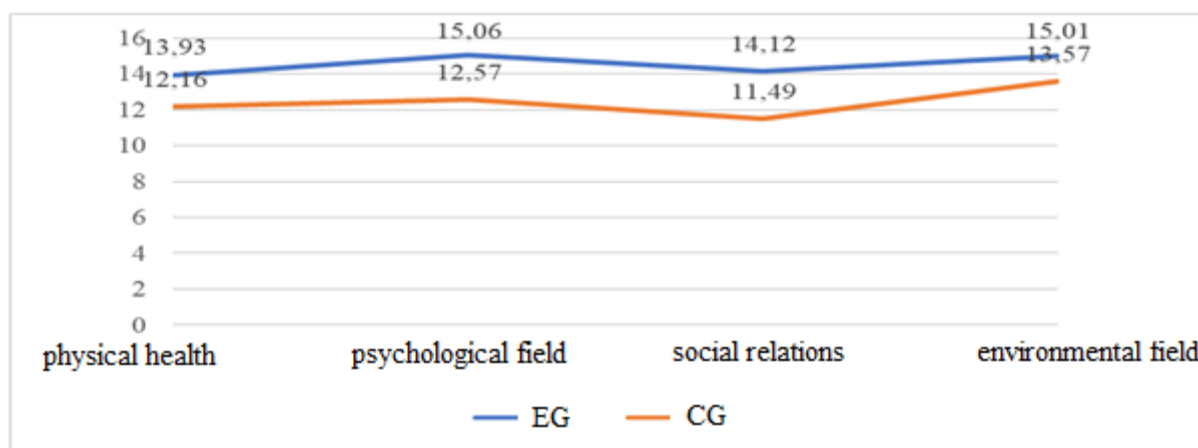
Quality of life score	Average	N	AS	t	p
Quality of life (total) after 1 year	50.98	27	10.21	3.677	.001
Quality of life (total) initially	47.29	27	11.56		

The t-pair test ( $t = 3,677$ ,  $p < .01$ ) shows that there are significant differences between the total scores obtained at the initial and final evaluation, after 1 year. Thus, after 1 year of rehabilitation, the quality of life of stroke subjects in the study group (EG) improves, and this is due to the post-stroke psychosocial rehabilitation program [41, p. 78].



**Figure 5.1. Average quality of life in pre and post EG domains**

The average quality of life by domains (physical, psychological, social and environmental) increases following the application of the post-stroke psychosocial rehabilitation program to people in the experimental group (EG) in all evaluated areas, as illustrated in Figure 5.2 [41, p. 78].



**Figure 5.2. Average quality of life in the EG and CG fields (post)**

Next, we present comparisons regarding the level of quality of life by domains in the two study groups, experimental group and control group (EG and CG) [41, pp. 83-85]:

**Table 5.15. Comparison between quality of life (physical health field) at EG and CG**

Quality of life score	Group	N	Average	AS	T	P
Quality of life in the field of physical health after 1 year	CG	21	12.16	2.28	2.42	<.01
	EG	27	13.93	2.76		

The averages of the scores obtained at the WHO subscale in the field of physical health in subjects who benefited from standard rehabilitation (CG) were compared with those who were rehabilitated as standard but also with the post-stroke psychosocial rehabilitation program (EG). After 1 year of rehabilitation, the t-test ( $t = 2.42$ ,  $p < .01$ ) shows that there is a significant difference, EG subjects have a better level of quality of life, physical health, and this is due to the post-stroke psychosocial rehabilitation program [41, p 79].

**Table 5.16. Comparison between quality of life (psychological field) in EG and CG subjects**

Quality of life score	Group	N	Average	AS	T	P
Quality of life psychological field after 1 year	CG	21	12.57	2.64	28.52	<.001
	EG	27	15.06	2.42		

The averages of the scores obtained at the WHO psychological subscale in subjects who received standard rehabilitation (CG) were compared with the averages of the scores obtained by those who were intervened by the Rehabilitation Program (EG), using the t-test for independent samples. After 1 year of treatment, the t test ( $t = 28.52$ ,  $p < .001$ ) shows that there is a statistically significant difference in the quality of life on the psychological dimension, the subjects in the study group (EG) having a better quality of life [41, p. 80].

**Table 5.17. Comparison between quality of life (social relations field) in EG and CG subjects**

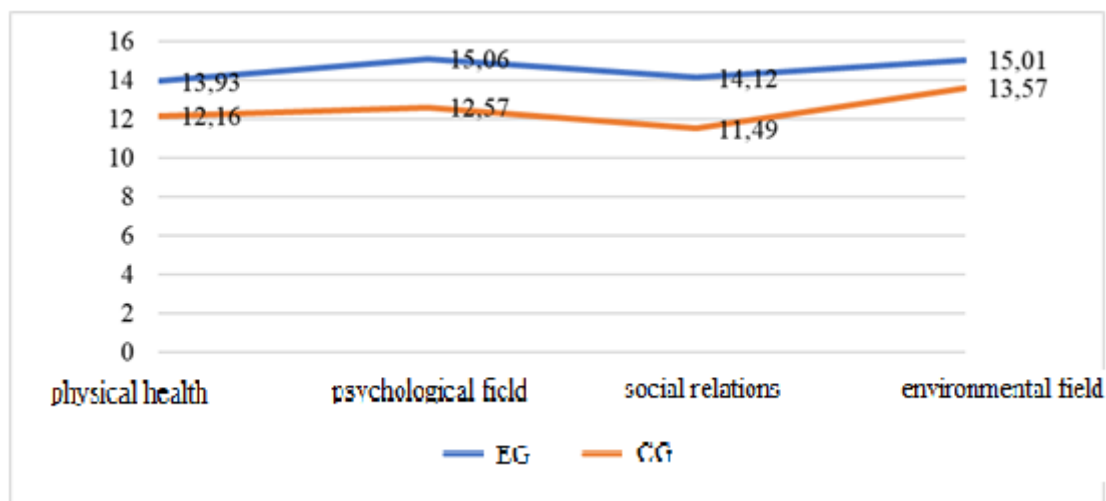
Quality of life score	Group	N	Average	AS	T	P
Quality of life in the field of social relations after 1 year	CG	21	11.49	3.16	18.29	<.001
	EG	27	14.12	3.61		

The averages of the scores obtained at the WHO subscale in the field of social relations in the subjects who benefited from standard rehabilitation (CG) were compared with those of the subjects who were rehabilitated through psychological interventions through a Psychosocial Rehabilitation Program (EG). The comparison was performed using the t-test for independent samples. The t- test shows that there is a significant difference in the quality of life in the field of social relations after 1 year of rehabilitation ( $t = 18.50, p < .01$ ), the subjects from the EG group having a better quality of life at this level [41, pp. 80].

**Table 5.18. Comparison between quality of life (environmental domain) in EG and CG subjects**

Quality of life score	Group	N	Average	AS	T	P
Quality of life environmental field after 1 year	CG	21	13.57	2.06	6.60	<.001
	EG	27	15.01	2.15		

And in terms of quality of life in the environmental field, after 1 year of rehabilitation, the t-test ( $t = 6.60, p < .001$ ) indicates that there is a significant difference between the two groups, the study group (EG) having a better quality of life in this field [41, p. 80].



**Figure. 5.3. Average quality of life in EG and CG fields (post / after one year)**

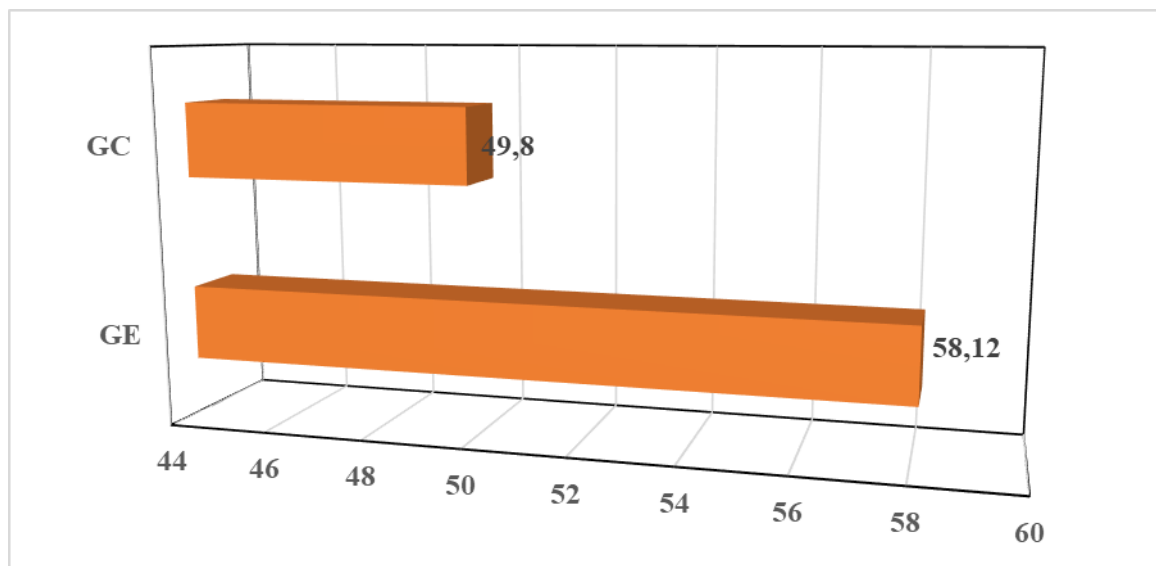


The average quality of life of people after stroke on the studied fields (physical, psychological, social and environmental), to which the Post-Stroke Psychosocial Rehabilitation Program was applied, is clearly higher than the people in the control group, on all studied fields, fact observed in Figure 3.2.2 set out above [41, p. 80].

**Table 5.19. Comparison between quality of life (total) after 1 year in EG and CG subjects**

Quality of life score	Group	N	Average	AS	T	P
Total quality of life after 1 year	CG	21	49.80	8.01	8.35	<.001
	EG	27	58.12	10.21		

After 1 year of rehabilitation, the t-test ( $t = 8.35, p <.001$ ) shows that there is a significant difference, in terms of quality of life, the total score, the subjects in the group (EG) having a better quality of life compared to those from the control group [41, p. 81].



**Figure 5.4. Average quality of life of EG and CG (post / after one year)**

The data presented in the next figure (Figure 5.4) show an increase in the average quality of life in both study groups on all dimensions studied in one year of rehabilitation, but the results of the experimental group show a much higher average in all dimensions following the application of the Post-stroke Psychosocial Rehabilitation Program [41, p. 82].

### **5.3. The efficiency of the post-stroke psychosocial rehabilitation program: experimental arguments**

The study aimed to evaluate the **Psychosocial Rehabilitation Program for people after stroke**, on the evolution of the efficiency of rehabilitation of people after stroke, over a period of one year, of two groups of subjects (one consisting of subjects with rehabilitation interventions in

according to existing clinical protocols (standard), mostly medical, and another - consisting of subjects with standard rehabilitation in association with the post-stroke psychosocial rehabilitation program, the ultimate goal being to compare the quality of life of these categories of subjects [41, p. 125]. The psychosocial rehabilitation of people after stroke aimed at achieving significant personal goals, in life or work, social reintegration, the restoration of hope and faith, despite illness and disability [251]. Basically, the targeted aspects are the increase of functionality and quality of life, despite the presence of symptoms and difficulties [41, p. 128].

The rehabilitation intervention was based on case management, the function of case management being to support the independent evolution of the person in the community by identifying, capitalizing and amplifying a variety of internal and external resources (opportunities) [41, p. 83]. In providing the services, the principle of minimally restrictive alternatives and that of self-determination were taken into account, providing the minimum support necessary to promote personal autonomy and respect for the freedom to decide [41, p. 85]. The medical-psycho-social assistance services provided were grouped into categories: basic medical and psychological services; social support and support services; specialized rehabilitation services; specialized counseling services [41, p. 85].

The implementation of the intervention aimed at the application of the post-stroke psychosocial rehabilitation program and the way of providing the psychological rehabilitation services that were planned. The complexity of the case and the available resources were the basis for establishing the minimum package of services, and the objectives of the Psychosocial Rehabilitation Program referred to the identified problems, with the stipulation of specific activities to address them [41, p. 84]. Depending on the dimensions and needs addressed, the services were detailed as follows: services that focus on psycho-emotional health, psycho-education services, symptom management, psychological counseling, skills training, situation management, mediation, prophylactic interventions, prophylaxis of risk behaviors, leisure activities, stimulation of autonomy and creativity, stimulation of the social support network, etc. [41, p. 85]. After one year of intervention, people in the process of post-stroke rehabilitation, who benefited from a complex psychosocial rehabilitation program, show a better evolution compared to the initial phase and the standard treatment of the control group (they have a lower level of positive, negative, general and total symptoms compared to pretest and control) [41, p. 96].

The formalized and standardized needs assessment through a Rehabilitation Program is based on the assumption that the needs can be measured objectively. However, the difficulty of establishing a consensus on what constitutes a need is given by its socially negotiable nature [216].

What may be a need for a particular person, in a given context, may not be a need for another. Moreover, over time, including people's perceptions and expectations of their own needs may change, and they may inevitably lead to new theories about what is necessary or desirable [194, pp. 321-325]. In our opinion, the offer of a post-stroke Psychosocial Rehabilitation Program, which is person-centered and needs-based, is primarily a moral choice. It is a perspective that considers it important to reduce suffering, regardless of the circumstances in which the affected person is and which argues that the level of development of a society is reflected by the extent to which it manages to care for vulnerable people [41, p. 86]. In general, people who have benefited from a post-stroke psychosocial rehabilitation program have a better level of functioning and more resources in the immediate environment compared to post-stroke people with standard rehabilitation interventions, so their response to this type of intervention is one better. Community intervention aimed at mobilizing existing environmental resources and strengthening social support, in this sense people with post-stroke disabilities being clearly advantaged [41, p. 87].

Studies have found no significant differences between post-stroke individuals and the general population in terms of quality of life [3; 4], and this may be due to the fact that people with chronic disabilities after stroke may have a lower level of standards and expectations [229]. Regarding people with post-stroke disorders, research shows that they have a lower quality of life than the general population and other people with somatic diseases or other disabling disorders [230]. Recent studies [4] also show that psychological factors such as depressive symptoms reported by people after stroke were associated with a lower quality of life. Understanding or awareness of the disease, although an important predictor of favorable clinical outcome, does not appear to influence quality of life [41, p. 88]. Among the variables that affect the quality of life of people with post-stroke disorders were identified disease duration, educational level and gender, perceived social support and adherence to difficult and long-term rehabilitation interventions [194, pp. 321-325; 249; 250].

In the experimental group, we observe an increase in quality of life 1 year after intervention, compared to the initial assessment in terms of physical health, psychological, environmental and quality of life in general (overall score). The provision of counseling services by the multidisciplinary post-stroke rehabilitation team had a positive effect on the quality of life and the full involvement of the beneficiary and their partners in the planning and provision of services, as an active part in the therapeutic process. The conclusions of this study are in line with those of other research that emphasizes the importance of addressing the side effects of the rehabilitation process and its effective management [41, p. 90].

Social interactions through psychosocial rehabilitation programs seem to play a decisive role in the well-being of people after stroke [15]. Also, the presence of friendships, especially close ones (increased number of friends) correlates with increased quality of life and the ability to adjust effectively to stress [21; 22], while marital status is associated with higher life satisfaction [15]. Supportive families have an important role in addressing the emotional, social and economic difficulties encountered by people with disabilities after stroke and, thus contribute to increasing the quality of life [41, pp. 92-93]. Thus, we can firmly conclude that the objective of the study to assess the importance of the effect of the post-stroke psychosocial rehabilitation program, which aims to optimize rehabilitation after stroke, by training skills of cognitive-behavioral self-regulation, improving physical condition and psycho-social variables among these people, both men and women, were reached. The study also demonstrated the adequacy of the post-stroke psychosocial rehabilitation program, which is to be used as a predictor of the successful use of post-stroke psychosocial rehabilitation programs in this group of people, in an involvement, social adaptation and improving their quality of life [41, pp. 95, 96].

#### **5.4. Complementary therapies of psychosocial rehabilitation of people after stroke**

Rehabilitation programs allow people with chronic disorders to restore a lifestyle that is as active, productive, qualitative and optimal as possible, within the limits dictated by the disease process. [41, p. 97]. We believe that the already validated post-stroke psychosocial rehabilitation program, with certain developments, adjustments and additions, can be applied and used in people with chronic disabilities and other profiles, in order to reduce anxiety, depression, mental stress and stimulate motivation for rehabilitation. And the principles, methods, procedures and techniques of working with people with disabilities in the process of post-stroke rehabilitation, can be the basis for developing other programs to reduce problems. Improving psychosocial variables among people with stroke, based on psychological therapies, presents a safe method for optimizing the rehabilitation process and increasing the quality of life [41, p. 97].

Today there are distinct components recommended for effective post-stroke rehabilitation programs, using the guidelines of researchers around the world, for each component and phase of the rehabilitation or secondary prevention program, with an emphasis on the psychosocial component. On this basis, we aimed to examine these methods of improving psychosocial variables, and update existing recommendations (guidelines, clinical protocols) for the development of psychological intervention programs in people after stroke, aimed at reducing the impact of disability and ameliorating quality of life in terms of implications on the psychosocial factors that condition it [41, pp. 97-98]. At the end of this paper, we come up with a set of complementary

therapy programs, mostly cognitive, that can be successfully applied to people after stroke. These programs were not experimentally validated in the study, but are proposed for research development [41, p. 98].

**In conclusion,** the psychosocial rehabilitation of people after stroke aims to increase the functionality and quality of life, despite the presence of symptoms and difficulties [41, p. 128], as well as the independent evolution of the person in the community by identifying, capitalizing and amplifying a variety of internal and external resources [41, p. 83]. The psycho-social assistance services provided, after one year of intervention to the people in the experimental group, demonstrate an increase in quality of life, compared to the initial assessment in terms of physical health, psychological, environment and quality of life in general (overall score). Social interactions through psychosocial rehabilitation programs seem to play a key role in the well-being of people after stroke. In our opinion, the offer of a post-stroke Psychosocial Rehabilitation Program, which is person-centered and needs-based, is primarily a moral choice. It is a perspective that considers it important to reduce suffering, regardless of the circumstances in which the affected person is and which argues that the level of development of a society is reflected by the extent to which it manages to care for vulnerable people [41, p. 86].

## GENERAL CONCLUSIONS AND RECOMMENDATIONS

Theoretical-applied interdisciplinary research dedicated to the therapeutic management of psychosocial rehabilitation to improve the quality of life of people after stroke has generated original scientific results that led to the establishment of the new research direction - Psychology of social rehabilitation after stroke. The relevance, epistemological and praxiological value of the new research direction is justified by the logic of the investigative approach based on an unique system of ideas and conclusions that describe the main values that define the scientific identity of research:

1. The psycho-social investigative study of the literature, aimed at determining the theoretical foundations of psychosocial rehabilitation of people after stroke, showed that stroke is a major medical-psycho-social problem of humanity, the main global cause of disabilities and third, the most common cause of death globally, posing a serious challenge to the scientific community on the background of the obvious concerns of psychosocial rehabilitation to increase the quality of life of people after stroke, return to a normal life and useful social activity appropriate to individual particularities [34, pp. 12; 38, pp. 6, 157; 41, pp. 8, 125; 43, pp. 7, 300; 46, pp. 9-10, 131]. The theoretical foundations of post-stroke rehabilitation are represented by psychological and sociological theories, models of post-stroke rehabilitation through psycho-social approaches to risk causes generated by the global scientific community and praxiological methodologies of psychological interventions (factor analysis, induction and synthesis of literature), hypothetical-deductive method and modeling, empirical methods (observation, interview, test, inventory and questionnaire, experiment, psychological interventions), mathematical calculation methods and statistical methods (method of calculating Pearson linear correlation coefficient, U Mann – Whitney test,  $\chi^2$  test, the T-Student test and the Wilcoxon test) used for objective assessment and post-stroke psychosocial rehabilitation.

2. The elaboration and scientific interpretation of the paradigm of psychosocial rehabilitation of people after stroke in terms of concepts, models and theories led to the explanation of the scientific significance of psychosocial rehabilitation after stroke, defined in terms of systemic, multidimensional approach to therapeutic, psychological and educational measures. The concept of post-stroke psychosocial rehabilitation was defined as a systematic and complex process of interventions through specific psychosocial methodology, aimed at restoring the functionality of people in difficulty, which guides the insertion in psychological, social and cultural and ensures the positive dynamics of quality of life on the axes: family, socio-professional through civic

responsibility of community members to reduce maladaptation and social marginalization of people after stroke [34, pp. 84-86, 103; 43, pp. 64, 76; 46, pp. 43, 48, 55].

3. The complex process of post-stroke psychosocial rehabilitation was theoretically and conceptually substantiated, resulting: from the rigorous analysis of national and international experiences of optimizing the psychosocial condition of people who suffered stroke, from the precepts of the humanist paradigm based on the concept of man-value, social humanism and human solidarity, from the ideas of humanistic psychology and psychotherapy, from the concept of personality rehabilitation, which in our opinion, is a coherent organization and a set of structural, psychological and intellectual information, reflected in behaviors of personal development, adaptation and social integration [ 34, pp. 84, 93; 43, pp. 64, 76; 46, pp. 48, 50, 55].

4. In the context of the scientific interest for the methodology of research and rehabilitation after stroke, the social factors determining the psychosocial rehabilitation of people after stroke (demographic, behavioral impact on stroke dynamics) and individual factors (cognitive, affective, personality, motivational, volitional, personal reserves, social adaptation, quality of life) were established [34, pp. 55, 63; 43, pp. 129, 140, 146, 155, 166; 46, pp. 43, 73].

5. Valuing the system of ideas derived from the theoretical course of research, was developed and scientifically based on the Conceptual model of psychosocial rehabilitation of people after stroke, becoming an epistemological reference framework in research, stimulating the development of a post-stroke psychosocial rehabilitation program. The indicators of post-stroke psychosocial rehabilitation were established, elaborated based on the essential parameters of the quality of life: cognition: power to concentrate attention, updating information, immediate memory, temporo-spatial orientation, capacity for abstraction; language and communication: understanding explicit and implicit meaning, fluency of communicative discourse, communicative disposition; affectivity: emotional stability, positive emotional orientation, emotional discipline, channeling emotional energy; personality: positive self-image, aspirations and action coherence, vital activism, ability to appreciate priorities, social autonomy; will: the ability to achieve goals, courage and perseverance, the ability to make decisions, the power to formulate initiatives, endurance; motivation: need for performance, motivation for approval, activity orientation; self-esteem: self: emotional, social, physical, anticipatory, orientation in the sense of life, viability, general self-efficiency; personal resources: optimism, mobility, work capacity, emotional spectrum, freedom, viability, social support, self-efficiency [43, p. 106; 46, pp. 61, 69, 106-114, 117].

6. The urgent need to study the functional parameters of psychosocial rehabilitation led to the establishment of variables and the determination of the specific methodology for researching

psychological disorders of post-stroke people, the use of which provided valuable information on the priority dimensions of post-stroke psychosocial rehabilitation. The psychodiagnostic approach was applied experimentally and the psychological peculiarities of post-stroke people were established, the methodology of experimental psychological research, being developed based on the Conceptual Model of psychosocial rehabilitation of post-stroke people, psychosocial rehabilitation indicators. Through the empirical approach in in-depth studies on the priority dimensions of psychosocial rehabilitation, the recovery potential of post-stroke people was identified, scientific explanations were formulated for the mechanisms underlying the behavior and mental processes of these people in relation to the social environment, fact that facilitated the construction of an effective solution for providing the necessary psychological support in the post-stroke psychosocial rehabilitation process in psychological plans triggering the subjective feelings of the disease and the perceived quality of life in the evolution of the clinical condition [34, p. 78, 108; 38, pp. 10-126; 43, pp. 176-294].

7. The experimental data allowed the description of the psychological profile of post-stroke people generating new theoretical knowledge that contributed to the development of the new research direction, the concept of post-stroke psychological profile referring to individual characteristics constantly and coherently reflecting predispositions in personal, emotional, motivational, attitudinal and behavioral fields. By analyzing the experimental data at the stage of finding, we established that post-stroke people have indications for psychosocial rehabilitation interventions for which a multidisciplinary team would be responsible, whose activity involves capitalizing on a set of therapeutic and psychobehavioral measures included in complex rehabilitation programs aiming limiting the impact of stroke on quality of life. The results obtained at the finding stage and the conclusions formulated allowed us to conclude that people with stroke have an increased prevalence of psychological disorders compared to the general population, leading to personality disorders, and understanding the psychological and social factors associated with psychological disorders are essential to ensure an adequate medical, psychological and social care for people after stroke [38, pp. 148, 152; 43, pp. 294].

8. Identifying the psychological peculiarities of people with stroke and creating a psychological profile of this group of people created premises for the development of the Psychosocial Rehabilitation Program for people after stroke designed at the level of complex steps capable of maintaining their autonomy, motivation to live, dignity and interest in social relations to the possible extent. The psychosocial rehabilitation program for post-stroke people was implemented and validated experimentally in the perspective of ensuring the quality of life, ensured



by the collaboration of specialists in the multidisciplinary therapeutic team. The proposed innovative methodology for reducing psychological difficulties has led to the valorization of principles, directions, techniques, procedures and integrated ways from different well-organized and developed psychological orientations, beneficial for people after stroke. The efficiency of the post-stroke psychosocial rehabilitation program was demonstrated by comparative analysis of experimental values that became possible by training psychosocial factors (involvement of members, community) and individual factors (development of personality components that promote the development of positive emotional skills, motivation, will, key elements of self-awareness, development of independent skills, personality activism, self-confidence and elimination of inhibitions, development of verbal and non-verbal communication and development of social relationship skills) [41, p. 8, 20, 26, 28, 64 , 70-82].

9. The scientific arguments revealed in this research prove the consolidation of the **new research direction, Psychology of social rehabilitation of people after stroke**, which refers to the premiere of the concept of psychosocial rehabilitation of people after stroke, complex multidisciplinary approach reflected in the theoretical basis of the Conceptual Model of rehabilitation as a theoretical premise for the elaboration and validation in psychological practice of the Program of psychosocial rehabilitation of people after stroke, reflected in the improvement of the quality of life. The new scientific knowledge justifies the assertion of the new research direction and theoretically substantiates the therapeutic interventions of psychological nature in the field of rehabilitation of people after stroke, and the methodology presented and described creates favorable conditions for other specialists (doctors, rehabilitologists, clinical psychologists) in evaluation of post-stroke person, as well as in understanding the legitimacy of the manifestation of psychological disorders after stroke [41, p. 82, 95, 125].

10. It has been scientifically proven that ensuring the originality of research has been expressed in optimizing the process of psychosocial rehabilitation of people after stroke, expressed in improving psychological indicators of rehabilitation, social adjustment and increasing the quality of life of these people. The dynamics of psychosocial rehabilitation resulting from experimental-psychological research in the application of the Psychosocial Rehabilitation Program for people after stroke, proves the improvement of the regulatory function of subjects (cognitive control, emotion regulation, volitional control, motivational, personality reserves, behavioral activism, optimism, etc.). , of preferable methods of self-regulation and activation of psychological mechanisms of self-defense. The detailed study of the behavior of people after stroke allows the estimation of psychological reactions to the situation created after the stroke, of the preserved

person-environment resources, of the productive behavioral styles of overcoming awkward situations, which are still very useful in teaching the person to use different forms of behavior in the process of adaptation and social inclusion [41, p. 82, 95, 125].

11. Arguments were made regarding the formative impact of the program and of the complementary therapies for psychosocial rehabilitation of post-stroke people oriented towards the discovery and development of individual personal resources and the learning by the targeted subjects of different forms of self-regulation of post-stroke behavior. As a result of the application of the post-stroke psychosocial rehabilitation program, it was possible to stimulate the harmonious functioning of the cognitive-behavioral-emotional components in the manifested behavior of post-stroke subjects and the positive dynamics of psychosocial rehabilitation conditioned by the harmonization of cognitive, behavioral and emotional functioning as main elements of self-regulatory behavior, vital and behavioral activism, will, motivations and personal goals, these helping to raise the level of stability of individuals and to improve indicators of rehabilitation, quality of life and social integration of people. The results of the research derived from the capitalization of the Conceptual Model of post-stroke psychosocial rehabilitation certify the solution of the important scientific problem in research - optimizing the psychosocial condition of post-stroke people, contributing to the **development of new research direction - Psychology of post-stroke social rehabilitation.**

#### **RECOMMENDATIONS:**

##### **To decision makers:**

- capitalizing on the research results in the elaboration of public health policies regarding the post-stroke psychosocial rehabilitation of the population within the national strategic directions for training specialists in the field, contributing significantly to the expansion of epistemological boundaries and diversification of rehabilitation strategies by designing organizational guidelines of the rehabilitation service in the Republic of Moldova, which will allow the optimization of the psychosocial rehabilitation of people after stroke;
- reconsideration of existing conceptions regarding post-stroke psychosocial rehabilitation within the institutional and national speciality Protocols, new knowledge produced in research creating opportunities to capitalize on innovative models and programs, in order to improve the quality of life of people after stroke.

##### **To the vocational training institutions for psychologists:**

- conceptualization of new study programs aimed at optimizing post-stroke psychosocial rehabilitation by developing curricular resources (textbooks, guidelines and works to popularize science) and formulating professional suggestions to medical staff, rehabilitologists, psychologists and those responsible for post-stroke people and others categories of people with special needs;
- valorization of institutional opportunities for the insertion of new psychological knowledge regarding post-stroke psychosocial rehabilitation in the initial professional training curriculum of psychologists in order to renovate the contents and teach specialized university courses (compulsory, optional, facultative) within the faculties of medicine, psychology and clinical psychology;
- streamlining the teaching of compulsory university subjects for the initial professional training of specialists in the field of clinical psychology, rehabilitation psychology, social assistance, special psychopedagogy (in the disciplines entitled "Health Psychology", "Psychological evaluation and psychodiagnosis", "Social Psychology", "Social Inclusion of people with disabilities ", etc.).
- university promotion of the complex research topic in Psychology of post-stroke rehabilitation at the level of teaching staff research through multispective scientific research and multidisciplinary approach for the full capitalization of medical, psychological, pedagogical and social experience in order to optimize post-stroke therapeutic management;
- procedural capitalization of research results in order to optimize the continuous professional training of specialists in the field through training and information activities anchored in the issue of rehabilitation, for various categories of social actors (social workers, psychological and social counselors, people with special needs, profile NGOs, etc.).

**To the practicing psychologists:**

- the praxiological capitalization of the research results for the conceptualization of an individual psychodiagnostic methodology for psychosocial rehabilitation of people with post-stroke disabilities, contributing to the consolidation of the psycho-social rehabilitation service based on the multidisciplinary team;
- organization based on the fundamentally new results of research in practical training activities: round tables, workshops, trainings, dedicated to psychosocial rehabilitation and intended for specialists in various fields: doctors, psychologists, pedagogues, social

workers, rehabilitologists, of multidisciplinary rehabilitation teams, families involved in the psychosocial rehabilitation of people after stroke;

- carrying out information activities: information campaigns about the risk factors of stroke (psychological and social), regarding the social echo of post-stroke disability, the psychological impact of stroke, protective factors of stroke, as well as the involvement of the media factor in disseminating information about fighting stroke.

**To researchers:**

- extending the investigative approach to other dimensions within the new research direction Psychology of post-stroke social rehabilitation: Psychodiagnosis of post-stroke people, Psychology of post-stroke health, Influences of post-stroke disability on social consciousness, etc .;
- The scientific conclusions of the research can be used to initiate research projects at national and international level, aimed at developing the knowledge system through new explorations of complex issues related to the new field of research Psychology of social rehabilitation of people after stroke.

## BIBLIOGRAPHY

1. ANTOCI, D. Inteligența emoțională și starea de bine. În: *Materialele Conferinței Republicane a Cadrelor Didactice*. Chișinău, 2021, vol. 4, p. 22-29. ISBN: 978-9975-76-321-9
2. BĂJENARU, O. Ghiduri de diagnostic și tratament în neurologie. București, Ed. Amaltea 2010, 544p. , pp. 7-27. ISBD UNIMARC
3. BĂLȚĂTESCU, S. Influența factorilor subiectivi asupra calității vieții. În: *Revista Calitatea vieții*, vol. 9, nr. 3–4, București, Ed. Academiei Române, 2018, pp. 269–277. ISSN 1018-0839
4. BĂLȚĂTESCU, S. Modele ale percepției calității vieții. În: *Revista Calitatea vieții*, vol. 10, nr. 3–4, București, Ed. Academiei Române, 2019, pp. 179–185. ISSN 1018-0839
5. BERNIC, V. Estimarea impactului stresorilor psihosociali în etiologia accidentului vascular cerebral. În: *Sănătate Publică, Economie și Management în Medicină*. Nr.4 (82), 2019, pp. 117-121. ISSN 1729-8687
6. BERNIC, V., GROPPA, S. și al. Evaluarea particularităților de răspândire a accidentelor vasculare cerebrale în Republica Moldova. În: *Buletinul Academiei de Științe a Moldovei. Științe Medicale*. 2017, nr. 1(53), pp. 29-32. ISSN 1857-001
7. BOLBOCEANU, A. Oportunități de formare a gândirii medicale. În: *Univers Pedagogic*. nr.4 (60), 2018, p. 63-74. ISSN1811-5470
8. BOLBOCEANU, A. Stări psihoemoționale ale medicilor în situații medicale critice. În: *Materialele Conferinței Curriculumul școlar*. Chișinău, Moldova, 7-8 decembrie 2018, pp. 503-510. ISBN: 978-9975-48
9. BOROZAN, M. Argumente teoretice privind studiul sociologiei emoțiilor. În: *Materialele Conferinței Managementul educațional: realizări și perspective de dezvoltare*. Bălți, Moldova, 27 aprilie 2017, p. 219-223. ISBN 978-9975-132-97-8
10. BOROZAN, M. Axiologia emoțiilor din perspectiva rolului strategic al cercetării pedagogice în schimbarea socială. În: *Materialele Conferinței Managementul educațional: realizări și perspective de dezvoltare*" Bălți, Moldova, 27 aprilie 2017, pp. 229-233. ISBN 978-9975-132-97-8
11. BOTNARI, V., REPEȘCO, G. Tangențe și discrepanțe dintre gândirea independentă și alte tipuri de gândire. În: *Materialele Conferinței Republicane a Cadrelor Didactice*. Chișinău, 2021, vol. 4, pp. 214-276. ISBN: 978-9975-76-301-1
12. BUCUN, N., ANȚIBOR, L. Relațiile interpersonale ca dimensiune psihologică a calității vieții. În: *Univers Pedagogic*, 2013, nr. 2, p. 21-32. ISSN1811-5470
13. BUCUN, N., GLAVAN, A. Nivelul optimismului în contextul potențialului personal al pacienților cu accident vascular cerebral. În: *Materialele conferinței „Educația: factor primordial în dezvoltarea societății”*. Chișinău, Moldova, 9 octombrie 2020. pp. 215-221. ISBN 978-9975-48-178-6
14. BUCUN, N., GLAVAN, A. Repere teoretice și metodologice ale evaluării psihologice a persoanelor post accident vascular cerebral. *Revista Univers Pedagogic*, Nr.2 (66), 2020. pp. 76-87. ISSN1811-5470
15. BUDIRCĂ, A.G. Optimizare cognitivă pentru creșterea calității vieții la persoanele cu și fără afazie post accident vascular cerebral. *Rezumatul tezei de doctorat*, București, 2016. pp.8-12.
16. Cartea albă a specialității de medicină fizică și de reabilitare în Europa. Uniunea Europeană a Medicilor Specialității (UEMS) Academia Europeană de Reabilitare Medicală (AERM) Societatea Europeană de Medicină fizică și Reabilitare (SEMFR) Editura Universitară Carol Davila. București, 2006, 36 p.
17. CIOCANU, M., TALMACI, V., CATANĂ, V. Legislația Republicii Moldova în problemele calității serviciilor medicale. În: *Sănătate Publică, Economie și Management*. Chișinău, 2018/3 (25), 59 p. E-ISSN: 2587-3873

18. CIORBEA, I. Personalitatea psihoterapeutului și procesul terapeutic. Editura Polirom, 2010, p. 195. ISBN 9789734616305
19. COBÎLEANSCHI O. Reabilitarea medico-socială a pacienților cu epilepsie în regim de ambulator. Teza de doctor habilitat, USMF, N. Testemițanu, 2015.
20. COBÎLEANSCHI O., CONDRATIUC S. Specificul unei comunicări cu pacienții cu dizabilități. Conferința „Sănătatea, medicina și bioetica în societatea contemporană: studii inter și pluridisciplinare”. Chișinău, Moldova, 6-7 noiembrie 2020 pag. 65-73. ISBN: 978-9975-56-805-0
21. COJOCARI, D., AGAPII, E., BODIU, A. Recuperarea pacienților după accident vascular cerebral ischemic, cu patologie stenoizantă a arterelor bazinului carotidian, în urma tratamentului chirurgical. În: Știința culturii fizice, 2014, nr. 20/4, pp. 72-80. ISSN: 1857-4114
22. COJOCARU, ȘT. Metode apreciative în asistența socială. Editura POLIROM, 2015, 224 p. ISBN: 973-46-0124-5
23. COJOCARU V. Teoria și metodologia transferului inovațional în învățământul superior. Chișinău: Pontos, 2010, 244 p.
24. DĂNĂILĂ, L., GOLU M., Tratat de neuropsihologie. Editura Medicală, 2017, vol. 1, 649 p, pp. 15, 571. ISBN: 9789733907909
25. ENĂCHESCU, C. Tratat de igienă mintală. Iași: Polirom, 2014, 408 p. ISBN: 978-973-46-0951-2
26. FURDUI, T., CIOCHINĂ, V. De la Fiziologia generală la știința nouă în biomedicină – Sanocreatologia – calea de dezvoltare a științei în Institutul de Fiziologie și Sanocreatologie al Academiei de Științe a Moldovei. În: Buletinul AȘM. Științele vieții. Nr. 1 (328) 2016, p. 75. ISSN: 1857-064
27. GASNAȘ, A. Perturbările rețelelor cerebrale după un accident vascular cerebral: studii ale conectivității cerebrale. În: Archives of the Balkan Medical Union. 2017, vol. 52, 1 (supl. 1), pp. 54-59. ISSN 0041-6940
28. GASNAȘ, A., GROPPA, S. Neuroplasticitatea cerebrală în accidental vascular cerebral. În: Buletinul Academiei de Științe a Moldovei. Științe Medicale. Numărul 2 (47), 2015. ISSN 1857-0011, pp. 100-107. ISSN 1857-0011
29. GLAVAN A., **Incluziunea socială a persoanelor cu ictus cerebral - limite și perspective. În: Culegere de studii: Dialog intercultural Polono-Moldovenesc, vol.II, nr.2, Centrul de cultură Poloneză UST, Chișinău: 2018 pp. 3-9. ISBN: 978-9975-76-273-1**
30. GLAVAN, A. Calitatea vieții tinerilor din perspectiva sănătății. În: Revista „Univers Pedagogic”, nr. 1 ( 53), 2017. p. 89 - 93. ISSN:1811-5470
31. GLAVAN, A. Conceptul de terapie ocupațională și aplicabilitatea practică în reabilitarea post AVC. În: **Materialele Conferinței Științifice Internaționale: Cadrul didactic – promotor al politicilor educaționale, Ch.: 2019, pp. 274-283, ISBN 978-9975-48-156-4**
32. GLAVAN, A. Consilierea psihosocială a persoanelor cu dizabilități în procesul de reabilitare complexă prin programe educaționale. În: **Materialele conferinței republicane a cadrelor didactice, Psihopedagogie și Managementul Educației, volumul V; Chișinău, UST, 1-2 martie 2019, p. 38-42, ISBN 978-9975-76-266-3**
33. GLAVAN, A. Dimensiuni ale reabilitării post AVC. În: **Filantropia – arta binelui. Cadre Noologice, Grupuri Vulnerabile, Omul Limitat. Volum de lucrări, Editura Universitară, București, 2020, pp. 79-93 ISBN 978-606-28-1112-9**
34. GLAVAN, A. Dimensiuni psihologice ale reabilitării post accident vascular cerebral. **Monografie. Coord. șt. N. BUCUN. Ch.: UST, 2019. 282 p. ISBN 978-9975-76-292-2**
35. GLAVAN, A. **Incluziunea socială a persoanelor cu ictus cerebral - limite și perspective. În: Culegere de studii: Dialog intercultural Polono-Moldovenesc, Centrul de cultura Poloneză UST, Chișinău, 2018, nr.2, vol. II, pp. 3-9. ISBN 978-9975-76-273-1**

36. GLAVAN, A. Incluziunea socio-profesională a persoanelor cu ictus cerebral suportat. În: **Materialele conferinței Științifice Internaționale: Evaluarea în sistemul educațional: dezbateri actuale.** Chișinău, IȘE: 9-10 noiembrie 2017, pp. 421-425. ISBN 978-9975-48-118-2
37. GLAVAN, A. Îmbunătățirea modalităților de incluziune socială a persoanelor în urma accidentului vascular cerebral bazată pe conceptele de învățare și de modificabilitate cognitivă Reuven Feuerstein. În: **Revista științifico-practică Vector European.** Chișinău, 2019, nr.3, pp. 139-143, ISSN 2345-1106 E-ISSN 2587-358X
38. GLAVAN, A. Metodologia cercetării psihologice post accident vascular cerebral. Monografie. UST: 2021, 188p. ISBN 978-9975-56-865-4
39. GLAVAN, A. Perspective sociale ale persoanelor cu dizabilități determinate de ictus cerebral. În: **Revista facultății de psihologie și Psihopedagogie specială a Universității Pedagogice de Stat Ion Creangă: „ Psihologie Pedagogie specială Asistență socială”,** nr.1 (50), 2018. p. 37 – 43. ISSN 1857 – 0224
40. GLAVAN, A. Profilul socio-demografic al persoanelor cu accident vascular cerebral. Studiu clinico-sociologic. **Revista Univers Pedagogic, Nr.2 (66), 2020.** pp. 93-103. ISSN 1811-5470
41. GLAVAN, A. Program de reabilitare psihosocială post accident vascular cerebral. Monografie. UST: 2021, 152 p. , ISBN 978-9975-56-866-1
42. GLAVAN, A. Reabilitarea capacităților cognitive ale adulților în urma unui accident vascular cerebral bazată pe conceptele de potențial de învățare și de modificabilitate structurală Reuven Feuerstein (investigație experimentală) În: **Materialele Congresului Științific Internațional Polono-Moldo-Român: Educație – Politici – Societae,** Chișinău, 1-4 aprilie 2019, vol.3, nr.1, p. 107-114, ISBN 978-9975-76-273-1
43. GLAVAN, A. Reabilitarea psihosocială a persoanelor post accident vascular cerebral. Monografie. Chișinău: IȘE. 2020, 408 p. ISBN 978-9975-48-182-3
44. GLAVAN, A. Semnificații ale conceptului de resurse personale în reabilitarea persoanelor post accident vascular cerebral. În: **Educația: factor primordial în dezvoltarea societății,** 09 octombrie, 2020, Chișinău, IȘE, pp. 197-203. ISBN 978-9975-48-178-6
45. GLAVAN, A. Studiul clinico-psihologic al tulburărilor cognitive la persoanele post accident vascular cerebral. **Psihologie. Revista Științifico-Practică,** volumul 36, nr. 1-2, 2020, ISSN P 1857-2502, ISSN E 2537-6276 pp. 40-48
46. GLAVAN, A. Teoria reabilitării psihosociale post accident vascular cerebral. Monografie. UST: 2021, 168p. ISBN 978-9975-56-864-7
47. GLAVAN, A., BARBU, E. Aspecte ale intervenției psihologopedice în cazul pacienților cu afazii instalate în urma traumelor cranio-cerebrale în clinica de Neurologie și Neurochirurgie a IMSP Institutul de Medicină Urgentă. În: **Buletinul Academiei de Științe a Moldovei,** 2 (47), Chișinău 2015, p. 211 – 213. ISSN 1857 – 0011
48. GLAVAN, A., BUCUN, N. Excitarea canalelor senzoriale pentru reglarea capacității de muncă. În: **Materialele conferinței Științifice Internaționale: Evaluarea în sistemul educațional: dezbateri actuale;** 9-10 noiembrie 2017, Chișinău, IȘE, p. 400-403, p. 490 ISBN 978-9975-48-118-2
49. GLAVAN, A., BURUNSUS, V. Rolul hipertensiunii arteriale în dezvoltarea AVC și a demenței de tip vascular. În: **Materialele conferinței a VI-a națională de epileptologie. Conferința a II-a națională de boli vasculare cerebrale consacrată Aniversării a 60 de ani de învățământ medical superior în Republica Moldova, sinteze și rezumate,** 11-13 mai 2005, p. 29-33.
50. GLAVAN, A., BURUNSUS, V., GLAVAN, I.U. Traumatismele cranio-cerebrale secundare accidentelor cerebrale vasculare. În: **Materialele conferinței a VI-a națională de**

- epileptologie. Conferința a II-a națională de boli vasculare cerebrale consacrată Aniversării a 60 de ani de învățământ medical superior în Republica Moldova, sinteze și rezumate, 11-13 mai 2005, p. 60-61.
51. GLAVAN, A., BURUNSUS, V., MARINA, A. Comunicarea ca suport psihoemotional în cadrul reabilitării medico-sociale a pacienților cu maladii cerebro-vasculare. În: Materialele conferinței a VI-a națională de epileptologie. Conferința a II-a națională de boli vasculare cerebrale consacrată Aniversării a 60 de ani de învățământ medical superior în Republica Moldova, sinteze și rezumate, 11-13 mai 2005, p. 57-60.
  52. GLAVAN, A., BURUNSUS, V., MARINA, A. Factorii ce influențează eficacitatea reabilitării bolnavilor cu ictus cerebral. În: Materialele conferinței a VI-a națională de epileptologie. Conferința a II-a națională de boli vasculare cerebrale consacrată Aniversării a 60 de ani de învățământ medical superior în Republica Moldova, sinteze și rezumate, 11-13 mai 2005, p. 49-53.
  53. GLAVAN, A., GROPPA S. Evaluarea neuropsihologica și proiectarea intervenției psihologice în reabilitarea pacienților cu accident vascular cerebral (AVC) În: „Archives of the Balkan Medical Union”, volum 52, aprilie 2017, Celsius Publishing House, p. 9-14. ISSN 0041 – 6940
  54. GLAVAN, A., GROPPA, S. Stigmatul social și impactul asupra calitatii vieții post AVC. În: Buletinul Academiei de Științe a Moldovei, 2016, nr. 3(52) pp. 154-161. ISSN 1857 – 0011
  55. GLAVAN, A., SIRIC I. Consilierea psihologică în procesul de recuperare medicală a pacienților. În: „Archives of the Balkan Medical Union”, volum 51, aprilie 2016, Celsius Publishing House, p. 188-189. ISSN 0041 – 6940
  56. GLAVAN, A., SIRIC, I. Evaluarea neuropsihologica a tulburărilor cognitive la pacienți după traumatisme cranio-cerebrale. În: Materialele Simpozionului Pedagogic Internațional „Tehnologii didactice moderne”, Chișinău, IȘE, 26-27 mai 2016, p. 484-488. ISBN 978-9975-48-102-1
  57. GLAVAN, A., VÎRLAN M. Managementul psihologic al reabilitării deficitului cognitiv post AVC. Revista științifico-practică Vector European, Nr.1, 2020. pp. 150-156. ISSN 2345-1106
  58. GLAVAN, A., VÎRLAN, M. Educație și asistență psihosocială a persoanelor cu dizabilități cronice în procesul de reabilitare complexă. În: Revista științifico-practică Vector European. Chișinău, 2019, nr. 3, pp. 143–145, ISSN 2345-1106 E-ISSN 2587-358X
  59. GLAVAN, A., VÎRLAN, M. Rolul factorilor sociali în cadrul etiologiei accidentului vascular cerebral. Revista Psihologie, Pedagogie specială, Asistență socială, Nr.3 (60), 2020, p. 82-94, ISSN 1857-0224
  60. GOLU, M. Bazele psihologiei generale, Editura Universitară, București, 2015, 718 p. ISBN 9739961584
  61. GROPPA, S. et. al. Accidentul vascular cerebral: epidemiologie, factori de risc, prevenție. Monografie. Chișinău 2020, Tipografia Centrală, 212 p. ISBN 978-9975-151-64-1
  62. GROPPA, S., GASNAȘ, A. Mecanismele de recuperare după un accident vascular cerebral prin utilizarea stimulării magnetice transcraniene repetitive (rSMT) În: Archives of the Balkan Medical Union. 2015, nr. 50, 2 (supl. 1), pp. 172-176. ISSN 0041-6940
  63. GROPPA, S., ZOTA, E. et al. Profilaxia accidentului vascular cerebral ischemic. Chișinău, Tipograf. Centrală, 2006, 144p. ISBN 978-9975-923-54-5
  64. GROPPA, S., ZOTA, E., EFREMOVA, D., CHIFORIȘINA, V. Profilaxia secundară a accidentului vascular cerebral ischemic și factorii de risc modificabili în populația Republicii Moldova. În: Buletinul Academiei de Științe a Moldovei. Științe Medicale. 2015, nr. 4(49), pp. 130-133. ISSN 1857-0011



65. HAYES, N., ORRELL, S. Introducere în psihologie. Ediția a III-a. București: ALL, 2015, 544 p. ISBN 973-9337-45-7
66. HOLDEVICI, I. Tratat de psihoterapie cognitiv-comportamentală. București, Editura Trei, 2011. 720 p. ISBN: 978-973-707-260-3
67. Hotărârea Guvernului nr.886 din 06.08.2007 cu privire la aprobarea Politicii Naționale de Sănătate 2007-2021, publicată în Monitorul Oficial nr.127-130 din 17.08.2007 pp. 33- 61 din PNS.
68. IAMANDESCU, I.B. Comportament și sănătate. Ed. Amaltea, București: 2017, 363p. ISBN 978-606-587-367-4
69. IAMANDESCU, I.B., FRUNZĂ, A. Elemente de psihosomatică cardio-vasculară. În: Psihologie Medicală. Psihosomatică generală și aplicată. Editura Infomedica, București, 2019. ISBN 973-7912-50-0
70. IONESCU, Ș., JACQUET, M.M., LHOTE, C. Mecanismele de apărare: teorie și aspecte clinice. Iași: Polirom, 2017, 331 p. ISBN: 973-683-943-5
71. JELESCU, P. Idealul social al Republicii Moldova și dezvoltarea personalității. În: Psihologie. Pedagogie Specială. Asistență Socială. nr. 28, 2012, pp. 1-6. ISSN 1857-0224
72. JELESCU, P. Imaginea personalității profesorului instituției de învățământ superior medical. În: Revista: Sănătate Publică, Economie și Management în Medicină. nr.2 (47), 2013. ISSN 1729-8687
73. JIANU, D.C. Elemente de afaziologie. Editura Mirton, Timișoara 2011, pp. 174-179.
74. LAZĂR, T. Accidentele vasculare cerebrale - Problemă de sănătate publică: Consfătuire organizată cu ocazia sărbătoririi centenarului Spitalului de Neurologie și Psihiatrie Oradea. Editura Universității din Oradea, Băile-Felix, 2013. 164p. ISBN 973-613-428-8
75. LISNIC, V. BUTUCEL, P. , NACU V. Bone marrow-derived mononuclear cells therapy for ischemic stroke. In: Moldovan Medical Journal, 2019, nr.4 (62) ISSN 2537-6373/ ISSNe 2537-6381
76. LUPU, I. Calitatea vieții în sănătate. Definiții și instrumente de evaluare. În: Calitatea Vieții, nr.17(1-2), pp. 73-91, Ed. Academiei Române, 2016. ISSN 1018-0839
77. MACARIE, A., CONSTANTIN, T., ILIESCU, M., FODOREA, A., PREPELIȚĂ, G. Stima de sine - între normalitate și trăsătură accentuată. În: Psihologie și societate: noutăți în psihologia aplicată. Iași: Editura Performantica, 2008, pp. 1-18. ISBN 978-973-730-567-1
78. MALCOCI, L., MUNTEANU, P. Studiu sociologic. Incluziunea socială a persoanelor cu dizabilități. 60p. , pp. 12,16,26. ISBN 978-9975-127-51-6
79. MARTIN, E. A., Oxford. Dicționar de Medicină, Ediția a 6-a. București: Ed. ALL, 2016, 880p. ISBN-10 : 9735718707
80. MEREUȚĂ, I. Tendințele fenomenelor demografice din Republica Moldova și păstrarea genofonului țării. În: Materialele Conferinței Naționale de Demografie Medicală 26.10.2018, pp. 131-139. pISSN: 1810-3936
81. MIFTODE, V. Metodologia sociologică: metode și tehnici de cercetare sociologică. Galați, Ed. Porto-Franco, 2015, 392p. ISBN 973-557-396-2
82. MIFTODE, V. Tratat de Asistență socială. Protecția populațiilor specifice și automarginalizate. Editura Lumen.ro 2012, 554 p. ISBN: 978-973-166-241-1
83. MITROFAN, I. Psihoterapie: repere teoretice, metodologice și aplicative. București, Editura SPER, 2008. 517 p. ISBN 978-973-8383-38-8
84. MORARU, A., PASCAL, O., HAMIȚCHI, E., MUNTEANU, L., AGAPII, E., COJOCARI, D., CEBOTARI, A. Reabilitarea medicală a bolnavului cu accident vascular cerebral – Protocol Clinic național. Aprobare de Ministerul Sănătății al Republicii Moldova, Chișinău: 2012, Rev. 2014, p. 8., pp.80.

85. NEGARĂ, A., GREJDEANU, T., LISNIC, N. Probleme de sănătate specific populației de vârstă a III. În: Sănătate Publică, Economie și Management în Medicină, 2013, nr. 3(48), 30 p. ISSN 1729-8687
86. NICA, A.S. Compendium de medicină fizică și recuperare. Editura Universitară „Carol Davila”, București:1988, pp. 65-159, 310 p. ISBN 973-98418-3-X
87. ONOSE, G. Recuperare, Medicină Fizică și Balneoclimatologie, noțiuni de bază și actualități. Volumul I, Editura Medicală, București: 2017, pp. 71-119, 428 p.
88. ONOSE, G., PĂDURE, L. (Ed. Coord.) și col. Compendiu de Neuroreabilitare la adulți, copii și vârstnici. Editura Universitară, „Carol Davila”, București: 2008, 646p. ISBN: 978-973-708-298-5
89. OPREA, L., COJOCARU, D. Bazele comportamentului social în sănătate. Pro Universitaria, București: 2015, 200 p. ISBN 978-606-26-0421-9
90. PALADI, O. Caracteristici ale componentelor adaptării psihosociale. În: Studia Universitatis Moldaviae (Seria Științe ale Educației), nr.5 (135), 2020, p. 140-148. ISSN 1857-2103
91. PALADI, O. Noi abordări științifice originale în Republica Moldova: Dimensiuni psihologice ale reabilitării post accident vascular cerebral. În: Univers Pedagogic, nr. 3 (67), 2020, pp. 115-116. ISSN 1811-5470
92. PASCAL, O. Dezvoltarea asistenței de reabilitare neurologică în Republica Moldova. În: Buletinul Academiei de Științe a Moldovei. Științe Medicale. 2019, nr. 3(22), pp. 8-11. ISSN 1857-0011
93. PASCAL, O. Dezvoltarea serviciilor de reabilitare medicală și paliative în contextual regionalizării serviciilor spitalicești. Health Forum, Chișinău, 2013.
94. PENDEFUNDA, L. Neurosonografia cerebrovasculară Doppler și diagnosticul accidentelor vasculare cerebrale. În: Revista Medico-Chirurgicală, Iași, 2008, nr.31, pp. 385-391. ISSN 0048-7848
95. PIRTAC, I., SAMOTIUC, E., GASNAȘ, A., GROPPA, S. Stimularea noninvazivă și kinetoterapia în recuperarea subiecților cu AVC ischemic acut. In: Archives of the Balkan Medical Union. 2017, vol. 52, 1 (supl. 1), pp. 48-51. ISSN 0041-6940
96. PLATON, C., CHETRARI, V. Stima de sine: delimitări conceptuale. În: Învățământul postmodern între eficiență și funcționalitate. Chișinău, 2013. Ed. CEP USM, 2014, pp. 407-410, 516 p. ISBN 978-9975-71-513-3
97. RACU, I. Dezvoltarea conștiinței de sine la diferite etape de vârstă. În: Revista: Psihologie. Pedagogie Specială. Asistență Socială, nr. 35, 2014. pp. 49-58. ISSN 1857 – 0224
98. RACU, I. Personal autonomy level increase of emerging adults through group psychological interventions. In: Psihologie. Pedagogie Specială. Asistență Socială, 2019, nr.4 (57), pp. 105-117. ISSN 1857 – 0224
99. RANDALL, L. BRADDOM, Medicină Fizică și de Reabilitare ediția a IV - a, ediția în limba română, București, 2015, pg.107-108. ISBN 978-973-0-19869-0
100. Raport Mondial Privind Dizabilitatea. Ediție tipărită, 2012, publicat de OMS sub titlul „World Report on Disability”, 2011, 21-30 p. , 101-131 p. , 255-267 p. , 280-284 p. ISBN 978-0-13597-8
101. RUSNAC, S. Scale de măsurare a stării de bine psihologic. În: Mediul social contemporan între reprezentare, interpretare și schimbare. Bălți: Universitatea de Stat „Alecu Russo”, 2018, p. 66-78. ISBN 978-9975-50-205-4
102. ȘLEAHTIȚCHI, M. Era reprezentărilor sociale. În: Psihologie. Pedagogie Specială. Asistență Socială. nr.3 (52), 2018, p. 3-32. ISSN 1857 – 0224
103. ȘLEAHTIȚCHI, M., GAVRILIȚĂ L. Stresul și particularitățile manifestării lui în mediul mamelor care au în îngrijire copii cu afecțiuni neuromotorii. În: Vector European. Nr.1, 2020, pp. 178-186. ISSN 2345-1106

104. ȘTEFĂROI, P. Teoria fericirii în asistența socială. Editura Lumen, Iași, 2019, 190 p. ISBN-978-973-166-131-5
105. TACHE, G.O. Ghid de medicină fizică și recuperare medicală. Editura SCRIPTA. București: 2001, pp. 27-28, 288 p. ISBN 9739161871
106. TINTIUC D., MARGINE, L., GREJDEANU, T., LAVRIC, A. Problemele medico-sociale și de reabilitare a persoanelor cu dizabilități în Republica Moldova. În: Sănătate Publică, Economie și Management în Medicină, 2013, 3(48), p. 30-35. ISSN 1729-8687
107. TURLIUC M. N., MĂIREAN C. Psihologia traumaei. Iași: Polirom, 2014, 254 p. ISBN 978-973-46-5075-0
108. ZAMFIR, C., STOICA, L. O nouă provocare: dezvoltarea socială. Iași: Polirom, 2016, pp. 178-185.
109. ZLATE, M. Fundamentele Psihologiei, ed. Polirom, Iași, 2019, 242p. ISBN 973-46-0278-0
110. ZOTA, E., EFREMOVA, D., GROPPA, S. Accidentul vascular cerebral în Republica Moldova: aspecte medico-sociale. Archives of the Balkan Medical Union, 2015. 50 (1), pp. 189-193. ISSN 0041 – 6940
111. АНОХИН, П.К. Системные механизмы высшей нервной деятельности. Москва, Наука, 1979, 453 с. 50300 - 046
112. АХУТИНА, Т.В., ВЫГОТСКИЙ, Л.С., ЛУРИЯ, А.Р. Становление нейропсихологии. Хрестоматия по нейропсихологии. В: Российское психологическое общество, 1999. 526с. ISSN 0042-8841
113. БЕК, А. Когнитивная терапия депрессии. СПб.: Питер, 2003, 304 с. ISBN 5-318-00689-2
114. ВИЛЮНАС, В.К. Основные проблемы психологической теории эмоций. Психология эмоций. Москва: МГУ, 1984. сс.9-64.
115. ВЫГОТСКИЙ, Л.С. История развития высших психических функций. Собрание сочинений. Т.3. М., Педагогика, 1983, 368 с. 4303000000 - 056
116. ВЫГОТСКИЙ, Л.С. Мышление и речь. Изд. 5, испр. М, Лабиринт., 1999. 352 с. ISBN 5-87604-097-5
117. ВЫГОТСКИЙ, Л.С. Собрание сочинений: в 6-ти томах. Научное наследство Под ред. М.Г. Ярошевского. М.: Педагогика, 1984. 400 с. 4303000000 - 001
118. ГАЛЬПЕРИН, П.Я. Введение в психологию. Психология как объективная наука. Москва, 2000 г, 336 с. ISBN 5-8013-0070-8
119. ГЛАВАН, А.Г., ТКАЧУК, Д.В. Нейропсихологическое направление в системе современной реабилитации постинсультных больных. Abstracts Book of the VI Ukrainian Congress of Neurosurgery; 14-16 June 2017; Kharkiv, Ukraine; 224p. , p. 185.
120. ГЛАВАН, А. Психологические и социальные аспекты реабилитации после инсульта. В: Сборнике исследований: Польско-молдавский межкультурный диалог, том II, № 2, Центр польской культуры UST, Кишинев, 2018 с.16-25.
121. ГЛАВАН, А. Психологическое направление в системе современной реабилитации постинсультных больных. În: Revista „Univers Pedagogic”, nr. 3 ( 55), 2017. сс. 74 - 79. ISSN:1811-5470
122. ГЛАВАН, А. Социальные аспекты реабилитации после инсульта. В журнале факультета психологии и специальной психопедагогике Государственного педагогического университета им. Иона Крянгэ: «Психология специальной педагогики и социальной помощи», № 1 (50), 2018. стр.88-96. ISSN 1857 – 0224
123. ГЛОЗМАН, Ж.М. Мотивационные и личностные аспекты реабилитации больных с афазией. Актуальные проблемы современной психологии. Материалы международной конференции. М.: Изд-во Моск. ун-та, 1983. 245с. с.212-215.

124. ГЛОЗМАН, Ж.М., БИЧЕВА, К.Г., ФЕДОРОВА, Н.В. Исследование качества жизни родственников, ухаживающих за хроническими больными. Вестник Московского университета. Серия 14 Психология. 1998. № 3. сс. 63-71.
125. ГОРДЕЕВА, Т.О., ОСИН, Е.Н., ШЕВЯХОВА, В.Ю. Диагностика оптимизма как стиля объяснения успехов и неудач. Опросник СТОУН.М.: «Смысл», 2009. 220с. ISSN: 1816-5435
126. ЕПИФАНОВ, В.А., Восстановительная медицина; Москва, издательская группа «ГЭОТАР-Медиа», 2012, 280-282, 289 с. ISBN: 978-5-9704-1949-6
127. ИЛЬИН, Е.П. Психология воли. Санкт-Петербург: Питер, 2009. 368 с. ISBN 978-5-388-00269-3
128. КАБАНОВ, М.М. Некоторые методологические и методические вопросы реабилитации больных. Клиническая психология. СПб.: Питер, 2000. 352 с. с.231-243.
129. КАЛИН, В.К. Волевая регуляция как проблема деятельности. В: Эмоционально -волевая регуляция поведения и деятельности. Тезисы Всесоюзной конференции молодых учённых. Симферополь, 2003, сс. 101-107.
130. КОГАН, О.Г., НАЙДИН, В.Л. Медицинская реабилитация в неврологии и нейрохирургии. М., Медицина, 1988, 304 с. ISBN 5-225-00183-1
131. КОРСАКОВА, Н.К., МИКАДЗЕ, Ю.В. Нейропсихологические исследования памяти: итоги и перспективы. А.Р. Лурия и современная психология. М., Изд-во Моск. ун-та., 1982, сс. 101-110.
132. ЛЕОНТЬЕВ, А.Н., Потребности, мотивы, эмоции, Москва, 1971, 40 с.
133. ЛЕОНТЬЕВ, Д.А. и коллектив авторов. Личностный потенциал. Структура и диагностика. Москва, Смысл, 2011. 343 с.
134. ЛУРИЯ, А. Р. Внимание и память. М., Издательство московского университета, 1975г. с. 25-32.
135. ЛУРИЯ, А.Р. Высшие корковые функции человека. М., 2001г. сс. 47-53.
136. ЛУРИЯ, А.Р. Основы нейропсихологии. М.: МГУ, 1973 г., с.9.
137. МУЗДЫБАЕВ, К. Оптимизм и пессимизм личности. Социология культуры. М., 2003. сс. 87-96.
138. ПЕТРОВА, Е.А. Ресурсы личности: проблемы и перспективы исследования. Журнал практического психолога, 2010. №2. сс.86-103.
139. СЕЛИВАНОВ, В.И. Волевая регуляция активности личности. Избранные психологические произведения. Рязань: Изд-во Рязан. пед. ин-та, 1992, сс. 208-225.
140. СОКОЛОВА, Е.Т., НИКОЛАЕВА, В.В. Особенности личности при пограничных расстройствах и соматических заболеваниях. М., 1995. 360 с.
141. СУСЛИНА, А., ВАРАКИН, Ю.Я., Клиническое руководство по ранней диагностике, лечению и профилактике сосудистых заболеваний головного мозга. 2-е изд. Россия: МЕДпресс-информ. 2017. 352 с. ISBN: 5000304594
142. СЫЧЁВ, О. А. Психология оптимизма: учебно-методическое пособие к спецкурсу. Бийск: БПГУ им. В. М. Шукшина, 2008. 120 с.
143. ХАЗОВА, С.А. Ресурсы субъекта: теория и практика исследования. Монография С.А. Хазова, Е.А. Дорьева. - Кострома: КГУ им. Н.А. Некрасова, 2012.-230 с.
144. ХОМСКАЯ, Е.Д. Проблема факторов в нейропсихологии. Хрестоматия по нейропсихологии. М., Российское психологическое общество: 1999, 526с.
145. ХОМСКАЯ, Е.Д., БАТОВА, Н.Я. Мозг и эмоции (нейропсихологическое исследование) М.: 1998, 383 с.
146. ЦВЕТКОВА Л.С. Введение в нейропсихологию и восстановительное обучение. М., 2000. 148 с.

147. ЦВЕТКОВА, Л.С. Мозг и интеллект: Нарушение и восстановление интеллектуальной деятельности. М., Просвещение, 1995. 304с.
148. ЦВЕТКОВА, Л.С. Нейропсихологическая реабилитация больных. М., 1985г., р. 122.
149. ЦВЕТКОВА, Л.С. Произвольный и непроизвольный уровни структуры и протекания психических процессов в восстановительном обучении. Вестник МГУ. Серия 14. Психология. 2012, № 2. сс.112—115.
150. ЯКОБСОН, П.М., Психологические проблемы мотивации поведения человека, Москва, 1969, 317с.
151. ADAMSON, J., BESWICK, A., EBRAHIM, S. Is stroke the most common cause of disability? In: J. of Stroke and Cerebrovascular Diseases, 2014, nr. 13(4), pp. 171-177.
152. ALLPORT, G. Personality: a psychological interpretation. New York, 1937, 120 p.
153. BRAISBY, N., GELLATLY, A. Cognitive Psychology. New York: Oxford University Press Inc., 2012. 744 p. ISBN 9780199236992
154. CLARKE, P. et al. Well – being after stroke in Canadian seniors: findings from the Canadian study of health and aging. In: Stroke, April 2002, nr. 33(4), pp. 1016-1021.
155. COOLEY, C.H. On Self and Social Organization, ed. Hans-Joachim Schubert. Chicago: University of Chicago Press, 1998, 259 p. ISBN 9780226115092
156. COREY, G. Theory and Practice of Counseling and Psychotherapy. Brooks/Cole, Cengage Learning, 2013, 534 p. ISBN: 0-495-10208-3
157. DOWSWELL, G., LAWLER, J., DOWSWELL, T., YOUNG, J., FORSTER, A., HEARN, J. Investigating recovery from stroke: A qualitative study. In: J. of CI Nursing, 2000, nr. 9, pp. 507-515. ISSN:1365-2702
158. DRĂGULESCU, R. Psycholinguistic and neurolinguistics approaches on communication distortions. În: Globalization and intercultural dialogue: multidisciplinary perspectives, Tîrgu Mures, Arhipelag XXI, 2014, 106 p. ISBN 978-606-93691-3-5
159. GASNAS, A., GROPPA, S. Brain neuroplasticity in acute ischemic stroke. In: Abstract book of the RoNeuro Brain Days, 6th European Teaching Course on Neurorehabilitation, 1–3 June, 2016, Cluj-Napoca, Romania. 2016, nr. 2, pp. 31-32. ISSN 2501-7039
160. GLAVAN, A. **Particularities of the Socio-Professional Rehabilitation of People After Stroke.** World Science: 2020, nr. 6(58), Vol.3, pp. 41-46, doi: 10.31435/rsglobal\_ws/30062020/7120
161. GLAVAN, A. **Psychological dimensions of post-stroke rehabilitation.** In: *Balneo Research Journal.* 2020, nr. 3, vol.11, pp. 321-325. ISSN:2069-7597/eISSN:2069-7619. doi:http://dx.doi.org/10.1268/balneo.2020.346.L49.
162. GLAVAN, A. **Specific Educational Interventions in the Rehabilitation of Cognitive Capacities of Adults Due to a Cerebrovascular Accident (Experimental Investigation)** World Science: 2020, nr. 6 (58), Vol.3, pp. 46-50. doi: 10.31435/rsglobal\_ws/30062020/7121
163. GLAVAN, A., GASNAȘ A. **Genetic aspects of transcranial magnetic stimulation induced brain neuroplasticity in ischemic stroke patients.** E-Poster Presentation. 11-th World Stroke Congress, Montreal, Canada, 17-20 October, 2018.
164. GLAVAN, A., GROPPA, S. **Neuropsychological assessment and design of psychological intervention în rehabilitation of patients with stroke.** În: Archives of the Balkan Medical Union. 2017, nr. 1, vol. 52, pp. 9-14. ISSN 0041 – 6940
165. GLAVAN, A., RUSU E., ARHIP, E. **Psychological management of the psychic stress and anxiety disorders.** În: Archives of the Balkan Medical Union. 2017, nr. 1, vol. 52, pp. 15-19. ISSN 0041 – 6940
166. GLAVAN, A., SIRIC, I. **Psychological support in the patients rehabilitation.** În: Archives of the Balkan Medical Union, 2016, nr. 1, vol. 51, pp. 188-190. ISSN: 0041 – 6940

- 167.** GUAJARDO, V.D., TERRONI, L., SOBREIRO, MDE. F., ZERBINI, MI., TINONE, G., SCAFF, M., IOSIFESCU, D.V., DE LUCIA, M.C., FRÁGUAS, R. The Influence of Depressive Symptoms on Quality of Life after Stroke: A Prospective Study. In: *J. Stroke Cerebrovasc Dis.* 2015 Jan, nr.24 (1), pp. 201-209.
- 168.** GUTENBRUNNER, C., WARD, A.B., CHAMBERLAIN, M.A. White book on Physical and Rehabilitation Medicine in Europe. In: *Journal of Rehabilitation Medicine*, 2007, nr. 39(45), pp. 1-48. ISSN 1650-1977
- 169.** HARTER, M.C., CONWAY, K.P., MERIKANGAS, K.R. Association between anxiety disorders and physical illness. In: *Eur Arch Psychiatry Clin Neurosci.*, 2003, nr. 253 (6), pp. 313-320. ISSN 09401334
- 170.** HOUSE, A. Depression after stroke. In: *British Medical Journal BMJ*, 1987, nr.294, pp. 76-78. ISSN 1222-5835
- 171.** JARACZ, K., KOZUBSKI, W. Quality of life in stroke patients, *Acta Neurologica Scandinavica* 2003, nr.107, pp. 324–329. ISSN: 1600-0404
- 172.** KASTE, M. et al. Organization of Stroke Care: Education, Stroke Units and Rehabilitation. In: *J Cerebrovasc Diseases*, 2000, nr.10(suppl 3), pp. 1–11. ISSN 1015-9770
- 173.** KIM P, WARREN S, et al. Quality of life of stroke survivors. In: *Quality of Life Research*: 1999, nr.8, pp. 293-301. ISSN: 0962-9343
- 174.** KONG, K.H., YANG, S.Y. Health-related quality of life among chronic stroke survivors attending a rehabilitation clinic. In: *Singapore Med J.*: 2006, nr.47(3), pp. 213-8. ISSN: 0037-5675
- 175.** KUHN, T. *The Structure of Scientific Revolutions*. București: Humanitas, 2018, 280 p. ISBN 978-973-50-2030-9
- 176.** LAZARUS, R. *Stress and emotion: A new synthesis*. New York: Springer Publishing Company, 1999, 333 p. [ISBN 978-0-8261-0261-4](#)
- 177.** LASKA, A.C., HELLBLOM, A., MURRAY, V., KAHAN, T., VON ARBIN, M. Aphasia in acute stroke and relation to outcome. In: *Journal of Internal Medicine*, vol. 249 (5), 2001, p. 413-22. ISSN:1365-2796
- 178.** MATSUZAKI, S., HASHIMOTO, M., YUKI, S., KOYAMA, A., HIRATA, Y., IKEDA, M. The relationship between post-stroke depression and physical recovery. In: *J. Affect Disord.* 2015 May, nr.1(176), pp. 56-60. ISSN: 0165-0327
- 179.** MOLZAHN, A.E., PLUMMER, M. Quality of Life in Contemporary Nursing Theory A Concept Analysis. In: *Nursing Science Quarterly*: 2009, nr.22 (2), pp. 134-40. ISSN: 0894-3184
- 180.** MORRIS, PLP. , ROBINSON, R.G., RAPHAEL, B. Prevalence and course of depressive disorders in hospitalized stroke patients. In: *Int J Psychiatry Med.* 2000, nr.20, pp. 349 –364. ISSN: 0091-2174
- 181.** OTTENBADIER, K. et al. Hospital Readmission in Persons With Stroke Following Postacute Inpatient Rehabilitation. In: *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, 2012, nr. 67(8), pp. 875-81. ISSN 1079-5006
- 182.** POWER, M., GREEN, A.M. Development of the WHOQOL disabilities module. In: *Quality of Life Research*, 2010, nr.19(4), pp. 571-584. ISSN: 0962-9343
- 183.** PRUTKIN, J.M., FEINSTEIN, A.R. Quality-of-life measurements: origin and pathogenesis. In: *The Yale Journal of Biology and Medicine*, 2002, nr.75(2), pp. 79-93. ISSN 1551-4056
- 184.** SCHERER. M.J. et al. Predictors of assistive technology use: the importance of personal and psychosocial factors. In: *Disability and Rehabilitation*: 2005, nr.27, pp. 1321-1331. ISSN: 1464-5165
- 185.** SELIGMAN, M. Positive psychology, positive prevention, and positive therapy. In: *Handbook of positive psychology*. Oxford University Press: 2002, pp. 3-9. ISBN: 9780195187243

186. SELYE, H. The stress of life. Revised Edition, Pub. McGraw-Hill, New York 1984, 515 p. ISBN 9780070562127
187. SRIVASTAVA, A., TALY, A.B., GUPTA, A. et al. Post-stroke depression: prevalence and relationship with disability in chronic stroke survivors. In: Annals of Indian Academy of Neurology, 2010, nr. 13(2), pp. 123-127. ISSN: 1998-3549
188. STEVENS et al. Palliative care in stroke: a critical review of the literature. In: Palliative Medicine, June 1, 2017, nr.21(4), pp. 323-31. ISSN: 0269-2163
189. SUN, J-H., TAN, L., YU, J-T. Post-stroke cognitive impairment: epidemiology, mechanisms and management. In: Annals of Translational Medicine, 2014, nr.2 (8), pp. 80. ISSN: 2305-5847
190. TATEMICHI, T.K., DESMOND, D.W., STERN, Y., PAIK, M., SANO, M., BAGIELLA, E. Cognitive impairment after stroke: frequency, patterns, and relationship to functional abilities. In: J. Neurol. Neurosurg. Psychiatry: 1994, nr. 57(2), pp. 202–207. ISSN: 0022-3050
191. The WHOQOL group. Development of the WHOQOL: rationale and current status. In: The International Journal of Mental Health, 2014, nr. 23, pp. 24-56. ISSN 0020-7411
192. The WHOQOL Group. Development of the World Health Organization WHOQOL-BREF Quality of Life Assessment. In: Psychological Medicine, 2008, nr.28 (3), pp. 551–558. ISSN: 0033-2917
193. WIKLER, D. Personal and social responsibility for health. In: Ethics & International Affairs, 2002, nr. 16 (2), pp. 47-55. ISSN:1747-7093
194. WOOD-DAUPHINE, S. et al. Disablement following stroke. In: Disability and rehabilitation: 2009, vol. 21, pp. 258-268. ISSN: 0963-8288
195. World Health Organisation, International Classification of Functioning, Disability and Health ICF-CY, World Health Organization: 2007, 322 p. ISBN 9789244547328
196. World Health Organization. The World Health Report. Life in the 21st century: a vision for all. Geneva, 1998, 241 p. ISBN 9241561890
197. GLAVAN, A. **Approche interdisciplinaire en readaption. În: „Balkan Medical Union”. Materialele Conferinței Internaționale, vol. 48, nr., supl. 3, 22-24 septembrie, Chișinău, 2013. p. 226-228. ISSN: 0041-6940**
198. GLAVAN, A., BĂLĂNUȚĂ, T. **L'Evaluation neuropsychologique chez les patients atteints de maladies du système nerveux. În: „Balkan Medical Union”. Materialele Conferinței Internaționale, vol. 48, nr., supl. 3, 22-24 septembrie, Chișinău, 2013. p. 229-231. ISSN: 0041-6940**
199. American Heart Association: Heart disease & stroke statistics, Chicago, 2009, American Heart Association. [citat: 20.06.2020] Disponibil: <https://www.ahajournals.org/doi/full/10.1161/circulationaha.108.191261>.
200. ANDERSON, R. et al. Second European Quality of Life Survey: Overview, Luxembourg, Office for Official Publications of the European Commission, 2009. [citat: 27.01.2020] Disponibil: [http://www.eurofound.europa.eu/pubdocs/2009/02/en/1/EF0902\\_EN.pdf](http://www.eurofound.europa.eu/pubdocs/2009/02/en/1/EF0902_EN.pdf).
201. Biroul Național de Statistică. Persoanele cu dizabilități în Republica Moldova în anul 2017. [citat: 16.04.2021] Disponibil: [www.statistica.md](http://www.statistica.md).
202. Biroul Național de Statistică. Persoanele cu dizabilități în Republica Moldova în anul 2019. [citat: 23.05.2020] Disponibil: [www.statistica.md](http://www.statistica.md).
203. BROWN, S.L., NESSE, R.M., et al. Providing Social Support May Be More Beneficial Than Receiving It: Results From a Prospective Study of Mortality. In: Psychological Science 14 (4):320. 01.07.2003 [citat: 18.06.2020] Disponibil <https://journals.sagepub.com/doi/10.1111/1467-9280.14461>.

204. European Stroke Organization. Ghid de management al accidentului vascular cerebral ischemic și accidentului ischemic tranzitor, 2008. [citat: 11.05.2020] Disponibil: [http://www.ms.ro/documente/ghid%201\\_8292\\_5994.pdf](http://www.ms.ro/documente/ghid%201_8292_5994.pdf).
205. MARGINEAN, I. et al. First European Quality of Life Survey: Quality of life in Bulgaria and Romania, Luxembourg, Office for Official Publications European Communities, 2006. [citat: 11.05.2019] Disponibil: <http://www.eurofound.europa.eu/pubdocs/2006/67/en/1/ef0667en.pdf>.
206. Ocrotirea sănătății în RM. [citat: 01.08.2019] Disponibil: <http://www.statistica.md/pageview.php>.
207. PAMELA, W., DUNCAN, R., Post-Stroke Rehabilitation- Clinical Practice Guidelines. In: Jurnal Stroke of the American Heart Association: 2005, nr.36, pp. 100-143. [citat: 23.05.2020] Disponibil: <http://stroke.ahajournals.org/subscription/>.
208. POP, C-E. Starea de sănătate a populației din România în context european. O abordare din perspectiva calității vieții. În: Revista „Calitatea vieții”. București, 2010, nr. 3-4 (XXI), pp. 274-305. [citat: 15.03.2020] Disponibil: <http://www.revistacalitateavietii.ro/pdf>.
209. Rehabilitation Measures Database. [citat: 11.05.2020] Disponibil: <http://www.rehabmeasures.org/default.aspx>
210. Raportul Organizației Mondiale a Sănătății, Geneva 2006. World Health Organisation Report, 2006, Geneva. [citat: 13.05.2020] Disponibil: [https://www.who.int/whr/2006/whr06\\_en.pdf](https://www.who.int/whr/2006/whr06_en.pdf)
211. Rehabilitation Measures Database. citat [28.07.2020]. Disponibil: <http://www.rehabmeasures.org/default.aspx>
212. Revista politici de sănătate. Dăm cuvântul specialiștilor [citat: 24.06.2020] Disponibil: <http://www.politicidesanatate.ro>.
213. SMITH, P. S. et al, Berg Balance Scale and Functional Reach: determining the best clinical tool for individuals post acute stroke. Jurnal *Clinical Rehabilitation*, November, 2014) citat [22.03.2021]. Disponibil: <https://doi.org/10.1191/0269215504cr817oa>



## ANNOTATION

Glavan Aurelia

„Psychosocial rehabilitation of people after stroke”, thesis for degree of habilitated doctor of psychology, Chisinau, 2021

**Thesis structure:** The work reflects the information from the author's scientific publications - 5 monographs and 53 scientific papers and contains the contents, conceptual landmarks of the research, five chapters, general conclusions and recommendations, bibliography - 213 titles, with highlights on the author's works, completed on 97 pages, including 8 figures and 31 tables.

**Key words:** stroke, disability, psychosocial rehabilitation, psychological evaluation, psychological profile, conceptual model, rehabilitation program, quality of life.

**Purpose of research:** Elaboration, theoretical substantiation, experimental validation of the Conceptual Model of psychosocial rehabilitation and of the Psychosocial Rehabilitation Program for improving the quality of life of people after stroke.

**The objectives** of the research: determining the theoretical foundations regarding stroke and post-stroke rehabilitation through psycho-social approaches; elaboration of the paradigm of psychosocial rehabilitation of people after stroke; elaboration and scientific foundation of the Conceptual Model of psychosocial rehabilitation of people after stroke; identifying the determinants of psychosocial rehabilitation of people after stroke; establishing and experimental application of the methodology for diagnosing psychological disorders of people after stroke; description of the psychological profile of people after stroke to optimize psychosocial rehabilitation; conceptualization, implementation and experimental capitalization of the Program of psychosocial rehabilitation of people after stroke in the perspective of improving the quality of life.

**Scientific novelty and originality of the research** consists in the design, construction and launch of a unique epistemo-empirical conception with reference to the management of psychosocial rehabilitation of people after stroke, presenting the first psychosociological study; determining the theoretical foundations for post-stroke rehabilitation through psycho-social approaches to risk causes; scientific elaboration of the paradigm of psychosocial rehabilitation of people after stroke in terms of concepts, models and theories that explain the phenomenon of post-stroke rehabilitation; systematization of psychological and social conceptions regarding post-stroke rehabilitation; interpretation of psychosocial rehabilitation models based on a new scientific opinion; designing and capitalizing on the Conceptual Model of post-stroke psychosocial rehabilitation; reconsidering the significance of the operational concepts of the research and defining the concept of psychosocial rehabilitation of people after stroke; elaboration of the methodological support of post-stroke psychosocial rehabilitation, reflected in scientific conclusions and recommendations of the specialists involved in this complex process; elaboration of the psychological profile of the post stroke patient; scientific argumentation of the determining role of psychological intervention programs in streamlining the psychosocial rehabilitation of people after stroke.

**The new research direction:** *Psychology of social rehabilitation after stroke.*

**The theoretical significance of the research:** development of the theory of rehabilitation of people after stroke by developing the Conceptual Model of psychosocial rehabilitation; conceptualization of post-stroke psychosocial rehabilitation through the prism of its legitimacy and explanatory mechanisms relevant to the cognitive, affective, personality, optimism, motivation, will and self-esteem development; establishing the psychodiagnostic methodology for researching the specifics of psychosocial rehabilitation of people after stroke and elucidating psychological features; description of the impact of rehabilitation as a result of capitalizing on the Conceptual Model of Psychosocial Rehabilitation and the Post-Stroke Psychosocial Rehabilitation Program to improve the quality of life; elaboration of a system of scientific conclusions and of some recommendations regarding the further researches in the field of psychosocial rehabilitation of the persons after stroke.

**The applicative value of the research:** establishing the specific methodology for experimental diagnosis of post-stroke psychological disorders; the experimental capitalization of the Psychosocial Rehabilitation Program reflected in the positive dynamics of the quality of life after stroke and in the process of psychosocial rehabilitation of people with disabilities in various fields; formulating practical recommendations on post-stroke psychosocial rehabilitation; initial and continuous professional training of psychologists; elaboration of curricular resources; formulating recommendations to medical staff, rehabilitators, psychologists; clinical extension of the individual psychodiagnostic methodology for the investigation of the cognition, affection and post-stroke personality.

**Implementation of research results.** Theoretical-experimental results were implemented in state programs and national projects, in the teaching process of training and education of students, masters and doctoral students in psychology in universities in the Republic of Moldova, in practical activity in rehabilitation clinics, in continuing medical education courses and in scientific-methodological seminars with clinical psychologists, rehabilitologists and social workers.

**GLAVAN AURELIA**

**PSYCHOSOCIAL REHABILITATION  
OF PEOPLE POST STROKE**

**Synthesis work for the title of Doctor of Science**

**Speciality 511.03 - social psychology**