



Teachers' perception about the inclusive education and Attention Deficit Hyperactivity Disorder: Comparison between northwest and southeast Romanian teachers

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Ioana Drugaș¹

Abstract

The present research investigated the inclusive education framework in Romania; which is the Romanian teachers' perception about the inclusive education; which is the most appropriate support for children with ADHD into Romanian mainstream school; and if there are differences between northwest and southeast teachers regarding the perception on the inclusive education and ADHD inclusion into mainstream schools. The present research is a cross-sectional survey, which analyzes teachers' perception about ADHD children' inclusion into mainstream schools. It is a descriptive study, not intervening in an experimental way, and it analyzes teachers' perception on inclusive education and ADHD children. 60 teachers from preschool, primary school, and gymnasium were split in two groups, from the southeast and northwest geographical area in Romania. A large number of participants (82%) considered that is very solicitant to have a child with special educational needs in class. The first three disabilities which teachers wanted to be excluded from mainstream schools were: autism, mental deficiency, and ADHD. If in this analyze ADHD was on the third place, when we investigate the most challenging disorder, ADHD occupied the first place. The research' results didn't emphasize significant differences between northwest and southeast teachers regarding their perception about inclusive education. The conclusions emphasized that teachers presented the same high level of stress in teaching SEN children, and the same lack of knowledge about ADHD. Our findings support the conclusions of other researchers in the field, and enrich the literature with studies on the Romanian teachers and their perception on inclusive education.

Keywords: teachers' perception, inclusive education, ADHD, geographical location

¹ University of Debrecen (Hungary), Email address: ioanadugas@gmail.com

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Introduction

In Romania it was established a prevalence of attention deficit hyperactivity disorder of 6.77% for boys aged 6 and 9 years (Dobrescu, 2010). Picture of Romanian education system regarding inclusion of children with Attentional Deficit Hyperactivity Disorder (ADHD) is at least one disastrous, as is it presented through mass-media. Performing a simple analysis of several articles (over 20) published in Romanian mass-media we established that: children with ADHD / Attentional Deficit Disorder are isolated in school (Dănăilă, 2010); children with ADHD are "evil" children and unmannerly (Botezat Antonescu, 2011); without patience, tolerance and effective educational methods applied: ADD / ADHD children are humiliate and condemn to isolation (Dănăilă, 2011); or black sheep of the schools - the ADHD children' right to education is denied (Ciulac, 2012).

Regarding the last assumption, presented by the Romanian mass-media, it is important to emphasize that one of the most important objectives of education is to be equitable (Ladson-Billings, 1995; Olson & Bruner, 1996). To improve school efficiency and equity it is important to look at the variations in learners' differences, or students' performance caused by changes in different educational inputs. An important pattern of the equitable education is given also through the inclusive education. Inclusion is not about placing children into mainstream schools, it is about changing schools to make them more responsive to the needs of all children. Mittler considered that an effective inclusion of children with special educational needs into mainstream schools is provided by the concept of "teaching impaired children in ordinary schools, with appropriate support" (Mittler, 2000, p.5).

To provide an equitable education underlined through inclusive education, teachers must recognize individual learner differences of impaired students. This approach is one of the basic factors to have an efficient school inclusion, to achieve academic performance and to implement the concept of "well-being in school". We underline the difficulties taken by teachers when they have students with ADHD. These students have much more individual learning differences compared with normal students, and they need much more attention from teachers. Regarding the large number of impairments presented by children who are included into mainstream schools, we will concentrate on ADHD children because it was demonstrated (O'Neill & Douglas, 1991, 1996, as cited in Douglas, 2004) a large gap between ADHD children' knowledge and their school performance. These conclusions underlined the difference between not knowing and not doing in children with ADHD, that's means that these children may have less difficulties with knowing what to do than with doing what they know (Douglas, 2004).

If we put in one concept all the approaches referred until know, the present research wants to investigate the inclusive education framework in Romania; which is the Romanian teachers' perception about the inclusive education; which is the most appropriate support for children with ADHD into Romanian mainstream school; and if

there are differences between northwest and southeast teachers regarding the perception on the inclusive education and ADHD inclusion into mainstream schools.

Theoretical framework

Inclusive education

Inclusive education embraces human rights, equal opportunities and social justice (Armstrong, Armstrong & Barton, 2000). In the same acknowledgement, Thomas & Vaughan (2004) demonstrated that moves to inclusion have come from many directions: research, the imperative for greater social justice, call for civil rights, legislation that prohibits discrimination, original and distinctive projects started by imaginative educators, and the voices of those who have been through special education.

Some researches view inclusive education as an ongoing development of special education, others believe that what we refer to as inclusion is, and should be, derived from mainstream approaches to instruction and school organization, creating an alternative to special education knowledge and practices (Ballard, 1999). This latter perspective provides the idea of inclusion like a merger of special and regular maintain a medical, curative model of education that includes those labelled as "special" from the curriculum and from other experiences available to non labelled students.

Inclusion is not about placing children into mainstream schools, it is about changing schools to make them more responsive to the needs of all children (Mittler, 2000). This educational approach is to help all teachers to accept responsibility for teaching all children in their school and preparing them to teach those children who are currently excluded from their school, for whatever reason. Author was referring to all children who are not benefiting from schooling, not just those who are labelled as having special educational needs.

The greater integration of students with special educational needs into mainstream schools was emphasized in the Warnock Report (HMSO, 1978, as cited in Mulhern, 2003) and ratified in the 1981 Education act. The Warnock Report founded a department for policies and approaches to handicap. This department was pervasive until the late of 1970s, when the Education Act was constructed. The Warnock Report recommended that mainstream setting was the best for all students. Report's commitment to integration had a wide ranging influence on later policy and practice, particularly in the original and revised Code of Practice on Special Educational Needs, where the Report' approach was amplified and developed. The Warnock Report was clearly an important historical and influential perspective in the development of "inclusive education" (Gulliford & Upton, 1992; Mulhern, 2003).

"What happens in schools is a reflection of the society in which schools function" (Mittler, 2000, p.1). The values, beliefs and priorities of one society will permeate the life and work of school and do not stop at the school gates. Teachers, who are working in schools, are

citizens of their society and local community, and they have the same range of beliefs and attitudes as any other group of people.

A large number of nations have expressed a strong commitment to a more inclusive society and a more inclusive school system (Ballard, 1999; Lindsay, 2003; Thomas & Vaughan, 2004). In the field of education, inclusion involves a process of reform and restructuring of the school as a whole, and its aim is to ensure that all students can have access to the whole range of educational and social opportunities offered by the school (Mittler, 2000). This school reform is concerning the curriculum on offer, the assessment, recording and reporting to the students' achievements, the decisions that are taken on the grouping of students within schools and classrooms, pedagogy and classroom practice, sport and leisure and recreational opportunities. In an inclusive school is important to avoid segregation and isolation, providing opportunities for all students, including those from ethnic or linguistic minorities, those with disabilities or learning difficulties and children who are frequently absent of those at risk exclusion.

The Code of Practice on the Identification and Assessment of Special Educational Needs (DfE, 1994, as cited in Mittler, 2000) provided advice on students with moderate learning difficulties, specific learning difficulties, emotional or behavioral difficulties and sensory impairments, and implemented the concept of individual educational plan. This remark underlined that students with special educational needs are requiring a different approach in teaching-learning process. The present research is based on a general exploration of the Romanian inclusive education process, focusing (especially) on children with ADHD.

Attention Deficit Hyperactivity Disorder

Regarding children with clear evidence of specific impairments, the past decade has seen a spate of "new" diagnostic categories, in which case the organic etiology has not been clearly established, even though research might in due course identify such a link (Mittler, 2000). Dyslexia, attention deficit disorder with, or without, hyperactivity, autism and Asperger's syndrome are some example which can be included in this category. The Salamanca Conference in 1994 reminded governments that children with difficulties should be included in national plans to expand the number of children gaining access to schooling (Mittler, 2000). The leadership provided by UNESCO had encouraged many education ministries throughout the world to accept responsibility for the education of excluded children and to educate them in ordinary schools, with appropriate support.

Attention Deficit Hyperactivity Disorder (ADHD) is one of the most commonly childhood disorders, but also one of the most extensively studied (Aman, Roberts & Pennington, 1998). Barkley (1998, as cited in Kantini et al., 2011) defined ADHD as a pervasive neurodevelopmental disorder characterized by developmentally inappropriate levels of inattention and hyperactivity/impulsivity. American Psychiatric Association (2000) defined ADHD as being a persistent and elevated level of inattention and/or

hyperactivity-impulsivity. The core symptoms of ADHD are: inattention, hyperactivity, and impulsivity. These symptoms contribute to impairment in a variety of areas, such as social functioning (Hoza et al., 2005) and academic achievement (Frazier, Youngstrom, Glutting & Watkins, 2007). Impulsivity, hyperactivity and inattention represent the consequences of some neurological deficiencies.

A large number of parents of ADHD children report that they have been told repeatedly by teachers, clinicians and others that their son or daughter was very bright, but doing poorly in school because of inadequate focus, inconsistent effort, insufficient organization and excessive forgetfulness (Brown, Reichel & Quinlan, 2011). Recognizing the difference between "not knowing" and "not doing" may help avoid performance failure.

The American Academy of Pediatrics' Committee on Quality Improvement, Subcommittee on Attention-Deficit/Hyperactivity Disorder, reviewed and analyzed the current literature for the purpose of developing an evidence-based clinical practice guideline for the treatment of the school-aged child with ADHD (Brown et al., 2005). These reviews provided substantial information about different treatments for ADHD and their efficacy in improving school performance and inclusion into mainstream schools.

Researches in the psychiatry field (Fewell & Deutscher, 2002; Hoza et al., 2005; Curtis, Pisecco, Hamilton & Moore, 2006; Dobrescu, 2010), are presenting that children who are suffering from ADHD are requiring specific types of educational intervention. To provide an inclusive education means to adapt the teaching process to students' needs and characteristics. Does the inclusive process of ADHD students work in Bihor district? Which is the teachers' perception about ADHD children and their inclusion into mainstream schools? There are differences between northwest and southeast teachers' perceptions? Which are the teachers' strategies in teaching ADHD students into mainstream schools? These questions generate the present research hypotheses.

1.3. Teachers' perception about ADHD

"The debate is not so much about the principle of inclusive education on which there appears to be in general agreement, but rather how it is to be realized in practice" (Mulhern, 2003, p. 5). The reality is provided by teachers' experience and attitude. Gruchy (2000, as cited in Mulhern, 2003) blamed the government's drive for the greater inclusion of more pupils with special educational needs as contributing to increased stress among teachers. The inclusive education represented a complex process and its implementation may give rise to contradictions, inconsistencies and tensions in professional practice. Mittler (2000) considered that teachers play a central role in promoting inclusive education, but also they can represent the greatest obstacle in this process because of their perceptions and attitudes. The complexity of inclusive education may cause tensions and confusion about what it means, conceptually and in practice.

Teachers often perceive themselves as inadequately prepared to teach children with special educational needs (Spasovski, 2010). Many competencies important for efficient

practice are not systematically developed. Teaching practice should respond to the individual differences of all students. Such practice demands teachers and in-school professional staff to develop appropriate competencies that involve knowledge, skills, and dispositions in order to teach equitable and promote learning of all pupils. Practicing inclusive education is strongly determined by the teachers' perception of the children with special needs and by the perception of their capabilities and limitations (Spasovski, 2010). Those perceptions are simultaneously the reason and the result of the prejudices and stereotypes related with children with special needs. The influences of these perceptions have consequences on the learners and the quality of whole educational process.

The work of teachers becomes much more demanding when there are students in the classroom that have ADHD. Their problems with attention span, impulse control and activity level frequently interfere with both classroom and social activity (Perold, Louw & Kleynhans, 2010). The difficulties related to ADHD are often most apparent in the school settings and teachers are often intricately involved in interventions for ADHD (Kern & Seabi, 2008). Teachers' knowledge and attitudes regarding ADHD are likely to influence their role and the subsequent behavioral and learning outcomes for children, these attitudes differ at different stages of teachers' career (Anderson, Watt, Noble, & Shanley, 2012). Teachers' perceptions about ADHD are vital in several ways as following: teachers are often the primary source of information regarding ADHD diagnoses in school children; teachers' knowledge may influence how to educate students with ADHD in their classroom; existing psychological research on ADHD is based on teachers' reports of children symptoms and behaviors; and many empirically supported psychosocial treatments include a substantial school-based component implemented at least in part by teachers (Mayes & Bagwell, 2005 as cited in Kern & Seabi, 2008).

Mulhern (2003, p.8) consider that barriers to inclusive education associated with teachers' dilemmas can be identified through next questions: "What do teachers understand by inclusive education?"; "Should anyone be excluded?"; "Have they experiences of children who are challenging?"; "What was challenging about these children?"; and "How they resolve such issues?". The starting terms of the present research are provided by these questions.

In the present research we investigate the teachers' perception regarding the inclusive education and ADHD. To find teachers' perception about the inclusion of children with ADHD into mainstream schools, it is important to see which is the general perception of teachers regarding inclusive education, and if there are difference between those teachers who leave in northwest side or southeast side of Romania.

Methodology

Hypotheses

In 1994, the Salamanca Conference reminded the governments that children with difficulties should be included into national plans (Mittler, 2000). It is important to emphasize that the education ministries throughout the world have to accept responsibility for the education of excluded children and to educate them in ordinary schools, with appropriate support. Regarding this, we assume that the Romanian teachers' perception regarding the inclusive education differs according to their experience in the education field and their specialization. Moreover, we assume that teachers' knowledge about inclusive education helps teachers feel less stressed in their work with SEN children. Teachers' perception on the children with special needs and the perception of these children' capabilities and limitations are simultaneously the reasons and the results of the prejudices and stereotypes related with children with special needs (Spasovski, 2010). According to this approach we aim to investigate if there is a general desire of teachers for the exclusion of children with ADHD or with other disorders from mainstream schools. We assume that those teachers, who consider inclusive education very stressful, will prefer to exclude children with behavioral problems from mainstream schools.

A large number of parents of ADHD children report that they have been told repeatedly by teachers, clinicians and others that their son or daughter was very bright, but doing poorly in school because of inadequate focus, inconsistent effort, insufficient organization and excessive forgetful (Brown, Reichel & Quinlan, 2011). According to this conclusion we aim to explore the teachers' knowledge about ADHD. We assume that teachers can not define and describe correctly the ADHD, and this leads to a negative attitude regarding the inclusion of ADHD children into mainstream schools. Children with ADHD often require considerable assistance from mental health resources and providers of special learning and behavior-focused services (Curtis, Pisecco, Hamilton & Moore, 2006). Considering this, it is important to see what kind of support should be received by children with ADHD in Romanian mainstream schools, according to teachers' opinion. We assume that the most frequent support received by children with ADHD should be an adapted curricula and / or supporting teacher.

Regarding the teachers' geographical location in Romania, there is a possibility that it might lead to differences in teachers' knowledge about ADHD, caused by access to information sources. Teachers who are located near Bucharest (the capital of Romania), in the southeast area, can define correctly ADHD and enumerate its characteristics, having more opportunities for training and development. In this situation, also the perception regarding ADHD inclusion into mainstream schools could be influenced by the same geographical factor.

The economic issue of the Romanian educational system also represents a current problem among Romanian teachers. We assume that those teachers who have a small salary feel more stressed in providing inclusive education.

Data and method

Our unit of population for this research is represented by teachers from mainstream schools, and we focused on teachers from kindergarten, primary and secondary school (gymnasium). We chose to involve these three levels because the rate of children with special educational needs is higher in preschool, primary and secondary schools, in comparison with high school, and teachers are much more involved in inclusive education. It is important to say that we didn't select only teachers who are teaching SEN children at the moment of the research, but we used a random selection of mainstream schools, and the same strategy for selecting the teachers. Because Romania adopted the principles, policy and the practice provided by the Salamanca Statement, we consider that all mainstream schools can provide inclusive education. Moreover, we explain our decision in choosing a random selection of teachers, not only those who are providing inclusive education at the time of the research, because it offers a general picture on attitudes of teachers' from mainstream schools, even if they are or they are not providing inclusive education.

The present research is a cross-sectional survey, which analyzes teachers' perception about ADHD children' inclusion into mainstream schools. It is a descriptive study, not intervening in an experimental way, and it analyzes teachers' perception on inclusive education and ADHD children. The study includes a sample of teachers who are working in mainstream schools (kindergarten, primary and secondary levels). The data is collected through a self-administered questionnaire from 60 teachers from kindergarten (32%), primary (60%) and secondary (gymnasium) schools (8%). The mean age is 42, with a minimum of 23 and a maximum of 57. 97% of teachers are female. As for their geographical location, the participants originated from the northwest (63%) and the southeast Romanian areas (37%). From all of the teachers, 79% are teaching in urban areas, and 22% are teaching in country areas. Regarding the level of education, 50% graduated master courses, 48% bachelor studies and 2% doctoral programs. Most of the teachers (63%) graduated a specialization in the educational field, 18% in the social and humanistic field, and 18% in the field of sciences (Mathematics, Chemistry, IT, Geography). Regarding teachers' experience in educational field, the mean value is 21, the minimum experience is 2 years, and the maximum value is 36 years in the field of teaching.

Teachers' perception about ADHD children' inclusion into mainstream schools (Appendix #1) is a questionnaire developed for the present research and it measures teachers' opinion about inclusive education and ADHD children' inclusion in regular schools. The 53 questionnaire items are structured in five categories: demographic data; teachers' knowledge and experience in inclusive education field (schooling children with special educational needs); teachers' perception about the nature of schooling children with

special educational needs; teachers' knowledge about ADHD; specific strategies adopted in teaching children with ADHD and other disabilities. Some of the answers were offered on a Likert scale with 5 levels and others were open answers offered by respondents on the fourth and fifth categories of items (definitions, specific strategies adopted in teaching children with disabilities and their perception about the appropriate schooling process of SEN students).

Variables

The dependent variables were (1) the level of stress experienced by teachers at their workplace, (2) the attitude towards inclusive education of children with ADHD into mainstream school, and (3) the level of knowledge about ADHD. The independent variables measured were:

- The teachers' specialization (educational, social and humanistic, sciences);
- The teachers' knowledge (about inclusive education, behavior problems, and ADHD);
- The type of support received by children with ADHD in mainstream schools;
- The geographical location of teachers (northwest and southeast);
- The level of salary received by teachers.

Tangentially, for further analysis, we investigated if teachers had children with special education needs in their class; which is considered the most challenging disorder; and which were, in teachers' opinion, those disorders which must be excluded from mainstream schools.

Analytical procedures

For the comparison of our two samples of teachers based on geographical location, we used the t test for independent samples, for the dependent variables with normal distributions, and the Mann-Whitney test, for those variables which showed deviation from normality. For the independent variables with more than two levels (e.g. the teachers' salary, with 3 levels) we chose One Way ANOVA, for the dependent variables with normal distributions, and the Kruskal-Wallis test, for those variables which presented deviation from normality. Because we had a large number of categorical variables, we used the Chi-Square test of homogeneity to see if there are differences between different levels of one variable. In the next paragraphs we will analyze each hypothesis.

Results

Most of the teachers who participated at this study (N=52) had children with special educational needs in their classroom, significantly more numerous than teachers without this kind of children [$\chi^2(1)=32,26$; $p<0,01$], and they participated at significantly more inclusive education courses [$\chi^2(1)=19,26$; $p<0,01$; N=47].

The first of our hypothesis assumed that the Romanian teachers' perception regarding the inclusive education differs according to their experience in the education field and their specialization. The Kolmogorov-Smirnov test showed a normal distribution of teachers' perception for all levels of "teachers' experience" variable (0-10 years, 11-20 years, and over 21 years) [$z = ,901$; $p > 0,05$; $z = ,515$; $p > 0,05$; $z = ,822$; $p > 0,05$]. As such, we conducted a One-Way ANOVA to test for differences, but we didn't find any significant differences between teachers caused by the level of experience in the educational field [$F(2,57) = ,575$; $p > 0,05$] (see Table 1). We cannot confirm that teachers' experience in the educational field causes differences in their perception on teaching SEN children. A possible explanation is that 82% of all teachers in our sample perceive the teaching SEN children as being very solicitant.

Table 1. Teachers' experience and its influence regarding their perception on teaching SEN children

	SS	df	MS	F	sig.
Between groups	1,229	2	,614	,535	,589
Within groups	65,505	57	1,149		
Total	66,733	59			

We conducted a One-Way ANOVA to test for differences caused by specialization in teacher's perception on teaching SEN children and again we didn't find significant differences between teachers with different specialization (educational, social and humanistic, , and sciences) [$F(2,57) = ,711$; $p > 0,05$].

Regarding teachers' training in the inclusive education field, 78% from the participants followed courses about inclusive education, and 67% have learned about children with disabilities. For the second hypotheses, we assumed that teachers' knowledge about inclusive education helps teachers to feel less stressed in their work with SEN children. The Kolmogorov-Smirnov test showed that the distributions deviated from normality for all levels of "teachers' participation at inclusive education courses" variable (yes or no) [$z = 2,994$; $p < 0,05$; $z = 1,536$; $p < 0,05$]. As such, we conducted a Mann-Whitney test to check for differences between samples. There were no significant differences between those teachers who participated at courses about inclusive education and those who didn't, regarding the stress level in teaching SEN children [$z = -,439$; $p(2\text{-tailed}) > 0,05$] (see Table 2).

Table 2. Teachers' knowledge about inclusive education and the stress level

	Participation to training courses	N	Median	Z	sig (2-tailed)
stress level in teaching SEN children	yes	47	5,00	-,439	,661
	no	13	5,00		

For the third hypothesis of the research we assumed that those teachers, who consider inclusive education very stressful, will prefer to exclude children with behavioral

problems from mainstream schools (numerical variable, measured on a Likert scale with 5 levels). Because the Kolmogorov-Smirnov test showed that the distributions deviate from normality for the "high stress" level of the stress variable ($z=1,991$; $p<0,01$), we chose to use the Kruskal-Wallis test for this analysis. We didn't find significant differences between teachers with different stress levels regarding their decision to exclude children suffering of some disabilities from mainstream schools [$H(2)=5,156$; $p>0,05$] (see Table 3).

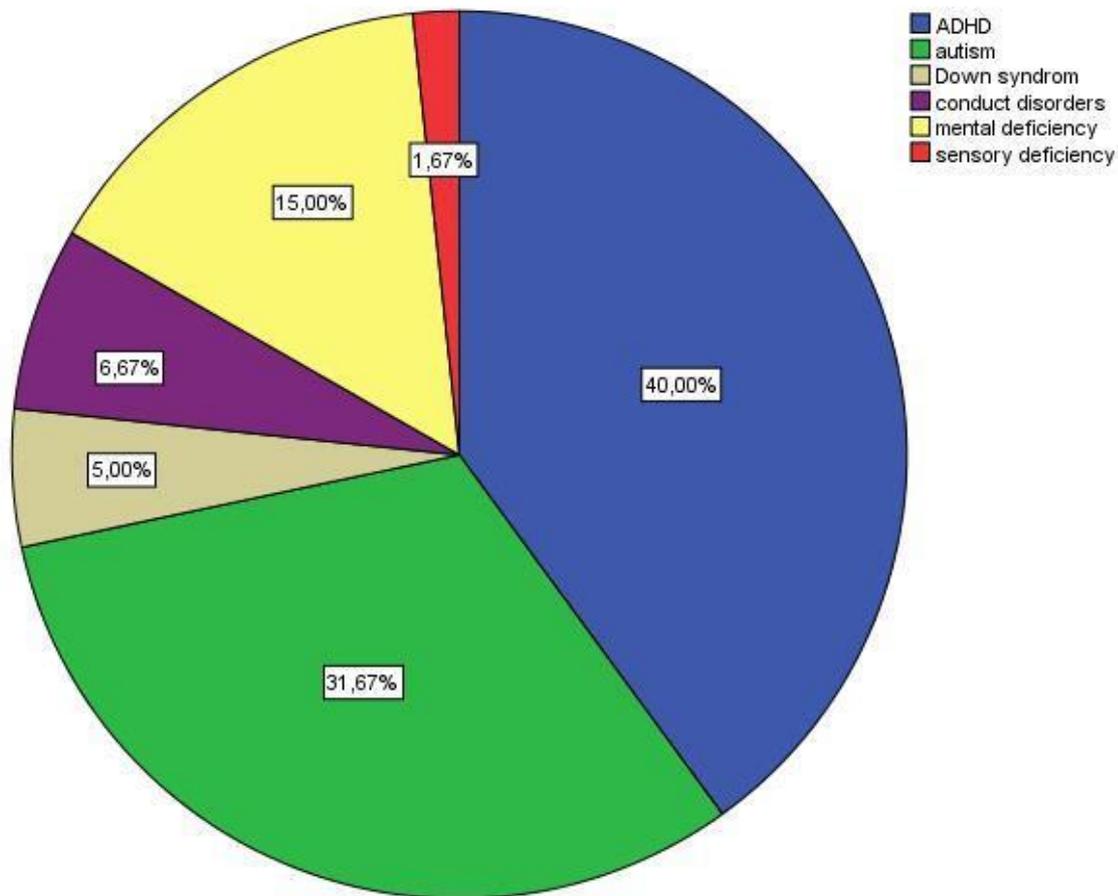
Table 3. Teachers' level of stress and its influence regarding the decision to exclude some disabilities from mainstream school

	Stress level	N	Median	H	sig.
exclusion decision	low	13	2,50	5,156	,076
	medium	13	3,00		
	high	34	4,00		

Further investigation of the exclusion decision seemed appropriate and we transformed this variable from a numerical one to categorical, with 3 levels (*agree*, *disagree*, and *don't know*). We identified significant differences between those teachers (57%) who agree with the exclusion some disabilities from mainstream school [$\chi^2(2)=14,7$; $p<0,01$]. Going on with the investigation of what kind of disorders must be excluded from the mainstream schools, from those teachers who agreed with the exclusion, 41% voted for the exclusion of "Autism", 32% for "Mental deficiency", and 30% for "ADHD". Half of the teachers who participated at the research had children with special educational needs in their classroom, at the moment of the study. We see that the most avoided disabilities were: autism, mental deficiency and ADHD.

If we make an analysis of which disability is the most challenging for teachers, we find again significant differences regarding ADHD and autism in comparison with other disorders [$\chi^2(5)=44,4$; $p<0,01$]. Figure 1 presents the hierarchical structure of the most challenging disorders in terms of teachers' perception. "ADHD" is located first (40%), the second place is taken by "autism" (31,67%), and the third place by "mental deficiency" with 15%. We can see that even if ADHD is voted to be excluded only on the third place, when teachers are asked about which is the most challenging disorder in teaching SEN children they place ADHD on the first place.

Figure 1. The most challenging disorders considered by teachers in teaching process



Making an analysis of how teachers define inclusive education and behavior problems, we emphasize that there are significant differences between teachers who define correct inclusive education in comparison with those who give a wrong definition [$\chi^2(1)=11,65$; $p<0,01$]. Also, we found significant differences between teachers who describe correctly the behavior problems, and those who are not able to do that [$\chi^2(1)=49,45$; $p<0,01$]. Those 70% of teachers who define correct the inclusive education mention about "the integration" of "children with special educational needs" in "mainstream school". The model of response is by completing their definition in a specific space, and those who have these elements in their definition were included in the correct definition. Regarding "behavior problems", 75% of teachers described the concept through "aggression", "problems in social interaction", and "not compliant with rules". The most applied strategy in teaching children with special educational needs is "the individualized program" (42%) which presents significant differences [$\chi^2(5)=40,96$; $p<0,01$] in comparison with "rewards system" (15%) for behavior management, or in comparison with "collaboration with specialists" (13%). Even if the teachers have knowledge about inclusive education, behavior problems, and the efficient strategies, they still vote for exclusion (57%) and have a high level of stress in teaching SEN children (82%), and the

most challenging disorder is considered ADHD (40%). Taking this in consider we follow our next analyses on the ADHD inclusion in mainstream school.

The next hypothesis assumed that the most frequent support received by children with ADHD is an adapted curricula and / or supporting teacher. At this variable, teachers argued which are the most appropriate strategies for an efficient inclusion of ADHD children in mainstream schools. We could make 6 categories of support considered by teachers to be efficient for the inclusion of ADHD in mainstream schools, and these are: "individualized program/adapted curricula", "itinerant teacher", "school psychologist", "school psychologists and itinerant teacher", "parents collaboration", and "others" (see Table 4). In our analysis we found significant differences between these strategies [$\chi^2(5)=17,84$; $p<0,01$]. We can see that the most appropriate type of support for children with ADHD in mainstream school is the "itinerant teacher", followed by "school psychologist" and their collaboration on the third place. The "individualized program/adapted curricula" is placed only on the fourth place.

Table 4. The support considered efficient by teachers for inclusive education for children with ADHD

The support type	%	χ^2	df	sig.
individualized program/ adapted curricula	12%	17,842	5	,003
itinerant teacher	30%			
school psychologist	22%			
school teacher & itinerant teacher	20%			
collaboration with parents	5%			
others	6%			

Regarding the teachers' geographical location in Romania, there is a possibility that it might lead to differences in teachers' knowledge about ADHD, caused by access to information sources. Teachers who are located near Bucharest (the capital of Romania), in the southeast area, can define correctly ADHD and enumerate its characteristics, having more opportunities for training and development. In our hypothesis, also the perception regarding ADHD inclusion into mainstream schools could be influenced by the geographical location of teachers in Romania. For this extensive analysis, we used the t test for independent samples, because the "number of hours dedicated to training" variable had normal distributions for both levels of the independent variable.

We didn't find significant differences between the northwest and the southeast teachers regarding the number of hours dedicated to inclusive education courses [$t(43)=-1,214$; $p.>0,05$]. The mean number of training hours obtained by northwest teachers ($m=47,29$) is not significantly different by the mean obtained by southeast teachers ($m=62,71$). Table 5 presents the data related with this analysis.

Table 5 Teachers' participation at courses on inclusive education distributed on the geographical location

	Geographical location	N	Mean	t	df	sig (2-tailed)
number of hours of courses in inclusive education	northwest	31	47,29	-1,214	43	,231
	southeast	14	62,71			

Although we didn't find significant differences, we looked at the number of participants and their means and we are interested to extend the analysis to a larger number of participants. Even the number of participants from southeast is smaller, the mean training hours is higher. In this analysis we do not have significant differences, but the tendency of the data may lead us to reply the analysis in a further research, with a larger number of participants.

Regarding the geographical location, we also analyzed the level of teachers' stress in providing inclusive education to children with special educational needs. Because the Kolmogorov-Smirnov test showed that the distributions deviated from normality [$z=2,499$; $p<0,05$; $z=2,267$; $p<0,05$], we used the Mann-Whitney test to check for differences. No significant differences were found [$z=-1,046$; $p>0,05$].

We also analyzed if there were differences between the northwest and the southeast teachers, in terms of the decision to exclude some disabilities from mainstream schools. Because the Kolmogorov-Smirnov test showed that the distributions deviated from normality, we used the Mann-Whitney test. No significant differences were found in comparison between the northwest teachers' opinion regarding the exclusion of some disabilities from mainstream school and the southeast teachers [$z=-1,768$; $p>0,05$].

To see what type of disorder should be excluded in teachers' opinion, we notice that in the northwest area the "mental deficiency" is on the first place (48%), and in the southeast area on the first place is "autism" (62,5%). Regarding the exclusion of children with ADHD from mainstream schools, 37% of the southeast teachers agreed, and only 20% of the northeast had the same opinion. The most challenging disorder in the northwest area was "ADHD" (47%), and in the southeast area was "autism" (59%).

The most frequent disorder considered by teachers in mainstream schools is ADHD. We found significant differences between the frequency of ADHD reported in mainstream schools (53%), and learning disorders (18%), conduct disorder (22%), and autism (3%) [$\chi^2(5)=72$; $p<0,01$]. Related with this, we assumed that teachers can not define and describe correctly the ADHD, and this influences their negative attitude about the inclusion of ADHD children into mainstream schools. In this situation, our analysis also focused on teachers' knowledge about ADHD (definition, causes, and efficient support and intervention). The chi-square test of homogeneity didn't find significant differences between those teachers who define ADHD as "a conduct disorder combined with attention deficit and hyperactivity" (N=36), and those who know correctly (N=24) that ADHD is "a

neurological disorder characterized by inappropriate levels of inattention and hyperactivity/impulsivity" [$\chi^2(1)=2,4$; $p>0,05$]. In this condition, the concept of ADHD it is not well defined by teachers. If we make an analysis considering the geographical location, 60% of the northwest teachers and 59% of the southeast teachers define ADHD in a wrong way. Even if 83% from all participants consider true that the main cause of ADHD are the neurological aspects and not others [$\chi^2(1)=26,66$; $p<0,01$] almost 60% confuse ADHD with conduct disorder. Besides knowledge of definition and the main causes of ADHD we also analyzed some general aspects (see Table 6) to see if teachers' geographical location in Romania is a factor that causes differences in teachers' knowledge gathered about ADHD.

Table 6. The influence of geographical location on teachers' knowledge about ADHD

	Geographical location	n	Correct answers	%	N	χ^2	sig
definition	northwest	38	15	39,5	60	2,4	,121
	southeast	22	9	40			
the main cause is a neurological problem	northwest	38	30	79	60	26,66	,000
	southeast	22	20	90			
general aspects: <i>ADHD must be treated with medication</i>	northwest	38	25	66	60	6,66	,010
	southeast	22	15	68			
<i>more than 60% of ADHD cases are caused by heredity</i>	northwest	38	13	34	60	9,60	,002
	southeast	22	5	22			
<i>ADHD can be cured</i>	northwest	38	18	47	60	,067	,796
	southeast	22	11	50			
<i>children with ADHD cannot focus in any way on their task</i>	northwest	38	27	71	60	4,267	,039
	southeast	22	11	50			
<i>ADHD can be described through tenacity, creativity, courage</i>	northwest	38	12	32	60	13,067	,000
	southeast	22	4	18			

Table 6 presents a framework of teachers' knowledge about ADHD. In first part of the table, the participants are split by the geographical location, and we can see that in the most cases the percentages are the same; they do not vary from one geographical area to another. We marked with italic where more than half of the teachers know the correct answers. Over 80% of teachers know that the main cause of ADHD is a neurological problem; over 65% of teachers know that ADHD must be treated with medication in severe cases; and over 50% know that children with ADHD can focus on their task. In these cases we can identify (in the second part of table) significant differences between those teachers who respond correctly, and those who offer wrong answers. There are no significant differences between those teachers who consider that ADHD is a neurological disorder, and those who confuse it with conduct disorder [$\chi^2(1)=2,4$; $p>0,05$]; between those who consider that ADHD can be cured, and those who consider that it is lifelong

disorder [$\chi^2(1)=0,67$; $p>0,05$]. We also identified significant differences between teachers who know correctly that the heredity is a common factor in over 60% of ADHD cases; those who don't know the importance of heredity are significantly more than those who have these knowledge [$\chi^2(1)=9,60$; $p<0,05$]. A very small part of teachers (26%) know that ADHD can be described by tenacity, creativity, courage [$\chi^2(1)=13,067$; $p<0,05$].

Because the economic issue of the Romanian educational system also represents a current problem among Romanian teachers, in our last hypothesis we assumed that those teachers, who have a small salary, feel more stressed in providing inclusive education. Because the Kolmogorov-Smirnov test showed that distributions for all three modalities (1001-1500 RON; 1501-2000 RON; upper 2001 RON) deviate from the normality [$z=2,128$; $p<0,05$; $z=2,000$; $p<0,05$; $z=1,729$; $p<0,05$;], we chose to use the Kruskal-Wallis test for this analysis. There were no significant differences between the stress level reported by teachers as a result of their salary [$H=,795$; $p>0,05$] (see Table 7). We cannot sustain our hypotheses that the salary influences the stress level in teaching SEN children.

Table 7 Teachers' level of salary and its influence regarding the solicitation level in teaching SEN children

	Salary	N	Mean Ranks	H	sig.
stress level of teachers	1001-1500 RON	23	30,02	,795	,671
	1501-2000 RON	25	29,46		
	upper 2001 RON	12	33,58		

82% of teachers are strongly agree that teaching SEN children is very solicitant, which presents a significant difference between those who feel stressed by teaching SEN children, and those teachers which do not see very solicitant this issue [$\chi^2(4)=107,667$; $p<0,01$].

Discussion of results

Having SEN children in classroom is very solicitant for teachers regardless of their experience and specialization; 82% consider that it is very stressful to provide inclusive education. Most of the teachers who participate at this study (87%) had children with special educational needs in their classroom, and participated to inclusive education courses (78%). The teachers perceive in the same way the level of solicitation regarding teaching SEN children, even if they participated to courses about inclusive education or not; even if they had more or less experience, or if they had a specialization in human-sociology or not.

We considered that those teachers, who consider inclusive education to be very stressful, will choose to exclude some disabilities from mainstream schools. We didn't find significant differences on their stress level between those teachers who don't agree, who don't know, or who agree with the exclusion of some disabilities from mainstream school. A large percentage of them feel stressed to teach children with special educational needs

and agree with the exclusion. The first three disabilities which teachers want to be excluded are: autism, mental deficiency and ADHD. If in this analysis ADHD is on the third place, when we investigated the most challenging disorder, ADHD occupied the first place.

Regarding teachers knowledge, we found that most of the teachers define correctly the inclusive education and the behavior problems, but they show misconceptions regarding ADHD. Teachers confuse ADHD with conduct disorder, they don't know that heredity can cause over 60% of the ADHD cases, and they cannot see that children with ADHD can be described as tenacious, creative, and courageous.

We didn't find significant differences between the northwest and the southeast teachers regarding the number of hours dedicated to inclusive education courses. Regarding the geographical location, we also analyzed the level of teachers' solicitation in providing inclusive education to children with special educational needs. The tendency of the stress level emphasize that 76% from northwest teachers have a high level of solicitation in providing inclusive education, and 86% from southeast teachers have the same level of high solicitation. In the northwest area the "mental deficiency" was voted on the first place (48%) for exclusion from mainstream schools, and in the southeast area "autism" was on the first (62,5%). Regarding the exclusion of children with ADHD from mainstream schools, 37% of the southeast teachers agreed, and only 20% of the northeast teachers had the same opinion.

We identified that the most challenging disorder in the northwest area was "ADHD" (47%), and in the southeast area was "autism" (59%). In an analysis on the total number of participants, the most challenging disorder was ADHD (40% of teachers considered this). Connected with this, the most frequent type of support for children with ADHD, named by teachers, were considered the itinerant teachers, and school psychologists. 72% of teachers mentioned that another specialist and not themselves should offer support for ADHD children, and didn't present a support type when they have a direct involvement (adapted curricula, funny activities, rewards system, and so on).

Conclusions

One of the most important objectives of education is to be equitable (Ladson-Billings, 1995; Olson & Bruner, 1996). An important pattern of the equitable education is also offered through the inclusive education. Inclusion is not about placing children into mainstream schools, it is about changing schools to make them more responsive to the needs of all children. Mittler (2000) considered that an effective inclusion of children with special educational needs into mainstream schools is provided by the concept of "teaching impaired children in ordinary schools, with appropriate support" (p. 5).

The reality of inclusive education is provided by teachers' experience and attitude. Gruchy (2000, as cited in Mulhern, 2003) blamed the government's drive for the increasing inclusion of pupils with special educational needs as contributing to growing stress

among teachers. This conclusion is also supported by our findings, which show a generalized level of high stress among Romanian teachers, without limits determined by the geographical location.

Teachers often perceive themselves as inadequately prepared to teach children with special educational needs (Spasovski, 2010). In our research, teachers defined correctly the inclusive education and the most appropriate strategies for this process, but we cannot have the same positive opinion about teachers' knowledge about ADHD. The work of teachers becomes much more demanding when there are students in the classroom that have ADHD (Perold, Louw & Kleynhans, 2010). Our findings concluded that the most challenging disorder presented by children with special educational needs is ADHD (40%). Even the ADHD is considered the most challenging disorder; this one occupies the third place in teachers' opinion regarding the exclusion of some disorders from mainstream schools. As we showed earlier, teacher's knowledge about ADHD are not well developed. The Romanian teachers are not feeling confident in teaching ADHD children. Considering this, most of the participants to the present study mentioned itinerant teachers or school psychologists as being the most efficient support for ADHD children.

These results need further analysis. One of the research's limitations is the small number of participants, which limit the type of statistical analysis and may cause type II error. It could be relevant to extend the research on a larger number of participants. Another limitation can be the on-line self-administration of the questionnaire; this modality could influence the sampling of teachers who participated at the research. Nevertheless, our findings support the conclusions of other researchers in the field, and enrich the literature with studies on the Romanian teachers and their perception on inclusive education.

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