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## **The Methodology of work of centres created within the project “The Borderland of Equal Chances”**

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Associations for Help for Disabled Children Step by step in Zamość

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## Part I

### **“3 in 1” Program of integrated rehabilitation, education and care for children and teenagers with brain damages in Krzemieniec Centre (UA).**

#### **1. Introduction**

„ 3 in 1” Program means complex and integrated rehabilitation – educational actions for children and teenagers (at the age of 0-18 years) with brain damages as well as the assistance for their families.

The program has been implemented in numerous countries in the world, and in Poland – successfully for more than 30 years in centres of Step by Step Association for Help to disabled children in Zamość. The program is based on conductive education system and other coherent neurophysiological approaches, using Belgian, English and Hungarian experiences as well as the cooperation with scientists from several countries including Canada and USA.

#### **2. Legal Bases**

The Program complies with international and national law.

- a) UN Convention on the Rights of the Child (1989),
- b) UN Convention on the Rights of Persons with Disabilities (2006),
- c) ICF (2001) and ICF-CY (2007) – International Classification of Functioning, Disability and Health, edition for adults and for children and teenagers.

a) Pursuant to Art. 23 (1) of the Convention on the Rights of the Child:

„A mentally or physically disabled child should have the full and fulfilling life in conditions that guarantee dignity, promote independence, and promote active participation in social life.”

b) The Preamble of the UN Convention on the Rights of Persons with Disabilities points to:

- self-reliance,
- independence,
- freedom of choice,
- participation in the decision making process.

Pursuant to Article 26 (Rehabilitation) of the UN Convention comprehensive rehabilitation should be:

- used from the earliest possible age,

- based on multidisciplinary assessment of individual needs and potential,
- available as close as possible to the communities where people with disabilities live, including rural areas.

c)“Functioning” of a disabled child (according to ICF) includes all the functions of the human body (in relation to its anatomical structures) its activities and its participation in different situations of social life. “Disability” is broadly understood and refers to all limitations (or impairments) of bodily functions (organism) and related structures, as well as restrictions of all the individual`s activity and his/her participation in social life (biopsychosocial model).

### **3. Objectives**

The main objective of „3 in 1” Program is to enable people with disabilities to participate fully in social life and to improve the quality of family`s life. The implementation of biopsychosocial model of supporting a person with disability via simultaneous improving body`s functions (medical actions), learning activities/ daily routine actions (educational actions) and enabling them to participate in social life (social actions) to achieve the objective. That is why, the program is called “3 in 1”.

To decrease the effects of disability, not only are actions directed into a person with disability (medical, educational) essential, but also less important actions influencing the environment and in the environment (removal of barriers, creating facilities).

The Program should be implemented by the centre which offers rehabilitation, educational and social actions.

Specific objectives regarding the assistance of a person with disabilities and his/her family:

- increasing children`s and teenagers` with disabilities self-reliance/independence and participation in social life,
- making education and rehabilitation in peer groups accessible for children and teenagers,
- making comprehensive rehabilitation adapted to individual needs accessible for children and teenagers with disabilities from the earliest stage of life, in the closest geographical environment,
- increasing the quality of family life which is the basic environment affecting the child with disability.

Specific objectives regarding institutional development of the Association/ Centre:

- training and employing professional experts,
- developing permanent and diversified funding sources,
- integrating representatives of people with disabilities and their families with decision-making processes in the organisation,
- development of further forms of assistance and building the system of assistance for people with disabilities and their families.

Specific objectives regarding effects on the environment:

- counteracting stereotypes and prejudices in terms of people with disabilities,
- increasing architectural accessibility and availability of services,
- creating coalitions/partnerships for the development of policies aimed at people with disabilities and their families.

#### **4. Receivers**

The Program Receivers are from tarnopolski district, from regions: krzemieniecki, łanowski and szumski. The Program is directly addressed, mostly to children and teenagers (to the age of 18) with brain damages, including cerebral palsy. Indirect receivers of the Program are also families of the disabled children and teenagers.

A list of the most common disease entities:

1. cerebral palsy,
2. delayed psychomotor development,
3. pervasive developmental disorder,
4. myelomeningoceles,
5. genetically determined syndromes,
6. syndromes of congenital anomalies,
7. polyneuropathy,
8. myopathy,
9. spinal muscular atrophy,
10. systemic diseases,
11. dysfunctions due to craniocerebral injuries,
12. dysfunctions due to consequences congenital defects of the locomotory organ,
13. dysfunctions due to consequences congenital defects central nervous system.
14. dysfunctions in the course of other conditions damaging the central nervous system.

#### **5. International methodological bases of „3 in 1” Program**

1. **Family – Centred Services.** These services are seen as key ones in the process of improving the quality of life of a family and the prevention from parents`/legal guardian`s burnout syndrome. The family is the basic environment influencing the child. There is a positive correlation between the wellbeing of parents and best

interests and achievements of a child. That is why, there is the necessity to organise the rehabilitation care not to overload the family, but to take into consideration family's competences and possibilities, as well as it is aimed to relieve the family of long-term and permanent care of the child until introducing the child into the appropriate social environment. Organising children's rehabilitation as day care service integrated with education and social support is the key element influencing the level of satisfaction of parents of disabled children.

The centre will relieve the parents of taking care of their children for a few hours. What is more, it will provide psychological assistance for the families and in the future there will be developed respitecare and assistant's service.

2. There are major challenges for the social policy because of accepting the disability as a biopsychosocial phenomenon as well as the obligation to comply with the UN Convention, such as inter alia:

1) The obligation of multidisciplinary diagnosis of functioning of people with disabilities (with respect to structures and functions of the body, activity and participation, environmental and personal factors) must be introduced, holistic rehabilitation programs (including individual, integrated 'life plans') must be constructed, conditions of coordinated cooperation between multidisciplinary rehabilitation teams must be created.

2) Rehabilitation-educational-social activities aiming at increasing presence of people with disabilities in social life must be integrated.

3) To relieve and strengthen the families of disabled children available services must be organised.

4) Rehabilitation services in local environment being natural for children must be organised (i.e. pedagogical rehabilitation for children in kindergarten, school).

5) Multi-profile supporting services including respitecare and assistant's services in local environment must be developed.

6) Education of specialists who support people with disabilities in the process of psychosocial adaptation (rehabilitation psychologists) must be developed and the environment must be

adapted for the needs of people with disabilities (ergo therapists, alternative communication specialists etc.)

7) Education of physiotherapists and rehabilitation physicians must be extended about the social, ethical and new technologies aspects etc.

8) The rules of making available physical, social, economic and cultural environment to people with disabilities must be spread and followed – enabling people with disabilities to use fully all human rights and fundamental freedom equally as other citizens (an idea of equal treatment, universal design, involving in the mainstream of life etc.)

#### **6. Neurophysiological, neuropsychological bases of „3 in 1” Program:**

“3 in 1” Program is mainly aimed at children and teenagers with brain damage, including cerebral palsy (in daily care unit).

„CP – cerebral palsy describes a group of permanent development disorders of movement and posture, leading to limitation of actions which are assigned to non-progressive disruptions in development of a foetus` or infant`s brain.

Together with sensory, perception, cognitive, communication and behaviour disorders, there are motor disfunctions as well as epilepsy and secondary musculoskeletal problems in cerebral palsy” (Rosenbaum, 2006). Their complex educational-rehabilitation- social needs are as a result of the above. As the basis of improving the damaged brain functions is its plasticity.

Brain plasticity is an ability to modify nervous system construction and activities as a result of interaction of exterior environment stimuli, which can be observed clearly although not exclusively in the period of development of nervous system – the ability to adapt, change, self-repair or memorize. It relies on creating and multiplying (reorganising) synaptic connections between the axon termination and a body or dendrites of the other nerve cell or other cells of the body (i.e. neuromuscular connections). Changes of reorganising the connections in response to an injury or a damage are the bases of functions` compensation in nervous system. There are appropriate rehabilitation, educational or social interactions as exterior environment stimuli.

Brain plasticity means not only psychomotor development of a child but also justifies undertaking improvement and educational activities.

There is hope to improve the functioning of children with brain damages by the use of the brain plasticity, however **it depends mainly on the quality of used stimulation (stimuli)**.

There will be used the improving methods which use the brain plasticity (Conductive Education, special pedagogy, development of thinking ability, others) in the Centre (in Daily Care Ward).

The improvement of efficiency depends on the integration of organisation and is growing up when children:

- have classes every day for a couple of hours (the time is long enough to modify the human brain in the plasticity process)
- are active in the process of learning functions, repeat exercises several times (learning a function is an activity requiring the activity of a learner, repetition stimulates the plasticity)
- learn simultaneously many damaged functions: motor, self-service, cognitive, communication in accordance with the diagnosis of their individual needs ( there is a functional integration in human brain )
- learn in small peer groups (with similar pace of work and process of learning) which motivates them, give them a chance to social training and communication, learn how to compete and cooperate, etc.
- learn in appropriate environment stimulating them to develop, and in safe environment, ensured by the appropriately educated professionals and with appropriate furniture and equipment
- learn in accordance with integrated Program, including especially the learning about everyday life activities, and presented in a way that motivates them to everyday activity and which is transferred to their family home in cooperation with their parents

## **7. Detailed Description of Integrated Rehabilitation Program based on Conductive Education System implemented in the Centre – the range, type and frequency of planned actions**

The result of early damages of the central nervous system is the disorder of psychomotor development in the form of cerebral palsy. The term of cerebral palsy describes a group of lasting disorders of motor or posture development leading to activities limitation, which are the result of non-progressive damages appearing in a foetus` or infant`s development of a brain.

There are motor disorders together with sensory, perception, cognitive, communication and behaviour disorders, epilepsy and secondary musculoskeletal problems in cerebral palsy. There is a complex of varied symptoms, with two disfunctions as the first ones: motor organs disfunctions as paralysis or paresis, disfunction of muscle tension, limitation of making movements, presence of incorrect movement patterns, appearing of involuntary impaired motor and balance coordination. There are also other symptoms together with motor disfunctions, which are the result of early brain damage, such as:

1. epilepsy
  2. visual disorders
  3. auditory disorders
  4. speech disorders
  5. behaviour disorders
  6. delay in mental development,
- as well as micro- deficits such as:
7. disorders of visual-motor coordination
  8. disorders of own body diagram
  9. disorders of own body feeling,
  10. disorders in space orientation ,
  11. disorders of concentration,
  12. disorders of thinking .

It becomes clear that the whole picture of the situation and a child`s problems with cerebral palsy should consist of extremely detailed assessment of each of a child` development and functioning areas, which is a complex functional diagnosis as a result of the possibility of existing such varied disorders. The type of improvement which is proposed to a child with such varied disorders should also consist of simultaneous interactions of all disordered development areas. A child with cerebral palsy has a damaged brain which main characteristic is exceptionally developed functional integration of all its parts (anatomic, histology, metabolic, biochemic and hormonal). None of the brain structures, especially cortical ones,



function independently. All of them are integrated in different way, joined at every penetrating each other level. Therapeutic actions ought to take the above into consideration, rehabilitation of movement organs only without other areas of development, not only is not coherent with a child`s needs but also decreases the efficiency of therapeutic actions because of the lack of using the elements of integration between each area of functioning. We are obliged to adjust therapeutic actions with respect to maturing, absorbent of stimuli child and the specificity of the damage with defined objectives to act and the perspective of a dozen of years of individual maturation because of the knowledge of brain plasticity and its ability to compensation .

There is a Conductive Education System, for complex needs of disabled children, which is based on simultaneous, parallel, integrated and harmonised improvements of all disordered functions, especially functions such as:

1. neuromotor function (movement),
2. self-service function (every-day life activities),
3. communication function (speech or non-verbal communication),
4. intellectual function (cognitive area and curriculum implementation),
5. emotional-social area.

The objective of multi-profile and integrated improvement in the Conductive Education System is as follows:

1. a child`s comprehensive development, rehabilitation and education concerning damaged psychomotor functions, multi-profile care and to enable children to implement cognitive, emotional and social needs,
2. to support and direct a child`s development in accordance with his/her individual needs and development possibilities,
3. to gain the maximum level of development and abilities in every disordered area,
4. to tend to be independent and self-reliant,
5. to prepare children to start school education.

It should be noticed that modern neurophysiological knowledge is the basis of improvements in the Conductive Education System using the brain plasticity. The term of brain plasticity of the central nervous system is unique for children with cerebral palsy, because of being the source of compensation processes and adapting the organism to a new brain`s morphological situation. Undamaged brain areas can develop and compensate fully or partially the consequences of the damage under the influence of the right in quality and quantity stimuli.

That is why, the rehabilitation interaction strategy should be based on proposing patterns similar to natural stimuli consequently, to make the motor, sensory, psychological and social adaptation easier. The child`s subjectivity must be included, as well as child`s problems must be included fully and comprehensively. Therefore, the integrated rehabilitation of children with an early damage of the central nervous system ought to be understood as the learning process of functions in movement, self-reliance, speech and social adaptation. Clinical evolution in a case of maturing brain is multiannual, requiring a long-term improvement program.

There are key elements of integrated rehabilitation program based on Conductive Education System such as:

- therapeutic team,
  - individual and group programs,
  - short- and long-term objectives,
  - series of tasks,
  - daily framework,
  - cooperation with parents.
- 
- A Therapeutic team including: physiotherapist/physiotherapists, special pedagogist/special pedagogists and a nurse/nurses/pedagogists (2-5 people), is responsible for:
    1. planning and organizing work in a group of children,
    2. a complex functional diagnosis of a child,
    3. an ongoing and interim evaluation of a child`s improvement,
    4. creating individual and group programs and their implementation,
    5. developing short- and long-term objectives for every child,
    6. verifying objectives based on interim evaluation of children,
    7. ongoing planning of series of tasks with respect to set objectives,
    8. completing documentation of team work,
    9. cooperation with parents.Members of therapeutic teams cooperate closely with a rehabilitation physician, a speech therapist and a psychologist.
  - Individual and group programs consist of detailed guidelines of a child`s planned development, work of a group and therapeutic team.

Group programs mainly consist of:

1. Defining and teaching/improving material for the whole year,
2. Defining and tasks and activities program for the whole year,
3. Daily and weekly framework with detailed time for each type of activity,
4. Plans and objectives of each series of tasks,
5. A plan of meetings with parents,
6. A plan of home visits,
7. A plan of integration activities,
8. A plan of therapeutic team meetings.

There are individual programs for every child based on complex functional diagnosis consisting of:

1. Short- and long-term objectives defined for a child`s each development area,
  2. Specified individual objectives for each series of activities,
  3. Detailed instructions of doing each task by a child,
  4. Detailed help instructions for a child while doing each activity,
  5. Individual activities plan, if it is required by the type of disfunction and deficits of a child,
  6. Home improvement plan (every-day and holiday ones).
- Short- and long-term objectives – defined as expectations concerning a child`s improvements in each disordered area of improvement. The first step in the whole multi-profile process of a child`s improvement is a detailed assessment – functional diagnosis, concerning all aspects of his/her development and functioning, i.e. motor skills, self-service, cognitive function and communication. There are developed on the basis of such complex functional diagnosis :
    1. long-term objectives – defining expectations concerning each area of a child`s activity and indicating these abilities which should be obtained by a child after a year.
    2. short-term objectives – defining further stages to achieve long-term objective, they are precisely defined, are measurable with a given defined time of the task implementation as well as necessary facilities and assistance.
  - Series of tasks- known also as sessions, are the basic organisational units in the multi-profile improvement process to achieve defined short- and long-term objectives. Astute observation and assessment to define main child`s disfunctions and his/her strongest suits are necessary to develop the series of tasks first.

Examples of series of tasks:

1. preparing to eat,
2. hands therapy,
3. preparing to walk,
4. on boxes - free/individual seating,
5. on boxes – preparing to stand up,
6. session on tables – change of place and position,
7. walking,
8. assisted locomotion training,
9. dressing up,
10. toilet and hygiene training,
11. preparing to write,
12. greetings – creating identity and developing somaesthesia,
13. session of vocal apparatus improvement etc.

To create series of tasks making analysis regarding functional usefulness of those tasks and defining the transfer of activity of a given series of tasks i.e. deciding where, in what way and when such activities can be used by a child, are required. Therefore, a child is being taught how to solve problems faced in every -day life leading to his self-reliance and independence.

Examples of series of motor tasks objectives on the tables and boxes :

1. gaining ability of position control,
2. gaining ability of changing position and place,
3. shaping the functional grab to create the possibility of fixation in every position,
4. creating and shaping appropriate position pattern in different positions,
5. shaping appropriate motor patterns,
6. shaping the sense of balance in different positions,
7. developing activity in different positions,
8. shaping the feeling of the diagram of his/her own body,
9. shaping the spatial orientation,
10. developing the auditory – visual – motor coordination,
11. learning how to breathe correctly.

Examples of series of tasks objectives – greeting:

1. shaping his/her own identity and the knowledge of a group identity,
2. shaping the ability of spatial ratio ability,
3. shaping the knowledge of the diagram of the body,

4. sustaining the abilities of recognising days of the week and identifying the weather,
  5. shaping the ability of verbal and non-verbal communication,
  6. shaping the visual – motor coordination,
  7. improving the abilities of keeping the correct sitting and standing position,
  8. shaping the ability of changing position from sitting to standing and vice versa,
  9. shaping the ability of maintaining balance in sitting and standing position,
  10. improving the abilities of head movements in above mentioned positions,
  11. shaping the abilities of maintaining head in the midline,
  12. improving the ability of grabbing,
  13. improving the abilities of doing activities with one hand, when the other hand is in fixation and separation of movements,
  14. shaping the ability of keeping order during classes,
  15. shaping the abilities of maintaining rules of good behaviour and using courtesy forms.
- Examples of daily stay framework
    1. Examples of daily stay framework for children no older than 10- there are dominating improvement areas in the brackets:
      - arrival of children, going to the class, taking clothes off, hygiene (improving the function of self-reliance and movement)
      - individual classes (improvement of motor functions, speech and psychological therapy)
      - preparing to eat (improvement of motor and self-reliance functions)
      - a meal (improvement of self-reliance function)
      - hygiene (improvement of self-reliance function)
      - series of tasks: greeting (improvement of motor, cognitive functions and communication)
      - series of tasks: on the tables, on the boxes (improvement of motor and cognitive functions)
      - series of tasks: hands therapy (improvement of manual function and self-reliance)
      - series of tasks: educational classes (improvement of cognitive, intellectual and motor functions)
      - hygiene (improvement of self-reliance function)
      - preparing to eat (improvement of motor and self-reliance functions)
      - a meal (improvement of self-reliance function)
      - individual classes (improvement of motor functions)

-individual and group therapeutic classes developing cognitive functions, games and sport games, preparing to go home and going home (improvement of self-reliance, cognitive and locomotive functions)

## 2. Framework of a daily stay for children older than 10

-arrival of children, going to a class, taking off clothes, hygiene

-individual and group activities

- a meal, hygiene (exercising self-reliance function)

-individual classes (a psychologist, a speech therapist) or musical classes or sport classes or conductive classes, educational classes

-special education

-a training of self-reliance or supportive locomotion

-special education

-classes improving creative thinking

- a meal, hygiene (exercising self-reliance function)

-social education

-individual classes

-individual and group therapeutic classes developing cognitive functions, games and sport games, trainings of different sport disciplines e.g. Boccia, RaceRunning, Invasport ..., cleaning in the classroom, hygiene, putting on clothes, preparing to go home, going home (exercising self-reliance, cognitive and locomotive functions)

There is a range of kinesio - therapeutic procedures while motor sessions on the tables and boxes and while individual and group classes such as:

1. passive and forced passive stretching exercises
2. assisted exercises,
3. active exercises in relieving, free exercises and with resistance,
4. special exercises,
5. exercises in accordance with neurophysiological methods,
6. exercises of nervous-muscle re-education,
7. active and assisted verticalization,
8. training of independent and assisted locomotion,
9. group exercises.

Moreover, on request by a physician, individual physiotherapy and hydrotherapy procedures can be conducted with respect to ongoing indications and patients` needs.

Children are under care of therapists and get all necessary health benefits regarding care and nursing for disabled people during the whole period of stay in Daily Care Ward and during everyday transport.

- Therapeutic group is a very important element of interaction in a multi-profile process of improvement enabling to social and emotional development, giving chance to contact with peers, mobilizing to act and compete. The dynamics of a group is seen as a help in education process through imitation, develops motivation and creates bigger possibilities to an independent entity.
- Cooperation with parents includes:
  1. permanent exchange of information about a child`s improvements in correspondence notebooks enabling to consolidate gained abilities and the continuity of work with a child at home,
  2. members of therapeutic teams` steering visits at family homes,
  3. direct participation of parents in classes i.e. open days,
  4. organising parent-therapists conferences,
  5. teaching parents about the specificity of their children`s disabilities and the used methods of improvements,
  6. supporting parents with the psychological therapy.

The specificity of work in Daily Therapy Ward includes the domination of therapy in small therapeutic groups, of average 4-6. Part of the therapy is individual in form and is approx. 1/3 of the whole period of the therapy. Providing health benefits from children`s rehabilitation with disorders of development age is integrated with the education process.

## **8. Detailed description of rehabilitation methods implemented in the Centre**

**Conductive Education System based on Petö method, described in chapter 7 is a leading method.**

1. Petö`s method- is aimed to improve children at the kindergarten and school age. Joining in one psychoeducational, therapeutic and social improvement is its characteristic. Petö`s method is based on integrated educational influence on a disabled child regarding his/her improvement of:

- neuromotor function (movement etc. ),
- every-day life activities (self-reliance),

- communication and socializing (speech, non-verbal systems of communication),
- intellect (school education).

The improvement is based on systematic psychomotor stimulation of a child's development regarding:

- control of posture and locomotive movements,
- visual – motor- sensory – auditory coordination,
- orientation in time and space and sensing the body,
- emotional life, development of personality and social contacts,
- speech development, communication with gesture,
- drawing, writing, reading and developing notion about the surrounding world.

The characteristic feature of this method is the use of facilities such as:

- friendly and adopted therapeutic environment,
- interdisciplinary therapeutic team,
- the presence of specialists,
- work in a therapeutic group,
- speech, especially the method of rhythmicity of instructions,
- well-elaborated general, individual program and each series of tasks,
- specialist furniture and equipment.

Additionally, there are used:

2. NDT-Bobath method- successfully used in the therapy of: premature babies, infants, older children with neurological, orthopaedic, genetical syndromes, and with developmental delays. According to NDT-Bobath method the improvement is used to help a child in comprehensive development to enable him/her to gain life independence and to use his/her opportunities with respect to damages on the Central Nervous System.

Therefore, main improvement rules in accordance with NDT-Bobath include:

- influencing the muscle tension through lowering increased muscle tone and increasing the decreased muscle tone,
- stopping incorrect reactions and triggering reactions in form as close to the correct ones as it is possible gained by assistance and leading movement from key points, i.e. movement



control points such as a head, a pectoral girdle, a pelvic girdle and other parts of the body, and

– using and consolidating gained motor abilities in every-day activities.

According to NDT-Bobath method, the improvement is especially useful in infants and children`s treatment, because of the possibility of joining it in their biological rhythm of the day. Appropriately conducted nursing procedures, feeding, carrying a child or playing with a child are the proper moments to consolidate exercised movements by a physiotherapist.

3. PNF method – is a concept with its own philosophy and rules of cooperation with a patient. Working on function needed by a patient is the main objective of the therapy. The strength of muscles, range of motion- what is important in the therapeutic actions is only a medium to obtain an objective which is a function. Seeing a patient as a whole is recommended by this concept, with the use of strong and healthy parts of the body. The whole use of reservoirs in the body is enabled, motivating to take further actions and, what is the most important, ensuring painless work without traumatizing the patient by a psychic and physical experiences. A patient is a physiotherapist`s partner defining range and borders of actions and therapy objectives. A therapist has an advisory role. That is why, the patient even with big disfunction maintains a good motivation and has a positive attitude towards the cooperation with the therapist. PNF method is used with patients with orthopaedic, neurologic patients and gives very good effects in work with children and teenagers with scoliosis and postural defects.

4. McKenzie Method- diagnosis and treatment of spinal and extremity musculoskeletal disorders. Created by Robin McKenzie, a physiotherapeutic method, for assessment (using the detailed interview and clinical tests), treatment and prevention of spinal pain. The usage of this method has been recently extended for peripheral joints. The inventor of the method divided spine disorders into 3 categories, taking into consideration the cause and the degree of osteoarthritis in the area of the spine and major joints, i.e. syndromes: postural, dysfunctional and structural. The program of therapeutic management including not only techniques used by the physiotherapist but also the movement of the patient, exercises and autotherapy at home are important. Low, mainly lying positions are dominating. Active movements are frequently repeated in different surfaces, but in strictly defined direction, which does not cause the pain. Recommendations which aim at protecting the spine from further injuries and overloads and at the prevention.

5. Kinesiotaping - (dynamic taping) – this method is based on taping of different parts of the body with tapes of specific structure. It is one of the taping methods. A special tape Kinesio Tex Gold, invented by Kenzo Kase MD, is used. This kind of tape does not limit the movements, extending in length, of weight and parameters similar to human skin, does not contain pharmaceuticals or latex, resistant to water, enabling the flow of fresh air thanks to its wave weave.

6. Sensory Integration (SI) – sensory integration means how a human uses signals received from sensory organs (sight, hearing, touch, balance) to act deliberately. A child with deficits regarding receiving or processing sensory stimuli can have problems with inter alia self-reliance, graphomotor problems (with writing), with space orientation, visual-motor coordination, bilateral coordination, difficulties in learning, contacts with peers, in speech development, concentration of attention problems. This therapy concerns doing different activities providing stimulation of senses by a child and is called ‘scientific game’. During a session, a child e.g. swings in a hammock, rolls in a barrel, skateboards or balances in a cradle. Integration of sensory stimuli and experiences going to central nervous system are done by nice and interesting game of a child, which allows to better organisation of activities. SI therapy is not a method of teaching specific abilities (e.g. riding a bike, writing, reading), but improving work of sensory systems and nervous system processes which are the bases to develop these abilities. A therapist stimulates a child`s senses and improves such ranges as small motor skills, large motor skills, visual-motor coordination while working with this method. A therapist with the use of proper techniques, aims to eliminate, stop or restrict undesirable stimuli present in case of sensory hypersensitivity or providing strong stimuli which is needed in case of under-sensitivity of sensory systems.

7. Medical Training Therapy (MTT) – individual work with a patient with orthopaedic, neurological, cardiorespiratory, metabolic, rheumatological disorders etc. MTT is the last stage of motor improvement. MTT aims at: decreasing pain ailments, improvement of joints mobility, improvement of endurance, strength and coordination, improvement of the quality of every-day activities and sport abilities, learning compensation of lost functions, injuries prevention, decreasing adipose tissue, improvement of articular cartilage, ligaments, tendons and muscles endurance, promoting active and healthy lifestyle.

8. Ergotherapy – a discipline mainly based on medical, psychological, social and craft knowledge. It is mainly used in case of motor, sensory, nerve conduction and psychological

disorders, that is why, it is applied in all branches of medicine. Ergotherapy similarly to physiotherapy is a medical profession. Ergo therapists and physiotherapists not only restore mobility but also help in overcoming difficulties with doing every-day activities such as wearing clothes and taking off clothes, preparing and eating meals, personal hygiene and many others which are unproblematic for healthy people. There is a possibility to use large range of devices and equipment which can help to overcome these difficulties in many of above mentioned activities in varied surrounding, outside or at home. Ergotherapy is not only a very important medical remedy leading to patients` and disabled persons` convalescence, but also a form of therapy which thanks to varied methods and therapeutic materials allows patients to learn the biggest self-reliance, independence and activity. Appropriate ergo therapeutical medical remedies are chosen with respect to individual needs of patients and take into account the picture of a disease or disability.

9. Manual therapy – a form of therapy of musculoskeletal system disorders, belonging to physiotherapy branch and is supported by scientific researches. It is based on examining and treating peripheral joints and a spine. A detailed interview is the first part of the examination. Next, there is the examination of movement quality, its range, biomechanics and other factors (e.g. painfulness factors). Disordered biomechanics of joints is restored thanks to the therapy using special mobilization or manipulation techniques and working on soft tissues which lead to lowering the pain, increasing the range of motion, disappearance of inflammation.

10. Sherborne developmental Movement.

The method is based on system of exercises supporting proper children`s development and correcting developmental and emotional disorders. The usage of movement as a tool of support and the therapy of a child`s psychomotor development disorders is the main idea of the method. Participation in exercises enables a child to know own body, to develop motor skills, feeling his/her own strength, fitness and therefore, movement capabilities. A child can get to know the surrounding space (it would stop being dangerous) during exercises. A child can feel safe, become active, more creative. Via the movement a child can:

- know his/her own body,
- know the surrounding space,
- get the self-confidence,
- get the feeling of security in the surrounding area,
- make contact,
- learn how to cooperate with a partner ( a peer or with a person he/she is paired to) and

a group,

- gain confidence in partner and a group.

#### 11. The Good Start Method of M. Bogdanowicz (GSM).

A child's psychomotor development support through appropriately organised game and active multi-sensor teaching of graphical symbols like easy patterns, letter-like patterns, letters and mathematical signs, is the main assumption of GSM method. This assumption is implemented via functions development which take part in learning to read and write (cognitive: visual – spatial, auditory-speech and movement) and their interaction (perceptual – motor integration). Shaping laterality, awareness of body diagram (its parts and left and right side) and the space are other aims. GSM method presents poly-sensory, active attitude to work with children.

There are three elements such as:

- a motor element means movement, movement - auditory exercises, as well as movement – auditory – visual ones as movements harmonised with a song rhythm, made while reproduction of graphical signs;
- an auditory element means songs, poems, sentences and words;
- a visual element means graphical signs (easy patterns, letter-like patterns, mathematical letters and signs).

#### 12. Psychomotor therapy of Procus and Block.

Psychomotor therapy is a system of children's at the kindergarten and pre-school age development. Belgians, Marcelle Procus and Michalle Block are the precursors of this method, who assumed that a child can gradually reach the control of psychological processes and self-control through recognising, forecasting and reaching a target movement, which lead to the improvement of cognitive processes: understanding, speech and memory. The integration of nervous system as a whole is gradually improved. The therapy is among integrative therapies, where the therapy stimulates the development of many function of the central nervous system, especially in the range of their mutual coupling and integration on the basis of movement exercises.

The aim and effect of the therapy is the construction and mobilisation of neural networks which are responsible for integrative brain processes. As a result, a child can achieve the possibility of optimal functioning in his/her environment, appropriately to the age of psychophysical abilities. The aim of the therapy is to eliminate different types of movement, visual – movement coordination, behaviour, emotions, memory, concentration, reading and writing pathologies and disorders in clinical aspect.

13. Multi-sensory stimulation methods – inter alia a morning circle and multi-sensory stimulation in a multi-sensory stimulation classroom. A poly-sensory stimulation is multi-sensory experiencing the world learning which aims at evoking planned experiences and feelings. The therapist with the use of appropriate equipment (teaching aids) gives a child different types of sensory stimuli: touch, flavour, smell, auditory and visual.

14. Choreotherapy (music therapy, rhythmic, dancing).

There are main objectives of music therapy such as:

- supporting the individual development of a child,
- enriching the interior world of a child,
- mobilising to activity (cognitive, movement, emotional, intellectual),
- increasing the belief in yourself, improvement of self-assessment,
- stimulating and developing senses,
- interpersonal communication learning,
- enabling to express yourself easily, expression,
- learning of expressing yourself,
- unleashing and revealing emotions and tensions,
- stimulating to expression (of feelings, vocal, movement, verbal etc.),
- satisfying a natural need of a child, which is playing,
- providing positive experiences and information about the world,
- developing musical interests and possessed creative potential,
- achieving calming and psychophysical relaxation.

Objectives implemented during music therapy depend on children`s needs, who participate in classes. They can be implemented both at individual and group classes, where the following forms are used :

- movement exercises and games – activating movement and emotions; fulfilling the needs of movement and playing, influencing harmonious child`s development, exercising the abilities to sense of direction, organisation, movements aesthetics and also the ability of conscious submission of movements to music,
- playing instruments – giving a chance to speak out expressively, developing musical sensitivity,
- songs singing – waking up the imagination and interests, exercising attention span, enriching vocabulary, activating thinking and cognitive processes, integrating a group,

– auditory exercises – sensitizing music, starting fantasy, developing attention span, musical and non-musical memory, developing hearing, developing the ability of conscious receiving and selecting sounds.

15. Activity programs – Body Awareness, Contact and Communication invented by Marianna Knill and Christophere Knill. The programs can be effectively used in the work with children and teenagers of different levels of intellectual development and with different types of physical disabilities. As a result of social contact, movement and play proposed programs create a framework. They can be conducted by every person who has a contact with a child and can be conducted every-day at the same time of a day. Planned and systematic experience of movements different than the ones so far for a child such as pushing and rolling objects, turning them upside down, rubbing them, transferring different objects from one hand to the other etc. are the basis. A child must be aware of using his/her own hands, legs, mouth, shoulders, feet and the whole body while using them in such easy activities as eating and putting on clothes and while playing and in communication with others. Cassettes with specially composed music which should accompany all activities are attached to the programs.

A therapist uses his voice, sings or speaks clearly and melodically, accompanies every activity which is helpful for a child. Every child's movement is supported by a special musical accompaniment which is a signal of specified activity. Thanks to listening to a special tone at the beginning and end of each program a child gradually learns how to recognise the situation and as a consequence preparing a child to join the situation with a specified activity.

16. Thinking development Classes – Thinking Skills by R. Feuerstein – this method is the answer to complex both cognitive and emotional, and social needs of children with disordered psychomotor development. This method allows to get to each child, regardless the level of development, type of disorders or limitations. A child is a subject of all actions, and the main aim of interactions is to reach the child's development as the integrated whole in this method. A child is an active part – he/she discovers, knows, is familiar with any reasons. What is more, a child can solve the problem by himself/herself and therefore, feels the taste of success and increases the belief in his/her own abilities. Learning through mediation is the key. A mediator adjusts varied parameters of each task given to a child to his/her individual abilities and competences in such a way to maximize a child's activity. That is why, a child learns via experience, discovers relations and rules which reign the world. A child gets the possibility to discover the reality in accordance with ordered and universal structure which he/she

memorizes not as a sequence of chaotic elements but as a logical whole. As a result his/her cognitive functioning has been changed but also his/her own personality – a child becomes more self-confident, self-controlled. Changes in an entity positively influences those he/she creates relations with – a family, closest surrounding. The changes like inter alia the willingness to take a challenge, enjoying new experiences can be observed in children participating in the classes. Shaping the interior motivation to take up tasks results in increasement of attention span over the tasks and better memorising of the content.

17. Augmentative and Alternative Communication - AAC - means all actions which aim at helping in communication of nonverbal people or people using speech in restricted range. They can use graphical signs (pictograms, pictures, symbols), manual signs (gestures) or spatial – touch signs (e.g. objects) instead of pronounced words or sentences. As a result, they can make choices, decide, question, answer, express thoughts and emotions – overcome obstacles in communication and become independent. The most frequently used AAC methods in the Centre are: PCS pictograms, Makaton Bliss, Coghano`s gestures, communicators invented in informative technology.

A team of specialists creates individual system of communication for each nonverbal person, to use a system of signs instead of speech (e.g. gestures, pictograms, symbols, handwriting). There are numerous actions such as selection of signs, creating personal aid to communicate, learning how to choose and point, giving instructions to communication partners, equipping nonverbal person with appropriate electronic tools or a computer which will give the voice (assistive technology), as well as (in case of motor disability) arranging appropriate seat where a AAC user will be able to use provided aid.

18. Logopaedics methods and forms of interactions.

In verbal methods (linguists, philological, psychological, educational) and nonverbal – musical, visual – auditory – touch) different forms of interactions are used:

- developing speech recognition e.g. understanding of easy questions,
- exercises improving articulatory apparatus (impaired oral praxis),
- respiratory and respiratory-phonatory exercises,
- exercises modifying breathing,
- listening exercises e.g. distinguishing sounds with different distinctive feature, phonemic hearing exercises,

- differentiation and proper realisation of sounds exercises,
- games enriching vocabulary: passive and active,
- active speech exercises e.g. defining activities,
- understanding and developing grammar and lexical structures exercises,
- developing conversation,
- shaping communication competence,
- speech rhythmization,
- alternative communication e.g. Makaton, AAC,
- using mouth – facial therapy regulating incorrect tone,
- supporting child`s oral functions,
- therapy of disorders of a significant and deep oral functions concerning food consumption and starting a speech,
- swallowing re-education,
- auditory training,
- logo-rhythmics e.g. musical – movement games,
- drawing as a way of expressing thoughts and observations by a child,
- using the content of analysers perception participating in speech act (sight, hearing, touch).

#### 19. Self-service social abilities, self-reliance and cooperation with parents training.

The aim of the training is to gain, maintain and develop possible to achieve children`s and teenagers` level of personal and social functioning.

The training includes:

- gaining, developing and maintaining possible to achieve personal level of functioning (self-reliance and the ability of every-day life- also in a household),
- communication training,
- communicativeness training including reporting the needs,
- mobility training,
- causality learning,
- learning of making decision, responsibility, correct self-esteem, emotional resistance,
- gaining, developing and maintaining possible to achieve social level of functioning (playing varied social roles: a household member, a client, a student in a group, a worker, a citizen etc.),
- supporting school education and achieving factors necessary to further educational stages,



- gaining abilities useful to start work and quite independent life,
- relieving family and improving the quality of its life.

A training includes:

- mobility,
- thinking,
- communication,
- gaining and gathering information and supporting the educational process,
- stimulating social activity,
- developing abilities of independent fulfilling social roles including the preparation to professional work,
- the therapy and help for the family at all levels of assistance
- instructions for parents, participation in classes (continuation at home),
- information for parents,
- legal, aid, technical- architectural, antidiscrimination counselling etc. increasing the chance to active participation of the family in social life and improve its quality of life.

20. Diagnosis, ranges, forms and methods of psychological therapy.

A. Psychological diagnosis methods:

1. Paediatric Development Scale
2. Psychomotor Development Scale of a child at the age of 0-3 by Brunet – Lezine.
3. Mental Maturity Scale Columbia.
4. APIS-P (R) test battery.
5. Intellectual Capacity Diagnosis (DMI).
6. Raven`s Progressive Matrices – Standard Version.
7. Raven`s Progressive Matrices – Coloured Version
8. Leiter International Performance Scale.
9. Intelligence and Development Scales (IDS).
10. Wechsler`s Intelligence Scale for Children (WISC-R(PL)).
11. Parent – Child Task-Oriented Communication Test (TKZ R-D).
12. Emotion Understanding Test (TRE).
13. Multidimensional questionnaire of preferences (WKP).
14. Interests Test (TZ).
15. Attention and Concentration Test (D2).
16. Frostig developmental test of visual perception .

17. Thematic Apperception Test with illustration of people CAT-H

18. Experimental Diagnosis of drives (SZONDI).

19. Practical Test Pyramid (TPB).

20. Ruff Figural Fluency Test (RFFT).

21. Guzburg PPAC, PAC-1, PAC-2 inventories.

B. The range of psychological therapy:

a) Supporting cognitive development including inter alia:

- supporting the development of concentration processes,
- visual perception, visual analysis and synthesis, visual memory,
- auditory perception and auditory analysis and synthesis, auditory memory,
- visual – auditory – motor coordination,
- manual dexterity,
- active speech (e.g. the range of possessed dictionary, fluency of speech, ability to construct speech),
- passive speech (e.g. the range of understanding processes of oral instructions, enriching passive dictionary),
- abilities of space orientation,
- processes of cause – and – effect thinking, thinking via analogy, deduction and logical thinking.

b) Supporting a child`s social development.

c) Supporting a child`s emotional-motivation development.

d) Support in a crisis situation.

e) Psycho-educational classes for children.

f) Psychological counselling, meetings and workshops for parents regarding issues about children with disabilities upbringing.

C. Forms of psychological therapy:

- individual,
- group.

D. Psychological therapy methods:

- Behavioural therapy methods:

a) The program by Carole Sutton „Jak radzić sobie z trudnymi zachowaniami u dzieci” (How to treat with difficult behaviour of children”) -it is an 8-week training program for parents about dealing with difficult behaviour of children.

The program consists of theoretical bases concerning instrumental conditioning. It requires not only work of a child but also mainly of parents. The family works on one, specified and clearly defined behaviour in the program, by completing cards of a chosen behaviour and implementing recommendations included in next 8 parts of the program within 8 weeks. They concern:

- observation of difficult behaviour,
- what is before and after difficult behaviour,
- what to do if difficult behaviour appears,
- rewards and punishments,
- problems with a sleep,
- what evokes difficult behaviour,
- a wider use of the method,
- how to consolidate positive changes in a child`s behaviour.

b) Methods of learning based on assumptions of instrumental learning, including the method of positive feedback.

- Methods of cognitive behavioural therapy:

a) “Coping Cat” therapeutic program is a cognitive behavioural therapy of anxiety of children produced by Kendall Philip C and Hedtke Kristina A.

The program of cognitive behavioural therapy of anxiety (especially generalised anxiety, social phobia and separation anxiety) of children at the age of 8 to 13. The authors focus on 16 therapeutic sessions step by step: their objectives, next stages, used strategies, as well as practical advice for a therapist.

b) The therapeutic program „Anxiety” which is a cognitive behavioural therapy of anxiety of teenagers by Kendall Philip C., Hedtke Kristina A.

The program of cognitive behavioural therapy of anxiety disorders of teenagers at the age of 14 to 17. The authors focus on 16 therapeutic sessions step by step: their objectives, next stages, used strategies. Each session includes such issues as: recognising anxiety symptoms, thinking of a person with anxiety and its results, a plan of overcoming or using gained abilities in situations evoking anxiety.

- The method of poly-sensory stimulation

Poly-sensory stimulation is based on multi-sensory experiencing the world aiming at evoking planned impressions and feelings. A therapist provides different types of sensory stimuli: touch, taste, auditory and visual ones during classes.

- Affolter`s method

The method is mainly based on transferring sensory information via hands and also on controlling a child`s body during activities of large motor skills i.e. walking, bending down, squatting according to F. Affolter. A therapist`s task is to put his hands on a child`s hands in such a way that his thumb should cover a child`s thumb, and his index finger should cover a child`s index finger in such a situation etc. A therapist should stand behind a child and initiate further activities. As a result, a child can feel the characteristics of an object, its resistance, changes of a hand position in comparison with the surface, differences in one and the other hand`s operation. Both child`s hands and a brain receive stimuli which they cannot experience without the help of the therapist. Speaking is forbidden while guiding hands because those actions require concentration of a child and it can be disturbed by a therapist`s speech. A proper time for speaking with a child about the actions is before and after them.

- Fairy tale therapy

A method called Fairy tale therapy, when a therapeutic fairy tale is being read or children read it by themselves, is a method used to work with kindergarten and pre-school children. There are some groups of therapeutic fairy tales such as: psychotherapeutic fairy tales, psychoeducational and relaxational fairy tales. Each of them is aimed at children with various problems. Fairy tale therapy is used to overcome fears associated with different situations. By choosing an appropriate text, there appears positive thinking in a child`s psycho, children start to understand their feelings, their expression as well as causes. Fairy tales present how to deal with different situations and give some standards of behaviour. Thanks to them, children start to understand the world and stop feeling lonely.

- Elements of art therapy

Art therapy or artetherapy is seen as treatment by art. Making contact with a child, creating a safe and accepting atmosphere are the bases of the therapy. There are basic techniques used during the therapy: painting (by hands, a paint brush, a sponge), a drawing, a work with plastic mass. Thanks to artistic activities children can continuously develop their individual expression as well as emotions and feelings connected with their present mental and physical

state are unleashed. The art allows them to fill the time and not to worry about everything, on the contrary it allows them to understand that they can do much i.e. can create things which help them to validate themselves, their ambition grows. Art therapy makes children sensitive and open to the surrounding world. What is more, the therapeutic impact of art is to teach children perseverance and consequences in pursuing the objective. Children can express these thoughts and experiences which are difficult to express in words, can reveal those which are suppressed as well as can relieve their emotions, tension and find satisfaction in art. Artistic classes give them happiness, the possibility to act and create, develop their imagination, thinking, memory and attention and what is more, teach them self-reliance, resourcefulness, precision, order and organisation of work.

- Development program of developing cognitive functions:

- a) Development program of visual perception. Basic program. Intermediate program. High program. M.Frostig, D.Horne.

The ability of visual perception includes in the program: visuomotor coordination, recognising a figure and background, consistency in perception, recognising the position of objects in space, recognising the spatial ratio.

There is a detailed description of all the components in the book. There are numerous games supporting the development of visual perception and a set of exercises in the workbook for the child.

- b) Graphical exercises developing the motor ability of a hand and visuomotor coordination, H.Tymichova.

- Therapeutic conversation

A conversation with a child leading to find a solution to a problem, is usually an introduction and a concluding element.

- Elements of a Model of Early Intervention Insite

Supporting the family of a child with sensory disability and other damages from birth to kindergarten age is the assumption of the Program.

## **9. Staff: diagnosis and therapy**

A multidisciplinary diagnosis is obligatory for planning an intervention plan for children. It requires coordinated cooperation of multidisciplinary team of specialists (so apart from a physician – optimally a rehabilitation physician, also a psychologist – optimally a rehabilitation psychologist, educationist, ergo therapist, speech therapist, and so on). The children can require other specialists` consultation, such as from neurologist, psychiatrist, orthopaedic technician, oculist and similar. The therapist competent in matters of assistant and alternative conversation (AAC) techniques cannot be missing in case of persons with disorders in communication with this team. Occupational Therapists (ergo therapists) are the most competent in matters of knowledge about adaptation of the environment for the people with disabilities. The similar wide multidisciplinary team should implement versatile recommendations resulting from such made diagnosis:

- A therapeutic team composed of: physiotherapist(s), special educationist (s) and a nurse (s)/ educationists (in the amount of 3-5 people) is directly responsible for:
  - planning and organising children`s work in a group,
  - children`s complex functional diagnosis,
  - current and periodic development assessment of a child,
  - creating individual and group programs and their implementation,
  - elaborating short- and long-term objectives for each child,
  - verification of objectives on the basis of periodic children`s assessment,
  - current planning of series of tasks paying special attention to defined objectives,
  - conducting the documentation of team`s work,
  - cooperation with parents.

Members of the therapeutic team in matters of aforementioned actions strictly cooperate with a rehabilitation physician, a speech therapist and a psychologist.

- Individual and group programs include detailed guidelines about planned development of a child, the group`s work and the therapeutic team.

There are in matters of group programs the first of all:

- defining and teaching material / improvement material for a given year,
- defining and activity and tasks material for a given year,
- daily and weekly framework with detailed time for each type of activity,
- plans and objectives of each series of tasks,
- a plan of meetings with parents,
- a plan of home visits,

- a plan of integration activities,
- a plan of therapeutic team meetings.

Individual programs for every child arise on the basis of complex functional diagnosis and include as follows:

- short- and long- term objectives determined for every area of a child`s development,
- detailed individual objectives formulated for each series of tasks,
- exact instructions of doing individual activities by a child,
- exact instructions of assistance to a child at doing individual activities,
- a plan of individual classes, if the type of disfunction and deficits confirmed at a given child require to do so,
- a program of home improvement (every-day and holiday).

## **10. The structure of the centre:**

1. Daily Therapy Ward
2. Outpatient Ward
3. Specialist Clinic

### **Ad.1 Daily Therapy Ward**

Children in groups of 4-8 spend time in rooms with a team of therapists in the number depending on the children`s needs and their level of self-independence, to ensure their safety. The age, level of intellectual development and the pace of work are the conditions to create the groups. Children are at the kindergarten age (from the age of 3) and school age. The team of workers/therapists is multi-profile.

Rooms are appropriately equipped and furnished to enable the development and education.

Everyday integrated educational program of movement/motor function, self-service, cognitive function, communication based on children`s activity (in accordance with Conductive Education System) are implemented in the ward.

Children are served a meal/meals which they try to eat by themselves.

Everyday transport is provided.

### **Ad. 2 Outpatient Ward**

Children who do not require such intensive care as in the Daily Therapy Ward and/or have different problems than brain damage (orthopaedic, intellectual), can take advantage from periodical individual classes in accordance with their diagnosis. They can benefit from physiotherapy, psychological, pedagogical and logopaedic including alternative and supportive communication classes (classes in a gym, hydrotherapy, physiotherapy and specialist offices). Methods with confirmed efficiency for children and teenagers in defined disorders are used. Moreover, the youngest children, no older than 3 years old, take advantage from individual, outpatient form of improvement although the improvement in home environment is recommended because of psychological reasons.

### Ad.3. Specialist Clinic

A team of specialists admits a child and makes a multi-profile diagnosis in accordance with ICF: body functions, activity and participation as well as analyses the environment including the family`s needs, needs for the equipment, the necessity of removal of barriers etc.

Parents get the neurodevelopmental instruction. A child get recommendations and is directed to either Daily Therapy Ward or Outpatient Ward, for children no older than 3 years old neurodevelopmental or rehabilitation care in their family home is preferred.

The rental of rehabilitation or didactic equipment can be organised at the Clinic.

About 30 people in Daily Therapy Ward ,and about 50 people in Outpatient Ward (in the 1<sup>st</sup> phase of the centre building) are planned.

## **11. Environmental impact of the Centre**

Apart from key tasks regarding education and rehabilitation, the Centre not only has to create the opportunity to social activity of its patients but also to be an educational centre for local society. There are the most essential tasks:

1. Shaping the image of a person with disability in a local society as a full-fledged member of the local society. That is why, the centre has to conduct social campaigns, present the image of a person with disability as a human and citizen not as a client of social welfare. It is advisable to use International Holidays important for the environment of people with disabilities and their families i.e. World Cerebral Palsy Day, World Prematurity Day, International Day of Persons with Disabilities,



International Day of protection of persons` with disabilities rights to implement the task successfully.

2. Development of the voluntary service which means not only development of specialist volunteering, based on students of medical studies (physicians, nurses, physiotherapists, logopaedics) and social studies (psychology, pedagogy). Long-term development of specialist volunteering can help in implementing the task of employing professional staff. Furthermore, development of volunteering for specific events which enables mutual cooperation, social solidarity and co-responsibility attitude in case of not-adjusted school environment as well as isolation of full-capacity and disabled children, are equally important. Volunteering for specific events ought to be based on cooperation of the centre with school and ecclesiastical environment. Pupils should participate in celebrations organised by other schools, in church and public holidays.
3. Development of pupils` cultural and sport activity. Cultural, sport and hobbyist activity are among main student`s and teenagers` motivations to make an effort regarding rehabilitation. That is why, it is essential to implement such activities in the Centre, simultaneously being the stimulant of rehabilitation and educational activity. Patients active in culture, sport or other form of entertainment will become the best way of breaking stereotypes as well as overcome prejudices in local society.

## **12.Criteria for assessing progress/ finishing rehabilitation in the Centre**

There is a necessary element of an effective improvement of disabled children and teenagers such as the implementation of regular assessment of progress in rehabilitation. There are assessments and standardised measurable tests used in Daily Care Ward concern all impaired development and functioning areas of a child as follows:

- the assessment of a medical rehabilitation physician
- a complex descriptive assessment of:
  - way of communication
  - level of cognitive development
  - level of understanding the language

- level of concentration
- level of motor development
- level of emotional development
- level of social development
- social interactions
- abilities of large motor skills
- abilities in small motor skills
- muscle tone
- locomotion
- ability to change the position
- self-service
- eating and drinking
- senses
- the way of playing
- level of somaesthesia
- psychological assessment
- pedagogical assessment
- logopaedic assessment
- physio-therapeutical assessment
- Paediatric assessment of the disability inventory
- GMFM - Gross Motor Function Measure
- MACS - The Manual Ability Classification System
- GMFCS - Gross Motor Function Classification System
- CFCS – Communication Function Classification System
- Measurement of range of motion in joints
- Assessment of muscle strength of dynamic teams
- assessment of muscle tone
- assessment of using alternative and supporting ways of communication
- assessment of short-term objectives implementation
- assessment of long-term objectives implementation
- VIDEO assessment

The results of mentioned above assessments, scales and tests as well as the assessment of the level of proper functioning are the bases to consider if a child may be accepted in the Centre

or may be directed to other centres, less specialised ones adapted to the needs of people with disabilities. Because of being in various clinical picture of disfunctions and psycho-social conditions of children with cerebral palsy, it is impossible to define the definite criteria of assessment of finishing the rehabilitation.

Furthermore, there is a highly selected group of disabled people who are the patients of the Centre, because children with early brain damage have complex and long-term disfunctions, and what is more, the rehabilitation is needed every-day and for many years.

There are medical reasons which indicate the necessity to intensify rehabilitation activities for children and teenagers with disorders in the developmental age, especially disabled ones because of brain damage. Their rehabilitation should be early, permanent, complex and available. To improve the damaged functions of a child, a lot of procedures should be multiple repeated (synaptic facilitation) every day for appropriately long time in accordance with brain plasticity. The biggest possibilities of brain compensation in a range of lost brain functions are in the developmental age, that is why, the number and frequency of such actions (procedures) of appropriate quality should be accordingly the biggest (scientifically proven). Therefore, everyday rehabilitation activities of appropriately long-term effect, of a broad spectrum, improving numerous impaired functions of a child have to be planned for many years to achieve the improvement or to stop the process of deterioration of functions and thereby to improve the quality of life of a child and his family.

There is no medical justification to limit the intensity and time of such rehabilitation.

No to deteriorate achieved levels of functioning, the time of rehabilitation of children with serious disfunctions of central nervous system usually is longer, even till adulthood.

### **13. Methods of assessment of rehabilitation efficiency in Daily Therapy Ward – evaluation**

Systematic verification of the quality of rehabilitation is based on analysis of above mentioned results and measurable tests . The Centre`s staff conducts the assessment of achievements twice a year on the basis of descriptive assessments, observation, measurable tests and analysis of short- and long-term objectives implementation level. As a result of positive results and assessments there is an idea about a child`s progress of development and the efficiency of the rehabilitation, are the bases elaborating new improvement guidelines and objectives. However, in case of the lack of assumed objectives implementation or the decrease

of measurable tests results are the signal to a repeated analysis and verification of improvement program. Not only the global assessment in every 6 months is done but also there are observations conducted concerning the level of functioning in every development area of a child, and on this basis daily and weekly, and individual and group integrated rehabilitation programs are being modified.

All methods and assessments/tests used in the Centre are coherent with actual knowledge and attitude based on International Classification of Disability (ICF and ICF C-Y).

## Part II

### **Functioning Program of the Family House in Zamość at ul. Kresowa 24**

„Family House” – a house of assisted living (Zamość, ul. Kresowa 24

...A Family House is to organise assisted living for people with multiple disabilities and is a form of social assistance of these people.

.... A Family House is a response to the needs concerning housing of adults with multiple disabilities. It is not a house of 24-hour, isolated stay but an open to exterior environment place, where people live willingly, and they can leave it every-day and go to their social and professional activities. It is designed for people requiring high level of assistance.

.... The UN Convention on the Rights of Persons with Disabilities, concerning mainly that disabled people should have the possibility to choose a place for living and make decision about where and with whom they would like to live were taken into consideration while organising The Family House.

.... Their complex needs concerning assisted services provided in the house ensuring accommodation were also taken into consideration.

However, to construct entirely independent living as a separate flat in local environment (as in case of some of more independent people), necessary modification, also because of the necessity to ensure safety with maintaining their rights to independent living and social

inclusion. To define the necessary level of assistance provided to achieve the biggest independence and participation in social life of people with multiple disabilities are individualised at high degree. It should be noticed that mainly people with quadriplegic cerebral palsy – without limb function, using a wheelchair and electric wheelchair, not speaking and communicating with the use of ACC methods and technologies, often with additional disease (epilepsy) are the inhabitants of the House. They require mainly permanent assistant aid in all every-day activities and specialised caring services and frequently gain fast medical help (epilepsy). Their causality is often restricted to making decisions but not to do activities. Families with a person with disability or in formal relationships in a situation when two people are disabled can be the inhabitants of the House.

Moreover, these people are mainly of low economic status (social pension and care allowance) from societies of high level of poverty. The Family House has to ensure them economically accessible flat with adjusted technical conditions with a wide range of individualised services and high level of assistance with the respect of their right to be independent.

Such a high level of assistance generates quite high costs which are not possible to handle with by these people and their families without solidarity financial help from public and private sources.

.... There are 28 places in 20 single and double rooms/flats with a bathroom and with the access to a common kitchen, laundry, multi-functional room – sport-recreational, physiotherapeutic equipment, a chapel etc. (Double rooms are preferred for inhabitants requiring the presence of the other person to call for medical help e.g. in case of epilepsy attack, if they voluntarily accept living together).

..... The Association ensures the basic equipment of the flats in the House and accepts the possibility to equipped rooms/flats individually by inhabitants.

..... The Association ensures, appropriate to the needs, assistant and management staff within projects being implemented and supporting inhabitants concerning additional services to be gained.

..... The House staff supports inhabitants in every daily activity during a day and night as well as supports them while leaving the House to start social or professional activities.

There are two several residential communities (each at one storey, of 10 flats) in 28- people residential community of the Family House.

At every storey there are three residential complexes with a kitchenette of average 4-5 people in each complex. They have 20 rooms with a bathroom altogether. (The inhabitant can decide about living with another person in a double room e.g. with a parent/guardian/sibling or a partner (formal relationship) if these people have a certificate of disability).

The division of the Family House into two communities and 6 residential complexes accordingly is coherent with the idea of decentralisation and functioning concept of small assisted residential communities.

The support is provided via group assistant services: 1 residential complex (4-5 people with disability) is supported by at least one directly supporting staff member (a therapist or an assistant or a directly supporting guardian) of 24-hour shift-work 12/12. (6 residential complexes on one shift are supported by 6 staff members altogether including 1 member of medical profile). These services at weekends and in other requiring more assistance cases are complemented by individual assistants and/or volunteers.

The Staff supports members of the residential complex in an assisted flat as well as supports inhabitants requiring assistance in other places of their activity (e.g. SDS, WTZ, workplace). There is a directly supporting staff employed in 2 full-time jobs (for 8 hours) for the needs of patients temporarily leaving assistance flats (e.g. because of a disease, indisposition etc.).

..... The organisation of staff work is supported by a coordinator of direct support who also coordinates the cooperation with personal assistants and other people accordingly to the needs of the inhabitant ( a physician, nurse, psychologist, physiotherapist, priest etc.) and organises necessary services in assistant housing. The manager of Conductive Housing Complex is responsible for substantial-administrative supervision.

... All beneficiaries of the project who face such a radical change as leaving the family house and start living independently require gaining or developing appropriate social competences.

.... They have never been a member of a residential community functioning in accordance with defined rules, gives duties and requires defined responsible behaviour. They have never

experienced how it is to be responsible for making decisions in really significant issues such as planning expenses concerning the usage of own flat, providing meals, access to public services. They have not usually had any knowledge about such issues and contacts with appropriate institutions. The lack of such knowledge results in the lack of adequate for their needs support circle.

To let their society function freely they have to self-organise with the use of provided support and their independence, dignity and decision making authority.

The applicant in the course of the project implementation and within other projects (including projects co-financed from PFRON) has conducted staff possible to be employed in the Family House trainings on the basis of existing centres in a form of employment, internships, participation in online trainings. The future residents of the Family House also participate in trainings in their centres.

.... Trainings include maintaining and enhancing competences of self-service and the abilities of every-day life, mainly independent living – such as functioning in a household, communication, communicativeness, reporting needs, mobility, causality, decision making, responsibility, correct self-assessment, emotional resistance etc., maintaining and enhancing social competences: a household member, a client, a worker, a citizen etc., gaining the abilities necessary to take a job and independent life in some extent.

.... The final concept of conductive housing opened to the environment in the Family House in Zamość, was elaborated during a meeting with Polish external experts, representing non-governmental organisations with the biggest experience in organising conductive housing of people with disabilities (on 7th December 2021, online, at 1.00 p.m. to 3.00 p.m.) and during study visit of the representatives of the Applicant in Polskie Stowarzyszenie na rzecz Osób z Niepełnosprawnością Intelektualną Koło Terenowe in Gdańsk (the Polish Association for People with Intellectual Disability Field Circle in Gdańsk) from 17 to 19 October 2021.

External experts:

Joanna Cwojdzńska –a president of Koło Terenowe in Gdańsku Polskie Stowarzyszenie na rzecz Osób z Niepełnosprawnością Intelektualną (the Polish Association for People with Intellectual Disability Field Circle in Gdańsk)

Mariusz Mituś - a chairman of Jarosławskie koło Polskie Stowarzyszenie na rzecz Osób z Niepełnosprawnością Intelktualną (the Polish Association for People with Intellectual Disability Field Circle in Jarosławiec), a vice-president of General Board of Polskie Stowarzyszenie na rzecz Osób Niepełnosprawnością Intelktualną (the Polish Association for People with Intellectual Disability)

Edward Bolak – Fundacja Wspólnota Nadziei (Foundation of Community of Hope), Farma Życia in Więckowice near Kraków (Life Farm)

Maria Król, a chairman of the Applicant`s Board simultaneously cooperated with PFRON and Government Representative for Disabled Persons as a social advisor in elaborating rules of functioning of assisted residence communities, which creation will be supported by PFRON program.

The concept is coherent with the Strategy for Persons with Disabilities for years 2021-2030, enacted by the Council of Ministers in February 2021 (1 Priority: Independent Living) and UN Convention about the rights for persons with disabilities , ratified by Poland in 2012.