

COGNITIVE AND METACOGNITIVE INTERVENTION STRATEGIES IN STROKE PATIENTS. CASE STUDY

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Abstract: *The rehabilitation of persons with different disabilities resulted after certain diseases, represents an objective pursued by specialists from many areas, such as medicine, psychology, pedagogy, psychopedagogy, sociology. These persons represent a specific difference which diversifies and enriches society. Until not long ago, an erroneous mentality persisted, leading to the abandonment and neglect of these persons. Lately, the wish "to normalize" what was disturbed by nature or even by the society itself through its prejudice, accumulated over centuries, became more obvious. The recognition of the personal identity of those with disabilities, their capacity to evolve, their place in society, led to the existence of the normalization philosophy.*

Keywords: *disability, cognition, metacognition, normality*
Rezumat: *Reabilitarea persoanelor cu diferite dizabilități rezultate în urma unor îmbolnăviri reprezintă un obiectiv urmărit de specialiștii din mai multe domenii: medicină, psihologie, pedagogie, psihopedagogie, sociologie etc. Aceste persoane prezintă o diferență specifică care îmbogățește și diversifică societatea. Până nu demult a persistat o mentalitate eronată care a dus la marginalizarea și neglițarea acestor persoane. În ultimul timp devine tot mai pregnantă dorința omului de a „normaliza” ceea ce natura sau chiar însăși societatea a perturbat. Recunoașterea identității personale a persoanelor cu dizabilități, a capacității lor de dezvoltare, a locului lor în societate a dus la apariția filozofiei normalizării.*

Cuvinte cheie: *dizabilitate, cogniție, metacogniție, normalitate*

INTRODUCTION

CONCEPTUAL LIMITS

a. Deficiency, incapacity, handicap

World Health Organization (1980) suggests a distinctive approach of these three terms: deficiency-incapacity-handicap.

The term "deficiency" stands for absence, loss and alteration of a structure or function (anatomical, physiological and psychological). Deficiency could be the result of a disease, an accident and also of negative conditions in the development and growth environment of an individual.

"Incapacity" designates a number of functional limitations determined by physical, intellectual and sensorial disabilities, health and environmental conditions or mental illness. These conditions or diseases can be permanent or temporary, reversible or irreversible, progressive or regressive.

The term "handicap" refers to the social disadvantage, loss or limitation of a person's opportunities to participate actively in the community life at the same level as the other members.

So handicap is a function of the relation of the disabled persons with the environment they live in. The handicap emerges when these persons encounter cultural, material and social limits, which prevents them from acceding to different systems of a society available for other citizens.

Handicap is characterized by the discrepancy which exists between the case of a person with deficiency and his or her goals and also from the group that he or she belongs to. The disadvantage results from diminution and loss of capacities to adapt to the requirements and personal standards and of the environment in which the individual lives.

b. Recovery

The term "recovery" is frequently used in medicine and in other fields, such as, psychopedagogy, pedagogy, psychology, sociology, etc. Recovery refers especially to re-establishment, re-making or reconstruction of a function which has been lost. The notion is not operable in the case of acquired deficiencies or in situations in which recovery is no longer possible. By recovery, on one hand, it is aimed to optimize, at the maximum, the possibilities of the person with disabilities and, on the other hand, the psycho-physiological functions left unaltered, must be trained in such a way to compensate the activity of deficient functions in order to form some abilities which would allow the person to actively and efficiently integrate in social life. Recovery refers to a complex process of medical, educational, psychological and socio-economical nature which would allow people with disabilities to reach an optimal level of physical, sensorial, intellectual and social functions by endowing them with instruments needed to change the life toward obtaining a higher degree of independence. In order to fulfil these aims, it is necessary to start from the

diagnosis and knowing psycho-physical particularities of the individual, of the evolution stage of different functions, of their perspective and prognosis and to establish ways to intervene for social integration.

Differential and specific recovery methodology may be mainly psychological, pedagogical, medical, but only a combination of these areas, and not their isolated use, assures the success of the recovery. Their choice and application by specialists must be reported to various subjective and objective factors: the type of deficiency, its seriousness, the level achieved by the unaltered functions, the possibility of taking over, by healthy organs, of altered functions and means to achieve compensation, psychological state of the subject, his or her age and sex, the following evolution of psycho-physical structures, conditions and activity which the person will be trained for, etc. (Verza E., 1987, p. 7-8). Recovery must produce long-term effects by a rigorous interdisciplinary work.

c. Rehabilitation

Rehabilitation targets a process which has the purpose of making persons with deficiencies reach the optimal physical, psychological and social functional level, providing for them the instruments which would allow them to change their life toward gaining a higher degree of independence.

INSTRUMENTAL ENRICHING PROGRAM

Instrumental Enriching Program (Feuerstein method) is made of a set of exercises divided into 14 instruments, which are used as means for developing mental abilities. The instruments don't have a disciplinary content, because they don't target specific knowledge acquisition but they aim to acquire mental abilities and concepts useful in different situations.

Each instrument is focused on specific cognitive functions and offers the pre-acquisitions needed for developing necessary cognitive capacities to solve the task which requires a high level of abstractization.

Instrument exercises, apart from Temporal Images and Relations, which are organized differently, imply a gradual rise of difficulties in order to favour gradual acquiring of pre-acquisitions needed for solving successive exercises, strengthening, in this way, the feeling of competence, autonomy in organizing tasks and intrinsic motivation. It is recommended to grant a greater attention on reflecting upon mechanisms which led to solving tasks, so that the subjects would be aware of the importance and necessity of talking about performed work and to make transfers based on the principles formulated during the activity.

Developing principles and making transfers are very important elements. Finding a valid principle means synthesizing, in a concise and significant phrase, of all details seen in the analyzed page. The principle can underline and overcome difficulty, a newly learned information, a particular reflection which the exercises have generated, or a necessary element to solve the specified page. Transfer represents the creation of a connection between principle, result of necessary reflection for understanding and solving tasks and daily

life.

During the activity, two or more instruments will be used, in order to avoid the monotony which may occur after using the same type of exercises for a longer period of time and to avoid the feeling of failure resulted from certain difficulties in solving the exercises of an instrument. Moreover, the instruments are studied, so that the acquisitions obtained through an instrument, are strengthened while using the other instruments. A particular line is followed at the Image instrument, which is formed by humoristic stories, independent one from the other. Each page contains a story which can be chosen based on the exigency of the working group and can be introduced in any moment of the activity, after the Point Organization Instrument was ran.

Each instrument begins with an illustrated page (the cover or the first page), which is used to introduce the instrument, in order to create an expectation horizon and to develop the motivation to go over the respective page.

The cover pages have certain characteristics which remain unchanged from an instrument to the other, in order to underline the continuity of the work and, in return, every instrument is different from the others. The mediator guides the subjects to analyze the symbol from the cover in order to deduce the content of the exercises which they will solve and the tasks which they will debate.

CASE STUDY

Subject: Purta Isaia

Age: 60 years old

Department: Neurosurgery- County Clinical Hospital Sibiu:

Main diagnosis: Hemorrhagic stroke, left temporal intraparenchymal haematoma

Secondary diagnosis: dysphasia and aphasia, primary essential arterial hypertension

Surgery: Evacuation of a haematoma through osteoplastic craniotomy

Intervention Strategies:

Point Organization Instrument

Date: July, 22nd, 2008

The cover

Objectives:

- to create an expectation horizon
- to explain "the thinking" process
- to identify the role of thinking in human activity.

Mediation:

The criteria of mediation applied in the activity are:

- Intentionality and reciprocity;
- Transcendancy
- Significance.

Work strategies:

- The cover is presented to the subject and he is asked to observe it carefully and after that it is attempted to find all the important information. He manages to identify the images, but in defining them, subjectively, the lady (not the boy) intervenes who is

CLINICAL ASPECTS

upset and who is thinking about her disease.

- Referring to the phrase "One moment", the subject states that it has a vague and imprecise significance, meaning that "one moment" indicates something undefined, being different from "one minute", which is a measurable time. The fulfilment of an activity may require different time to different persons, different time to the same person in different moments and contexts.

Principles:

- Every person works in his or her rhythm.

Date: July 29th, 2008

Page 1

Objectives:

- To create virtual relationships through model figure reproduction
- To elaborate solving strategies;
- To organize a working-space
- To identify the advantages and the limits of model optimisation.

Mediation:

- Restraining impulsivity;
- Elimination of trial- error implementation
- The feeling in mutual trust is cultivated;
- Subject stimulation in order to carefully observe the page
- Recommendation to use the necessary time to understand what needs to be done.

Work Strategies:

- The first page is presented to the subject and he is required to carefully observe it and after that, finding all important information is attempted.
- Focusing attention upon important data (characteristics of the square and the triangle)
- Precision and accuracy necessity in figure reproduction is emphasized

Principles:

- We can use models, in order to work easier, for example in tailoring

Date: August 5th, 2008

Page 2

Objectives:

- To assimilate the work method;
- To optimise the existing reference points
- To organize a working space
- To identify the advantages and the limits of model optimisation

Mediation:

- behaviour adjustment mediation in order to orientate the subject, to restrain the impulsivity

Work Strategies:

- Inducement to carefully observe the page and to compare with the previous pages.
- To orientate the discussion to emphasize the concepts of comparison, propinquity, differences, similarities, the facility, difficulties, strategies and economy in solving a task.
- The note that the triangle is exactly half of the square

and that it is imposed that the square is delineated in the first place, in order to avoid wrongful use of the three dots to draw a triangle, which, is equal to the one in the model, hampers solving the task.

Principles:

- More than one person working together helps to solve problems easier.

Date: August 12th, 2008

Page 3.

Objectives:

- To assimilate the working method;
- To value existing reference points;
- To organize a working space;
- To identify the advantages and the limits of valuing a model.

Mediation:

- Mediation of change, underlying to the subject the fact that it is necessary for him to be able to value previous acquisitions to solve tasks that require new abilities: flexibility and adaptation.

Working strategies:

- Model figures are uneven and don't have an acknowledged and universal name.
- It will be required a careful description of figures in order to emphasize their characteristics and to name them, to save time and energy.

Principles:

- In order to be able to talk about a thing, it is necessary for it to have a well established name.

Date: August 19th, 2008

Page 4

Objectives:

- To assimilate the concept of asymmetry.
- To value the existing reference points;
- To organize a working place;
- To identify the advantages and limits in valuing a model.

Working Strategies:

- The uneven figure doesn't have a symmetry axes, which makes it difficult to name it.
- The task may cause problems to some, because the identification of the uneven figure is a lot more difficult in comparison to the previous pages.
- Talking about strategies: in drawing the uneven figure, it is recommended to find, in the first place, the points which mark the shorter sides because they are closer, which allows us to have an immediate control over our activities. Between the points left free, it is recommended to find the two groups of neighbouring points, which mark the short sides of the rectangle.

Principles:

- It is recommended to find the use of personal reference points, which help in orientation.

CONCLUSIONS

After the ongoing activities with the subject, activities which consisted in instrument application from

CLINICAL ASPECTS

the Instrumental Enrichment Program, developed by Reuven Feuerstein, a series of significant positive changes were ascertained in his behaviour: active partaking in solving tasks, a rise in concentrating ability, centring on the essential task, coherent expression, etc.

The subject recuperated a lot from the expression point of view, of organizing a work space and of acquiring an elevated level of self-esteem and autonomy.

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