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The particularities of the development of the visually impaired child

The psychological portrait of visual impairment:

Child development is a continuous process of changes, reversible and irreversible transformations, a process of integration of physical and mental structures and functions that ensure the improvement of the general and situational behavior of the child. The particularities of the child's development with visual loss are directly dependent on the time and type (severity) of the deficiency.

The research carried out by MD Avramescu, M. Ştefan, I. Zamferescu, F. Mărginescu highlighted that the lack or considerable decrease in vision during the critical period of development of the visual system generates considerable deviations in the development of the child, causes the other processes to present a series of specific mechanisms of manifestations (Avrămescu, 2006).

L.I. Solnţeva claims that the infant with visual impairment up to 2–3 months of life, according to the appearance of *reactions and behavior,* is almost indistinguishable from the infant without impairment of the same age. This is explained as being closely related to the fact that the particularities of mental acts in children of this age are in a correlation with the reception of multifaceted information.

After 2–3 months of life, when such visual reactions as binocular fixation of the gaze, visual tracking with the eyes are manifested in the healthy child, the lack of vision begins to noticeably leave traces in the mental and physical development of infants with visual impairment (Солнцева, 2000).

LA Semenov, O. V Paramei and L.I. Filcicova in their works describe that the lack of visual control, the insufficiency of movements, lead to delays in the *general physical development* and in *the evolution of motor skills* , in connection with the automatisms related to walking they are more difficult against the background of negative experiences that awaken and maintain the child's fear that he might trip, fall, hit himself, fear of space and new objects appears, balance difficulties appear. Limitation of spatial orientation. It considerably inhibits the formation of the body schema (Филчикова, Бернадская, Парамей, 2003).

The psychophysiological works of D.A. Farber and L.I. Filcicova show that early sensory deprivation causes a decrease in the possibility of developing visual perception, *image formation*. The quality of an external object is not correctly reflected and differentiated, it causes a deficit in the motivational component of *attention, negative emotional* reactivity to external influences. Avoiding new information can lead to a *secondary delay in* the child's mental development (Фарбер, 1995).

Al. Gherguț, C. Neamțu in „Sinteze de PPS", 2000, writes that the *representations* are often incomplete, partial, erroneous, poor in details, and their content lacks essential characteristics, which makes their effectiveness in cognitive and practical activity be very reduced. In the case of total vision loss before 3 years, visual representations are structured strictly based on the auditory and tactile-kinesthetic experiences of the person, a fact that leads to errors in the appreciation of the shape and size of objects, the ratio between the components of objects and between objects, to the impossibility to operate with the notion of color in the manner of a typical person.

If blindness is acquired after 2–3 years, one can talk about the existence of a rich apperceptive background, the subject has a concrete experience with the elements of the surrounding world, thanks to which a process of restructuring the functional scheme takes place, with the participation of healthy analysts who they have compensatory influences on the psychic activity of the blind. Orientation in a three-dimensional space is based on the polysensory analysis of information received from multiple and different receptors (Bodorin, 2013).

Regarding the systematization and organization of *memory* to the non – viewers , the works of Av ramescu , Monica, Delisia show that this is achieved in good conditions and the cases of blind people with good memory are not rare . In the blind, memory is very well served by active observation, well-structured language, and well-educated post-voluntary attention. Some differences between the blind and the sighted are manifested regarding *the motor memory* , which in the blind is of particular importance in spatial orientation, but is not so rich considering the existing difficulties in forming representations of movements (Avrămescu, 2006).

Thinking has particularities determined by the type of blindness (congenital or acquired) and by the modalities of sensory knowledge in which the impaired person is trained: the insufficiency of sensory information, the difficulties of selecting the essential elements from the perceived information determine the cumbersome performance of thinking operations, especially generalizations and comparisons. In this case, a clinical picture similar to a child with intellectual deficiencies is formed. However, under the conditions of normal educational activities, with the respect and optimal exploitation of the sensory dominances of the visually impaired student, conditions of normal intellectual development can be ensured (Bodorin, 2013).

Language plays a compensatory role for poor or no vision (Hatwell, 1961). According to LS Vygotsky, from the early stages of ontogenetic development (from 2 years), the development of thinking and language occur in parallel, through mutual interconditioning, thinking is verbal, and language is logical. JC Lang notes a "frequent language delay", a poor vocabulary, spatio-temporal confusions expressed verbally, a

certain poverty of verbal expression, all of which negatively influence the quality of communication (Филчикова, Бернадская, Парамей, 2003).

Attention is dispersed, according to the intensity and significance of the perceived stimuli, a fact that requires the continuous education of distribution, mobility, concentration. The multisensory propagation of information, the doubling of motivation, the maintenance of active interest in the activity, the development of the will contribute to the education of the child's attention. Regardless of age, vision loss has a negative impact on the formation and development of personality (Brînza, Bulicanu, Frunze, 2018).

Rozorea A., 2003 notes that the weakening of visual functions has a negative effect on the child's *emotional sphere* , which manifests itself in the background of bad mood, lack of confidence in one's own strength, increased shyness, isolation; when the child is removed from the family environment, he has strong reactions that can go up to states of anxiety, depression, refusal of school activities (Rozorea, 2003).

The moment of appearance of the visual impairment, its dynamics, its severity have a special significance for the general development of children with visual impairments both physically, mentally and psychosocially. Also, the importance of early intervention in the education of visually impaired children should be emphasized.

Physical and psychomotor development of children withVI:

Delayed physical development, and less harmonious because the lack of sight makes it useless to explore space with the gaze, especially in the vertical plane, which leads to a decrease in the muscle tone that ensures the correct position of the head (in the blind, the head is bent towards the chest). As a result, deformations of the spine may occur in the frontal (scoliosis) or sagittal (kyphosis, lordosis) plane. Muscle changes: muscular atrophies, dystrophies and obvious rickets, joint laxity and a decrease in muscle tone and strength, and exaggerated stiffness of body segments (hypertonia). Movements are devoid of visual performance and affect walking (Brînza, Bulicanu, Frunze, 2018).

W. Dabe points out that at the age of entering primary school, the delay in physical development in visually impaired children would be about 2 years. "Due to the sedentarism in blind children, a disharmonious development is noted as a result of the imbalance of forces between the muscle groups more at rest" (Avrămescu, 2006).

K. Ferrell., E. Leung (1969) states that the harmful action of visual impairment in the addition of psychomotor skills is correlated with the central function that visual perception performs in the coordination of walking and in the control of position.

In sighted children, during the act of grasping, there is always the reverse connection, which creates possibilities for them to correct the movement, until the goal is reached. During the first months of life, vision "causes" the child to pull towards the object, but initially it does not control these movements. Starting from the 4th month, the vision starts to control the movements of the hand towards the object which can be corrected in the stretching process. Later in the 2nd half of 1 year of life, visual contact becomes very important, because as practical actions develop,

the drawing of the movements is increasingly "programmed" in the memory, making the reverse visual connection more and more necessary. The lack of visual feedback that occurs in visually impaired children implicates intact parsers in the process of learning grasping movements. In children with normal vision, the position of the fingers for grasping can be observed from 2.5 months, in those with visual impairments 4 months later (Солнцева, 2000).

J. Locman, D. Ashmead, E. Bushnell in his studies on visual perception reveals to us that it plays an important role in establishing and maintaining body balance. In the process of losing control over the position, the visual information contributes to the creation of the exact mechanisms, which are the basis of the proprio-vestibular activity, thus establishing a contact between the visual information and the position of the body in space. The visual perception of surrounding objects contributes to maintaining the vertical position of the body. It is necessary to control the changing position. That is why visual perception is very important at the early levels of development of position control, when the formation of control over the muscles (neck, upper and lower membranes) turns out to be primary, and then the vestibular and perceptual systems become dominant (Avrămescu, 2006).

N. Barraga (1989) in his work with young children reveals to us that the visually impaired child will not turn his head from left to right or vice versa, like the sighted child, when exploring space or the environment. With them, it is observed that when a noise is produced, the little one with visual impairment very rarely turns his head towards the sound source. This is due to the poverty of sound information. Without the additional support of vision, the child cannot determine whether a sound is coming from the front or behind, from above or below, from near or far. The child with limited vision also cannot determine what makes the sound or noise is a being or an object, it is not sure that the sound signals the presence of a sound object. On the other hand, it is possible that the sound for him remains something undefined for a long time in relation to the solid material objects that he can encounter in the environment(Avrămescu, 2006).

It shows the insufficiency of hand use by the visually impaired. It is often said that "the hands are their eyes", but according to Fraiberg, nothing is less true and it must be known that the hands of visually impaired children are also at risk of becoming "blind". The visually impaired infant holds his hands at shoulder level in a typical neonatal position, it very rarely happens that the hands meet and then the tactile stimulation resulting from this is not enough to stimulate the child's physical development (Brînza, Bulicanu, Frunze, 2018).

Visual impairment limits and inhibits freedom of movement and can increase the tendency towards passivity, which affects the physical development of the child.

Development of mental functions children with VI:

The most affected mental process is *visual perception* , absent in children with visual impairments, and in amblyopias it appears modified at the level of the functional indices of vision.

The ordering and unification of different sensations into integral images of objects and phenomena takes place. Unlike sensations, which reflect different properties of things, perception reflects the object as a whole. But perception is not reduced to a sum of sensations, but constitutes a process of qualitative knowledge of the world.

Low vision or the absence of vision negatively marks the manifestation of sensory-perceptive processes (since the sensory-motor stage (0–2 years), when certain reflexes or visual behaviors are activated, such as following a moving object with the gaze, eye coordination, etc.). The information provided by the valise analyzers cannot ensure, at the level of the cerebral cortex, the formation of complete, detailed and correct images (Bodorin, 2013).

In visual perception, there are recognition mistakes of objects, drawings, people, the rhythm of exploration is slow due to its fragmentary and chaotic character and due to weakly functional exploratory strategies. Visual analysis and synthesis is reduced or absent. Object identification may be distorted. Synthesis and recognition speed is low.

Vision disorders refer to both the lexical-graphic level and the formation of visual representations, which are incomplete, poor in details and rely on one or two focused elements among other confused ones.

In amblyopias, the problem arises of ensuring visual dominance. The child must learn to use all the sensory pathways, but as a support of vision and not to replace it.

Visually impaired children, even if they do not have visual representations, perceive space and have the notion of space. They orient themselves in space, recognize objects based on their spatial properties, perceive and understand spatial relationships, can learn objects such as geometry or geography (Brînza, Bulicanu, Frunze, 2018).

V. Preda, R. Cziker claim that tactile-kinesthetic representations have a compensatory role in visually impaired children, visual representations have it in amblyopic children. And here the confrontation with the generalized image takes place, this time in the framework of visual exploration.

In visually impaired children, the problem of representations is different depending on the occurrence of blindness. But in those who are congenital or in whom the deficiency occurred up to 3 years of age, the visual representations are not preserved, being related to the auditory and tactile component. After the age of 4, there are mental visual images, representations, but these can be lost if they are not stimulated by reactivating and completing them, by involving the auditory analyzer, by verbal or tactile description, by the description by the seer (Preda, Cziker, 2004).

Beate Nicolussi-Spib, A. Brînza, M. Bulicanu in "Methodological guide: Educational inclusion of visually impaired children" remark: *Attention* to visually impaired children is of particular importance and is well developed. Visually impaired children react to the situation in a longer time with disoriented and imprecise movements. The visually impaired child cannot follow the existence of an object and its movement in space. In order to follow the object that he perceives aurally with the precision that vision gives to the sighted, he must move his attention in different directions and focus it permanently according to the intensity and significance of

the perceived stimuli. Without the education of the quality of attention, especially in orientation in space, the adaptation of balance to the environment is more difficult. Manifestations of attention are different from those of sighted people, the visually impaired have a specific expression when they are attentive (listen with their head on their chest, amblyopia-with their eyes closed).

In the case of amblyopic children, careful exploration increases the chances of correct identification of the object of perception. The fineness of tactile or auditory differentiations is also related to the effort of attention. They compensate by focusing attention and establishing it. Visually impaired children who work at a constant and productive pace have unexpected difficulties when they are asked to switch to another type of activity, needing a longer adaptation time (Brînza, Bulicanu, Frunze, 2018).

Memory it is a psychic process of imprinting, storing and updating information. With reference to the memory of the visually impaired, in the specialized literature there are different points of view, either in the sense of its development, argued by M. Ştefan by the fact that it is trained in various activities (memorizing the topography of the place, the itinerary, tactile and auditory landmarks constants necessary for orientation and even the number of steps to a certain landmark, the accumulation of cognitive and practical-action experience, etc.), or in the sense of underestimating the development of the capacity to memorize and reproduce (Lonina, Dalferth, Preda), fact explained by the perceptive and exploratory insufficiency and by the lack of data organization in a defined structure (Preda, 1988).

According to the author M. Ştefan, the systematization and organization of memory in blind people is done in good conditions and there are not rare cases of blind people with performative memory, this being supported by the spirit of active observation, well-structured language and well-educated post-voluntary attention. P. Villey noted the development of a special form of memory in the blind, called "muscular memory" (tactile-kinesthetic), there are some differences between the functionality of the motor memory of the sighted and that of the blind, with the latter having particular importance in spatial orientation, but not being so nuanced because of the existing difficulties in the formation of spatial representations and movements (Avrămescu, 2006).

C. Bodorin notes, that in the case of amblyopes with an average intellectual level (school age), the verbal-auditory, mechanical memory is developed, the logical mnesic schemes being less operative; in them, all three mnesic stores are functional, to varying degrees: the limited sensory stores, which receive information from the sense organs and retain them for a short period (0.5 sec.) so that processing can be initiated, primary (short-term) memory, which has a limited capacity (15–20 sec.), both for verbal information (processed by the left hemisphere) and for visual information (processed by the right hemisphere) and secondary memory (long-term memory duration), which receives the information that has been selected for a longer storage, they being processed and stored according to certain characteristics, such as the meaning, the sonority of the words, the content (event or episodic memory and semantic memory, for language and knowledge, this being the most deficient in amblyopia (Bodorin, 2013).

Numerous studies have highlighted the increased memory productivity of visually impaired children. Memory does not develop by itself, but due to its more intense and frequent demand, due to its exercise. It is perfected because the visually impaired child needs it very much.

Thinking – it is a superior psychic process, of knowing reality by assimilating the environment to cognitive structures and adapting these structures to the requirements of reality. Visual impairment, if not associated with intellectual impairment, does not directly affect higher cognitive processes, especially if they are stimulated and practiced. Blindness, in itself, does not lead to the diminution of the development of thinking and, respectively, of what we call "global intelligence".

The results obtained by different researchers by applying to the blind the classic intelligence tests (Binet-Simon, Stanford-Binet, Wechsler), adapted for the blind, show that practically the average Verbal QI of the blind is, at all ages, comparable to that of the sighted. The integrity of these intellectual functions – is largely given by the fact that they are not deprived of language, this main means of communication with the environment and tool of thought. Through language, – which is acquired and developed in the blind in a normal way, – the visually impaired has a symbolic and conceptual tool of prime importance thanks to which they can actualize the cognitive potentialities that blindness - through sensory touch - has not compromised (Hatwell, 1965; Bodorin, 2013).

Visually impaired children can correctly operate with the notion of objects and phenomena, they can generalize and abstract at a higher level, but when they are asked to describe the content of the generalization and abstraction expressed, they either do not know this content or present it with difficulty.

In order to prevent formal acquisition, in the work with children with visual impairments, it is necessary to apply intuition (combining descriptions and verbal indication with the intuition of objects) through the participation of as many indicators as possible: analysis, comparison, practical synthesis.

Language is the most important symbolic and conceptual tool, which allows the actualization of cognitive potentialities unaffected by visual impairment (Hatwell, 1961) and which plays a compensatory role for poor vision or no vision, along with other higher cognitive processes.

In general, the verbal behavior of the visually impaired is established in the appropriate stage of development, as in the normal child, because both structurally and functionally, the verbal-motor and auditory analyzers are not affected, and the intellectual development is normal; the acquisition of speech occurs naturally, in the context of communication in the family and social environment.

The pace of language development is slower, the expressiveness of communication and the understanding of the semantic or contextual nuances of the language being affected due to insufficiently perceived and activated facial expressions and gestures. Non-verbal communication (mimic, gesture, pantomime) is perceived, learned and performed with difficulty or is absent, due to very low vision or lack of vision, which prevents the reception of the facial expressiveness of the people with whom one communicates.

Pronunciation disorders are more common due to the impossibility of visual imitation of articulatory movements, which leads to the lack of synchronization and correct modeling of the components of the phono-articulatory apparatus. The most affected sounds are those that give rise to organic movements and subtlety discriminations (r, s, ş, fi v, z, 1) and which can be learned and imitated if they are perceived visually. In children with visual impairment, we can more frequently observe simple or polymorphic dyslalia, dysglossia, disorders of the rhythm and fluency of speech or, in terms of written reading, dysgraphia and dyslexia (Roth, 1973).

The acquisition of speech by visually impaired children is conditioned by:

– the sensory-motor component : the imitation of sound patterns is related not only to the material action, but also to its representation. Verbal actions are detached from material ones, internalized and bear the mental imprint;

– the intellectual component : as the words are repeated, they relate to the material actions and become educative, representative like the gestures;

– the affective component: the affective load of the relations with the mother, with those around, the atmosphere with which they participate in the games, supports pronunciation, understanding, fixation of words.

Psychosocial development of the visually impaired child:

Life among the seers means a confrontation with one's own deficiency and "otherness". This causes tensions in a learning process, which is predominantly oriented towards the aesthetic and social norms of the sighted majority.

Possible obstacles:

– they are often alone with their personal characteristic;

– they need specific didactic conditions and approaches, which are clearly visible;

– children receive help/personal assistant/CDS;

– modification of the content/compensation of the disadvantage;

– they need more time, direct support;

– they cannot participate freely, naturally in social interactions.

In children with visual impairments, some changes may occur in the behavioral-affective sphere that present the risk of deepening the face of those found in sighted people. In specialized literature, cases are presented and characterizations are made of visual impairments, with a much greater emphasis than should be placed on negative traits: affective infantilism, emotional instability, neurotic states, negativism, egoism, anxiety, asocial behavior, suspicious, aggressive, demanding. Some negative traits in terms of affectivity and sociability are constituted as defense reactions when the child feels isolated, rejected, abandoned, lacking the love of those around. Under the conditions of a favorable affective climate , in which their need for security, inclusion and affectivity is satisfied, in which they can express themselves and value themselves, visually impaired children gain their affective balance and their personality flourishes (Rozorea, 2003).

Conclusions

The moment of appearance of the visual impairment, its dynamics, its severity have a special significance for the general development of children with visual impairments both physically, mentally and psychosocially. Also, the importance of early intervention in the education of visually impaired children should be emphasized. Visual impairment limits and inhibits freedom of movement and can increase the tendency towards passivity, which affects the physical development of the child. Tactile-kinesthetic education has the main purpose of re-educating the relationship between visual sensation and tactile-kinesthetic, enriching visual perception. Without the education of the quality of attention, especially in orientation in space, the adaptation of balance to the environment is more difficult. Memory does not develop by itself, but due to its more intense and frequent demand, due to its exercise. It is perfected because the visually impaired child needs it very much. In order to prevent formal acquisition, in the work with children with visual impairments, it is necessary to apply intuition (combining descriptions and verbal indication with the intuition of objects) through the participation of as many indicators as possible: analysis, comparison, practical synthesis. The acquisition of speech by visually impaired children is conditioned by: the sensory-motor component, the intellectual component, the affective component. The favorable affective climate ensures security, inclusion and affectivity of children with visual impairments and offers the possibility of expressing and valuing them .

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Annotation.

Each child's development has individual, specific peculiarities and traits that require personalized assessment, approach and understanding.
The development of visually impaired children is subject to the same developmental milestones as children with normal vision. The particularities of the child's development with visual loss are directly dependent on the time and type (severity) of the impairment. The most relevant characteristics are manifested in early and profound loss of sight, they being determined by the decrease in psycho-motor function and the underdevelopment of some cognitive processes: the decrease in the flow of visual information, the blurriness and imprecision of the image, difficulties in discriminating and fixing images or the impossibility of perception to them, defective body posture, a slowing down of the rhythm of mental development, a low level of knowledge in relation to age, a deficient oculomotor coordination, elements of an affective infantilism, high capacity for intentional memorization, special concentration of attention, superior qualities of the will.
In the pedagogical literature, visual impairments are impairments such as partial vision loss known as amblyopia or total vision loss, known as – blindness. In educational terms: amblyopes-people who, due to poor vision, cannot be trained by ordinary methods, but only by special methods involving sight; the blind – persons who have no sight or whose sight is so diminished that their education requires methods and means that do not involve sight.
All children have the same requirements for growth and development: the need for affection and security, appreciation and positive attitude, encouragement and self-confidence, responsibility and independence, etc., while also having special, particular, individual requirements.

Key words: visually impaired children, amblyopia, blindness, developmental peculiarities.

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