

Awareness, emotions and reactions of early childhood learners towards special needs children in the Greek formal preschool education context.

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Abstract

Exploring the social relationships of typically developing pupils with students with disabilities is essential for the successful implementation of inclusion. To achieve this, it is important the disability acceptance and students' interactions. Consequently, in the present research, 396 pre-school students attending general education preschool classrooms, are expressing their perceptions and attitudes toward disability, through an interview session. Study has shown that pupils of this age interpret disability based on visible and external characteristics and have generally positive attitudes towards people with disabilities. However, the attitudes expressed do not reflect their actual behavior, as many students maintain formal relations with children and people with disabilities. Nevertheless, some express their readiness to develop deep friendly relationships to students with special educational needs.

Keywords: children, preschoolers, inclusion, disability, beliefs, behavior.

1. Introduction

A large part of empirical research in the field of special education has focused on the impact that children with special educational needs can experience when they participate in inclusive education programs (Yu, Ostrosky, & Fowler, 2012). The study of children's views concerning their peers with disabilities is important because there is a growing tendency for inclusive education programs in pre-school age to include students with disabilities and typically developing students in the same group (Diamond & Huang, 2005).

2. Importance of the study

Although, in studies of inclusive education, the attitudes of typically developing students are not investigated, they form an important prognostic indicator of the implementation of inclusion (Kwon, Hong & Jeon, 2017).

3. Literature review

3.1 The developmental course of attitudes

Attitudes are expressed through ideas, feelings and behaviors, they are developed and acquired through direct personal and specific experiences in inclusive environments where positive attitudes of children and pre-social behaviors are considered justified (Diamond & Huang, 2005). Young children, at the stage of pre-reasoning thinking, are considered to have a relative ignorance about the causes of disability, and while cognitive ability is being expanded, children's perceptions of disability and the explanations expressed about disability are distinguished by a complex, subtractive and essential content. (Smith & Williams, 2004).

3.2 Preschooler' s understandings, sentiments and actions towards children with disability.

According to studies (Dyson, 2005), it is reported that negative attitudes towards people with disabilities may appear in the pre-school period, and intensified during children attendance in kindergarten, where children's sensitivity and negative attitudes towards disability become more apparent. In a study with the participation of preschool aged children it was found that infants expressed negative attitudes and views on disability and encountered difficulties when asked to express their opinion about the concept of disability (De Boer et al., 2012).

In another survey (Smith & Williams, 2004), preschoolers have shown to understand the causes of disability, attributing disability to physical causes, rejecting social and psychological causes of disability. At that age, their peers with visible physical disabilities and their opposite gender peers are recognized as dissimilar to themselves, leading to negative attitudes towards to different others and reducing the chances of choosing them as teammates (Maccoby, 1988). For preschool children with disabilities, limited physical potential and cognitive ability impair their capacity to engage with other children in fantasy and cooperative game activities, which makes them less attractive as playmates for preschool children whose games activities are increasingly centered on symbolic play and collaborative activities (Diamond, Furgy, & Blass, 1993). Children aged up to 6 years (Favazza & Odom, 1996), addressed the concept of disability into the following thematic units: a) physical

disabilities, artificial equipment; b) ability or weakness; c) description of a disability, reference to a particular person in the family or friendly environment, c) reference to a school class, d) general or specific description. Early childhood surveys (Diamond, 1993; Diamond & Hestenes, 1996) have shown that preschool children recognize physical disabilities, difficulties related to reduced vision, but not external features of a person with Down syndrome, mental difficulties or language and speech difficulties.

4. Method

4.1 Participants

In the present study participated 396 pre-school children, where 188 (47.5%) are boys and 208 (52.5%) are girls. Concerning the class, 124 (31.3%) are attending the first class of kindergarten and 257 (64.9%) are attending the second class. Most of the children, 196 students (49.5%) live in a provincial town, 25 (6.3%) pupils live in a village and 175 (44.2%) students live in a big city (Table 1).

Table 1. Demographic characteristics

Demographic variables	Participants	Frequency	(%)
N = 396			
Gender	Boy	188	47.5
	Girl	208	52.5
Class	1 st class in kindergarten	124	31.3
	2 nd class in kindergarten	257	64.9
Residence	Big city	175	44.2
	Provincial town	196	49.5
	Village	25	6.3

Missing values: 15 for class (3.8%)

4.2 Instrument

In order for the research to be conducted, the revised version of “The Primary Students Survey of Handicapped Persons” (PSSHP, Esposito & Peach, 1983; Dyson, 2005) was provided for the assessment of the views of typically developing students towards children with disabilities.

The original “Primary Student Survey of Handicapped Persons” (PSSHP, Esposito & Peach, 1983) was designed for preschool aged children to 7 years old, and measures the degree of awareness and disability sensibility towards people with disabilities. It consists of 6 open-ended questions, written in a simple and comprehensible terms, that do not require reading or writing skills by the child. In a previous survey (Cohen & Lopatto, 1995), the question "Do you know what the term" disability / special needs means" was added. In another study (Kwon, Hong & Jeon, 2017), there were used only four questions, as predictive factors of the attitude of pre-school children towards disabled people.

In the present research, a revised version of the questionnaire was used, where the term "special needs" is going to be addressed to children, because they are more familiar with this concept at school (Dyson, 2005; Kwon, Hong & Jeon, 2017) and there were added some clarifying questions, in order to make students' answers more clear (Dyson, 2005). The three questions are related to the perception and understanding of the concept of disability. More specific, the meaning of the concept, the degree of transmissibility of the disability and the similarities and differences between people with disabilities and people without disabilities. The next three questions are referred to the attitude adopted by people towards disability. In particular, the expression of love towards people with disabilities, friendly relations with people with disabilities, expression of fear towards people with disabilities. After the wording of the questions, explanatory instructions were given when they were asked by the children or when a pupil seemed to have difficulties in understanding the question. The explanations were expressed in simple and comprehensible language, accompanied by examples, precisely formulated, appropriate to the curriculum and corresponding to the age of the children participating in the survey (Nowicki, 2006).

4.3 Procedure

The stratified sampling method, based on the population per geographic area of Greece, was adopted for the survey to be conducted. The country's schools were recorded in a list containing general preschool education schools, per geographic area, by region. Stratified sampling method, is useful data collection method, where the heterogeneous population is divided into a number of groups that are characterized by homogeneity within itself, and a chance of being selected in the sample is assured for every single individual (Singh & Masuku, 2014).

The data collection was carried out with the participation of 12 kindergartens (8 schools are located in provincial cities, 1 kindergarten in a village and 3 kindergartens in a big city). During the school year 2016-2017, research was completed in 9 kindergartens, from April 2017 to June 2017, and in 3 Kindergartens from October 2017 to December 2017. For the pupils' participation in the survey, there were followed the research procedures according to the instructions of the Greek Ministry of Education. The official license from the Greek Ministry of Education was issued for the year 2016-2017 and a re-approval was requested for the school year 2017-2018. Then, the researchers came in contact with the Primary Education Departments of each Prefecture to inform the Education Directors about the survey. Afterwards, they contacted each school, informing the kindergartens' principals about the research, and after the parental consent forms were completed (Nabors & Larson, 2002; Nabors, Lehmkuhl & Warm, 2004; Nabors & Morgan, 1993) the visit day was scheduled.

The school principal informed the preschool teachers about the study conduct and with the escort of the Principal, the researchers visited the kindergartens classes. Initially, all the children were informed about the research and its purpose. They were also informed that the procedure is not an examination to be graded, but that everyone can answer the questions freely. Also, the students were informed that if a student did not feel comfortable talking to the researcher, or to talk about the subtopic, he or she could ask to stop the process. Then open ended questions were addressed individually in each child, in a quiet part of the school (Diamond & Hestenes, 1996; Smith &

Williams, 2004). Each child was then asked to give with his or her participation consent (Nabors & Larson, 2002; Nabors, Lehmkuhl & Warm, 2004). For each child, the process lasted up to 20 minutes. The answers were written in response sheets (Kwon, Hong, & Jeon, 2017). During the interview process, when a child answered a question, the researcher asked for additional information (Diamond, 1993). Changes to the sentences and any word insertions to the questions (someone who cannot see, walk, speak) were applied in order for the question to gain a specified content (Favazza & Odom, 1996), so that the student can better understand each question.

4.4 Data analysis

Data analysis was performed by applying the inductive process of the content analysis, where the thematic units that emerged were created by mutual agreement of the judges (Diamond & Hestenes, 1996). Specifically, as the research aims to collect data based on qualitative information, the data analysis method was developed using the sequential content analysis developed by Johnson and LaMontagne (1993). This method is considered to be the most common method of analyzing data in qualitative surveys and in particular the analysis was carried out in an inductive manner, which means that the thematic units emerged from the data (Leech & Onwuegbuzie, 2007). Every word or phrase related to the question, is a thematic section. The basic concepts are defined and comparisons of similarities and differences of concepts are made between them. Common concepts or proposals with common content according to questionnaire questions are being grouped. If a response involves more than one topic, then its content is categorized into more than one group. Recurring themes were re-consolidated. If a child's answers correspond to more than one thematic section and include more than one thematic unit, then they have been coded in more than one thematic sections. That is why the answers may be more than the participants. The reliability of the measurements was examined by two independent researchers. This type of reliability measurement is used in cases where the recording and scoring of answers provides room for a subjective judgment of the researcher, such as content analysis in open ended questions and interviews, responses to projection tests and tests that measure creative ability (Paraskevopoulos , 1993). In particular, the reliability of the coding of the measurements was examined by two researchers, who independently encoded the same number of responses. When there was a dispute over the coding of the answers, there was a discussion and the disagreement was recorded if there were no answers adjustment to the thematic units. The degree of agreement was divided by the total sum of the agreement and disagreement and multiplied by 100. Reliability was measured by randomly choosing a control class. The reliability measurement results range from 80% to 100%, with an average of 90%.

5. Results

The questions included in the questionnaire are grouped in two categories: a) Understanding the concept of "disability" (meaning of the concept, the degree of transmissibility of the disability, the similarities and differences between people with disabilities and people without disabilities) and b) the attitude adopted by the people toward to people with disabilities (expression of love for people with disabilities, friendly relationships with people with disabilities, expression of fear for people

with disabilities). The answers given for each question were grouped in categories according to their content.

The first question is related to the interpretation given by pre-school children to the concept of disability / special need: Tell me everything you know about a person with disabilities or special needs. A large number of participants (100 people, 27.2%) replied " I don' t know" or formulated an unrelated answer, and few people expressed simple knowledge without further explanation. A large number of responses (100 persons, 30.3%) related to plastic caps, followed by responses (42 pupils, 10.7%) referring to the need for support with appropriate equipment and other responses (38 children, 9.6%) related to physical difficulties. Some pupils (16 pupils, 4.2%) received adult information and some (13 pupils, 3.3%) received information from TV. Disability was defined as a multiple difficulty by a few students (9 pupils, 2.5%), while only one (1, 0.2%) student reported a meeting with a disabled child. (Table 2).

Table 2. Thematic units of the questionnaire proposals based on the qualitative analysis of the responses of preschool students

1 st Question: Tell me everything you know about a person with disabilities or special needs		
Thematic units of the responses	Frequency	(%)
Plastic caps / equipment / support with special equipment	142	41
Physical difficulties / Motor difficulties	38	9.6
Multiple difficulties (motor difficulties, speec and language difficulties, hearing impairment, visual impairment)	9	2.5
Television information	13	3.3
Adult information	16	4.2
Meeting with a special needs child	1	0.2
No relative answer / don' t know	110	27.2
Knowledge (without explanation)	5	1.3
Total	334	86.34

Missing values: 62 (14.66%)

In the second question, most students recognize that disability is not a contagious disease (101 pupils, 25.5%) and fewer students perceive disability as a contagious disease (47 students, 11.9%). Transmissibility of disability is interpreted as it is considered an "adhesive disease" (18 students, 4.5%) and is defined as speech difficulty (1 pupil, 0.3%). Some pupils did not justify the transmissibility of disability (20 pupils, 5.1%), and others expressed a non-related answer (8 students, 2.0%). Students who supported that disability is not a contagious disease (23 pupils, 5.8%), justified their answers referring that disability is not a transmissible disease, some others expressed no explanation (60 students, 15.2%) and some others expressed an unrelated an unrelated explanation (17 pupils, 4.3%) (Table 3).

Table 3. Thematic units of the questionnaire proposals based on the qualitative analysis of the responses of preschool students

2 nd Question: Is there a possibility to get sick, to have a cold, or not being able to walk when you play with people who have disabilities or who have special needs?		
Thematic units of the responses	Frequency	(%)
“Yes” - total	47	11.9
“Yes” - disability as contagious	18	4.5
“Yes” - disability as language and speech difficulty	1	0.3
“Yes” - no relative explanation	8	2.0
“Yes” - no explanation	20	5.1
“No” - total	101	25.5
“No” – disability is not contagious	23	5.8
“No” – no relative answer	17	4.3
“No” – no explanation	60	15.2
“No” – no relative answer / don’t know	17	4.3
Total	312	78.8

Missing values: 84 (22.2%)

The third question is related to the similarities and differences that people with disabilities present with the rest of the population and it is also asked the answer to be justified. Most infants (116, 29.3%) responded that people with disabilities differ from them, while fewer students (27 pupils, 6.8%) support similarities to these individuals. The differences are attributed to issues related to the outward appearance (6 students, 1.5%), to the origin (4 pupils, 1%), to disability where it is defined as illness (9 pupils, 2.3%), to multiple difficulties (motor difficulties, hearing difficulties, language and speaking difficulties (17 students, 4.3%), and the need for a wheelchair transportation (7, 1.8%). Several students (72 students, 18.2%), who supported diversity, did not justify their answer, or formulated an unrelated explanation, or gave no explanation concerning the difference. Similarity is attributed to similarities associated with the characteristics of all children (4 pupils, 1.0%) and to similarities the special needs children present with the typically developing child (1 pupil, 0.3 &). Only two (2 pupils, 0.5%) expressed an unrelated explanation, and other students (16 pupils, 0.4%) expressed an unrelated answer (Table 4).

Table 4. Thematic units of the questionnaire proposals based on the qualitative analysis of the responses of preschool students

3 rd Question: Do you think that people who have disabilities or special needs seem a lot like you or do they seem different from you? Why or Why not?		
Thematic units of the responses	Frequency	(%)
Different (total)	116	29.3
Different because of the exterior appearance	6	1.5
Different because of origin	4	1.0
Different because disability is a disease	9	2.3
Different because of the difficulties they face (physical difficulties, hearing impairment, speech and language difficulties)	17	4.3
Different (no relative explanation – no explanation – don't know)	72	18.2
Different – equipment	7	1.8
Similar (total)	27	6.8
Similar – like all the children	4	1.0
Similar – no relative answer / don't know	22	5.6
Similar – Similar to me	1	0.3
Different and similar – no relative explanation	2	0.5
No relative answer	16	0.4
Total	303	76.6

Missing values: 93 (24.4%)

The majority of students respond positively (190 students, 48%) in the fourth question. The reasons expressed for this attitude is the desire for sympathy, empathy, altruism, help (33 students, 8.5%), the expression of love and sympathy (19 pupils, 4.8%), the good character of children with special needs 7 pupils, 1.8%), in the friendly relationship and reciprocity (7 students, 1.8%), in the social mood (5 students, 1.4%), in the beautiful exterior appearance (2 students, 0.5% %), in their similarity (2 students, 0.5%) and the special needs (2 pupils, 0.5%). Among these students, most of them did not express any further explanation for their answer (124 students, 31.3%) and only one pupil (0.3%) made a confusing explanation. Few students (4 pupils, 1%) answered the question in a negative way. Among them, one pupil (0.3%) linked his negative response to the special equipment needed for these people, while five pupils (1.3%) gave a confused explanation. The results are shown in Table 5.

In the fifth question, "Do you have friends with disabilities or special needs? If yes, how do you spend your time with your friends? ", only six pupils (1.5%) said they had friends with disabilities, of which three students (0.8%) expressed only the answer, and three students (0.8%) explained that they have a typical relationship with them (going to the cinema, family meetings). Negative answers were given by 32 pupils (8.1%), without expressing any explanation, one (0.3%) student gave a confused answer, and another student said an unrelated answer (0.3%) (Table 6).

Table 5. Thematic units of the questionnaire proposals based on the qualitative analysis of the responses of preschool students

4 th Question: Do you like people who have disabilities or special needs? Why or why not?		
Thematic units of the responses	Frequency	(%)
“Yes” – total	190	48.0
“Yes” – desire for support, empathy, altruism, help	33	8.5
“Yes” – expression of love, sympathy	19	4.8
“Yes” – good character of children with special needs	7	1.8
“Yes” – nice appearance	2	0.5
“Yes” – positive and friendly attitude , reciprocity	7	1.8
“Yes” - similarity	2	0.6
“Yes” – social attitude	5	1.4
“Yes” – special needs	2	0.5
“Yes” – no explanation – only response	124	31.3
“Yes” – confused explanation	1	0.3
“No” - total	4	1.0
“No” - special equipment	1	0.3
Confused explanation	5	1.3
Total	390	98.5

Missing values: 6 (1.5%)
In the last question (6th question) only eleven (2.8%) children responded positively, of which

six (1.5%) answered without explanation. The rest of the students justified their answers as following: a pupil (0.3%) said he did not know how a disabled person or special needs might be, a student also (0.3%) argued the detrimental nature of the disability, another student (0.3%) expressed a feeling of fear that something serious might happen to him, and three students (0.8%) consider that people with disabilities are dissimilar to them. The majority of pupils (165 pupils, 41.7%) gave a negative answer, among which most (142 students, 35.9%) did not justify their answer. The majority of students considered the lack of fear for people with disabilities with the following answers: one pupil (0.3%) reports that these people have a good outward appearance, two pupils (0.5%) reported that these children are acting in a quiet way, three students (0.8%) expressed feelings of affection, while many students (16 pupils, 4%) consider that children with disabilities have a good character (Table 7).

Table 6. Thematic units of the questionnaire proposals based on the qualitative analysis of the responses of preschool students

5 th Question: Do you have any friends who have disabilities or special needs? If yes, how do you spend your time with them?		
Thematic units of the responses	Frequency	(%)
“Yes” – Total	6	1.5
“Yes” – only response	3	0.8
“Yes” – formal relationships	3	0.8
“No” - total – only response	32	8.1
Confused answer	1	0.3
No relative answer	1	0.3
Total	46	11.6

Missing values: 350 (89.4%)

Table 7. Thematic units of the questionnaire proposals based on the qualitative analysis of the responses of preschool students

6 th Question: Are you ever afraid of people who have disabilities or special needs? Why or Why not?		
Thematic units of the responses	Frequency	(%)
“Yes” – Total	11	2.8
“Yes” – only response	6	1.5
“Yes” – doesn’ t know how the appearance of a person with disability or special needs	1	0.3
“Yes” – harmful nature	1	0.3
“Yes” – fear of getting something bad	1	0.3
“Yes” - dissimilarity	3	0.8
“No” - Total	165	41.7
“No” – only response	142	35.9
“No” – fear of a naughty child – these children have a quite character	2	0.5
“No” – nice appearance – they have no scary appearance	1	0.3
“No” – good / positive character of people with disabilities or special needs	16	4.0
“No” – feelings of compassion	3	0.8
Total	362	88.9

Missing values: 34 (12.1%)

6. Discussion

It seems that children of this age are better aware of some types of disability that express weaknesses that typically developing children can experience (such as putting on a blindfold, or going into a dark room) or disabilities related to special equipment, while less visible disabilities, which are not presented with clear and external features, such as mental retardation, are harder to be perceived by the children of that age (Diamond & Hestenes, 1996). Early childhood children

seemed to be able to identify the concept of disability and express its meaning. However, the approach of the concept is framed by limitations that define their thinking in the developmental pathway that characterizes the age of 3 to 6 years. Most students interpret the concept of disability based on the need for support by special equipment, physical ability and mobility difficulties. In a similar survey (Dyson, 2005), in a question about disability perception, children reported physical difficulties and the need for assistance and support with special equipment. Few children defined disability based on multiple difficulties (kinetic difficulties, speech and language difficulties, hearing impairment, reduced visual sight). Another study conducted by Conant & Budoff (1983), with the participation of pre-school children, showed that children had a sense of physical and sensory disability but they did not seem to understand the notions of mental retardation and emotional disturbance. This may also happen due to the fact that physical disabilities are more common and often presented in the media and children's books, while hearing difficulties and loss of vision sight are relatively less known and relatively uncommon (low incidence disabilities) (Diamond & Huang, 2005).

Some students reported that they are informed by the television about the disability and their knowledge of disability is also derived by the information received by the adults, without mentioning the exact knowledge, but the source of the information only. The adult person is represented by a teacher, health professional, relative or parent, who attends a master in special education or working in special education structures. Parents and teachers play an important role in the process of forming children's views on disabled peers (Diamond & Huang, 2005). There is a positive correlation between the communication that is developed while typically developed children interact with special needs children, in a variety of contexts, and the attitudes they adopt and express towards their peers with disabilities (Kwon, Hong & Jeon, 2017). Only one child knows about disability because it has met a disabled child, so the child may know the limitations that these children encounter. Few pupils declare simple knowledge without mentioning a specific feature, while many students report that they have no knowledge of disability or express an unrelated response.

Regarding the transmissibility degree of disability, most students responded that disability is not a contagious disease, a great part of them did not respond to an explanation, some have suggested that disability is not a contagious disease, and fewer reported unrelated explanation. Fewer pupils responded positively, claiming the transmissible nature of the disability, among whom some gave no explanation. At this age, due to limited skills in language understanding and because of their limited cognitive skills (Huckstadt & Shutts, 2014), but also because of the way of thinking, which is the subject of perceptual experience, inability to understand abstract concepts, and limited language skills in order to express their perceptions and their ideas (Dyson, 2005), children are unable to report explanations about the notion of disability transmissibility or to formulate related explanations. Recent research has shown that preschool children perceive various important causal characteristics for disability related to aspects of the disease (Smith & Williams, 2004).

A great part of the participants reports that people with disabilities differ and attribute these reasons to external appearance, a result that was found in a similar research, where diversity was also attributed to differences in appearance and skills (Dyson, 2005). Another cause of diversity is

related to origin issues. According to research (Dunham, Chen, & Banaji, 2013), children are unlikely to systematically discriminate based on their origin because of their inability to categorize by origin. However, this finding indicates a close temporal correlation between the appearance of the ability to organize categorizations based on the origin and the appearance of intra-group polarizations as compared to origin. Capacity for categorization is predictive, but it is not the same for age. Other causes are the difficulties associated with physical disabilities, hearing impairment and speech difficulties. In addition, over the period of two to five years the growth of speech and thinking is rapidly increasing, and it constitutes a basic mean of communication in the field of kindergarten where group activities are being developed (play, fairy tales, discussion, pre-linguistic activities). Research data (McCabe & Meller, 2004) report that children with linguistic deficits are less able to express their intentions, feelings, and implement problem-solving strategies, and in this way they may be perceived by their typically developing peers, as disposing less social skills and dissimilar to the other children, thus preserving biased attitudes towards people with perceived difficulties (Nabors & Morgan, 1993). Speech and language development is a useful indicator for the overall development of the child, the formation of child's cognitive skills and is associated to school success (Nelson et al., 2006). Speaking and language skills are also connected to language learning quality, and predict a correct and appropriate communication (Mudofir, 2018). In that sense, children with difficulties of oral expression are disadvantaged in terms of cognitive development and school adaptation, characteristics that seem to be perceived by standard developing infants. Children of this age base their decisions on the abilities of others in their observations about their behavior, and subsequent acceptance depends on these thoughts (Guralnick, 1990). In a corresponding study, the interpretation of disability was not attributed to speech difficulties and deferred language development (Diamond, 1993). They also attribute difference by defining disability as a disease, as anything that differs, based on their perception, from typical development, is considered a weakness and undesirable feature. It is worth mentioning that children of this age evaluate people with physical disabilities as less able to engage in working tasks that require physical abilities in comparison to those that require language skills or peer's acceptance (Diamond & Hestenes, 1996). When a student is identified as dissimilar to other peers, then the child is assessed to possess low level of abilities, when the time is reached to be selected as a potential teammate (Diamond, Furgy, & Blass, 1993).

Furthermore, most infants responded positively when asked if they dispose feelings of love towards people with disabilities. Many children simply expressed their positive feelings for children with special needs, without any justification. Some responses were attributed to a desire for sympathy, empathy, altruism, help, but also expression of love and sympathy. Altruism and feelings of sympathy guide a beneficial behavior for other individuals, that follows a developing course through time (Muthuri & Kihara, 2018), a characteristic that could reinforce the social interaction between typically developing children and children with disabilities. According to a previous research (Huckstadt & Shutts, 2014) when children were asked to evaluate their classmates, it may be that, in addition to the disability situation presented by the individual, they will rely on a variety of factors to define their answers (e.g., clothing, comments on others' preferences, consequences of past social interactions). The positive feelings of the children of the current study towards children

with disabilities are also based on factors related to the external appearance of people with disabilities, the good character of children with disabilities, the reciprocity of the relationship, similarity, social mood and special needs of these people. Findings regarding personality, positive social mood, positive attributes and skills of people with disabilities as causal attributes are appeared to be in agreement with previous research (Dyson, 2005; Nabors & Larson, 2002). It is worth pointing out that a basic system of social assessment, group preference and sensitivity towards this group are emerging at an equal rate in the early years of life, resulting that the attitudes learned by an individual at an early age are internalized and maintained during adult life (Dunham, Chen, & Banaji, 2013).

Although a great part of the infants who participated in this study expressed positive feelings towards people with disabilities, it was a small number of children that maintain friendly relationships with children with disabilities in a typical level. This typical interaction may be due to difficulties they affront during game activities but also due to emotional difficulties experienced by children with disabilities (Kalyva & Agaliotis, 2009). It is reported that children with disabilities dispose some social deficits to a greater extent than expected for the developmental level of children and are less often chosen as friends from peers with disability and their non-disabled peers, a fact that highlights the importance of the inclusive education programs social framework and integration policy (Guralnick, 1990). It may also express a reservation on engaging in social activities, engaging them in a full interaction with people with disabilities or their full integration into general education school (Tang et al., 2000). However, some children expressed their desire develop deep friendships with children with disabilities. This is a proof that they have not encountered opportunities to develop social contacts with children with disabilities (Huckstadt & Shutts, 2014), while participants of the present survey, although they did not express a friendly disposition towards a disabled child, they expressed a neutral to positive disposition to be engaged in interaction with a child with disability. Direct contact with a special needs child increases the chances of developing positive attitudes towards disabled children, as they can develop a degree of empathy and better understanding of their disabled needs peers, through contact and interaction in a frequent degree (Kwon, Hong & Jeon, 2017). A description of positive characteristics of a person with visible disability and health issues can reinforce the feelings of empathy and understanding. (Nabors, Lehmkuhl, & Warm, 2004).

Most of the students did not express feelings of fear towards children with disabilities, attributing explanations related to the good external appearance of these children, their quiet and positive character, and the feelings of love they develop towards to these children. Few students responded that they experience feelings of fear towards children with disabilities, as they appeared to be different from other children and they are not aware of the appearance and character a child with disability might dispose. Another reason is that they have not met yet a disabled child, the fear of being harmed by children with disabilities and the harmful nature of disability. Probably, some children may have not realized that they met a disabled child when the disability was not visible (Kwon, Hong & Jeon, 2017). Children tend to recognize physical and biological factors as the cause of disability, because perceptions of less apparent types of disability appear to be developed in

childhood. (Smith & Williams, 2004). Few students responded negatively, indicating that they are not favorably disposed towards children with disabilities (Huckstadt & Shutts, 2014).

7. Conclusions

The present study has expanded the research data and knowledge about pre-school children's perceptions of disability. The number of studies examining children's perception and their understanding of disability is limited and they choose to recognize physical and biological factors as the cause of disability and reject socio-psychological causes of disability explanation (Smith & Williams, 2004).

8. Limitations of the study

The fact that a large number of children expressed incomplete or unplanned answers, weakens the degree of validity and credibility of this research (Dyson, 2005). Another methodological limitation concerns the fact that behavioral intentions or real behaviors of typical pupils with regard to children with disabilities were not examined (Nabors & Larson, 2002).

9. Recommendations for future research

Future researches should focus on the overall performance of typically developing children in a context of inclusive education, using qualitative and quantitative methods (Sharma & Dunay, 2018), as well as on studying the reasons for which typically developing children are eager to create friendships with children with disabilities (Nabors & Larson, 2002). Studies, should include tests, with simplified verbal descriptions and short film footage (video clips), (Huckstadt & Shutts, 2014).

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