The Development of Symbolization, The Reinforcement of the Body Image and of the Socialization of Deaf-Blind Students through Social - Emotional Interaction. A Psychodynamic and Psycho Educational Approach

By Pilios-Dimitris Stavrou

University of Athens

Abstract- The present article aims to investigate whether social interaction can help deafblind students to develop symbolization, reinforce their body image and their socialization. The possibility of the social – emotional development of deaf blind students will be studied through the implementation of an educational program (the Screening Tool and Psycho educational Intervention for Deaf blind People) which refers to the social interaction of deaf blind students with their peers. The study uses a qualitative research approach and a case study methodology. The application of the intervention program, planned and tailored by the educator and the psychologist on the students' need for social interaction, aimed to help a 14 – years-old deaf-blind girl in developing her symbolization, her body image as well as becoming engaged in social play and social interactions.

Keywords: deafblind student, case study, social interaction, symbolization, body image, social-emotional development, psychodynamic and psycho educational approach.

GJHSS-A Classification: FOR Code: 170199

THEDEVELOPMENTOFSYMBOLIZATIONTHEREINFORCEMENTOFTHEBODYIMAGEANDOFTHESOCIALIZATIONOFDEAFBLINDSTUDENTSTHROUGHSOCIALEMOTIONALINTERACTIONAPSYCHODYNAMICANDPSYCHOEDUCATIONALAPPROACH

Strictly as per the compliance and regulations of:

The Development of Symbolization, The Reinforcement of the Body Image and of the Socialization of Deaf-Blind Students through Social - Emotional Interaction. A Psychodynamic and Psycho Educational Approach

Pilios-Dimitris Stavrou

Abstract- The present article aims to investigate whether social interaction can help deafblind students to develop symbolization, reinforce their body image and their socialization. The possibility of the social – emotional development of deaf blind students will be studied through the implementation of an educational program (the Screening Tool and Psycho educational Intervention for Deaf blind People) which refers to the social interaction of deaf blind students with their peers. The study uses a qualitative research approach and a case study methodology. The application of the intervention program, planned and tailored by the educator and the psychologist on the students' need for social interaction, aimed to help a 14 – years- old deaf-blind girl in developing her symbolization, her body image as well as becoming engaged in social play and social interactions. The intervention program consisted of four stages: Firstly, the deafblind student's cognitive and socio-emotional skills were screened to create a profile that would guide the development of an individualized intervention. Secondly, the deafblind student was offered multisensory and concrete experiences through structured interaction with her educator, to promote socio-emotional development through the elaboration of her executive functions and psychomotricity. Thirdly, the student was introduced to a group of three blind girls of 12 years of age. Finally, the deafblind student was included in a group of peers during experiential activities. Through the intervention program, the deafblind student developed symbolization, improved her body image and became more socially involved in shared activities with her peers, while at the same time they overcame their social and communicative barriers in approaching and interacting with her.

Keywords: deafblind student, case study, social interaction, symbolization, body image, social-emotional development, psychodynamic and psycho educational approach.

I. Introduction

Children understand the world through spontaneous interaction and sensory exploration of their physical and social environment. Students with deaf-blindness may, due to their sensory loss, miss or misinterpret natural cues and incidental information which provide an understanding of the world (Alsop, 2002; Stavrou, 2014; Stavrou, 2010). Therefore, cognition, communication, and socio-emotional development are affected greatly by the combined loss of vision and hearing, since the deafblind student may not perceive concurrent physical and emotional stimuli (Jones, 2002; McInnes & Treffry, 1993). According to Piaget (1959), children of typical development, until the age of two years old, progressively organize objective reality through mental structures (schemas), which correspond to pre-concepts of preoperative thought, concrete operations, and formal operations, through the concepts of space, time, causality and object permanence (Gibello, 1984). However, deafblind children exhibit a delayed development of the concept of object permanence, and the construct of their intellectual schemas remains deficient in comparison to their typically developed peers (Fraiberg, 1977; Hindley, 2005). Deafblind children, due to this deficient cognitive development as well as their limited contact with the external world, face difficulties in concept formation (Miles & McLetchie, 2008), and, as a consequence, develop a special relationship with the signifier and the signified of the language, notably in case of words relating to visional, hearing and spatiotemporal reality (Hatwell, 1985, Warren, 1977).

Sensory losses often include feelings of anxiety, isolation, denial, resentment or distortion of the body image. Researches demonstrating a role of auditory inputs on body related processing raise important questions for the impact of sensory deprivation (Nasir & Ostry, 2008; Landry, Guillemot & Champoux, 2013; Wiegersma and Van der Velde, 1983). Considering these studies, it is reasonable to expect that deaf individuals would perceive their own body differently than hearing individuals. P. Schilder (1935) pointed out that visual stimulation is significant in body image formulation. It was in 1935, in the United States, that Schilder exhibited for the first time a theory of body image. He said that the image of the human body is the image of our body that we form in our mind, in other

Author: Department of Psychology, University of Athens, Athens, Greece, 10679/Laboratory of Clinical Psychology, Psychopathology and Psychoanalysis (PCPP), University Paris Descartes – Sorbonne, Paris, France.21 G. Papandreou Street, 15773, Zografos, Athens, Greece.
e-mails: pstavrou@otenet.gr, pilios.stavrou@gmail.com

words, the way our own body appears to us. He stated that vision is crucial for body perception considering that visual experience plays a highly essential role in how the individual interacts with the world. The author claimed that without a doubt, visual perceptions strongly influence body image. According to Schilder, a phenomenon's or an object's visual qualities strongly encourage the individual to interact with the environment. Thus, vision is an important symbolic opening which, as a result of the visual interaction with the world, allows a lot of information, especially those from the body, to enter and, as a consequence, it affects the body image construction.

This notion was further developed by F. Dolto in 1984. Dolto (1984) theorized on the body image, but, unlike Schilder, she clearly distinguished it from the body schema. Schilder did not differentiate the body image from the body schema. On the contrary, Dolto (1984) explained that the body schema is in principle more or less «the same for all individuals of the human species," while the image of the body is "related to the subject and its history" and is "specific for each subject." She claimed that the body image is "the living synthesis of our emotional experiences: interhuman, repetitively lived through elective, archaic and current erogenous sensations." Thus, if the body schema is solely related to anatomy, the image of the body is according to the author "the unconscious symbolic incarnation of the desiring subject."

Dolto's studies on blind born children enabled her to state that although these children didn't have any experiences with the mirror image, they were able to develop a complete and rich body image (Dolto 1984). In other words, children do not need visual experiences to construct a body image. Blind people can build their body image because the dominant factor is not a specific function of visual stimulation, but the organization of other senses – tactile, kinesthetic, audio among others. Damásio (2000) also differentiated the visual image from the mental image. According to him, the word "image" is built with signals that come from each one of the senses – visual, audio, smell, taste and somatic-sensitive. The latter includes several ways of perception: touch, temperature, muscle, visceral and vestibular pain. Therefore, the word "image" does not only imply "visual" image but also sound images, as the ones produced by the music and the wind, somatic-sensitive images, ultimately, images resulted from all kinds of stimulation.

However, a dual sensory loss creates very often more barriers in language and communication, access to information and social interaction than one sensory loss. A considerable lack of social interaction, communication and access to information from a deafblind child could lead them to deficient symbolization and a defective construction of the body

schema and body image. According to F. Dolto, (1984) pathology of the unconscious image of the body is "every time, a failure of symbolization, as well as a lack of language, addressed to the child." The symbolic inscription of the child's own body passes through dialogue, verbal language, gestures, that of the mimicry he expresses and observes. It takes place gradually, gradually organizing the imaginary dimension of the body where the subject is in representation.

A great lack of social interaction and communication via the sense of touch will not let deafblind children perceive the reality and create representations. As a result, deafblind student will not be able to develop symbolization. Symbolization is the capacity to articulate internal (psychic) reality, in contrast to external reality, thus living in a structured and predictable world (Keinanen, 1997). This differentiation between intrapsychic and perceived reality renders children capable of investing on the objects of external reality (people, objects, situations) and, as a consequence, sets the emotional foundation for the development of social skills through the progressive cultivation of the symbolization resulting to progressively more elaborate executive functions. Executive functions are the systems of cognitive processes (including working memory, response inhibition, and attention control) that represent children's competencies of reasoning, problem-solving, reality organization, strategy elaboration, learning and resilience (Bierman & Torres, 2016). According to the model proposed by Pianta, LaParo and Hamre (2008), executive functions can be categorized in three dimensions, in class context interactions, namely, emotional support, class organization and learning support, and emerge as a result of the interaction between children and their interpersonal environment, formed, primarily, by their parents, teachers and peers. However, the deficient ability of symbolization affects deafblind children's psychomotor skills, causing an inadequacy in met cognitive ability, leading to a hypotonic function of the processes of generalization and transferability of knowledge (Piaget, 1975). Deficient psychomotricity causes a difficulty in the integration of cognitive schemas as well as a psychomotor and symbolic organization (Inhelder 1963; Gibello, 1984). As a result, deafblind children lack the spontaneity and initiatives necessary to restructure their experiences through their actions, elements indispensable for the dynamic interaction with their environment, and, as a consequence, for communication. As the constitution of a meta-representational and meta-cognitive system is a pre-requisite for the establishment of a communicative relationship between the child and objective reality (Tsai, 1987; Volkmar et al., 1994), a deficient symbolization is translated into a problematic communicational path with others leading to limited interactions of the deafblind child with the objects of external reality (Bruce, 2005).

a)   Social / Emotional Interaction and Deafblindness

As described above, the development of the symbolization and the executive functions emerges through an emotional interaction with the social environment of children. Emotional development is founded on children's emotional bond with the individuals around them. The emotional bond is accomplished through eye contact, visual tracking, smile and facial expressions, vocalization, and touching. (Jones, 2002). The child needs a reactive and communicative environment of trusted relationships to build up emotional bonds, which provide emotional security. (Dammeyer & Ask - Larsen, 2016; Kamenopoulou, 2005; Stavrou, 2016). The deafblind child cannot rely upon his visual and auditory exploration to learn social skills through imitation, trial, and error. Although deafblind students confront difficulties in social interaction related to the sensory deprivation and the communicative barriers (Calderon & Greenberg, 2011; Etheridge, 1995), relevant literature highlights the importance and the benefits of social interaction both for students with special educational needs and for their peers (Nakken & Pijl, 2002; Odom et al., 2004; Thomas, Walker & Webb, 2005). Postic (1992), describing the school as a space for social learning, highlighted the importance of interpersonal relationships in the school context. In the case of deafblind students, the educators' point of view should be even more focused on the students' need for intensive social interaction and contact with peers. This contact is not possible through their vision or hearing but through their body. Their body allows them to be in contact with the others and through this communication and social interaction the deafblind children will be able to create representations and develop their body image and their socialization. Schilder (1935) related the image of the body to a postural model in constant transformation and continuous elaboration. Moreover, according to him, the image of the body is constructed in relation to the other, it thus confers on it intersubjective importance. That's why we would not be able to build an image of the body if we did not have social contacts.

The counseling psychologist should plan the program of intervention under the prism of the deafblind child's personality and communication and mobility needs, the child's ability to learn and interact socially and the child's level of confidence. (Drigas, Kouremenos, Vrettaros, Karvounis, & Stavrou, 2009; Miles & Riggio, 1999; van Dijk & Nelson, 1998; Webster & Roe, 1998). The students' social development difficulties are primarily the result of limited opportunities for interaction and development of social relationships with peers. Social integration is gradually becoming the primary purpose of the educational plan for social development. (Bloeming-Wolbrink, Janssen, Ruijss-enaars, Menke & Riksen-Walraven, 2015; Correa - Torres, 2008; Moller & Danermark, 2007). Therefore,

educators should plan and create the situations and positive attitudes which foster and facilitate the social support of deafblind students. These factors are crucial because social development cannot be achieved unless through the enjoyable social interaction with adults and children. (Hart, 2006; Jones, 2002, Kamenopoulou, 2005; Nikolaraizi & De Reybekiel, 2001; Wahlqvist, Möller, Möller, & Danermark, 2016).

The impact of deaf-blindness can be reduced by understanding how to help the children learn about their body, other people, and the world around them. We must remember that children with deaf-blindness are unable to understand something unless they experience it themselves. They cannot learn by observation or by looking at pictures in a book. Therefore, involving children in every part of an activity or routine will help them better grasp the information.

II.   Methodology

a)   Participant

The case study reported was conducted at a school for deafblind students and was incorporated in the school's educational program. The deafblind student who was the participant of this case study is a 14 – year - old girl, diagnosed with congenital blindness and deafness due to viral infection. The student communicates with other people through tactile sign language. She also uses objects of reference, pictograms, tactile symbols and cues and Braille, as means of receptive and expressive communication. The sense of touch is the main way she has to communicate with the external world and the people around her. She has established an emotional bond with her educator, but her communication and interaction with her peers were limited before the intervention. She is a bright, active girl, who is highly interested in what is happening around her.

The deafblind student in our case study cannot receive undistorted information about the environment, objects, and people around her from her distant senses in a clear and consistent way. As she cannot receive and integrate input from the world around her, her sense of reality is limited to what is approachable to her hands, or to her sensory potential. The deafblind student cannot learn directly from her interaction with her natural and social environment as easily as all the non-handicapped peers due to her multi-sensory deprivation. Additionally, she cannot have meaningful communication with her social environment. These deficits are interrelated, that is, to the student's inability to influence and control her natural and social environment is directly related to her deficient social and emotional development. More specifically, the student's sensory deprivation relates to her inaccurate perception of her environment, her limited concept awareness and understanding (time, space, object constancy) and her limited capacity for effective

communication. As McInnes and Treffry, notice, "when perceptions, concepts, and communications are faulty, frustrations result" (McInnes & Ttreffry, 1993, p.34). When she is annoyed or distressed, she prefers to withdraw from the communication exchange and the activity taking place.

b) Design

The present study's objective was to explore the effectiveness of the intervention targeting socio-emotional development through inclusion, and for that reason, a qualitative approach for data collection was implemented, through direct observation. As each deaf-blind child has his/her strength and difficulties, leading to a very diverse profile of deafblindness depending on the specific child, and deaf-blindness is a low incidence disability, the case-study methodology was chosen as the most appropriate study design.

The intervention plan was based on the establishment of the deafblind student's profile through psychological assessment, according to the Screening Tool and Psychoeducational Intervention for Deafblind People (TO.Deafblind) created by Zeza and Stavrou (2010), which assesses the six dimensions of skills and development, namely: communication skills, cognitive skills, social skills, cognitive development, motor development, sensory development and daily living skills. The assessment was implemented by observing the deafblind student's behavior and abilities during structured and non-structures activities.

Through the assessment of those socio-emotional, communicational, cognitive and motor dimensions, this screening tool aimed to provide a developmental profile of the deafblind student of this case study, underlining her difficulties and potential. This guided the development and implementation of an individualized intervention focusing on the development of symbolic and meta-cognitive processes through psychomotor and experiential activities in a context of interaction (firstly with the educator, then with the group of peers) with the ultimate goal of promoting the development of symbolization, the body image, inclusion and socialization.

c) Procedure

The results of the screening progress guided the formulation of psycho-educational activities (multisensory activities based on the use of the remaining senses, that is, touch and smell, as well as sensory cues from temperature, air bow and vibration) aiming to cultivate alternative and receptive ways of interaction and communication (tactile sign language, pictograms, objects of reference, tactile symbols). In this study, we focus on the student's screened deficit in emotional development and social interaction, and the psychosocial intervention developed to target this domain of difficulty. (Stavrou, 2016; Vrettaros, Argiri, Stavrou, Hrissagis & Drigas, 2010).

The individual educational plan targeted the elements of communication and cognitive, psychomotor and social-emotional development, as the limited interaction with the environment and the restricted reception of visual and auditory stimulation may impede the acquisition of the concepts of time and space, on which learning and communication are founded. The individual educational plan aimed to offer motivation for an active presence and direct interaction of the deafblind student into her environment through her inclusion to an adapted learning and reactive environment which she can control, comprehend, understand and anticipate through multi-sensory and accessible approaches. The interve-ntional program focused on encouraging the deaf-blind student's social and emotional development through multisensory and concrete experiences that involve social interaction. As McInnes and Treffry (1993) point out, socio-emotional development cannot be restricted and isolated in specific curriculum objectives. In that sense, every moment of every activity planned in a reactive environment encourages the deafblind student to form new concepts about herself and reaffirm those previously created, through the development of the psychomotricity and executive functions that lead to the optimization of the symbolization, acting upon the continuously progressive re-construction of reality (Kanner, 1943; Kaufman & Kaufman, 1993).

The intervention program tailored to the socio-emotional needs of the deafblind student followed the four stages described below:

- 1st stage: The social-emotional profile of the deafblind student

It was observed that the student could not express and name her emotions and had difficulties with social interactions with peers. She was not approaching other students and could not participate in team activities and shared play. Additionally, it was observed that other students did not get in touch with the deafblind student, because they did not know the appropriate communicative way. Through this program of intervention, the student was expected to recognize and name her emotions and the emotions of others and engage in social interaction with peers via the sense of touch.

Indeed, the body interaction in groups facilitates the meeting of the other and the perception of oneself within the framework of this meeting. The touch is always close to a "portage." Touching is, in a way, "carrying the other" towards an acquaintance or recognition of oneself as a subject. Touch is related to feelings. When we love we get closer. The body closeness is a natural consequence of the feelings of love. Touch is always reciprocal. Tisseron (1995) distinguishes two forms of touch in the blind children, the haptic form, which gives the illusion of close

presence and is organized around the countenance, and the exploratory form, which aims to define an object still unrecognized and organized around transformations.

- 2nd stage: Program of intervention for social and emotional development

The second phase of the intervention targeted the interaction between the deafblind student and the educator and was based on activities that promoted the development of psychomotricity and emotion recognition. Psychomotricity through staves, touchdowns, movements, and speech, is an important tool in the care of disorders of the body image. The activities were structured experientially, designed in sequences of movements and focused on daily activities in which the student actively participated and was interested in (role playing, cooking). The educator constructed cards with emotional content that could be used though the sense of touch and organized them in stories referred to differentiated emotional situations from the student's daily routine to present the arisen emotions. The student was psycho-educated in "reading" body cues (facial expressions through touching, body proximity, and posture, the rhythm of breathing), to distinguish the emotional state of the educator. The body can be a mediator of meaning. It reveals a dimension of feeling that is a way of communicating with the world. In the case of emotional surprise, one can have an image of the porous body. The body freezes. Thus, during the experiencing an emotion, the body is attacked by the overload of a feeling that is related to the imaginary or the previous emotional experiences of the subject.

Additionally, the counseling psychologist helped the student in empowering and strengthening her social abilities through her own experiences and representations.

- 3rd stage: Students' preparation

During the third stage of the intervention, the deafblind student was introduced to a small group of selected peers. The educator and the counseling psychologist chose a team of 3 blind girls of 12 years of age, with congenital blindness. The students used the touch and hearing as their primary methods of accessing information. They were highly proficient in reading and writing in Braille. The students were positive towards the social interaction with the deaf-blind student and were prepared before the shared activities. (Janseen et al., 2014; Nikolaraizi & De Reybekiel, 2001). The counseling psychologist presented the deafblind student's profile and discussed with the students the ways that social interaction may be disrupted due to communication difficulties. Meanwhile, the educator informed the students of the social and communicative characteristics of the deafblind student, the ways of communication, the pace and rhythm of communication

and about the student's need to perceive information through touching. In parallel, the students were introduced to the way of processing and communicating with the deafblind student, and they were taught the basic vocabulary in tactile sign language.

- 4th stage: shared activities and social interaction

During the fourth and last phase of the intervention, the deafblind student was introduced to the larger group of peers (class). Starting all students' preference for cooking, an activity was organized in the educational school kitchen. The activities were organized and well structured. The students were introduced to the deafblind student and allowed her to recognize them through touch. Through the educators' direction, they communicated their names in tactile sign language. During the process in the educational kitchen, the students worked as a team, waited for their turn, asked for the needed materials and utensils from the deafblind student through tactile sign language. Every activity was described to the deafblind student, and she was allowed to perceive information through touching.

III. Results

The implementation of the interventional program had a positive impact on the students' social relationships and interactions. On one side, through the progressive structure of symbolization processes, the deafblind student became more communicative and adopted a socially acceptable behavior. As the symbolization leads to a better understanding of the external reality, the student's environment became more structured, predictable, adapted and accessible. As a result, the communication and concept development were enforced and the independence, participation, and choices making were fostered, since the stimuli from the external world and the received information became controlled, intelligible and anticipated. In that sense, the program of intervention encouraged the deafblind student to interpret her social experiences and get positively distracted from her "egocentric world" (McInnes & Ttreffry, 1993), on which the basis of a sense of self and self-esteem was developed.

On the other side, after the other students learned the way to approach their deafblind peers and communicate with her, they wanted to interact socially with her during the school activities. It was crucial that the members of the group learned how to interact with the deafblind student after her communicative needs had been explained, modeled and discussed with them. After that, the students' interaction towards the deafblind student positively changed both in quality and quantity. The students initiated communication with the deafblind student not only during the structured shared activities but also during the school breaks and excursions. Students were interested in finding out who the deafblind student was and in learning about her

program. It has to be noted that the students were introducing her to other school students, widening, in this way, her peer circle. In other words, the deafblind student has gradually started to gain a presence in the school.

It can be said that the intervention appeared to foster the development of the symbolization during two phases, corresponding to the two modules of social interaction, at first with the educator, and then with the group of peers:

During the first phase, the educator, acquiring the role of an auxiliary ego (Soule, 1978), helped the child to handle the tension created by external and internal stimuli and progressively realize her internal and external reality through the optimization of the concepts of space, time and object relations through the conceptualization of her body schema and body image. The structured activities provided and the role of the teacher as a supportive figure, aided the deafblind student to optimize her spatiotemporal orientation, processing more efficiently her body schema and body image. The understanding of such relationships between the objects of external reality served as the foundation on which communication with others was built, as observed by the second phase of the intervention.

During the second phase, the capacity for symbolization progressed even more, as the deaf-blind child was rendered more communicative, but also, at the same time, through this interaction, the members of the group and the group itself became more receptive in the way of communication of the deaf-blind student, as their capacity of symbolization also changed. Through communication with others, the deaf-blind child was able to construct representations that allowed her to perceive herself as a psychic being (Bion, 1962), and as a member of a group.

Also, through the communication with peers, the emotional development and the development of symbolization, the deafblind girl elaborated more efficiently her body schema and body image. Schilder (1935) has particularly emphasized the affective factors of the genesis of the body. In a psychoanalytic perspective, Schilder said that emotions play a preponderant role: "Under the influence of emotions, the relative value of different parts of the body between them and their differentiation will change in the direction of libidinal tendencies. The change can manifest in the physical characteristics of the body, but it can also concern the internal parts. Emotions can strongly influence the body image. The communication through touch with her peers enabled her to perceive the body of the others. Schilder (1935) underlined that "our image of the body is not possible without the image of the body of the other, but their creation is the fact of a continual exchange." More broadly we can say, according to Schilder, that an image of the body is always in a certain

way the sum of the images of the body of the community according to the various relations which are established there. Dolto (1984) said that: "The image of the body is at each moment the unconscious memory of the relational experience, and, at the same time, it is current, alive, in a dynamic situation, at the same time narcissistic and inter-relational." Wallon (1946, 1954) stated that the child is 'entirely of his emotion,' he experiences throughout his body.

Moreover, the deaf-blind student was an active partner in the process of her socialization (Stern, 1985; Trevarthen, 1989). Simultaneously, the representations of the group of blind children towards the deaf-blind student changed, promoting the concepts of difference, tolerance, co-operation, respect, and solidarity. Thus, a transitional space (Winnicot, 1953) was created between the deafblind student and the group of peers, that is, a space of mutual communication between internal and external reality, but also between each student and the rest of the group.

IV. Discussion / Implications

Our research embarked from the need of the deafblind student for social interaction with peers since it is noticed that deafblind students have limited opportunities for social interaction with their peers (Romer & Haring, 1994; Sense, 2002). The limited interaction with peers is, often, substituted by the interaction with adults and educators, with whom the deafblind student spends most of his/her school day, due to the structure of the school program, consisted mainly of individual educational plans (Giangreco, Cloninger, Mueller, Yuan & Ashworth, 1991; Murdoch, 2013; Romer & Haring, 1994; Sense, 2002). It was highlighted thus that more socio-emotional interaction, which can lead to emotional development and improvement of communication, helped the deafblind student to develop her symbolization, her body image and self-image.

Social inclusion of deafblind students is suggested as the most effective way to promote their social development, as well as for students with special educational needs in general (Downing & Eichinger, 1990; Durand and Tanner, 1999; Mar & Sall, 1995; Romer and Haring, 1994). It is very crucial that the involved students have positive attitudes towards meeting and interacting with the deafblind student, since this factor may determine the success of the effort for social inclusion (Bunch & Valeo, 2004; Nikolaraizi and de Reybekiel, 2001). In order to build such inclusive attitudes, students should not only be informed about the deafblind student, his/her needs and the ways of communication, but also, be taught the most appropriate ways of approaching the deafblind student and communicate with him/her (DeCaluwe, McLetchie, Luiselli, Mason, & Peters, 2004; Ware, 2003). In that way, an active and communicative environment can be

gradually created, an environment which offers the deafblind student opportunities for interaction and fosters the social development founded on concrete experiences (Jones, 2002; McInnes & Treffry, 1993). Kamenopoulou (2012) suggests that research findings from studies related to the deafblind students' social development and interaction with peers "might serve as a useful background for other groups of students with disabilities too, because barriers associated with deafblindness may also apply to students with a single sensory loss" (Kamenopoulou, 2012, p.142). Moreover, it is underlined that "future research should further explore the impact of one-to-one teaching, in-class support and other differentiation strategies on socialization and shed more light on those students' social experiences in mainstream schools." (Kamenopoulou, 2012, p.143).

The results of this study can provide some guidelines for school counselors that work with deafblind children, broadening their role beyond their duties of providing individual counseling, offering psycho education to teachers and supervisors or developing special academic programs and curricula for those students. Given the results of this study, the following guidelines for school counselors working with deafblind children emerge:

- Because of their deficient psychomotricity, deafblind children face difficulties in the organization of symbolic and cognitive structures. For that reason, the psycho-educational practice designed for those children should focus on the psychomotricity, and motivation through the implementation of experiential activities and techniques. These activities should foster meta-cognitive processes, and through this metacognitive process the functions of generalization and transferability (Moreno & Sastre, 1972; Paouer, 1978). This generalization and transferability, which progressively becomes spontaneous, rendering the deafblind child capable of extracting the common elements not only from previous knowledge, but also form a new situation (Bryant, 1965). Through this process, the deafblind child's self-concept is constructed and the child is in a continuous readiness for socio-emotional interaction.

- An intervention as the one described above, aiming for the development of socio-emotional skills through inclusive practices using group dynamics, leads to the progressive emergence of initiative and spontaneity. As a result, the deafblind child acquires resistances and, as follows, capacities that belong to the field of resilience: development of self-concept, autonomy, independence, feeling of optimism and hope, ability to manage frustration, the ability for sociability, relationship-building and positive communication with others, development of positive attitudes that allow to deal with problems

and solve them by predicting the outcomes. Indeed, research indicates that through comprehensive and supportive interventions that aim to children's potential in a context of social interaction, children with disabilities or other difficulties can achieve significant development both in the behavioral and emotional domain, fostering the development of resilience (Kourkoutas, Stavrou & Loizidou, 2017).

- The results of the present study indicate that deafblind children can flourish in an environment that is enhanced with social interaction. The interaction with the members of social networks around the deafblind child is a chance for a wide range of experiences that foster psychosocial development and skill – building. Under this scope, inclusive practices and culture should be promoted in the school context. Counselors should use their knowledge on group dynamics as a way of preparing both the deafblind student and the group of peers for the process of social inclusion. Deafblind students can be prepared by exercises targeting their psychomotor, cognitive and emotional recognition skills. Simultaneously, the group of peers should be informed both on the communication ways of the deafblind students, as well as be educated on the proper ways of approaching and interacting with him/ her (Calderon & Greenberg, 2011).

- Further, counselors should focus on rapport building and the creation of a strong bond between teachers and deafblind students, as the teacher–student relationship can serve as the first step of a positive experience of interaction (Janssen, Riksen-Walraven, & van Dijk, 2006), building communication skills and opening the road for the establishment of communication with peers. This quality of emotional interactions has to do with the teacher's acceptance and receptiveness. However, additional training, skill-building and psycho-education are necessary not only for the provision of quality services but also for making teachers' themselves feel secure and adequate in their role (Stavrou & Kourkoutas, 2017). Given this fact, teachers working with students with deafblindness or other disabilities should be psycho-educated in providing support and warmth to their students in the appropriate and adequate ways that can be understood by deafblind children (Janssen, Riksen-Walraven, & van Dijk, 2002).

V. Conclusion

The results of the present study indicate that deaf-blind children can flourish in an environment that is enhanced with social interaction with peers. The aim of this intervention was to aid the progressive deafblind student's development of the symbolization, of the body image and socialization. The psychodynamic

educational program of intervention fostered the social and emotional development and focused on the development of self-perception and of social and emotional development. The education goals mentioned above can be achieved when deafblind students are engaged in social interactions with adults and peers. There is a key concept referring to the education of deaf-blind students; a structured, predictable, adapted, and accessible environment leads to controlled, intelligible and anticipated received information and stimuli. As a result, the communication and social and emotional development, independence, participation and choices making are promoted.

References Références Referencias

1. Alsop, L. (2002). Understanding Deafblindness. Issues, Perspectives, and Strategies. Utah: SKI-HI Institute.
2. Bierman, K. L., & Torres, M. (2016). Promoting the development of executive functions through early education and prevention programs. Executive function in preschool age children: Integrating measurement, neurodevelopment and translational research. In J. A. Griffin, L.S. Freund, & P. McCardle (Eds.) (in press). *Executive function in preschool age children: Integrating measurement, neurodevelopment and translational research*. Washington, D.C.: American Psychological Association.
3. Bion, W. R. (1962). A theory of thinking. In *Second Thoughts*. New York: Aronson, 1967, 110-119.
4. Bloeming-Wolbrink, K. A., Janssen, M. J., Ruijssenaars, W. A., Menke, R., & Riksen-Walraven, J. M. (2015). Effects of changes in life circumstances on interaction and communication in adults with congenital deafblindness and an intellectual disability. *British Journal of Visual Impairment*, 33(1), 31-44.
5. Bryant, P. (1965). The transfer of positive and negative learning by normal and severely subnormal children. *British Journal of Psychology, 56*, 81-86.
6. Bruce, S. M. (2005). The application of Werner and Kaplan's concept of" distancing" to children who are deaf-blind. *Journal of Visual Impairment & Blindness*, 99(8), 464 – 489.
7. Bunch, G., & Valeo, A. (2004). Student attitudes toward peers with disabilities in inclusive and special education schools. *Disability & Society*, 19 (1), 61-76.
8. Calderon, R. & Greenberg, M. (2011). Social – emotional development of deaf children: Family, school and program effects. In M. Marschark & P. Spencer, *The Oxford Handbook of Deaf Studies, Language, and Education* (pp. 188-199). New York, NY: Oxford University Press.
9. Correa-Torres, S. M. (2008). The nature of the social experiences of students with deaf-blindness who are educated in inclusive settings. *Journal of Visual Impairment & Blindness*, 102(5), 272 – 283.
10. Damasio, A. (2000). *The Feeling of What Happens: Body and Emotion in the Making of Consciousness.* Paperback.
11. Dammeyer, J., & Ask Larsen, F. (2016). Communication and language profiles of children with congenital deafblindness. *British Journal of Visual Impairment*, 34(3), 214-224.
12. De Caluwe, S., McLetchie, B., Luiselli, T.E., Mason, B., & Peters, H. (2004). Communication Portfolio: A tool to increase the competence of communication partners of learners who are deaf-blind. *Deaf-Blind Perspectives, 11(3), 5-8.*
13. Dolto, F. (1984). The Unconscious Image of the Body. Paris: Editions du Seuil.
14. Downing, J., & Eichinger, J. (1990). Instructional strategies for learners with dual sensory impairments in integrated settings. *Journal of the Association for Persons With Severe Handicaps*, 15(2), 98-105.
15. Durand, M.V., & Tanner, C. (1999). Research-to-practice: Reducing behavior problems on students who are deafblind. *Deaf-Blind Perspectives, 6(3), 4-6.*
16. Drigas, A., Kouremenos, D., Vrettaros, J., Karvounis, M., & Stavrou, P. (2009). The diagnosis of the educational needs of the hearing impaired. *International Journal of Social and Humanistic Computing*, 1(2), 138-148.
17. Etheridge, D. (1995). *Introduction*. In Etheridge, D. (Ed). The education of dual sensory impaired children: Recognising and developing ability. London, UK: David Fulton Publishers
18. Fraiberg, S. (1977). *Insights from the Blind*. New York, NY: Basic Books
19. Giangreco, M. F., Cloninger, C. J., Mueller, P. H., Yuan, S., & Ashworth, S. (1991). Perspectives of parents whose children have dual sensory impairments. *Journal of the Association for Persons with Severe Handicaps*, 16(1), 14-24.
20. Gibello, B. (1984). *L'enfant à l'intelligence troublée*. Paris: Le Centurion
21. Hart, P. (2006). Using imitation with congenitally deafblind adults: Establishing meaningful communication partnerships. *Infant and child development*, 15 (3), 263-274.
22. Hatwell, I. (1985).*Piagetian reasoning and the blind*. New York, NY: American Foundation for the Blind.
23. Hindley, P. (2005). Development of deaf and blind children. *Psychiatry*, 4(7), 45-48.
24. Inhelder, B. (1963). *Le diagnostic du raisonnement chez les débiles mentaux*. Neuchâtel: Éditions Delachaux & Niestlé
25. Janssen, M. J., Brink-Groenendijk, N. C., Riksen-Walraven, M., Huisman, M., Van Dijk, J. P., & Ruijssenaars, W. A. (2014). Measuring sustained

interaction in adults with deafblindness and multiple disabilities: Development of an observational coding system. *British Journal of Visual Impairment*, *32*(2), 68-76.

26. Janssen, M. J., Riksen-Walraven, J. M., & van Dijk, J. P. (2002). Enhancing the quality of interaction between deafblind children and their educators. *Journal of Developmental and Physical Disabilities*, *14*(1), 87-109.

27. Janssen, M. J., Riksen-Walraven, J. M., & van Dijk, J. P. (2006). Applying the diagnostic intervention model for fostering harmonious interactions between deaf-blind children and their educators: A case study. *Journal of Visual Impairment & Blindness*, *100*(2), 91- 105.

28. Jones, C., (2002). *Evaluation and Educational Programming of Students with Deafblindness and Severe Disabilities*. Illinois, IL., U.S.A : Charles C. Thomas Publisher, LTD

29. Kamenopoulou, L. (2012). A study on the inclusion of deafblind young people in mainstream schools: key findings and implications for research and practice. *BJSE, 39* (3), 137-145

30. Kamenopoulou, L. (2005). Challenging Behaviour and Deafblindness: a Critical Review of the Literature. *SLD Experience*, 42, 15-22

31. Kanner, E. (1943). Autistic disturbances of affective contact. *Nervous Child, 2*, 217- 250

32. Kauffman, A.S., & Kauffman, N. L. (1993). *Batterie pour l'examen psychologique de l'enfant*. Paris: Centre de Psychologie Apliqu*ée.*

33. Keinanen, M. (1997). The meaning of the symbolic function in psychoanalytic psychotherapy: clinical theory and psychotherapeutic applications. *Psychology and Psychotherapy: Theory, Research and Practice*, *70*(4), 325-338.

34. Kourkoutas, E., Stavrou, P.-D, Loizidou, N. (2017). Exploring Teachers' Views on Including Children with Special Educational Needs in Greece: Implication for Inclusive Counseling. *American Journal of Educational Research*, 5 (2),124-130.

35. Landry, S. P., Guillemot, J.-P., and Champoux, F. (2013).Temporary deafness can impair multisensory integration: a study of cochlear-implant users. *Psychological Science, 24* (7), 1260–1268.

36. Mar, H. H., & Sall, N. (1995). Enhancing social opportunities and relationships of children who are deaf-blind. *Journal of Visual Impairment and Blindness*, *89*, 280-280.

37. McInnes, J. M., & Treffry, J. A. (1993). *Deaf-blind infants and children: A developmental guide*. Canada: University of Toronto Press.

38. Miles, B. (1999). Conversation: The essence of communication. In B. Miles & M. Riggio (Eds.), *Remarkable conversations: A guide to developing meaningful communication with children and young adults who are deafblind* (pp. 54-75). Watertown, MA: Perkins School for the Blind.

39. Miles, B. & McLetchie, B. (2008). Developing Concepts with Children Who Are Deaf-Blind. Retrieved from https://eric.ed.gov/?id=ED531842

40. Möller, K., & Danermark, B. (2007). Social recognition, participation, and the dynamic between the environment and personal factors of students with deafblindness. *American annals of the deaf*, *152* (1), 42-55.

41. Moreno, M. & Sastre, G. (1972). Evolution des déficiences intellectuelles au cours d' un apprentissage opératoire. La conservation des quantités continues, la conservation des quantités discrètes. *La Psychiatrie de l' Enfant, 15,* 461-540.

42. Murdoch, H. (2013). Multi-sensory Impairment. In Mason, H. and McCall, S. (Eds), *Visual Impairment: Access to Education for children and young people*. London, UK: David Fulton Publishers

43. Nakken, H., & Pijl, S. J. (2002). Getting along with classmates in regular schools: a review of the effects of integration on the development of social relationships. *International Journal of Inclusive Education*, *6*(1), 47-61.

44. Nasir S. M. and Ostry, D. J. (2008). Speech motor learning in profoundly deaf adults. *Nature Neuroscience*, *11* (10), 1217–1222.

45. Nikolaraizi, M., & De Reybekiel, N. (2001). A comparative study of children's attitudes towards deaf children, children in wheelchairs and blind children in Greece and in the UK. *European Journal of Special Needs Education*, *16*(2), 167-182.

46. Odom, S. L., Vitztum, J., Wolery, R., Lieber, J., Sandall, S., Hanson, M. J., ... & Horn, E. (2004). Preschool inclusion in the United States: A review of research from an ecological systems perspective. *Journal of Research in Special Educational Needs*, *4*(1), 17-49.

47. Paouer, J.L. (1978). Dynamique de la construction opératoire chez les déficients mentaux : étude exploratoire des facteurs déterminants l'induction expérimentale et la genèse spontanée des opérations concrètes. *Cahiers de Psychologie, 21(3), 183-195.*

48. Piaget, J. (1959).*The language and thought of the child* (Third Edition). New York, NY and London, EC: Routledge

49. Piaget, J. (1975). *L'équilibration des structures cognitives: problème central du développement* (Vol. 33). Paris : Presses Universitaires de France.

50. Pianta, R., LaParo, K., & Hamre, B. (2008). *The Classroom Assessment Scoring System Pre-K Manual*. Baltimore, MD: Brookes.

51. Postic, M. (1992). *Observation et formation des enseignants.* Paris : Presses Universitaires de France

52. Romer, L.T., & Haring, N.G. (1994). The social participation of students with deaf-blindness in educational settings. *Education and Training in Mental Retardation and Developmental Disabilities, 29*(2), 134-144.

53. Schilder, P. (1935). *The image and appearance of the human body*. Oxford, England: Kegan Paul.

54. Sense (2002). Beaking out: opening the community for deafblind children and young people: a Sense campaign report. (Sense, London)

55. Soulé, M. (1978). L'enfant qui venait du froid. Méchanisms défensifs et processus pathogènes chez la mere de l'enfant autiste. In S. Lebovici & E. Kestemberg, *Le devenir de la psychose de l'enfant (*179-212.). Paris ,FR : Presses Universitaires de France

56. Stavrou, P.D. (2010). *Construction of a polymathodologic research model for assessment and intervention in schools: The case of school violence and incivility / Construction d'un modèle de recherche pluriméthodologique en vue d'évaluation et d'intervention à l'école: le cas d'incivilités et violences scolaires.* Doctorate in Clinical Psychology. (European Doctorate Dissertation) Université Paris Descartes – Sorbonne, Laboratoire Psychologie Clinique, Psychopathologie, Psychanalyse – PCPP, France.

57. Stavrou, P.D. (2014). *Mediation and guidance of containers and contents of children's thoughts : prevention and risk treatment of disharmony and early psychotic disorders / Médiation et guidance des contenants et contenus des pensées enfantines: prévention et soin des risques de dysharmonies et de troubles psychotiques précoces.* (European Doctorate Dissertation), Université de Picardie Jules Verne, Amiens, France. Stavrou, P. D. (2016). Program of intervention referred to the social-emotional development of deaf-blind students. *Advances in Social Sciences Research Journal*, *3*(11), 248-251

58. Stavrou P.D., Kourkoutas E. (2017). School Based Programs for Socio-emotional Development of Children with or without Difficulties: Promoting Resilience. *American Journal of Educational Research*, 5, (2), 131-137

59. Stern, D. N. (1985). *The interpersonal world of the Infant. A view from psychoanalysis and developmental psychology.* New York, NY: Basic Books.

60. Thomas, G., Walker, D., & Webb, J. (2005). Inclusive education.The ideals and the practice. In K. Topping & S. Maloney (Eds.) *The Routledge Falmer Reader in Inclusive Education (pp 17-28).* New York, NY and London, UK: The Routledge Falmer

61. Tisseron, S. (1995). *Psychanalyse de l'image des premiers traits au virtuel*. Paris : Dunod

62. Trevarthen, C. (1989). Infants trying to talk; how a child invites communication from the human world. In R.S. Søderberg, (Ed.), Childrens Creative Communication (pp 9 – 31). Lund: Lund University Press.

63. Tsai, L.Y (1987).Pre-peri and neonatal factors in autism. In E. Schopler & G.B. Mesibov (Eds), *Neurobiological Issues in Autism*. New York, NY/ London, UK: Plenum Press.

64. Van Dijk J., Nelson C. (1998). History and change in the education of children who are deaf-blind since the rubella epidemic of the 1960s: Influence of methods developed in the Netherlands. *Deaf-Blind Perspectives*, 5(2), 1–5.

65. Volkmar, F. R., Klin, A., Siegel, B., Szatmari, P., Lord, C., Campbell, M., ... & Buitelaar, J. (1994). Field trial for autistic disorder in DSM-IV. *The American journal of psychiatry*, 151, 1361 – 1367.

66. Vrettaros, J., Argiri, K., Stavrou, P.-D., Hrissagis, K., & Drigas, A. (2010). Evaluation Study of Pedagogical Methods and E – Learning Material via Web 2.0 for Hearing Impaired People. Technology Enhanced Learning. *Quality of Teaching and Educational Reform, Communications in Computer and Information Science*, 73, 595-601.

67. Wahlqvist, M., Möller, K., Möller, C., & Danermark, B. (2016). Physical and psychological health, social trust, and financial situation for persons with Usher syndrome type 1. *British Journal of Visual Impairment*, *34*(1), 15-25.

68. Wallon, H. (1949). *Les origines du caractère chez l'enfant*. P.U.F.

69. Wallon, H. (1946). *Le rôle de l'autre dans la conscience du moi*. J. Egypt. Psychol. (réed. In Enfance 1959), 3-4. 279-286

70. Wallon, H. (1954). *Kinesthésie et image visuelle du corps propre chez l'enfant.* Bul. De Psy. (réed. In Enfance 1959), 3-4. 252-263.

71. Ware, J. (2003). *Creating a responsive environment for people with profound and multiple learning difficulties*. London, UK: David Fulton Publishers.

72. Warren, D. H. (1977). Blindness and early childhood development. New York, NY: American Foundation for the Blind.

73. Webster, A., & Roe, J. (1998). *Children with visual impairments: Social interaction, language and learning*. London, UK: Routledge.

74. Wiegersma P. H. and Van der Velde, A. (1983). Motor development of deaf children. *Journal of Child Psychology and Psychiatry*, *24* (1), 103–111.

75. Winnicott, D. W. (1953). Transitional objects and transitional phenomena. *Int. J. Psychoanal.*, *34*, 89-97.

76. Zeza, M. and Stavrou, P.D. 2010. Program of intervention in deafblind students: the framework of the cognitive and communicative profile of deafblind students and the application of educational plan of intervention. Proceedings of IALP, 22-26 August 2010, Athens Greece, pp.469-473.