

## PSYCHOLOGY

**PARTICULARITIES OF THE SOCIO-PROFESSIONAL REHABILITATION OF PEOPLE AFTER STROKE**

*Aurelia Glavan,*

*neurologist at Institute of Emergency Medicine, PhD in psychology, associate professor at Tiraspol State University, Republic of Moldova, ORCID ID: <https://orcid.org/0000-0002-2549-5367>*

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**ABSTRACT**

Stroke is the most representative pathology generating long-term disability, negatively influencing personal, social and professional life. Even if the vast majority of people acquire the autonomy of movement and self-service after stroke, the number of those who can be socio-professionally reintegrated remains very low. While for healthy people, work offers the satisfaction of material achievements, for a person with disabilities, work is a way of social inclusion. For these reasons, a study was conducted to monitor the process of socio-professional inclusion of post-stroke individuals.

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**Introduction.** The number of people affected by stroke has increased in recent years. According to the World Health Organization, stroke is the first and most representative pathology generating long-term disability [13]. Most secondary deficiencies of a stroke are recovered within a few months, but others may persist for a lifetime [12]. According to experts, recovery therapy is necessary in 70-80% of survivors at initial stages, and about 50% of stroke patients need to maintain or improve their skills and abilities for the long term. The chances of recovery vary depending on the affected area of the brain, the extent of the lesions, the ability of the healthy brain to take over the functions of the dead zone and the presence of comorbidity in the patient [10]. According to global statistics, 40% of stroke survivors have moderate functional impairments and 15% to 30% of survivors have severe functional impairments [2; 4]. Depending on these, the patient is left with various sequelae that negatively influence his personal, social and professional life, and also losing a person of working age associated with a stroke generates high costs. Under these circumstances, their socio-professional inclusion is necessary, with the help of their family and the social environment [3; 6; 12].

The monitoring of rehabilitation for the people of working age is ensured by the medical expertise and work capacity recovery network. These actions are addressed to post-stroke individuals, who are disabled or on extended medical leave for work incapacity, the ultimate goal being reintegration into the social and economic circuit. The medical expertise of work capacity is a form of medical and social assistance that evaluates, through specific methods and techniques, the work capacity of people with various morphological and functional disorders, in order to provide social insurance. In the Republic of Moldova, social services and long-term care services are regulated by a legislative package. Law no.60 "On the social inclusion of persons with disabilities" which regulates the rights of persons with disabilities for their social inclusion, guaranteeing the possibility of their participation in all areas of life, without discrimination, at the same level as other members of the society, based on respect for the fundamental human rights [8; 9]. Chapter V, art. 33-40 of the Law on Social Inclusion of Persons with

Disabilities regulates the procedure for integration of disabled people in the field of employment, including: right to work, procedure of employment, forms of employment, obligations of employers, duration of working time, guidance, training and vocational rehabilitation [9]. In the Republic of Moldova, people of working age with post-stroke disabilities, who want to integrate in the field of work, have access to vocational guidance, training and rehabilitation regardless of their degree of disability. Vocational guidance and training services are provided by the territorial employment organisations according to one's individual rehabilitation and socio-professional inclusion program. This is a document prepared by the National Council for Determining of Disability and Work Capacity (NCDDWC), or by its territorial structures, which sets out the general recommendations on the activities and services that a person with disabilities needs in the process of socio-professional inclusion [1; 5].

Socio-professional inclusion of people with post-stroke functional disorders is a difficult task, being the topic of many reviews. Integration, as a complex, medical, psychological and social process can be achieved only through collaboration, aiming at the assimilation of the individual into social units and systems - family, group, work team, society. The rehabilitation of the post-stroke people into daily life involves the acquisition of all skills: motor, intellectual, practical intelligence, personality, professional skills, etc., this being the main task of the rehabilitation team and especially physical therapy, occupational therapy, psychotherapy.

If before the disability the person had a job, which was based on movement, physical activity and manuality, the return to the old field can only be achieved in a completely exceptional way. The situation would be somewhat more favorable for intellectual activities, provided that the person is not with cognitive or speech disorders. Even if the vast majority of young people with neurological deficiencies after a stroke acquire the autonomy of movement and self-service, the number of those who can be socio-professionally reintegrated remains very low [7; 11; 14].

Post-stroke educational-vocational rehabilitation actions cover several areas of application: vocational guidance, general training and qualification, adaptation and organization of jobs, social reintegration related to support for independent living, collaboration with social services, support for family members.

The quantification of post-stroke deficits and the labeling of the socio-professional ability, which must be decided for a person, indisputably needs to be based on a large number of clinical and paraclinical examinations, including psychological aptitude tests. The return of the person with a stroke to his old job cannot be decided solely on the basis of psychological or neuromotor testing, which would have only an indicative value. Ergological tests must be considered decisive in this case, as they practically verify, in real conditions, or close to the requirements of the job, the outstanding skills and abilities [14].

In the Republic of Moldova, when a person with stroke sequelae wants to return to their old job or learn a new profession, one must formalize its presence by compiling a personal file, including results of assessments test such as: medical examination, psychological examination, psychotechnical examination, vocational survey, social investigation, synthesis of investigations and final protocol.

*The medical examination*, for any employment, must certify that the state of health, with reference to the severity of the sequelae and associated diseases, allows the activity or re-professionalization;

*The psychological examination* aims to highlight the particularities of the person, thus its content providing data on the following particularities: intellectual level, type of intelligence, mental functions and professional skills. The examination of personality and knowledge should not capture static elements of personality, but potential ones, which can be current, latent or progressive. The personality examination is necessary, because it can provide clues on the possibilities of socio-professional adaptation of people with disabilities, about the possible pathological deviations of the personality. Personality tests are different from other test-categories. The practice of work refuted the theories that claimed that the physically handicapped constitute a distinct, fixed and irreversible personality, confirming the idea that each of them carries in it the seeds of resources that can lead him to his social reclassification. The observations regarding the capacity and tolerance of adapting to a group, as well as the way in which it takes over and satisfies its human obligations, are of great importance in establishing some defining personality traits;

*The examination of knowledge* is considered indispensable when the option for a new profession comes in question, each of them requiring a certain level of schooling, elementary, secondary, or university.

The first objective of the school knowledge exam is to establish the level of preparation, corresponding to the studies completed, as well as the extent of the gaps, if any. The second objective is the short-term prognosis, on which depends the opportunity to establish a long-term professional retraining program, that will provide the framework of professional testing, which fit perfectly in the following sequence: knowledge, understanding, application, analysis, synthesis and evaluation;

*The psycho-technical exam* addresses several aspects, in close relationship with each other: practical intelligence, psychomotor skills, technical skills and benefits in the field of ergology. Practical intelligence can be considered as a defining feature of the personality, to which mechanical capacity, visual-spatial capacity and dexterity are attributed. The tests used for the examination of practical intelligence are based on various tests that require adaptation to a certain situation, finding a practical solution, using ingenuity, etc. ;

*The examination of psychomotor skills* is much more complex, because it analyzes the mental representation of movement, in the context of the mental peculiarities of physical disability, also testing the sensory functions (visual, auditory, tactile sensitivity, kinesthetic and labyrinthine), given their involvement in performing certain categories of movements or in certain situations. Also in this chapter are included the ergological tests, which put the person in conditions close to those he will have at the time of his professional reintegration, having decisive value in the final decision that will be taken about the tested person;

*The vocational survey* has a special value in the intentions of professional reclassification of persons with post-stroke disabilities. The motivation lies in the fact that, while for healthy people work offers the satisfaction of paid material achievements, for a person with disabilities work is a way of social inclusion. The success of vocational survey does not lie only in the correctness in which it was performed, because it is part of a whole, of which not only the individual is a part, but also society;

*The social survey* is harmoniously integrated in the practice of psycho-medical-social guidance of a person after stroke, establishing the complementarity of the disciplines engaged in their functional rehabilitation efforts. In addition to living conditions, family situation and workplace, social surveys must cover the entire past of the person, activities carried out in other areas of concern (political, sports, public, etc.) would also be noted. All these details are able to provide valuable elements in the professional reorientation of this category of people;

*The synthesis of the investigations* has the important purpose of carrying out a whole of a great diversity of tests, trials and examinations, in order to elaborate an evaluation of the functional residuum and to provide a prognosis on its possibilities. The prognosis of work adaptation is difficult, especially for the elderly, for those with low intellectual, educational and professional level, as well as with prolonged inactivity. These are considered as factors that negatively influence the possibilities of socio-professional inclusion of this group of people. *The final protocol* gathers, in the form of a file, all the personal data of the patient with stroke sequelae, which follows a socio-professional inclusion.

We aimed to follow the way in which the socio-professional inclusion of a group of people with post-stroke disabilities was achieved, in relation to the vocational survey in all its complexity, bringing particularly valuable conclusions to the interdisciplinary rehabilitation team, which dealt with their functional reeducation.

**Study: Evaluation and monitoring of the process of socio-professional inclusion of people after stroke**

To evaluate the process of socio-professional inclusion of people with post-stroke disabilities in the Republic of Moldova, we conducted a comprehensive retrospective study, with the support of the NCDDWC.

*The aim of the study* was to evaluate the process of socio-professional inclusion of people after stroke.

*Materials and methods:* the analysis of documentation and monitoring of persons primarily included in post-stroke disability in 2015, according to the annual report presented by experts from the NCDDWC, their number being 535; studying their personal files, offered by NCDDWC, the recommendations of the interdisciplinary rehabilitation team, the protocols of the medical and psychological evaluations, the vocational survey, the social investigation, the synthesis of the investigations and the final protocols; dynamic monitoring of the condition of these persons during the years 2015-2019, according to the reports determining the disability and work capacity; analysis of the investigations and rehabilitation treatments performed, as well as re-employment.

The inclusion criteria considered people with post-stroke neurological deficits, who were primarily classified as disabled in 2015; age- adults between 18 and 65 years; place of residence: Republic of Moldova (rural, urban).

The exclusion criteria were a person's refusal to participate in the study and persons classified as disabled by other pathologies.

The 535 people included in the study were distributed by sex, place of residence, degree of disability as follows: men - 352 (65.8%), women - 183 (34.2%); urban - 188 people (35%); rural - 347 people (65%); severe degree of disability - 64 people (12%); accentuated degree - 353 people (66%); moderate degree - 118 people (22%).

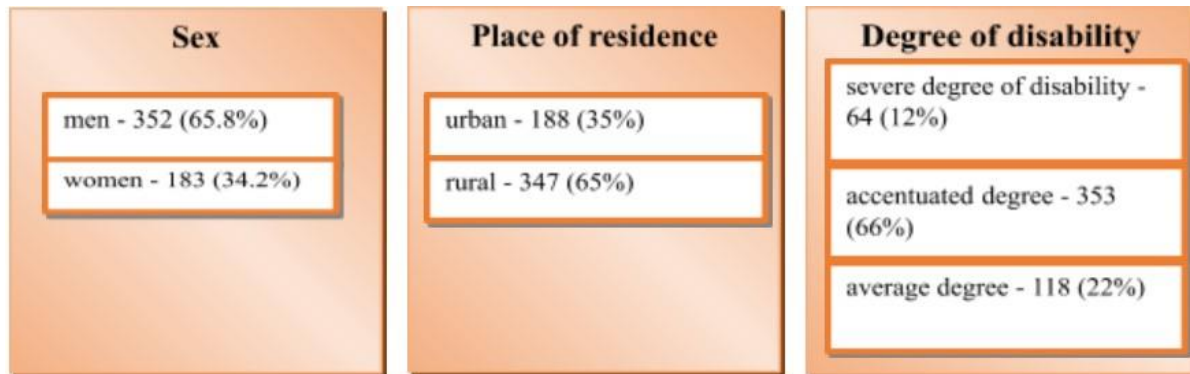


Figure 1. Distribution of people included in the study

Out of the total number of people with post-stroke motor deficit, primarily included in disability degrees in 2015, 134 returned to work, which is 25%. These people were distributed by sex, place of residence and degree of disability as follows: men - 87 (65%); women - 47 (35%); urban - 62 (46%); rural - 72 (54%); severe degree of disability - 0 people; accentuated degree - 66 people (49%); average degree - 68 people (51%). (Fig.2)

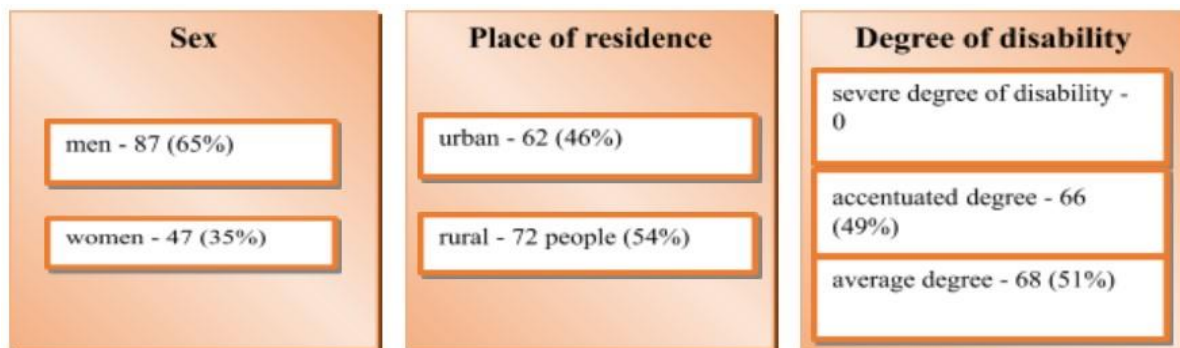


Figure 2. Distribution of employed people with a degree of disability after stroke

**Results, comments, conclusions.**

Of the total number of people with motor deficits, primarily included in post-stroke disability degrees in 2015, only 25% returned to work. People with moderate disabilities are most likely to continue to work. Out of the total number of 118 people, 68 people are still active, which is 58%. The chances for people with an accentuated disability degree are more reserved: out of 353 people included in the study, 66 people returned to their professional activity. For people with severe disabilities, the chances of returning to work were practically zero.

The social and professional integration of people after stroke is essentially humanistic, being assigned to the family and society through a network of organisations and institutions, which must ensure the continuity of this process. This requires a complex assessment of the functional residuum of the post-stroke people, which should include, in equal measure, the mental and behavioral integrity, as well as the ergonomic requirements related to the profile of the professional activity, which will be carried out.

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