Peer Acceptance and Teachers' Attitudes Towards Students with Down Syndrome in Primary School

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Abstract: The article presents the results of an empirical study on psychological conditions of children with Down syndrome inclusion in groups of peers in mainstream primary school. The hypothesis of the study is that socio-psychological status of children with Down syndrome in a group of classmates is associated with teacher's attitudes towards them. The participants were 117 students attended primary inclusive school in Moscow and their 6 teachers. Following methods were used: interview, criterion-oriented observation, sociometric instrument, Relations color test, projective drawing technique. The found significant differences and correlations, especially the negative correlation between the diversity of repertoire of teachers' actions and the percentage of students who reject included children, support the study hypothesis. The list of teacher's actions for inclusion of students with Down syndrome was made. The study has shown that teachers' actions are crucial to inclusion of students with Down syndrome in groups of classmates in primary school. The results provide a better understanding of enabling conditions influencing inclusion of children with Down syndrome.

Keywords: inclusive education, peer acceptance, teachers' attitudes, Down syndrome, primary school.

1. Introduction

1.1 *Peer Relationships in Inclusive Settings*

Full participation of children with disabilities within inclusive education system is a worldwide educational goal (United Nations, 1989; UNESCO, 1990; UNESCO, 1994; UNESCO, 2007), but many questions concerning how to succeed with inclusion still need to be answered.

The idea of inclusion implies that all students take a full and active part in school life, they are valued by members of the school community and are seen as integral members by everyone in the school (Farrell, 2000). This description shows that inclusive education focuses not only on academic issues but also on meeting students' social and emotional needs (Koster, Nakken, Pijl, and Van Houten, 2009).

Positive peer relationships play a significant role in the students' development. They are beneficial for learning and psychological outcomes. However, it was found that in inclusive classes, students with special educational needs (SEN) had lower scores on social participation than students without SEN (Schwab, 2015).

Compared with ordinary students, students with special needs experience considerable more difficulties, building friendship in inclusive classrooms (Frostad and Pijl, 2007). Large differences were found between the students with disabilities and their peers for amount of time spent interacting with peers and amount of time spent in isolation (Kemp and Carter, 2002). It was documented that there were significant differences in the number of social/recreational activities and number of friends typically-developing children had compared with peers with intellectual disability (Solish, Perry, and Minnes, 2010). That is why there is a clear need for action to foster the social participation of students with SEN in inclusive settings.

1.2 *Teachers' Attitudes Towards Students with Special Educational Needs*

Research has established that the teacher is one of the most critical elements in the successful inclusion of students with SEN in modern classrooms (Alekhina et al., 2011; Avramidis and Norwich, 2002; de Boer et al., 2011; Jordan et al., 2010; Woodcock and Vialle, 2016). Previous study has shown that there is no single way to guarantee effective inclusion; but inclusion is more likely to be successful when the class teacher takes a central role in the management of support and the organization of a child's daily educational experiences (Fox et al., 2004).

Despite some evidence that teachers generally support inclusion, the research regarding teacher's acceptance of inclusion is far from being unequivocal. In a review of 26 empirical studies focused on teacher's activity in mainstream primary schools, for example, de Boer and her colleagues reported that most teachers were neutral or negative in their attitudes towards inclusive education (de Boer et al., 2011).

Available studies have shown that (the) milder the disability (is), the higher would be the teacher's sense of self-efficacy and her/his willingness for such children to be included in a regular class. One of the most complicated issue is the inclusion of students with intellectual disabilities or moderate(and also severe) emotional disturbances (Lifshitz and Glaubman, 2002).

Based on the review of studies, some factors associated with attitudes towards people with intellectual disabilities were identified: age, gender, education, religion, cultural identity and (previous) experience of direct communication with people with disabilities (Yudina and Alekhina, 2015). Significant factors regarding teachers' perspectives for the inclusion of students with intellectual disabilities comprise their current teaching position and previous teaching experience with students who had any kind of disability in inclusive settings (Alquraini, 2012; Ojok and Wormnæs, 2013).

1.3 *Inclusion of Children with Down Syndrome*

Historically, one of the most dominant influences in educational practice has been a medical model of disability. For children with Down syndrome, the historical focus of the medical model and its preoccupation with biological limitations has provided an assumption that characteristics of students' disability were static and all-encompassing. Furthermore, this assumption translates for children with Down syndrome as not being able to learn. That is why for these children the medical model has seen repeated exclusion from general education settings (Oliver, 1996).

From re-examination of values and beliefs in the 1970s the social model of disability was introduced. Advocates of the social model espouse that disability cannot just be viewed medically, but needs to be viewed through a social lens encompassing attitudes, values and beliefs, which operate within the society (Hodkinson and Vickerman, 2009). This view is consistent with the theoretical underpinnings of social constructivism, where the construction of knowledge is the product of social interactions, interpretation and understanding (Adams, 2007). Worldwide inclusive educational policy change has been influenced and guided by the framework of the social model.

Down syndrome is one of the most common chromosome abnormalities in humans, occurring in about one per 1000 babies born each year (Weijerman and de Winter, 2010). Children with Down syndrome typically display some form of intellectual impairment, however, there is a significant variance in the intellectual impairment in individuals with Down syndrome (Davis, 2008).

The area of social development, when compared with other neuro-developmental disorders, is considered to be an identified area of strength for children with Down syndrome (Davis, 2008). However, while children with Down syndrome may exhibit a strong desire to be involved in social interactions, the accompanying social skills required for effective interactions are not necessary held (Guralnick, Connor, and Johnson, 2009).

Previous studies indicate that children with intellectual disabilities or Down syndrome have considerable difficulty interacting with peers and creating a meaningful social network (Guralnick,

2002). As children with Down syndrome are increasingly educated in mainstream schools, there is a need for enhanced knowledge regarding how to promote their participation.

1.4 *Russian Context and oOverview of the Current Study*

The importance of this study is related to the intensive development of the inclusive educational practice in Russia. In 2012 the Russian Federation ratified the UN Convention on the Rights of Persons with Disabilities (United Nations, 2006). At the end of 2012 the new Federal Law "On Education in the Russian Federation" was approved. It established a right of children with special educational needs to get education in inclusive as well as special settings.

According to data published by the Downside Up Foundation about 2500 children with Down syndrome are born in Russia every year. Just few of them have access to inclusive education in mainstream schools, mainly they are still getting education in special schools or at home. But due to the active involvement of parents the number of children with Down syndrome in inclusive schools increases.

Although social and educational inclusion of children with Down syndrome has become the focus of international studies over the past decades, the research findings from other countries cannot be directly transferred to the Russian situation, because of the difference in the education and social support systems. That is why the current study, which is considered as the first empirical study on inclusion of children with Down syndrome in Russian mainstream school, is very important.

The aim of the study is to investigate the psychological conditions of children with Down syndrome inclusion in groups of peers in mainstream primary school. Taking into account the results from the literature review, the following hypothesis is posed: socio-psychological status of children with Down syndrome in a group of classmates is associated with teacher's attitudes towards them.

2. Method

2.1 *Design of the Study*

Based on V.N. Myasishchev's conception of relationships (Mya-sishchev, 2011), teachers' attitudes towards included students were analyzed as consisted of three components: emotional, cognitive and behavior. The emotional component of teachers' attitudes was measured using the Relations color test. To examine the cognitive component of the attitudes we interviewed the teachers. The behavior component of the attitudes was measured through criterion-oriented observations that took place during lessons.

The socio-psychological status of included students in groups of peers was assessed using the sociometric instrument, the Relations color test and the projective drawing technique.

2.2 *Sample and Procedure*

The participants in this study were 117 students attended primary inclusive school in Moscow and their 6 teachers (all female) with teaching experience ranged from 1 to 25 years. 30,8 % of students were second graders (18 boys and 18 girls), 36,8 % were third graders (23 boys and 20 girls) and 32,4 % were fourth graders (20 boys and 17 girls). Their ages varied between 7 to 11 years. At least one student with Down syndrome was included in each of six investigated classes. Two students with Down syndrome were in the third grade. Thus 7 primary students with Down syndrome were involved in the study: 6 girls and 1 boy.

Prior to the data collection the parents were informed on the study purposes and their written consents were obtained for the researcher to work with children. Two visits were made by the first author to each class. Firstly, observations lasting one 40-minutes lesson were carried out in all classes. Secondly, the students were invited to give sociometric nominations and to draw the picture of their class. Children were informed that the tasks were not a test and that there were no right or wrong answers. They were asked to give their own opinion, and not to consult with classmates before

writing their answers. Additionally, the short individual interviews with every child were organized to discuss their drawings and to complete the Relations color test.

The individual interviews with teachers were carried out within breaks or after lessons ending. The teachers' answers were fixed by the researcher in the questionnaire. The interviews usually lasted up to 30 minutes.

2.3 *Measures*

2.3.1 Socio-Psychological Status of Included Students

Students were invited to mark in the list the names of their class-mates based on the following three choices of persons: 1) to give a gift, 2) to share a desk[1], 3) to share a room within an outing. Only students from the same class could be nominated. Positive and negative nominations were limited to a choice of maximum three peers for each question. Thus students' positive and negative sociometric statuses were evaluated.

The emotional component of students' attitudes was measured using the Relations color test, a projective technique constructed by A.I. Lutoshkin on the foundation of the Lüscher color test. The Relations color test is based on the assumption that the characteristics of the non-verbal components of the relationship to significant others are reflected in the color associations to them. (Semago and Semago, 2005).

The Relations color test procedure consisted in the students' selection of color cards for each classmate including themselves and the teacher. After a break students were asked to rank the colors from the most pleasant to the least pleasant. In accordance with the selection the color associations were transferred to the ranks. Ranks from the 1st to the 3rd correspond to the emotional acceptance of a person. Ranks from the 6th to the 8th indicate the emotional re-

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1   Usually classrooms in Russia are equipped by desks designed for two students

jection of a person. The 4th and the 5th ranks were defined as a neutral attitude.

The projective drawing technique was used to collect additional qualitative data. Students were invited to draw their class so that everyone was doing something. Then, in individual interview the researcher asked, whom the student pictured and what these people did. The technique was used to identify the most emotive students' experiences in the interactions with their peers and teachers. (Semago and Semago, 2005)

2.3.2 Teachers' Attitudes

The emotional component of teachers' attitudes was measured by the Relations color test, which may be used for adults as well (Semago and Semago, 2005). The procedure was similar to that described above. To examine the cognitive component of attitudes teachers were interviewed. The interviews were semi-structured in the set of prepared 13 questions on several aspects of the inclusive process.

The behavior component of teachers' attitudes was measured through criterion-oriented observations that took place during lessons. The prepared protocol contained 12 possible teachers' actions to include a student with Down syndrome. The list of the actions was composed by the study authors based on the literature review. Within the observations other 3 actions were added to the list. Thus the list of 15 teachers' actions was obtained. During the observations the researcher marked every single action in the list. Then the amount of actions was calculated.

The data collected from students and teachers provided a wealth of material, which is described and discussed in the next section.

3. Results and Discussion

3.1 *Inclusive Process*

Qualitative analysis of the teachers' interviews allowed to receive an important information about the inclusive process. According to teachers, the joint recreation and play activities facilitate the inclu-

sion of students with Down syndrome in a group of peers, especially in the initial period of their adaptation in a classroom. Further a significant amount of interactions between included students and their peers also occurs within informal joint activities such as gaming and recreation. The results of this study support previous research (Author, 2015).

It was interesting to reveal, that primary school students do not support the games with included children which are not corresponded to their interests, but they find several variants of joint activities and adapt their games to abilities of students with Down syndrome. For example, the classmates additionally explain the rules of the game to included children or make the rules easier to fit their abilities. The results are supported by previous research (Dolva et al., 2011).

The inclusion of children with Down syndrome in groups of peers, according to teachers, is inhibited by some personal qualities of the children with Down syndrome (like shyness), their specific appearance, lack of social skills (setting and maintaining boundaries in communication) and the retardation in their development. However, the emotional openness of these children, their early socialization (for example, a kindergarten attendance) and the evidence of skills in which they are successful, promote the adaptation of the children in groups of peers.

Four of the six teachers consider children with Down syndrome as students who are serious in their learning activities. All the teachers noticed positive dynamics in the learning of included students.

3.2 Peer Acceptance

The analysis of sociograms demonstrates that students with Down syndrome have intermediate statuses in all six groups of peers. They are not the most popular as well as the most rejected students in the inclusive classes. In five of the six investigated groups the students with Down syndrome have received at least one positive sociometric nomination from their classmates. The results of the sociometric procedure are illustrated by Figure 1. All the names of children have been changed to protect their identities.
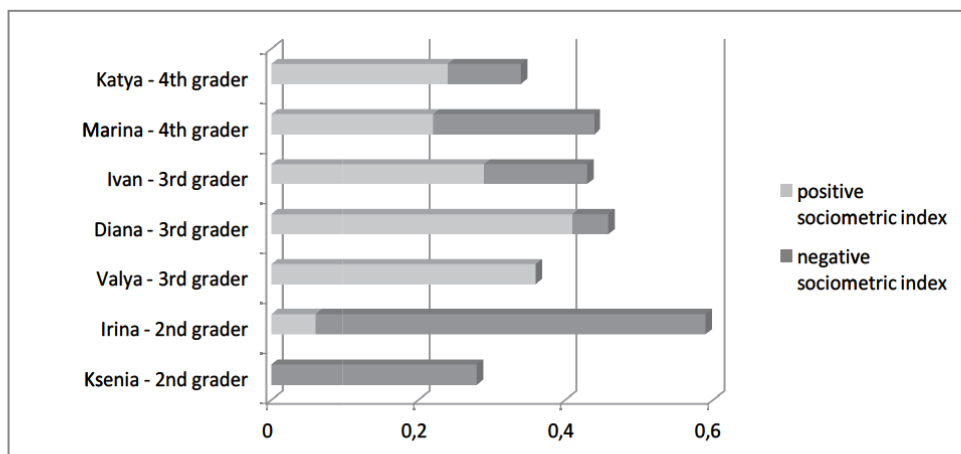
Fig. 1. Sociometric status of included students

The percentage of classmates who emotionally accept children with Down syndrome (from 42 % to 68 %) was higher in five of six classes than the percentage of peers who reject them (from 9 % to 37 %). In addition, there were more classmates emotionally positive or neutral to students with Down syndrome (form 55 % to 91 %) than those who were negative to them (from 9 % to 45 %) in all six inclusive settings. The results of the Relations color test are illustrated by Figure 2.
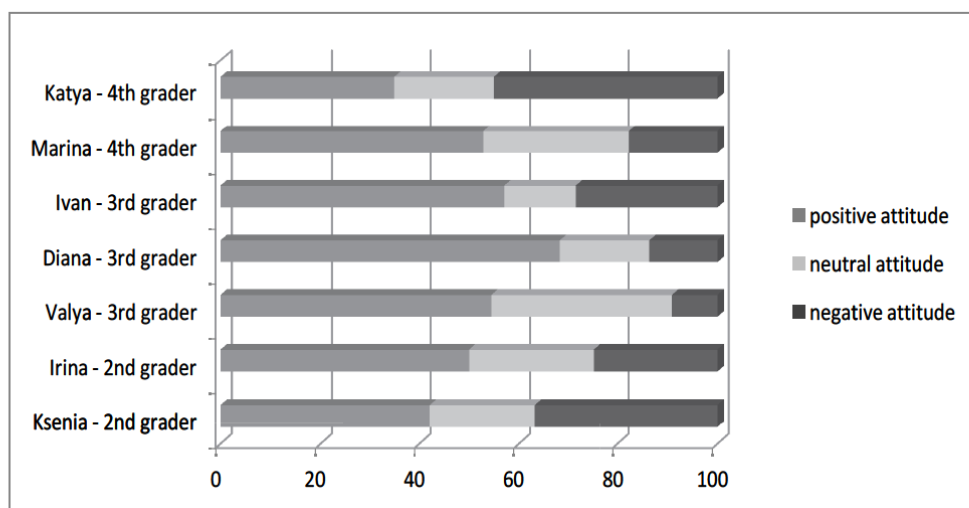

Fig. 2. Classmates' emotional attitudes to included students

The analysis of drawings has shown that generally teachers are important persons for primary students in investigated classes. The figure of a teacher was presented in 14 % to 67 % of drawings. From 29 % to 57 % of primary students put themselves in the pictures. Meanwhile no more than 25 % of drawings contain the figures of students with Down syndrome. The data evidences that relations with included students are less important to primary students than their relations to teachers. The results support the hypothesis of the study.

3.3 *Teachers' Actions*

All six primary teachers were emotionally positive or neutral to students with Down syndrome and familiar with their characteristics. The significant differences between teachers were found in behavior component of their attitudes.

We made the rating of teachers' actions for inclusion of children with Down syndrome, based on the observations during lessons (see Table 1). 15 actions were listed according to the frequency of evidence and the number of teachers who made them.

The quantitative analysis of the observations data allowed to reveal significant differences in the number (0 to 31) and the diversity of repertoire (from 0 to 10) of teachers' actions aimed to the inclusion of children with Down syndrome. In the present study the association between teaching experience and the number and the diversity of teachers' action repertoire was not found.

No	Teacher's actions	Frequency of evidence	Number of teachers
1	express emotional support / approval of an included student's actions	21	3
2	address a question to included child within frontal instruction of the class	16	3
3	give a task to included child within frontal instruction of the class	11	3
4	provide support to included child in solving educational problems in the form of recommendation	7	3
5	provide support to included child in solving educational problems in the form of question	7	2
6	make a disciplinary comment on included child's behavior	3	2
7	emphasize the abilities and successes of included student in the classroom	3	1
8	come to included student and contact him / her personally	3	1
9	provide support to included child in his / her self-organization	2	2
10	organize learning in pairs with the participation of included child	2	2
11	encourage included student to make public presentation	1	1
12	ask classmates to help included child in educational problems solving	1	1
13	give an individual task to included student	1	1
14	organize included child's answer / work discussion between classmates	0	0
15	organize a small group interaction with the participation of included child	0	0

Table 1. Rating of teachers' actions for inclusion of children with Down syndrome, based on the observations within lessons

3.4 *Correlation of Variables*

The data analysis has shown statistically significant positive correlations between the following variables:

1) positive sociometric index of included children and students' emotional attitudes to included children ($p = 0,046$);
2) teachers' emotional attitudes to students without SEN and students' self-esteem ($p = 0,028$);
3) teachers' emotional attitudes to students without SEN and students' emotional attitudes to teachers ($p = 0,025$);
4) students' emotional attitudes to included children and students' emotional attitudes to teachers ($p = 0,039$);
5) teachers' emotional attitudes to students without SEN and students' negative sociometric index ($p = 0,00$).

Statistically significant negative correlations were revealed between the following variables:

– diversity of repertoire of teachers' actions aimed to the inclusion of children with Down syndrome and percentage of students who reject included children ($p = 0,038$);
– teachers' emotional attitudes to students without SEN and their positive sociometric index ($p = 0,01$).

3.5 *Comparison of Variables*

To compare the data between 6 classes the Kruskal-Wallis test was used. Statistically significant differences between the classes were found for the following variables:

1) sociometric status of included children ($p = 0,00$);
2) teachers' emotional attitudes to students ($p = 0,02$);
3) students' self-esteem ($p = 0,033$);
4) students' emotional attitudes to teachers ($p = 0,00$).

The found significant differences and correlations, especially the negative correlation between the diversity of repertoire of teachers' actions aimed to the inclusion of children with Down syndrome and the percentage of students who reject included children, support the study hypothesis. This means that the more various actions are made by teachers within lessons, the less classmates are emotionally negative to included students. The correlation confirms the hypothesis about the association between socio-psychological status of included students with Down syndrome in inclusive classes and the teachers' attitudes towards them.

4. Conclusions

To conclude some limitations of the study should be mentioned. The data provide only a 'snapshot' of children with Down syndrome inclusion in primary mainstream school. The results of this study support previous research indicating that children with Down syndrome were as popular as their mainstream peers at primary school activities. But Laws et al. (1996) have found that between 8 and 11 years these children were not so often named as 'best friends' or invited home. Thus not all aspects of included students' social participation were explored in the current study.

Since these results are based only on primary school-level data, future research is needed to examine these effects in secondary school. According to previous study transfer to secondary school is likely to have a greater effect on friendships and social relationships for young people with Down's syndrome who have fewer opportunities to be independent than their peers and who may appear to be less mature (Cuckle and Wilson, 2002). Furthermore, the influence of students' peer relations increases during the school years, while their relationships with parents and teachers become less important (Schwab, 2015).

Despite these limitations, the results of the study provide a better understanding of enabling conditions influencing inclusion of children with Down syndrome in groups of peers in mainstream primary school. Besides the results are concordant with cultural and activity approach in psychology, which was founded by L.S. Vygot-

sky and A.N. Leontiev, because the study has shown that teachers' actions are crucial to inclusion of students with Down syndrome in groups of classmates at least in primary school.

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