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**Determinants of effective therapeutic interaction in work with children with the deep multiple disabilities**

Beginning therapy with a pupil with the multiple disability, teacher often face a child who does not react in an expected way to attempt of coming into contact and therapeutic operations. Also child's behavior, initially, remain incomprehensible. Pedagogical operations, conducted by a teacher, which seems to be purposeful in education of intellectually handicapped children, appear to be ineffective in the face of the multiple disability.

B.Fornefeld<sup>1</sup> points that child's behavior often interpreted as withdrawal and inability of realization pedagogical expectations cause complex disturbance between a pupil and a teacher. These disturbances finally lead teacher to his frontiers: frontiers of knowledge, comprehension, experience and proceeding. The author thinks that awareness of own frontiers is not synonymous to weakness or defeat, it is highly pedagogical rational and expected, because it leads to the point where, not only the contact with a child starts or coming into relation, but also, where all pedagogical actions begins. Thus teacher face the necessity of becoming familiar with children, starting from it's most elementary level of functioning . On this stage, the problem of diagnosis, which would be really helpful and important in work of special educator, and would provide creation of child's evaluation image, not only the estimation of one of the levels of functioning, occur to be important. Such criteria are fulfilled by functional diagnosis, which is aimed on reaching to the source of abilities and capabilities of a human being, in order to start working with a child and head to improve the quality of it's functioning. In the situation of a teacher who begins the work with a new child, the functional diagnosis is a helpful tool enabling recognition of child's abilities. Whereas, in the further work, evaluation of progress and defining further therapeutic steps. Ipso facto, functional diagnosis allows to act appropriately, relying on a real state of abilities and capabilities of a

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<sup>1</sup> Fornefeld B., *Elementare Beziehung und Selbstverwirklichung geistig Schwerstbehinderter in sozialer Integration. Reflexionen im vorfeld einer leiborientierten Padagogik*, tum. A. Andrykowska, Verlag G. Mainz, Aachen 1989, s.10.

child, and protect educator against an accidental decisions, supported by the hazy suppositions according to child's functioning.

Concentrating on the abilities, not on the deficits, functional diagnosis is an example of a profound humanistic attitude to person with the deep multiple disabilities. Conducting functional diagnosis enables educator to recognize abilities and capabilities of a pupil, which becomes a proper way to better understanding of its needs and announcements, these on the other hand enable to create real interpersonal relation.

The aim of the diagnosis is not recognizing defined values e.g. intelligence quotient, because these information is not essential for precise development support of child with deep multiple disability. The more we know about the child, the more we know about the structure of development, the easier we can present proposition, which are adequate for child's development – not too much or less demanding. At the deep multiple handicapped children, the most often to observe, are inadequate propositions of rehabilitation practices, that intensify their apathy, resistance, withdrawal, and deteriorate their life situation. Therefore the functional diagnosis is a base which makes interactions more efficient. Diagnosis always stays in a connection with an activity, it has no self-reliant aim.<sup>2</sup>

J. Orchał, J. Szwiec<sup>3</sup> pay attention, that functional diagnosis rest on collecting information about child's functioning in particular levels of progress. It has descriptive form. It consist combination of abilities, that evince in a daily pupil's life and which in direct way increase pupil's independence and quality of life. The diagnosis is worked out by professionals: educator, psychologist, physiotherapist, speech therapist, and when needed other specialists – vision therapist, neurologist, orthopedist. Work of a whole group coordinates a form-master. Every member of the group observe pupil from the position of his specialization, and then works out diagnosis, in which he formulate all abilities and capabilities of the pupil. After finishing reliable functional diagnosis, which is a first stage of effective educational action in work with a child with the multiple disability, educator continues with building an individual therapy program.

The most common mistake made by teacher during constructing diagnosis, is to begin work on the too high level – teacher often assume e.g. development of cognitive functions, and omit earlier stages. Therefore he “fates” him and a child to defeat. To avoid this, I suggest, when

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<sup>2</sup> Ibidem, s. 3.

<sup>3</sup> Orchał J., Szwiec J., *Diagnoza umiejętności funkcjonalnych*, w: M. Orkisz, M. Piszczek, A. Smyczek, J. Szwiec (red.) *Edukacja uczniów z głębokim upośledzeniem umysłowym*, Warszawa 2000.

continuing individual therapy program for handicapped children, to take in-to consideration following stages:

1. stimulation of the senses,
2. sense – motoric integration,
3. cognition and understanding of one's own body (somatognosia),
4. work in the area of elementary development domains: "small" and "big" motor activity, socialization, communication, cognitive functions, self-service<sup>4</sup>.

**Ad. 1.** Sensorial perceiving respond for understanding, development and learning. In the first months of life, children perceive their environment and comprehend it only by their senses. They breathe, smell, taste, listen, look and move. Through the direct contact, grabbing child comprehend. Senses provide with information about the environment, that builds primary knowledge of children, which –always to their disposal – provide safety and ability to actively shape one's own life.<sup>5</sup>

The damage of the central nervous system may lead to reduction or complete loss of specific sense abilities.<sup>6</sup>

Children with the multiple disability has problems with proper outward stimuli reception, with their reception and reacting to them. The chaos of stimuli, hardly active or inactive receptors, impossible stimuli integration and limited possibility of movement are reasons of lack of real-world understanding and loss of sense of security. For that reason, when beginning therapy with a pupil with the multiple disability we should take into consideration the necessity of stimulating proper senses to make them work well, letting child to perceive environment in an adequate way by the single sense. It's not a simple task because child often tries to repair damaged sensorial canal by the autostimulation or stereotypical actions.

One of the first therapeutical actions is to verify how child's senses function and their constant stimulation.

During the sense stimulation we should remember, that the proper place where stimulus is received is brain, not the single receptors. Brain process individually all off incoming stimuli, properly due to it's own conception.

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<sup>4</sup> Wolski A., *Terapia i wspomaganie psychoruchowego rozwoju dziecka z cechami autyzmu*, w: W. J. Pileccy (red.) *Stymulacja psychoruchowego rozwoju dzieci o obniżonej sprawności umysłowej*, Kraków 1995.

<sup>5</sup> Eckert A., *Zabawy rozwijające zmysły*, Kielce 2002.

<sup>6</sup> Strothmann M., *Kiedy zmysły śpią*, w: Loscher W., *Świat wokół mnie, wrażenia zmysłowe w zabawach dzieci*, Kielce 2002, s. 47.

On this stage of work with a child with the multiple disability it is good to use sensorial simulation method by C. Delacato ( prepared by Synapsis Foundation), program “Touch and communication” by Marianne and Christopher Knill , massages ( Shantali, Morales ), Snoezelen method, “Little room” – L. Nielsen or plate with proper stimulators.

**Ad. 2.** In 70's Ayres already emphasized, that most of messages incoming to the brain is received by the senses. The sense impulses comes, not only from eyesight and hearing, but also from every point of the body. Therefore so important is touch, deep sense – proprioception, auricular system – gravity and movement. Complicated cortex processes - eyesight perception, hearing perception, speech, ability to write and read, depends on proper development and primary sense system integration.

Significant was discovering by Ayres the importance of the earliest ontogenetic systems that develop in the fetal stage of life: tactile, proprioceptive and auricular. The regular eyesight and hearing perception, and other cortex functions, can develop only on the base of the integrated information from above-mentioned basic systems. On them depend the proper body sense forming: scheme of body, motion coordination, planning the motion, awareness and emotional balance.

The ability of concentration, arranging of impressions, self-acceptance, self-control, ability of abstract thinking, ability to learn – these are the skills that child is able to achieve only when it's senses function properly and normal sensorial integration is developing. These abilities are necessary for acting in a daily life, in school, family and also in full-grown life.

Ayres has worked out the hypothetical model of sensorial integration in which she describe particular stages of child's development between 0 – 7 year of life.:

In first 2-3 months of child's life, the most important role in gaining new experiences play auricular system, proprioception, and touch. During normal stimulation of the child by swinging, carrying, lifting, turning often, integration of auricular, proprioceptive, (muscle and joints stimulus, that allows to locate and move the body) and tactile system (connected mainly with suction, swallowing, touching by mother, feeling temperature and texture), stimuli occur. On this stage integration is mostly connected with further, eye-movement control, posture control (related to proper moving and orientation in space) and correct articulation, development.

Because children with the deep multiple disability often has disorders of sense functioning, which occur on this stage, we should especially improve senses in above – mentioned range.

Till 3<sup>rd</sup> year of life the integration of stimuli, that comes through auricular system, proprioception, sense of touch and hearing, should occur. In this period so-called one's own body map starts to shape. Child is ready to take up new tasks in organized and planned way. Next stage, that last normally till 6<sup>th</sup> year of life, include cooperation of all above-mentioned systems together with eye-sight stimuli. These stimuli can be properly integrated only when all other systems work well. On this stage we can start talking about proper speech and articulation development.

The final specialization of the brain finalize between 6<sup>th</sup> and 7<sup>th</sup> year of life. This specialization include cooperation between cerebral hemisphere. The proper cerebral hemisphere cooperation guarantee proper discrimination between sides of body, understanding and use of language, eyesight-movement coordination, vision and hearing perception, as well as organized, automatic movement activity.<sup>7</sup>

To improve the multiple disabled child on the stage of sense-movement integration it is said to introduce sensory-motoric exercises by Synapsis Foundation, Knill's activity program (introductory level), elements of Developmental Movement by Veronica Sherborne.

**Ad. 3.** Children with the deep multiple disability are often motorically disabled what have an influence on somatognosis disorders. Therefore in motoric improving process it is good to use "stimulation from basis" proposed by Frohlich.<sup>8</sup> The author assume that only by one's own body and it's dexterity child can come into itself and the environment. Stimulation should help, the deep multiple handicapped person, "take under ownership or restore ownership of one's own body and let feel oneself in it".

Substantial is to supply child with possibility of experiencing the motion. It has impact on intensifying the activity, emotions, readiness to interactions, and for some children it is only source of functional happiness. Movement provide also the optimal amount of stimuli that, when stimulate senses, satisfy the need of contact with other people, enable achieving new sensorial – motion experiences<sup>9</sup>. At the deep multiple disabled children nerve system malfunctions do not permit for elimination of shaped motion schemes. Child often stays on the level of motoric activity that is mainly reflexive (involuntary)<sup>10</sup>. The damages also cause

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<sup>7</sup> Stopnicka-Stolarska P., *Wspomaganie rozwoju mowy u dzieci z niepełnosprawnością złożoną z wykorzystaniem elementów metody Integracji Sensorycznej*, Rewalidacja 1/2001 s. 25-26.

<sup>8</sup> Frohlich A., *Stymulacja od podstaw*, Warszawa 1993.

<sup>9</sup> Łubieńska W. Olasińska A., *Zajęcia ruchowe w nauczaniu osób z głębokim upośledzeniem umysłowym*, w: M. Orkisz, M. Piszczek, A. Smyczek, J. Szwiec (red.) *Edukacja uczniów z głębokim upośledzeniem umysłowym*, Warszawa. 2000.

<sup>10</sup> Frohlich A., *Stymulacja od podstaw*, Warszawa 1993.

lateral domination, what signify greater activity of one of body sides, when the opposite is less or completely inactive. Strong lateralization in the sphere of muscle development makes, after same time, impossible: symmetric use of hands and legs, keeping head straight, and after years lead to spinal defects. The assignment of therapist is to undertake practices that reduce above-mentioned defects.

In the rehabilitation of children with the multiple disabilities it is impossible not to mention about development of manual skills. Palm is a social contact “vehicle”, a tool of cognition and expression. Often movements of the children’s palms are characterized by small precision, slowness or excessive quickness. Coordination, level of control, purposefulness and strength of grip are disordered<sup>11</sup>. Whereas awkwardness of arm precision and manipulation contribute to disorders of child’s communication abilities and speech development, because cortical centers, that represents work of hands and speech organs, are situated very closely<sup>12</sup>. Improving child, on this stage, we can use high levels of activity program by Marianne and Christopher Knill, Developmental Movement method by Veronica Sherborne, practices developing “small” and “big” motor activity, introduce initiation of the child to the self-reliant servicing during a toilet, eating and dressing.

**Ad. 4.** The early undertaking and systematic conduct of interactions, that stimulate cognitive development, and developing the readiness to interaction with other people is necessary in proper therapy of children with the multiple disability. Communication with a deep mentally handicapped child depends on finding the routes of receiving and transferring information – signals “from” and “to” child. Ochał, Szwiec<sup>13</sup> remind that these children has much greater possibilities of expressing themselves than receiving information. In connection with this, beginning of mutual interactions must rely on observation and interpretation of child’s behavior and on interpreting these behavior in the context of announcements. Because none of reactions of a child does not appear without a reason – teacher should notice it, interpret and ascribe it a meaning.

Regardless of the age of a child work with it consist of: individual stimulation, group stimulation, participation in general activity and every-day events. Tools to fun, stimulation and education should characterize by distinct convexities (form and surface easy to sense and differentiate), good visibility ( form and color distinguishing from background ), distinct

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<sup>11</sup> Pennock K., *Ratowanie dzieci z uszkodzeniem mózgu*, Toruń 1994.

<sup>12</sup> Kielin J., *Rozwój daje radość, terapia dzieci upośledzonych umysłowo w stopniu głębokim*, Gdańsk 1999.

<sup>13</sup> Ochał J., Szwiec J., *Diagnoza umiejętności funkcjonalnych*, w: M. Orkisz, M. Piszczek, A. Smyczek, J. Szwiec (red.) *Edukacja uczniów z głębokim upośledzeniem umysłowym*, Warszawa 2000.

effect of activity, possibility of experiencing the relation “*if-this*”, both tactile, auditory and visual – work with them should lead to aim, durability – breaking, tearing, depriving of color can not be possible, easiness of keeping it tidy –especially when used by mouths).

When leading therapy of a child with the deep multiple disability, teacher don't know how long distance they will cover together. Nowadays, most of researchers emphasize the necessity of far-reaching carefulness in categorical determination of upper limit in development possibility of person with deep development deficit. Kwiatkowska<sup>14</sup> accent the harmfulness of these authoritarian restrictions, considering, in addition, that in Poland, till 1997 such children were left out of any system of pedagogical influence, because they were released of compulsory education.

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<sup>14</sup> Kwiatkowska M., *Sytuacyjne i osobowościowe wyznaczniki wspomagania dzieci z głębokim upośledzeniem umysłowym*, „Rewalidacja” 1997, nr 2, s.6-7.

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Beginning therapy with a pupil with the multiple disability, teacher often face a child who does not react in an expected way to attempts of coming into contact and therapeutic operations. Also child's behavior, initially, remain incomprehensible. Pedagogical operations, conducted by teacher, which seems to be purposeful in education of intellectually handicapped children, appear to be ineffective in the face of the multiple disability.

Therefore the author suggest that, after conducting the proper functional diagnosis – what is the first step of effective educational treatment in work with a child - teacher should consider the following stages during constructing an individual program of therapy: sense stimulation, sense – movement integration, development of somatognosis and processes in the area of basic development spheres ( motor activity, socialization, communication, cognitive functions, self – service)

### **Uwarunkowania efektywnego oddziaływania terapeutycznego w pracy z dziećmi z głęboką wieloraką niepełnosprawnością**

#### **Streszczenie**

Rozpoczynając terapię z uczniem z wieloraką niepełnosprawnością nauczyciel staje często przed dzieckiem, które nie reaguje w sposób oczekiwany na próby nawiązania kontaktu i zabiegi dydaktyczne, oraz którego zachowanie pozostaje początkowo niezrozumiałe. Zabiegi pedagogiczne nauczyciela, które w edukacji uczniów niepełnosprawnych intelektualnie wydają się celowe, okazują się nieskuteczne w obliczu złożonej niepełnosprawności.

Dlatego autorka proponuje, by po przeprowadzeniu rzetelnej diagnozy umiejętności funkcjonalnych – co stanowi pierwszy etap efektywnego postępowania edukacyjnego w pracy z dzieckiem, nauczyciel podczas konstruowania indywidualnego programu terapii uwzględnił następujące etapy: stymulację zmysłów, integrację zmysłowo-ruchową, rozwój somatognozji oraz pracę w obszarze podstawowych dziedzin rozwojowych (motorykę, socjalizację, komunikację, funkcje poznawcze, samoobsługę).