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A Smart-Merging Facilitation Model (SMFM) of meaningful learning for life and work in the digital era

Irina Maslo*

Abstract

In the context of the smart specialization of national economies and the creation of smart societies in the digital age, general, vocational, adult, and higher education reforms have a decisive horizontal effect on the transition to smart education. A smart pedagogical approach that has evolved in recent years is frequently seen as merely focused on using new technologies in changing learning environments, nor on implementing the new smart educational philosophy on smart human learning for smart economies and societies of the digital era. Principally, new pedagogical approaches that “will undergo drastic changes and create new pathways for learners of all ages” (Scott, 2015, p. 16) are necessary. To supply this demand, pedagogy has to address meaningful learning, bringing it to life and work. Therefore, the question is “What does smart pedagogy imply in the digital age?” An exploratory research design of this paper simply ascertains the research question, leaving room for further research. To discuss this question, the concept of smart pedagogy has been argued in this paper. The evidence on the efficiency of smart learning facilitation has been explored through the learning analytics and students' self-evaluation statements in the framework of the 2015-2020 case study of the master's degree programme “Educational Treatment of Diversity” of the University of Latvia, as one of the best practice cases on preparing teachers for diversity in initial teacher education. (European Commission, 2017). The theoretically-founded and empirically-based authored smart learning facilitation model has been discussed and conclusions drafted for an international audience.

Keywords: smart pedagogy; meaningful learning; facilitation model; learning analytics; objective hermeneutic analysis

Introduction

The demand for the smartness of education is not a new challenge, but it has become more needed than ever in the unpredictable, changing labour and life situations in all regions of the world. Employer surveys show that the professional competence of employees is no longer sufficient to meet the needs of labour (OECD, 2013; OECD, 2017). In addition to specialized knowledge, professional skills and competencies, employees need to demonstrate today their capability to ensure the smartness of life and work in changing contexts. A prerequisite for the successful introduction of smart education is the

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continued professional training of teachers and opportunities for professional development in a conceptually new quality. This raises conceptually other requirements for the training of young teachers, as well as the professional development of current teachers, requires educators to “look outside schools and seek ideas, resources, and expertise where they are found – in their communities; in professional and educational groups; and in individuals, schools, and organizations around the world” (P21, 2007, p. 1; Scott, 2015, p. 12).

The smart pedagogical approach that has evolved in recent years argues for the opportunity of using new technologies to “enable learners to learn more effectively, efficiently, flexibly, and comfortably in a classroom environment” (Zhu et al., 2016, p. 1) in a digital age. Following Gil-Garcia (2016), it is to state that there are shortcomings in such an approach. On the one hand, the comprehension of smartness seems often reduced to an ICT-supported classroom environment managed by using traditional school or higher-school science subject content. On the other hand, the teachers are orientated only to e-environment classroom management. However, they are not being prepared to implement the new smart educational philosophy on smart human learning for smart economies and societies (Uskov et al., 2015, 2016, 2018; Jeladze et al., 2018). The contribution of ICTs (Lytras et al., 2018) allows only more learner-centred approaches, making personalised learning possible. The principally new pedagogical approaches, which “will undergo drastic changes and create new pathways for learners of all ages and abilities”, are demanded (Scott, 2015, p. 16).

The concept of smart pedagogy presented in this paper was developed in 2007–2017 at the University of Latvia through longitudinal research on complex innovations implemented in the Master's degree programme on Educational Treatment of Diversity in Latvia. Alongside being an academic, this programme has been an informal continuing workplace training programme for university teacher-staff. It has been the first programme in Latvia where the complex of innovations for facilitating informal learning has been implemented in a systematic way. These innovations have been implemented with a high impact on the restructuring of higher e-education in Latvia. The programme was selected as one of the 15 European best practice cases on opening higher education for adults in 2013 (European Commission, 2013) and on preparing teachers for diversity in initial teacher education in 2017 (European Commission, 2017, School Education Gateway, 2017).

In this paper, the smart educational philosophy and smart pedagogy have been argued in relation to the research question of what smart pedagogy implies in the digital age. The theoretical framework of smart pedagogy has been synthesized and the smart learning facilitation model constructed based on evidence practice. The evidence-practice of smart learning facilitation features has been provided through learning analytics and qualitative analysis of students' self-evaluation statements explored in the longitudinal case study.

Theoretical background

The hundred-year long history of the development of pedagogy shows that pedagogy was always human-centred. Whether a human is viewed as an individual (pedagogy as humanitarian sciences or humanities, education science, and art) or as a social being (pedagogy as social science) is dependent on societal human values and ideals, as well as natural science understanding of human nature. The meaning of 'human development' through education differs in both cases. Without going into further details, pedagogy as the art of education of humans is human individual capability-centred, rather than it is mass education of individual nature (Freire, 2007). Pedagogy as social science stresses the social nature of a human being, '*hominis prosocialis*' (Buchkremer, 1995, p. 316-317). A new challenge in the development of pedagogy as social science to the threshold of the 21st century is going "through four complicated transformations: knowledge hierarchy, social activities, community organization and modern system science, which demonstrates the breadth and depth of its changes" (Su Yong, 2014, p. 525). Pedagogy, as an inter-and trans-disciplinary system-science, aims to develop smart human capabilities in smart societies (smart technologies, smart cities, smart communities, and so on).

Already in the old "Vedas", we can find artefacts on smartness as the quality of a human being smart-minded or capable of learning informal smart. As well, digital-era entrepreneurs share their experience and mark smart thinking as their key to success (Robinson, 2009; Bet-David, 2016). The mind receives information from the senses, reaches for things important for a human by analysing the environment and the world of our experience. The smart mind defines what is needed for human beings in the context of the ideas to achieve these smart goals. The smart-minded human (Karlson, 2018) by choosing action pathways meets smart reasons. As Boffo (2017) states, "the ability to gain awareness of observed behaviours and reflect on them is essential for role modelling to be effective" (p. 159).

The original theoretical framework on smart learning facilitation was inspired by the need for additional research on the causality of various conditional variables in workplace training (Brown, 2017; Ehlert, 2020). It sets up the social-ecological approach, where every person contributing or influenced is part of a social-ecological system through a set of interdependencies (Evans, 2019). It aims to develop an understanding of the complexity of conditions that impact directly or indirectly on human smart thinking facilitation, bringing meaningful learning to life and work situations.

Inspired from Scott's (2015), Uskov's et al. (2015, 2016; 2018) and Jeladze' et al. (2018) inputs to create new pathways for learners of all ages founded in smart educational philosophy on smart human learning for smart economies and societies, we believe that the smart-merging subject content, using the ICT and pedagogy facilitation model will contribute to the development of a holistic learning system oriented on transformational smartness of themselves as a collaborative person for strengthening the collective capacity (Sava et al., 2020) of workplaces and communities as qualitative life-

and work-places. The “smart learning facilitation constructs” and the “smart learning facilitation principles” bringing meaningful learning to the life and work will be explored in this paper.

Methodology

Research design

To construct a holistic smart learning facilitation model oriented on the transformational smartness of themselves as collaborative people for strengthening the collective capacity of workplaces and communities as qualitative life-and workplaces, the “smart learning facilitation constructs” bringing meaningful learning to life and work have been explored.

The exploratory-research (Creswell, 2012; 2014) has been conducted to study a problem that has not been clearly defined yet to an understanding of the problem willing to change the direction of learning facilitation resulting from the revelation of new data and new insights (Saunders et al., 2012). Therefore, exploratory research design simply explores the research question, leaving room for further research, whereas conclusive research design is aimed at providing final findings from the research. Moreover, it has been stated that “an exploratory study may not have rigorous methodology as it is used in the conclusive studies, and sample sizes may be smaller. But it helps to do the exploratory study as methodically as possible, so as it is going to be used for major decisions about the way we are going to conduct next studies (Nargundkar, 2003, p. 41).

Methods

Participants and context

Four student-groups (2015/2016; 2016/2017; 2017/2018; 2018/2019) of one of the best master's degree studies programmes at the University of Latvia for preparing teachers for educational treatment of diversity (Public Policy and Management Institute, 2017) were involved in the explorative research. In total, 53 students from different countries studied in this programme in the research period: approximately fifty-fifty “from home and host” (Japan, Spain, Germany, Austria, Turkmenistan, Croatia, Italy, Mexico, Japan, the Check Republic and others).

The workforce master programme is designed to improve students' basic, generic, transversal, and professional competences which are necessary for them to work in various enterprises according to the changing workplace needs for teamwork; self-organization of work; readiness to participate, communicate, and to work' responsible; to analyse and decide; to assume the workload, and to succeed. It reveals that they have been trained as specialized professionals to work in education for people with diverse special needs, and that they have been prepared to research in different fields related to education with people with diverse needs related to students' workplace. By using such competences, the students create knowledge to generate smart solutions in diverse

projects or situations. Essentially, content used to promote competences helps students to be appropriately prepared:

- To know 'what' to learn and 'how' to learn it: what needs to be learned and why it needs to be learned;
- To know 'how' and 'what for' to do anything to be capable to choose what must be done in order to be successful in one's endeavours;
- To know 'how' to be means taking on one's own duties and responsibilities.

The modular system of the programme is construed according to the principles of smart pedagogy, ensuring the advancement of students' competence development. Each module has five units designed in an interactive, self-organized e-learning mode, combined with face-to-face meetings (Birzina et al., 2009).

The e-contents and e-learning activities (each module has 5 smart merging activities related to number of units), formative and summative assessment are constructivist aligned, in order to promote students' smart-merging course subject content, ICT usage and pedagogy learning, and to offer a balanced allocation of time (3 weeks for each module).

Learners' autonomy and self-responsibility for outcomes (self-evaluation of demonstrated competences using rubrics) of collaborative activities are respected and supported. The particular needs of adult learners are taken into account: the learners can choose the time, intensity, place, and pace by using information and communication technologies and at least two European languages (Luka et al., 2009), and English as the language of instruction in the author's implemented courses in the research period 2015–2018 due to their teaching to foreign students together with Latvian students.

Data selection

Observation

Students' active (meaningful) participation in course activities has been participatory observed (Martinez et al., 2016). The author of the article was involved as a teacher in the master's program in the period 2015–2018 and, from this position, noticed that the activity of students in some program courses is much higher than in others.

Temporal learning analytics

The findings of the participatory observation were validated by using temporal learning analytics (Chen et al., 2018, p. 7) to identify the most active participated courses and their potential for further qualitative analysis. Figures No. 1-2 and Table No. 1.

Self-evaluation rubrics

The 105 self-evaluation rubrics of two selected courses, presented in the results section of the current paper, were chosen from the Moodle database for qualitative analysis of the

textual meanings of “meaningful learning” and implicit “smart-merging constructs” that facilitate meaningful learning, bringing it into life and work, and sufficient conditions that appear in some cases as constant factors or principles of smart pedagogy for meaningful learning facilitation for life and work in the digital age in students as research subjects statements. Three students (one Latvian, one ERASMUS+, and one permanent foreign student) from the students' self-evaluation database were chosen for a trial “open and content coding” to ensure that the textual meanings in the students' self-evaluation rubrics are independent of their country of origin.

Data analysis

An objective hermeneutic analysis approach (Wernet, 2009) in favour of the master students of the University of Latvia judgments as the creators of real educational practice and research subjects was chosen. The researcher's task was to create a category system using “open coding” (Saldaña, 2016), which reveals the conceptual framework of the students' “meaningful learning through smart facilitation”, bringing it to life and work.

Two hermeneutic analysis strategies were used for this purpose: empathy and assumption formulation.

The first strategy revealed word analysis of the self-evaluation statements, which was used in the first cycle of the analysis to understand the student's judgment as close as possible to the text (“open coding” of students' statements about meaningful learning for life and work). Table No. 2.

The second strategy revealed what was meant by the “open coding” judgment in the second cycle of analysis (content codes to identify the “smart learning facilitation constructs”. Table No. 3.

To answer the research question of this paper “What does smart pedagogy imply in the digital age?” the interaction structures between open and content codes in the self-evaluation texts were determined for minimisation the data (Benoît & Ragin, 2009).

The properties of sufficient and necessary conditions in a data frame (Huber & Gürtler, 2012) were inspected to define the most notably, minimally sufficient and necessary principles that appear in cases and should be considered as constant factors (Benoît & Ragin, 2008, p. 63-68; Baumgartner & Thiem, 2015, p. 6). Table No. 4.

Results

Students' meaningful leaning, bringing it to live and work

The participatory observation findings over time, 2015-2018, serving the professorship position in several programme courses, suggested that students' active participation in course collaborative activities displays their meaningful learning, bringing it to life and work. Such an assumption was viable because the author's themselves-directed courses, unlike other courses in the program, were implemented in a way that would strengthen students' collective capacity (Sava et al., 2020) and thus students' smart thinking capability. To prove this supposition, the findings of the participatory observation were validated by using temporal learning analytic to identify the most active participated courses and their potential for further qualitative analysis. The available Moodle learning analytics data from 2015-2018 confirmed this assumption. Figure No. 1-2.

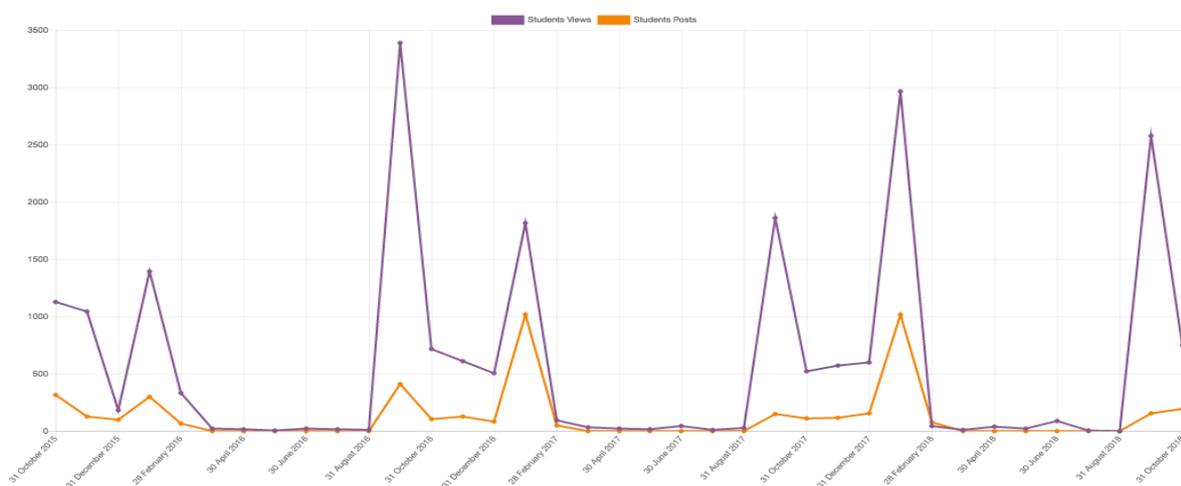


Figure 1. Evidence on students' active learning in programme courses modules (data October 2015-December 2016)

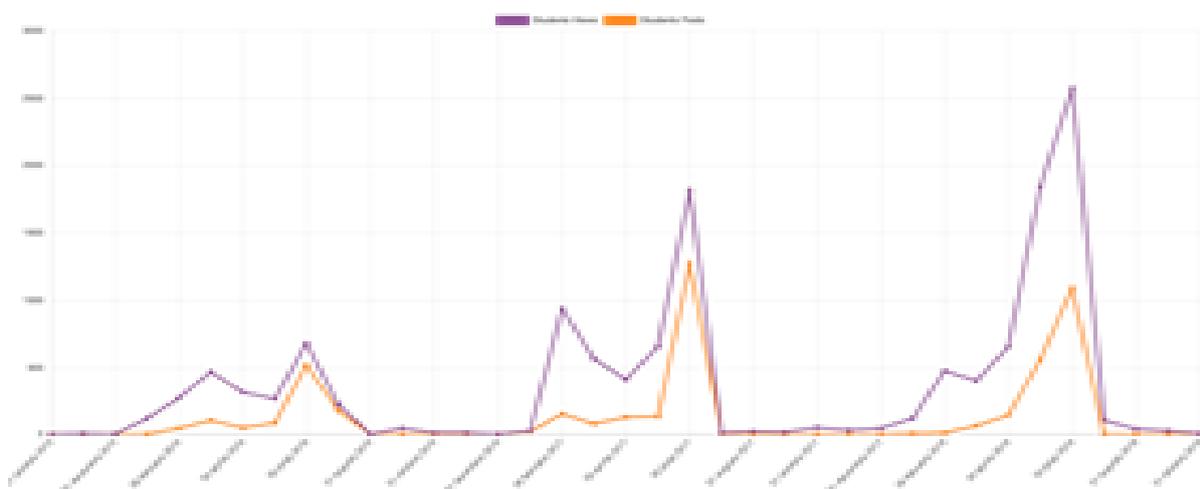


Figure-2. Evidence on students' active learning in programme courses modules (data February 2017-October 2018)

Two modules quantitative data demonstrated the highest involvement of students themselves in the mastering of activities throughout all tested learning analytics data in a research period (Table 1-2). These were both designed in a collaborative learning modality, unlike the others. For ethical reasons, they have been named modules X and Y. Table No. 1.

Table 1

Evidence on students' active learning in modules X and to (data 2015-2018)

Period ending (Month)	Usage of resources	Posts	Comments
31/10/18	752	191	
30/09/18	2575	156	Module X
31/05/18	21	0	
30/04/18	39	0	
31/03/18	8	0	
28/02/17	937	148	Module Y
31/12/17	601	156	
30/11/17	572	113	
31/10/17	522	109	
30/09/17	1859	148	Module X
30/06/17	41	0	
31/05/18	1837	560	Module Y
30/04/17	24	0	
31/03/17	31	0	
28/02/17	91	48	
31/12/16	505	85	
30/11/16	610	126	
31/10/16	716	102	
30/09/16	3391	409	Module X
31/05/16	3	0	
30/04/16	13	0	
31/03/16	19	0	
29/02/16	333	64	
31/12/15	183	98	
30/11/15	1044	127	Module Y
31/10/15	1127	317	Module X

Note. Columns 1-3 contain data from the programme's Moodle learning analytical statistics.

The students' statements of 105 self-evaluation rubrics from the selected courses were qualitatively analysed to ensure that active learning is also meaningful learning, bringing it to life and work. The "textual meanings" word analysis of the 105 self-evaluation statements showed that active learning is an open-minded, intensive, and deep learning approach that lets the students become self-confident and share experiences among their family members, friends, and colleagues, and so that transforms their

learning into meaningful learning for life and work, independently of their country of origin. Table No. 2.

Table 2

The Matrix of the "textual meaning" of active and meaningful learning for life and work

Active learning	Meaningful learning	Example quote
Open-minded	For daily life as well as for work	Student No. 17: "I mainly learned in this course to be open-minded as much as possible during daily life as well as at work because that can only enrich my knowledge."
Intense and deep	Becoming self-confident Sharing experiences	Student 3: "I have become self-confident in this subject. I have got a lot of plans for my future development... I have shared and placed received knowledge among my family, colleagues, and friends as well."

Note. Word codes analysis of the 105 self-evaluation rubrics' statements was made in the first cycle of the explorative research to understand the student's judgment as close as possible to the text by "open coding" of students' statements about active and meaningful learning for life and work. The data was collected in English and wasn't edited to preserve the authenticity of the quotes.

Implicit constructs for facilitating meaningful learning

The analysis of content codes allowed us to explore what is meant by "open coded judgments" and thus identify "smart-merging constructs" that facilitate meaningful learning, bringing it into life and work. Table No. 3.

Table 3

The Matrix of implicit constructs for modelling smart learning facilitation

Implicit constructs	Example quote
Merging subject-content, ICT usage and pedagogy ^a	
Smart-merging subject-content studies in a pedagogically organised e-learning collaborative environment using e-tools and ICT technologies.	Student 11: "We have actively used e-mail, Skype, face to face discussions, mobile phones. free of charge, available materials and possibilities to use universities' web access to scientific databases, use libraries, use educational materials, I-net, books, collaboration, previous knowledge and practice, scientific web-based portals, participate at web-conference."
Smart-merging subject-content studies in a	Student 35: "Our group worked via WhatsApp. The analysis was made collaboratively in google

Implicit constructs	Example quote
pedagogically organised interactive e-learning communication communities using e-tools and ICT technologies	docs. We are diverse professionals in our group and trying to be assistance for any other. The participation in the group discussions was interesting, but everybody still has their own opinion on multicultural diversity and teaching processes in the context of multicultural diversity. The structured critics from my group mates gave me so many useful goals for the future and many ideas for my practice improvement. I enjoyed this activity really.”
Merging basic, general, transversal and professional learning outcomes ^b	
Smart-merging basic, general, transversal and professional learning outcomes in multidimensional social ecological contexts	Student 44: “This module was very useful and re-instructive – I reminded many important subjects as well as gained new pedagogical approaches and methods and the WHYs and HOWs of them (unit 4). I developed in my teaching and reflection this school year and highlighted my successes and places for growth, as well as cemented my certainty of self-regulated skills’ importance in guaranteeing the differentiated approach in a school system, that is necessary for every classroom to satisfy all the diverse needs. And had a lot of deep personal contemplations around social-cultural contexts and myself. I have not had since my theology studies.”
Smart-merging self-evaluation of demonstrated basic, general, transversal and professional competences in multidimensional social ecological contexts	Student 27: “Through the stages of higher education that I have experienced, I have been approaching and slowly starting to embrace the concept of meaningful, focused and self-directed studies. All of the empiric experience that has been previously gained builds and helps develop the overall self-evaluation and cognitive dimension. Exactly these studies are, through which I have reached the most controversial conclusions.”

^a Analysis of the content codes in the 105 self-evaluation rubrics’ statements was made in the second cycle of the explorative research to identify “smart-merging constructs” that facilitate meaningful learning, bringing it into life and work. The data was collected in English and wasn’t edited to preserve the authenticity of the quotes.

^b The implicit (or enfolded in students’ statements) constructs for modelling smart learning facilitation in the digital age) integrate two main interconnected sub-constructs: 1) a smart-merged subject matter content with ICT usage, collaboration, and communication pedagogy; and 2) a smart-merged personalized combination of fundamental, general, transversal, and professional learning outcomes, as well as self-evaluation of demonstrated competences in multidimensional sociocultural contexts.

Smart-merging learning facilitation conditions

The interaction structures between open and content codes in the self-evaluation texts were determined for minimisation of the data and to inspect the properties of sufficient and necessary conditions in a data frame. The most notably, minimally sufficient conditions that appear in cases have been considered as constant factors or principles of smart pedagogy for meaningful learning facilitation for life and work in the digital age. Table No. 4.

Table 4

The Matrix of smart pedagogy implementation principles for facilitating meaningful learning for life and work in the digital age.

Interaction structures between word and content codes ^a	Example quote
Flexibility	Student 23: "This course showed me that it is useful to be flexible in general, not only concerning different media, etc. Moreover, I learned how to deal with different techniques. It makes a course more interesting when you try learning with different media, for example, Skype, web conference, or Google drive. In addition, it is easy for students as parents who are working, because they can study at home and do not have to go to university. Being flexible is very important."
Constructivist alignment	Student 53: "This was a rather philosophical module, with humanism's features, and through thinking about what it means to be human (for example, a new perspective – responsibility to learn, adapt, and preserve) in a social context, what it inseparably means to take in integration as a part of one's world view. And I believe that by being truthfully inclusive I am promoting integration, because in my actions I promote it, not only knowingly but without intention, since my mind set has changed, and I like to think it has improved. "
Multidimensionality of ecological contexts	Student 51: "I have a lot of plans and changes for the next school year (Activities of the Unit1) considering my students' not only as individuals, but as well as part of society and helping them to see their place in it, and trying to keep in balance my duties and their interests. Seeing my workplace, the school where I teach, as a living organism, where each person is vital for its growth (Activities of Unit 2) and responsible for its inclusion in society and as well as its growth."

Interaction structures between word and content codes ^a	Example quote
Smart pedagogical leadership	Student 7: “For future work, I want to act effectively so that the social-cultural learning situation can become more humane. My work area or my school's educational area has empathy for other people's social-cultural learning situations. We need to realize what a powerful thing it is to have diversity all-around us. We can use it to our advantage in our academic lives. So, the ultimate aim of human-act should be the development of compassion, with empathy as an important step in this process.”

^aThe four constant factors or principles of smart pedagogy for meaningful learning facilitation, bringing it into life and work in the digital age, were determined through minimisation of the data in a data frame in the third cycle of the explorative research. The data was collected in English and wasn't edited to preserve the authenticity of the quotes.

Discussion

The theoretically founded (Saunders et al., 2012; Scott, 2015; Uskov et al., 2015; Uskov et al., 2016; Uskov et al., 2018; Boffo, 2017; Jeladze et al., 2018; Brown, 2017; Evans, 2019; Ehlert, 2020; Sava et al., 2000) results of the hermeneutical analysis of the empirical data of evidence-practice discovered the smart merging facilitation features. The clearly-traceable demonstrated “smart-merging-learning-constructs” and “smart-merging-learning facilitation principles” bring meaningful learning to life and work.

Smart merging learning is focused, on the value of the human smartness as an added value for themselves in life- and work, for their families and workplaces, for smart economies, smart societies and smart humanity.

The Smart Merging Learning Facilitation Model (SMFM) integrates science (subject contents), pedagogy and ICT. It is focused on the transformational smartness of themselves as collaborative humans to strengthen the collective capacity of workplaces and communities as qualitative life-and work-places.

The SMFM implies existing and new digital educational technologies to meet the demand for flexibility (Principle 1) for personalisation of smart-merging learning. It aligns the intended smart-merging learning outcomes, smart-merging learning e-communities, and smart-merging collaborative learning activities (Principle 2) into the universal constructivist pedagogical leadership system (Principle 3), specifying them for different multidimensional social-ecological contexts (Principle 4). Figure No.3.

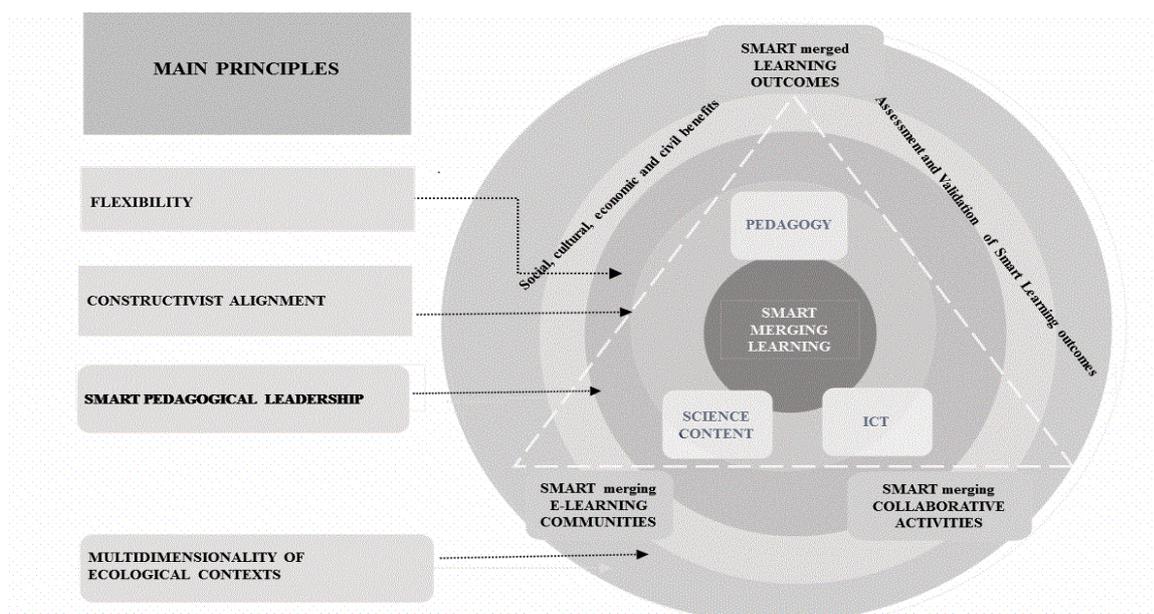


Figure 3. A theoretical framework of smart-merging facilitation model

Conclusions

Meaningful learning is open-minded, social-ecologically transformational, active, intense, deep, constructive, and smart-merging learning. It goes beyond simple learning in the e-environment in the digital age. It causes fundamental changes in our world views in the transition from the uncontested acceptance of available information to its critical reflection, causing profound changes in our souls, feelings, life and work perspectives, beliefs and behaviour. Smart digital educational technologies provide new opportunities only for identifying and promoting such changes.

Students' focus on their smart-merged investment in the quality of mastering collaborative tasks versus own performance is a challenge to be transformed into a new opportunity to shift the mind from the desire to be the best student to the desire to actively participate in mastering open activities throughout constructivist mutual smart learning. So then, the learning content/materials, practical collaborative activities and assessment have to provoke the learners to shift from the individual learning to the learning of something which is not agreed but anyone has any desire to know.

Mutual learning in small, self-organized e-learning groups assists in mastering learning activities in a meaningful way for life and work by explaining to one another the smart-merged learning contents acquired in real life and work situations, being peer and team smart learners.

Building the smart e-learning community strengthens the collective capacity by using smart digital educational technologies as new opportunities for identifying and promoting smart minding significance for smart learning benefits for the social-ecological system.

Smart pedagogical leadership as a multidimensional process and a sustainable facilitation system of consideration of the smart-merging learning outcomes,

opportunities for collaboration and communication that appear in social, cultural, economic, and civic ecological contexts, provokes students' meaningful learning, bringing it to life and work.

The evident patterns of transformation, presented in this paper, show that work-based HE practice merges science (subject contents), pedagogy (class-based personalised instruction, work-based smart collaborative activities) and digital technologies (organization of higher education studies in smart work-based e-learning communities) into a holistic smart pedagogical design. It integrates existing and emerging digital educational technologies to meet the demand for flexibility for personalisation of smart-merging generative learning and demonstrates the breadth and depth of transformational changes. Strengthening the collective capacity of higher education organizations in students' self-determined lives and workspaces ensures success in achieving smart-merging learning outcomes-transformational smartness of themselves as collaborative people specifying them in diverse social, cultural, and economic contexts of multidimensional, inclusive ecological environments.

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The Role of Movement and Sensorial Stimuli for Therapy and education. A comparative study

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Abstract

The following article looks at the role movement and sensorial stimuli do play in the educational approaches of Dr. Maria Montessori and Dr. Emmi Pikler as well as the Sensorial Integration and Psychomotor Therapy. The author of this paper has been studying, applying, and teaching all four approaches for many years and used her expertise in all four approaches to look at whether independent scientific research proves the effectiveness of movement and sensorial stimuli for reaching therapeutical as well as educational goals and to also provide scientific evidence for the fact that all four approaches focus on the role of these two factors, which means that this is a comparative study utilizing existing research papers.

The methods of applying movement and sensorial stimuli in the four approaches mentioned above are being compared and linked to recent scientific findings concerning the role of movement and sensorial stimuli for the efficacy of education and therapy. This article compares the four approaches based on scientific research on the various methods as well as independent research which looks and the impact of movement and sensorial stimuli as well as a method of application and its effectiveness. It has been found that sensorial stimulation and movement are closely connected and that these play a major role in all four approaches although the methods of application are quite different. One example might be that the Montessori method purposefully teaches specific movements in specific ways while only Sensory integration therapy also utilizes passive movement as a sensorial stimulation. All four approaches rely on the self-motivation of the child and do not apply any kind of pressure.

Keywords: Movement, Montessori, Pikler, Psychomotor therapy, Sensory Integration

Introduction

Due to the lockdowns in many countries of the world, which had become necessary because of the COVID19 pandemic children had been deprived of movement indoors and outdoors as well as sensorial stimuli which go along with movement in nature, on playgrounds, educational activities in kindergartens, and other childcare institutions but also with human touch and cuddling all of which had become forbidden out of fear of and infection with the novel coronavirus. Children had been locked inside their family homes and were told that outdoor activities and close physical contact with other human beings were dangerous for their health. This has been going on for around twenty months now,

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an enormously long period concerning the development of a child. Not only psychologists but also pediatricians have also started to be worried about the psychological wellbeing of the children affected (Strassburg, 2020). This was the case of the pediatrician Emmi Pikler, who developed her method of care and education during a time of health crisis and quarantine.

What is the rationale behind the choice of the two domains of comparison movement and sensorial stimulation?

The senses are highly specialized information organs that enable human beings to orientate themselves purposefully in their environment. The healthy development of a young child is guaranteed by well-dosed stimulation by what the child finds in his environment. This movement plays an important role, as it enables a wide range of sensory stimulation. In addition, the types, and extent of perception of visual, auditory, tactile, gustatory, olfactory, proprioceptive-kinesthetic, and vestibular information obtained does influence how a child moves. Therefore, movement and perception are mutually dependent (Schwarz; 2014).

On the other hand, perception does influence the ability to grab, crawl and thus develop cognitive functions and the relationship to the social environment. For toddlers' movement does not just comprise changing their location but also obtaining socio-emotional information. The better the senses are being developed, the easier the child can decode the communication transmitted by movement (Schwarz; 2014). Sensory signals control motor pathways, maintain stability on movement, irrelevant stimuli are being filtered out and relevant stimuli are enhanced all this clearly show how much-coordinated movement does depend on constant interaction between neuronal circuits which produce motor output and report sensory consequences (Azim & Seki; 2019) Based on the above explanation, movement, and sensorial stimulation condition each other, therefore these two interwoven systems have been chosen as one topic in this article.

What is the rationale behind the choice of comparing Montessori and Pikler education with Sensory Integration and Psychomotor Therapy?

Montessori education had been developed in a time where the only acceptable activity for children was to quietly sit on a chair and yet Dr. Maria Montessori (1870 – 1952) found out, that both sensorial stimulation and physical activity are tremendously important for education as well as a healthy development of any child (Vacarciuc & Iulic; 2020). Dr. Montessori, a psychiatric pediatrician first developed her method to train her patients at the pediatric psychiatric hospital in Rome, later further developed and refined her method working with socially disadvantaged children before applying it to children from regular, well-educated, or any other backgrounds around the world (Vacarciuc & Iuli; 2020). Today the application of the Montessori method for children with special needs is commonly referred to as Montessori therapy while the application for regular classrooms is being called Montessori education (Nehring; 2017). It is interesting to note,

that the same materials and methods are used for both applications. This well-established method is used for rehabilitation for elderly and stroke patients and reading and writing classes for illiterate adults as well. What makes this method remarkable is, that it not only stimulates the senses, encourages, and teaches movement but that academics are being taught using movement and sensorial stimuli.

Many A few years later Dr. Emmi Pikler (1902 – 1984), an Austro-Hungarian pediatrician, who was developing her method in the middle of a tuberculosis epidemic, was able to show how children need free movement for healthy development and how intensive contact during care activities brings peace and quietness to the children and their behavior. The children she and her nurses took care of from 1946 at the children's home in Budapest were children, who had been taken from their families to keep them safe during the tuberculosis epidemic in Hungary after World War II. They had mothers or other close family members in the same households who suffered from this contagious lung disease, some of their parents died because of this infection, which meant that these children were suddenly deprived of their family environment, not understanding why, and sometimes could not return as their guardians had passed away. Today, in a situation quite like the situation then, childcare professionals do everything possible to avoid close contact. Then close contact, without masks or gloves was the chosen method to help the children overcome their trauma. What makes this method so remarkable is the fact that none of the children taken care of at the Loczy, as this children's home was called ever suffered from hospitalization despite the trauma of being removed from their parents by force, taking care of babies and toddlers up to only three years old.

Both Dr. Maria Montessori and Dr. Emmi Pikler were medical doctors, specialized in children, as has been mentioned earlier and their scientific training motivated them to meticulously document their "cases", the children's progress, development, and which methods they had applied to help the children develop. All methods of the Pikler approach closely resemble the Montessori approach for children 0-3 years old. The difference is, that Dr. Montessori developed her method for children and youth from 0-18 years, while Pikler only worked with babies and toddlers up to their third birthday, children who were taken care of after their third birthday were a rare exception (Redman, et al; 2021).

Sensory Integration Therapy consists almost purely of strong sensorial stimulation, especially of the close senses as well as active and passive movement. Sensorial Integration therapy is based on the fact that sensorial stimulation causes a neurological reaction. Jean Ayres said 1972 that "sensory integration" is a neurological process that structures and organizes stimulation from the surroundings and someone's own body and enables a person to act and interact effectively within his or her environment using his or her body effectively. Jean Ayres who developed SI was trained as an occupational therapist, later studied psychology, and did her post-doctoral degree at the UCLA brain research institute (Ayres, 2013).

Psychomotor focuses on a large variety of movement activities but also uses sensorial stimulation through objects like balloons, newspapers, mats, blankets, and many more. It highlights the connection between body, soul, mind, and neurological system. Several branches of psychomotor therapy have developed at the same time in several countries by several different personalities. It is an educational as well as a therapeutic approach (Probst, et al; 2010).

Two famous educational approaches and two important therapeutic approaches (the Montessori method is both an educational and a therapeutic method, depending only on the application) focus on movement and sensorial stimulation as means for promoting child development, education, and therapy, therefore these four well-known methods are being compared concerning their approaches, methods, and outcomes.

Yet what is the rationale behind the choice to compare these four approaches in one article?

The first reason is that in today's world educational specialists generally have a very narrow focus on only one method and very often even one aspect of a certain method, which allows very close and deep research of each aspect which might help children to develop well. Yet focusing on only one particular method or one detail bears the danger of losing the overview, this is why this article tries to create an overview, which has never been looked at before in this way.

Different highly motivated educators developed different methods to help children facing various challenges in many countries over one hundred years.

What can we learn from these approaches?

Are they distinct methods for distinct issues or do the four approaches share a common methodology?

All four methods have been developed to help children facing challenges, as do children these days who have been deprived much of the important stimuli crucial to healthy development, all four methods put a strong emphasis on movement and sensorial stimuli, therefore the author chose to refocus on two aspects of healthy child development based on four popular, well-known approaches.

The Role of Movement and Exercise

Introduction

All four approaches discussed in this paper see movement as a major instrument for the education and therapy for children.

Free choice and free movement are the main values concerning movement in Montessori as well as Pikler education and psychomotor therapy. All of them believe that children do develop all gross motor skills naturally if allowed to move freely without external interference. The condition, therefore, is a safe, prepared environment, which allows children to move freely concerning the amount and types of movement. Keys for this are the preparation of the setting, self-motivation, and enough time for daring to try out new forms of movement.

2019 Lucká wrote (Lucká, 2019) about the importance of a multi-sensory environment for psychomotor intervention and how this is an increasingly often used strategy as it is not only useful for tactile integration, supporting dynamic locomotion, increasing the memory and sensory processing as an important basis for practice (Lucká, 2019; Ayres, 1996)

This also shows how deeply psychomotor therapy and sensory integration therapy are connected yet Lucká also says that a multisensory environment can be widely used for various therapeutic interventions (Lucká, 2019). This shows how the principles of the importance of movement and the prepared environment are interwoven and how important the role of movement is for the development of most other abilities.

The role of movement for the Pikler educational approach

Dr. Emmi Pikler did herself carry out rigorous scientific research into the natural gross motor development in small children – highly likely unique of their kind in the whole world. (Marlen, 2017).

Dr. Emmi Pikler discovered due to her exceptional observational competencies, that well-intending adults all too often intervene in the motor development of the children they are responsible for, instead of allowing them time and opportunity to freely unfold the motor competencies at the time they naturally would (Marlen, 2017). Dr. Emmi Pikler discovered that the development of the motor abilities of a healthy child is an integral part of the general development and does go along with great changes in somatic as well as psychological development (Pikler, 1968) These findings are also an explanation for the effectiveness of psychomotor therapy, which means that Dr. Emmi Pikler discovered the scientific foundation for psychomotor therapy before it had been developed, which is another proof for how much Pikler education and psychomotor therapy are being connected.

Yet there is not yet any study concerning how the application of the Pikler educational approach might reduce the need for PMT interventions or how early and proper application of the Pikler approach could replace PMT.

Another important principle of the Pikler approach is that the gross motor and the fine motor development are closely connected and the one cannot develop without the other (Marlen, 2019), which is an equally important fact for psychomotor and sensory integration therapy but also known and considered by Montessori educators. Marlen (2019) says that future health, cognitive function, emotional and social development depend on the physical activity and lifestyle during early life (Marlen; 2019) This is another common fact between psychomotor therapy and the Pikler approach. Another one is, that no developmental step must be skipped or forced upon (Marlen; 2019). Eager, overly motivated parents and educators continue to try teaching motor patterns to children that they are not yet ready to acquire. This does them great harm in several ways, one of which is that they experience pressure concerning their development, another one is that the steps which have been skipped

cannot easily be developed later and that adults with such attitudes find it unnecessary for these children to do the “easy” things.

For the approach of Dr. Emmi Pikler, it is essential that the development of movement comes naturally and the children's voluntary exercise. Yet it is important to know that, that this can and will only happen if the child has enough occasions to exercise concerning time, space, and safety. The same applies to psychomotor therapy. Which role does the natural evolution of motor skill play in the extraordinary positive psychological success of the Loczy has never been subject to research?

The role of movement for the Montessori method

The Montessori approach has a twofold strategy concerning movement. One is to let children move freely in a prepared environment just as Emmi Pikler suggests, the other is to purposefully teach precise gross and fine motor skills and to also teach them motor control. This means that Dr. Maria Montessori goes further in her motor interventions and offers different approaches for various age groups and issues. As Dr. Maria Montessori first developed her method for children who didn't have any possibility to move freely but had been restricted in many ways from movement, she needed to find ways to overrule this lack of development during the early years. Dr. Maria Montessori developed ways to purposefully teach children even the simplest kinds of gross and fine motor movement, like walking, standing up or sitting down, pouring, spooning, sieving, or drawing in organic and graceful ways. She says to divide the movements into smaller portions which can be more easily followed and learned by the child.

This twofold strategy can also be explained as the Montessori approach is being used for special needs children and as well as for children with regular development and highly gifted children and has specific curricula for various age groups from 0-24 years, while Dr. Emmi Pikler mainly worked with children 0-3years old.

2019, Patten and Bodden published a study on the influence of physical activity on the level of concentration as well as the ability to freely choose one's activities which is one of the main requirements for a Montessori classroom (Patten & Bodden, 2019).

The outcome of Patten and Bodden's study (2019) explains that one of the main principles of the Montessori approach, the free choice of activity depends on the amount and character of physical activity in general, which at the same time makes it clear how crucial the role of movement is for the success of the Montessori method. It also proves that the needed concentration for the educational activities is an outcome of the amount and quality of physical exercise offered.

Yet the study of Patten and Bodden (2019) also explains the lack of concentration and ability to decide for activities in regular classrooms. Would the amount and quality of exercise be increased; concentration and motivation would automatically increase.

According to Maria Montessori, it is the movement that supports the development of intelligence, while intelligence is being responsible for guiding movement. Body

coordination is a direct goal of various Montessori activities. Dr. Maria Montessori also describes movement as a creative process that is being driven by internal motivation. It has been found that children enjoy various balancing activities, do them motivated internally, and are deeply content when they control their movements. This requires coordination of all body parts and the brain. To acquire body control, much repetition is needed, which explains why Montessori emphasizes the importance of movement and exercise over and over. Walking the line and silence games are common activities for the acquisition of this much-needed coordination. After the acquisition of body coordination, activities like playing musical instruments, arts, crafts, and various types of sports become much easier. (Vatansever & Ahmetoğlu, 2019). This is one point where Emmi Pikler and Maria Montessori are in line, body control develops naturally at its own pace.

The role of movement for SIT

Sensory integration therapy is based on two pillars sensory stimulation and movement. These are often combined especially when it comes to the stimulation of the vestibular and proprioceptive system and serve to provoke the development of brain synapses.

In 2018 a study was done in Korea. Children aged 3-5 years old, who had previously never received sensory integration therapy and who had been diagnosed with mental disabilities, participated in the study on the impact of sensory integration therapy, and it was found, that they tremendously profited from the therapeutic approach as their fine and gross motor competencies significantly improved (Choi & Kim, 2018). The meaning of this result is that the ability for physical activities was being improved and it can therefore be said that SIT is a good choice when the fine and gross motor capabilities of children with mental disabilities need improvement.

Functioning sensory processing is the prerequisite for gross and fine motor abilities. SIT is needed when the ability of sensory processing is impaired and therefore is the main pre-condition for children to work in the Montessori environment as has been shown before.

It should be mentioned that movement is part of the therapeutic methods, yet in this study, the therapy increased the physical abilities, which might lead to further sessions of SIT, which might eventually lead to further improvements. Both gross and fine motor abilities are crucial to allow persons with mental disabilities as much independent action as possible. This significantly improves their happiness and contentment; therefore, the greatest possible independence must be a main therapeutic and educational goal throughout their lives. Another aspect is that a greater ability to move increases the possibility for physical exercise which is important to maintain physical health. Increased gross and fine motor abilities also increase the chance for useful activities, like work, crafts, and the like. Increasing motor abilities serves for an improvement of the quality of life for persons with mental disabilities.

An interesting study was done in China, where the effects of sensory integration training and physical exercise intervention on the behaviors and quality of life of children

with autism have been studied. It has been found that the intervention with sensory integration and exercise showed measurable and statistically relevant effects on the autistic behavior measured with CARS and ABC scores. XU and his colleagues said that their findings may develop future education and treatments for children with autism spectrum disorder (Xu et al., 2019). This revolutionary study should be widely advertised and used for dealing with children with ASD. Autistic behavior is what makes it hard to integrate these children as they are often ridiculed, and teachers find it hard to deal with these special behavioral patterns. As it has been proven now, that SIT combined with physical exercise can reduce these, this approach should be widely applied.

Sensory integration therapy also deals with proprioception and praxis. For these to work properly it is crucial to obtain accurate information from the sensory systems and then to organize and interpret this acquired information efficiently and effectively. Gross, as well as fine motor coordination issues, are widespread when the above three systems are dysfunctional which may result in language delay and academic underachievement. (Hatch-Rasmussen, 1995). Knowing all these proven facts, sensory integration therapy should be made easily available for all children from an early age, to minimize underachievement in many different areas.

Many studies show how effective sensory integration therapy is for children with ASD and how great the role of coordinated movement is for the wellbeing of persons with ASD.

A Chinese study found that the absence of enough physical outdoor exercise as well as breastfeeding positively correlates with SID and that taking care that children are being breastfed and get enough outdoor exercise reduces the risk for SID. (Liping et al., 2000). After the COVID19 pandemic, these findings become more relevant than ever before as children have been suffering from a lack of sensory stimuli and outdoor exercise due to multiple lockdowns, the negative results could be minimized through the application of SIT.

It has been found that the attention span of children with infantile hemiplegia could also be significantly increased through sensory integration therapy. (Kashoo & Ahmad, 2019). Which another hint for how widely SIT can be applied for the improvement of concentration in children, which is one of the issues of children in today's world.

The role of movement for PMT

Psychomotor therapy uses a large variety of physical activities to improve movement, conduct as well as psychomotor functioning concerning cognitive, emotional, and relational aspects. (Probst, 2017) This can be summarized by saying that psychomotor therapy works with various kinds of movement to improve all other functions and competencies and is therefore being embedded in various psychotherapeutic approaches. (Probst, 2017)

Tailormade psychomotor intervention demands thorough previous assessment and screening. This enables the therapist not only to plan the intervention but also to evaluate and document the progress being made by the client (Santos, 2017).

Another interesting study on the effect of psychomotor therapy was conducted the same year and was able to show the positive effect of psychomotor therapy on school children diagnosed with intellectual disabilities, showing significant delay in motor growth due to lacking static balance and therefore limited function level. Psychomotor therapy had been chosen due to its known efficacy on locomotion and the children's personalities. (Fotiadou et al., 2017)

Psychomotor Therapy is one of the main approaches for persons with intellectual disabilities being applied in Portugal. The therapist participates in an interactive and supportive way (Santos, 2017). The question of why PMT is more widely used, than SIT or other therapeutic approaches has not been answered yet. One possibility might be that PMT is relatively cheap and can be offered in almost any location with no special requirements but the knowledge and skillfulness of the therapist.

Bearing this fact in mind would be a good reason to train psychomotor therapists in countries that do not have a developed system of diagnosis and therapies for special needs children yet or where such therapies are too expensive for most parents to afford. These therapists could be employed in hospitals, kindergartens, schools, and other centers of influence where children can be met. Children may be helped to develop much-needed abilities which may help them to learn lead independent lives.

Conclusion of the role of movement for the four approaches

It can therefore be concluded that it would be most profitable, if all SEN and other teachers, as well as all therapists, can learn to apply all the different approaches to supporting the development of the gross and fine motor functions so that each of them can support each child individually in the best possible way. It has been seen that movement needs to be allowed and promoted for which the setting must be well prepared. It has been seen too, that sensory stimuli help to develop motor functions and that motor skills can be taught purposefully too. All these factors apply to all children, whether they develop well, at a slow pace, or are diagnosed as having special needs. Movement is an educational and therapeutic tool, which has proven to be effective for the general, somatic, and psychological development as well as the development of perception, cognitive functions, concentration, contentment, and self-control.

The paper by Fabri and Fortuna (2020) presents Dr. Maria Montessori as a person and underlines that her child-centred method of education is based on extraordinary intuitions as well as thorough empirical research, which were all proven to be fully valid by neuroscientific studies many decades later, such as the three main sensitive phases in a child's psychobiological development; the important role of the environment in helping cerebral development and supporting learning, as well as of effective stimulation in psychological growth and maturation; the specific neuronal structure of humans which

especially enables the acquisition of language; the paramount role of fine object manipulation for the neuropsychological development, as well as of physical exercise in the brain and nervous system development. Physical exercise for the good and wholesome development of the brain and nervous system also plays an extremely important role in the Pikler method, the sensory integrations therapy as well as of course in the psychomotor therapy, where is one of the pillars.

It can therefore be regarded as proof that all four approaches do enhance the motor abilities and praxis of children either by preparing the conditions for them or by directly training them who are taking advantage of any of the four approaches. Whether they do this by allowing free movement, provoking new forms of movement, combining movement with sensory stimuli, or by purposefully teaching natural and needed forms of motor abilities, the results are more skillful, better planned, and coordinated as well new forms of movement.

The question which remains unanswered is whether a combination of all four approaches would further increase the motor abilities and praxis of children.

No research has ever been conducted to investigate this question. The author of this paper assumes that this would be the case. Working with physical exercise does also positively influence other abilities as well as the behavior of the participating children. Again, this applies to all four approaches, and it has never been tried to combine the four approaches to obtain even better therapeutic results.

PMT is a form of therapy that is normally used only by therapists but as the benefits for child development and education have become known to teachers, it is increasingly applied by kindergarten teachers in regular kindergarten settings. This is an example of how methods from all four approaches can be applied by regular teachers who are being trained in short adult education courses and how this is for the benefit of the children who take advantage of such efforts. Such training courses for SI, PMT, Pikler, and Montessori education could be increasingly offered to willing childcare workers to continuously qualify them for supporting all children, especially SEN children.

The role of Movement and how it is used to obtain educational goals	Pikler Education	Montessori Education/Therapy	Sensory Integration Therapy	Psychomotor Therapy
Applied by therapists during therapeutic sessions		✓	✓	✓
Applied by teachers and childcare workers in kindergartens and childcare institutions	✓	✓	Methods from SI are being applied by regular teachers and childcare workers, yet not in the sense of a therapy	✓
Free movement is a main principle	✓	✓	✓	✓
A condition and prerequisite for general development and all learning	✓	✓	✓	✓

A main educational method	✓	✓	✓	✓
A crucial purposeful therapeutic method	Rarely used for therapy although it would be very fit for it.	✓	✓	✓
Application for SEN	This approach is rarely used for working with SEN kids as diagnoses are often not made that early and the strengths and potential of this method for SEN toddlers have not been recognized by special education specialists yet.	✓	✓	✓
Application for all children	✓	✓	SI is generally used only for SEN children, although it could be applied for any child to enhance healthy development, especially in these times of a worldwide pandemic, where children are being deprived of their regular activities and environments.	✓
Certain movements Purposefully taught	No	✓	no	no
Organized training for all children of a group (all must move together, like a gymnastics lesson)	No	no	no	no
The teacher or therapist meticulously demonstrates a movement, and the child/children have to copy the movement demonstrated	No	Many practical life activities are being taught that way	no	no
Passive movement is used as a crucial method	No	no	✓	✓
Special equipment and materials for various types of movement are being purposefully provided	✓	✓	✓	✓
A safe prepared environment appealing to active, explorative movement is being purposefully provided	✓	✓	✓	✓

The Role of Sensorial Stimuli for Education and Therapy

Sensorial stimulation starts before babies are being born, they are naturally surrounded by divers, constant sensorial stimulation due to the movements of the mother, the smallness of the uterus, and the amniotic fluid. Infants who are born prematurely are being deprived of prenatal sensory stimulation in the womb which is crucial for the normal development of the baby. Sensory stimulation in the NICU cannot by any means replace the presence of the mother and family yet it does help to reduce the negative effects of the deprivation (Vitale et al., 2021) This paper shows how essential sensorial stimuli are for the regular development of even premature babies, how much more are these crucial for older babies.

SIT is the most prominent, yet not the only approach that does use sensorial input as a crucial method for supporting children. One group of children which can be supported very well by the application of sensorial stimulation is children with Trisomy 21. It could be shown that sensorial stimulation is extremely effective when applied for these children concerning overall as well as motor development (Angel, 2019)

Recently it has even been studied whether multisensory stimulation can help kids who use automatic learning techniques and found that it does (Guachun-Arias et al., 2020)

The gustatory sense is often not being considered important enough although all human beings enjoy dynamics of the human brain processing of information coming out from the gustatory system. The gustatory sense does play an important role concerning healthy nutritional habits and behavior. The processes going on in the brain when food is being tasted has been studied and it was found that just the gustatory sense does start an enormous mechanism when being stimulated (Di Flumeri, et al; 2017) although the tongue, which is the organ where the sense of taste is located is very small its stimulation does affect large territories in the body system (Di Flumeri, et al; 2017).

All the above do allow the conclusion that each sense and its stimulation does affect the whole physiological and psychological system.

The Role of Sensorial Stimuli for the Pikler Approach

The Pikler approach, among the four approaches discussed in this paper, seems to focus the least on sensorial stimuli but this is a wrong first impression. Closely considering the principles and methods applied in the Pikler approach, much sensorial stimulation is being found. At first, there is a close connection to the caregiver during caring activities, there is a lot of human touch and closeness happens, which is sensorial stimulation. Secondly does the free movement of the infants offers a lot of sensorial stimulation by the ground the children move on, the hindrances they must climb over, the surfaces they touch, and so on. And finally, the babies and toddlers playing by and with themselves do experience sensorial stimulation by experimenting with their body parts, playing with their toes, putting safe materials into their mouths, and much more. The only difference

to the other approaches is, that all of this has not been specifically described as a sensorial stimulus, neither has there ever been given specific instruction and how to apply sensorial stimulation, because the focus has been different.

The Role of Sensorial Stimuli in the SIT

For the concept of SIT, the role of sensorial stimuli for all senses including the vestibular and proprioceptive sense is the main approach and key to its proven efficacy. Sensorial stimuli provoke brain development, and this opens the way to significant improvements in many different areas, depending on the developmental delay of a child. An example may serve a study with children diagnosed with Trisomy 21 conducted during the year 2019 which showed significant improvement in psychomotor components after only eight months of therapy (Anghel, 2019). The study showed measurable improvements in many aspects of the children's motor abilities such as coordination, force, speed, general dynamic coordination, spatial orientation, equilibrium, and dynamic hand coordination (Anghel, 2019). These are all very crucial aspects which enable the children to move around by themselves safely and to perform various activities.

The Role of Sensorial Stimuli in the PMT

As PMT and SIT resemble each other very much, the role of sensorial stimuli for the success of the method is partly similar, the difference between the two approaches being that PMT focuses more on locomotor activities. Yet experiencing different textures and other qualities of various materials do play a prime role during psychomotor therapeutic sessions, whether these are being conducted by psychomotor therapists or regular teachers. This may explain why the outcomes are often reported to be very similar.

The Role of Sensorial Stimuli in the Montessori Approach

The role of sensorial stimuli for the efficacy of the Montessori method is decisive. Many methods used in the Montessori educational method very much resemble SIT, especially those for younger or SEN children only that the Montessori method does go much further by using sensorial stimuli even for teaching academics, like reading, writing, calculation, geography, and much more. This is a crucial aspect, which is one key to the enormous efficacy of the Montessori education both in SEN and regular classrooms, as well as in classrooms for highly gifted students, which according to contemporary pedagogy are also considered to be part of special education.

The Role of Sensorial Stimuli in the four approaches

As has been shown above, the role of sensorial stimuli for the success and efficacy of the therapy and education according to any of the four methods cannot be overestimated whether it is done purposefully and planned with the focus on the sensorial stimulation as in SIT, PMT and the Montessori method or whether it happens as an integral part of the approach as in the Pikler approach. Looking at the common points of all the research

overviewed in the literature review, it can be said that all therapeutic and educational methods which are effective do have a focus on sensorial input and sensorial stimulation has been proven as one main means of success.

How and why is sensorial stimulation being applied	Pikler Education	Montessori Education/Therapy	Sensory Integration Therapy	Psychomotor Therapy
Applied by therapists during therapeutic sessions		✓	✓	✓
Applied by teachers and childcare workers in kindergartens and childcare institutions	✓	✓	✓ Methods from SI are being applied by regular teachers and childcare workers, yet not in the sense of a therapy	✓
Specific materials are purposefully provided and prepared	✓	✓	✓	✓
Focus on all senses	Focus on touch, proprioception, vestibular sense	✓	✓	Focus on touch, proprioception, vestibular sense
A safe, nurturing environment is purposefully prepared	✓	✓	✓	✓
Sensorial stimulation is being combined with movement	✓	✓	✓	✓
No activity is being on a child	✓	✓	✓	✓
Being exposed to sensorial stimulation is regarded as a therapeutic or educational method by itself	✓	✓	✓	✓
Combination of sensorial stimulation and movement	✓	✓	✓	✓
Well developed didactics of sensorial training, senses are being refined step by step		✓	✓	

Conclusion and recommendations

It could be shown that the application of both movement and sensorial stimulation in all four approaches is scientifically proven effective for reaching set educational and therapeutic goals. The first recommendation, therefore, is to not stop or hinder the application of these outcomes as this will cause damage to the development, therapies, and education of children.

The second recommendation is to teach the application of these methods to as many childcare workers and teachers so that they can apply these for the benefit of children continuously.

Another conclusion of this article is that as four known approaches use sensorial stimulation and movement as main instruments and this has been proven effective, movement and sensorial stimulation should be focused on in every educational or therapeutic setting as this may result in teachers and therapists reaching their goals faster and more intensively.

This suggests that the ideas, materials, and methods of all four approaches should be freely combined for the best possible effects on the development of the children cared for. This suggestion includes the proposition that specialists of each approach should be working together to obtain the greatest possible efficacy. Around three decades ago, the municipality of Vienna/Austria encouraged this on a small scale which had great results but unfortunately, these efforts were neither documented nor studied. Children who were being treated with SI got the opportunity to get additional support in a Montessori playgroup, once a week. The author of this article worked with several children and their mothers who got both forms of therapy, SI and Montessori therapy, each of which once a week for one hour. These children suffered from various disorders as sensory integration disorder, autism spectrum disorder, and hydrocephalus. As it has been mentioned before this wasn't scientific research as there was no control group, the number of children was too little and it happened around 27 years ago, yet it needs to be mentioned that this had been the first motivation to study a multimethod work approach. The author saw that the joined approaches encouraged the mothers as they saw and felt that much was done to help the development of their children. The mothers also reported that as the two approaches SI and Montessori therapy worked with the children from different angles, they believed that the joined efforts of two approaches at the same time were much more effective than just one of these could have been.

In today's educational and therapeutic world, a combination of the approaches compared in this article may look like the following two examples:

Children who are facing various challenges could be oriented to Pikler or Montessori childcare institutions as these are prepared to work with children who are having special educational needs. It would be good if these childcare centers had additional offers like PMT, either provided by trained teachers or by specialists coming to these institutions once per week to offer additional methodological approaches. Depending on the

challenge or disorder, SI should be given to the children on an individual basis based on a qualified diagnosis. This could be inside or outside of the childcare institutions.

Another way would be to train childcare workers in the Montessori and Pikler approach, depending on the age of children they are working with, and to prepare educational settings according to these approaches. This would enable childcare workers to work on developmental delays effectively as soon as they recognize them, instead of waiting for parents to organize appointments in clinics which generally takes a lot of time. Mobile specialists like PMT or SI therapists could be hired by the department of early childhood education who is supervising the childcare institutions and may be requested for children who show developmental delays according to the observation of the responsible educational personal. With only little administrative effort within a short period after the request children could receive the therapeutic support they need, the only condition being, that the child is taken care of in an official childcare institution, which most children in many countries worldwide are.

In both ways, children would receive developmental support much faster and much more effectively than in the way this functions in many European countries today, where the burden to find an institution who may do a proper diagnosis, an appointment in such a clinic, a therapist who may do the therapy and all around it by themselves. Additional hindrances are, the shame of most parents having a child who does not develop accordingly, the understanding of what needs to be done, the language barrier for many immigrated parents all over Europe, and the long waiting lists in clinics for such children as well as the lack of therapeutical spaces and the long working hours of the parents which hinder them from bringing their children to therapies regularly, as clinics are open when most parents need to work.

The last recommendation, based on the findings of this article is, that nothing should prevent teachers or therapists from using the best possible method.

A recommendation for future research is to study how the pedagogical and therapeutic outcome of every single approach may be enhanced by combining it with one or two of the other approaches.

List of Abbreviations

ABC: Autism Behavior Checklist
ASD: Autism Spectrum Disorder
ADD: Attention deficit disorder
ADHD: Attention deficit hyperactivity disorder
CARS: Childhood Rating Scale
NVC: Nonviolent Communication
NICU: Neonatal intensive care unit
OT: Occupational Therapist
PMT: Psychomotor Therapy
SEN: Special educational needs
SIT: Sensory Integration Therapy

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An Exploratory Factor Analysis and Reliability Analysis of the Perceived Severity and Response to Bullies and Victims of Bullying Questionnaire

Tudorita Grădinariu*, Gabriela Monica Assante**

Abstract

This study aimed to test the reliability of the Perceived Severity and Response to Bullies and Victims of Bullying Questionnaire (PSRBVBQ) for middle school teachers (N=322 teachers), using exploratory factor analysis and reliability analysis. PSRBVBQ assesses teachers' responses to bullying using situational scenarios. It includes two vignettes for each type of bullying (physical, verbal and relational) to analyze the perceived severity, likelihood of responding to the bully, likelihood of responding to the victim. Exploratory factor analysis indicated a three-factor solution: perceived severity ($\alpha = .73$), the likelihood of responding to the bully ($\alpha = .84$), the likelihood of responding to the victim ($\alpha = .89$). These results indicate a good internal consistency of the items in each scale, especially for the likelihood of responding to the victim and for the likelihood of responding to the bully scales. The results show that the PSRBVBQ has good psychometric properties and can be successfully used in research regarding Romanian teachers' perceptions and their response to bullying. Also, more than one-third of teachers perceive verbal aggression as serious, while much less perceive relational aggression as very serious. At the same time, we found that the perceived severity predicts the probability of the teacher's reaction to the incidents of aggression.

Keywords: bullying, perceived severity, teachers response, EFA

Introduction

For a long time, the literature on the thematic field of bullying focused on its causes, prevention strategies, and the reduction of bullying in schools. Less attention was paid to teachers' perceptions and their responses to bullying (Bush, 2009). At the school level, teachers are the ones who manage events of bullying between students. Hence, they play an important role in the safety of students in schools (Duong & Bradshaw, 2013). Recently, a growing interest in investigating teachers' perceptions and reactions to the three types of bullying (physical, verbal and relational) can be observed (Olweus, 2003). Teachers' reactions to bullying events can influence the future behavior of the bully,

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victim, and bystanders. Moreover, the school can contribute to either maintaining or perpetuating bullying behavior between students through inappropriate teacher reactions to school violence, inadequate student-teacher relationships, lack of teacher support, non-involvement, or poor involvement of students in school activities (Swearer & Hymel, 2015).

For example, Craig, Henderson and Murphy (2000) found that the low percentage of teachers who intervened was due to their inability to effectively recognize and identify bullying in school, especially verbal bullying and social exclusion, which is more difficult to detect than physical bullying. Also, some hidden forms of bullying, such as social exclusion and rumors, are perceived by teachers as less serious than open, direct, and observable as physical and verbal bullying (Craig, Bell & Leschied, 2011).

Nowadays, scholars focus on identifying the potential explanatory factors of the lack of intervention and reaction of teachers to bullying. Consequently, some authors claim that the perceived severity has the basic subjectivity in interpreting bullying that can affect teachers' responses (Yoon & Kerber, 2003). Thus, verbal and relational bullying tend to be perceived as less severe, which decreases the likelihood of teacher intervention (Stankiewicz, 2007).

Bullying in school

The concept of *bullying* was first introduced in 1978 by the Norwegian psychologist Dan Olweus, as a result of school surveys on violent behavior among students. Olweus says that a student is bullied “*when he is repeatedly and over time exposed to negative actions by one or more students*” (Olweus, 1993, p. 9). The negative action manifests “*when someone intentionally inflicts or attempts to inflict, injury or discomfort upon another*” (Olweus, 1993, p. 9). We can talk about bullying when a student is hit, pushed, teased, threatened, locked in a room, when tickets are sent to him with malicious, obscene, unpleasant content and when other colleagues do not talk to him or he (Smith & Sharp, 1994).

The term *bullying* should not be used when two students have the same ratio of physical or mental strength, fight, or quarrel. In order to use the term “bullying”, there must be a power imbalance (Olweus, 1994). Bullying is an interaction in which a dominant individual (bully) repeatedly manifests bullying behavior with the intention of causing the suffering of a less dominant individual (victim), (Olweus, 1991). There are two meanings of bullying: broadly, systematic abuse of power, and narrowly, the psychological or physical domination of a weaker person by a stronger person or group (Rigby, 2007).

Physical bullying

Physical bullying is most easily recognized due to the obvious and direct manifestations of the bully (Veenstra et al., 2005), and is usually attributed to boys (Lee, 2009). It is action-oriented and includes any type of intentional behavior that causes bodily harm:

hitting, pushing, punching, kicking (Newman et al., 2000). There is a complex picture of the forms of manifestation of physical bullying: hitting, pushing, spitting, destroying or stealing personal property, throwing stones (direct bullying), and inciting a friend to hit another person (indirect bullying), (Olweus, 1993; Rigby, 2007).

Verbal bullying

Verbal bullying occurs when a student uses a certain kind of language to gain power and control. This type of bullying is quite widespread because it is more likely to occur without attracting the attention of school staff (Newman et al., 2000). Verbal bullying includes behaviors such as sarcasm, teasing, nicknames, verbal insults (direct bullying) and spreading false rumors, and inciting one person to assault another person (indirect bullying), (Olweus, 1993; Rigby, 2007).

Relational bullying

Relational bullying includes behaviors such as manipulating friendships (threatening, persuading to break a friendship), exclusion from the group and launching false rumors (false stories) about the victim to encourage peer rejection (Lee, 2009). This type of bullying is closely related to emotional aggression and occurs most frequently among girls (Newman et al., 2000).

Perceived severity

The perceived severity of bullying by teachers predicts their likelihood of intervention (Dedousis-Wallace & Shute, 2009). Thus, the more severe the bullying is perceived, the more likely the teacher is to respond (Harrison, 2015). Teachers perceive relational bullying as less severe, and they are less likely to intervene than in physical and verbal bullying (Yoon & Kerber, 2003). Some hidden forms of bullying, such as social exclusion and rumors, are perceived by teachers as less severe than overt, direct, and observable bullying such as physical and verbal (Craig, Bell & Leschied, 2011). The low percentage of teachers who intervened is due to their inability to effectively recognize and identify bullying behavior, especially verbal and social exclusion, which is more difficult to detect than physical bullying (Craig et al., 2000). If teachers are unaware of the consequences or do not perceive the severity of these behaviors, they tend to adopt a passive attitude – hence a reduced likelihood of intervention (Yoon & Kerber, 2003).

The main objective of this study is to explore the reliability of the *Perceived Severity and Response to Bullies and Victims of Bullying Questionnaire* for teachers. These dimensions were not explored in previous research and, by these means, we will provide a situational judgment test, as an alternative to other existing measures. The PSRBVBQ represents a situational judgment measure that presents realistic scenarios and asks individuals to rank the responses, currently considered one of the best questionnaires for measuring teachers' perception (Harrison, 2015).

Method

Participants and procedure

This study includes 322 middle school teachers, (281 women and 41 men), with ages situated between 20 to 69 years old, from 23 middle schools situated in the city. All the local middle schools were contacted and asked to participate in the study. The research details were communicated to each school director, which disseminated further the information to the school teachers. The directors provided a list of participants that were willing to participate in the study. Consequently, the subjects were contacted, signed informed consent and completed the questionnaire voluntarily and anonymously. The teachers completed the questionnaires at school, in their offices, or their classrooms. The Ethics Committee of the Faculty gave its approval for the present research.

Table 1. Participants teaching experience

Teaching experience	<i>n</i>	%
0-2 years	14	4.34
3-5 years	21	6.52
6-10 years	42	13.04
11-20 years	117	36.33
21-30 years	70	21.73
over 31 years	58	18.01

Instrument

The Perceived Severity and Response to Bullies and Victims of Bullying Questionnaire, built by Bush (2009) and later developed by Harrison (2015), was designed based on previous studies and real-life media reports on bullying (Bush, 2009; Yoon et al., 2014 apud. Harrison, 2015). Two vignettes were eliminated based on the topic, they referred to cyber-bullying and our focus is on classroom bullying. Therefore, the measure includes six bullying scenarios, two for each type of bullying (physical, verbal, and relational). Harrison (2015) specifies that the types of bullying have to be separated in order not to influence participants' responses. The scenarios were designed in an impartial manner with no reference to individual characteristics such as ethnicity, race, and religion, as these factors could have affected the responses. For each situation, the teachers had to rank the perceived severity, the likelihood of responding to the bully, the likelihood of responding to the victim, on a seven-point Likert scale. In order to adapt the questionnaire for the Romanian population, the forward-backward translation method

was employed. Four expert translators were used during the translation process. Two of them first translated the scenarios into Romanian, next the provided version was translated back into English. Small changes were made, e.g., one of the scenarios was replaced with one that is more common in our schools. Our version reflected the type of bullying in Harrison's version (relational bullying: spreading rumors). Finally, the two versions were confronted and the Romanian version was finalized.

To identify the best instrument to measure teachers' perception over the severity of bullying and their reaction towards the bullies and the victims, we consulted a vast number of recent studies and doctoral theses in the field of bullying aggression. Thus, we found the PSRBVBQ, currently being one of the best tools to measure the perception of the severity of bullying by teachers, the likelihood of a reaction to the bully and the victim, and the resulting reactions in these situations (Harrison, 2015). At the same time, we have identified another similar instrument that measures the severity of teachers' perceptions of bullying, Teachers' Perception of Classroom Behavior Questionnaire (TPCBQ) (Zerillo, 2010) that uses vignettes to investigate teachers' and students' perceptions of bullying. The option for Harrison's tool (2015) is based on the fact that it presents scenarios for each type of bullying (physical, verbal and relational), teachers being invited to assess the severity and the probability of reaction for each type in the case of the bully and the victim. Zerillo's (2010) questionnaire does not contain separate scenarios for the bully and the victim. However, it includes bullying situations that teachers must evaluate in terms of significance.

Results

Preliminary analysis showed that high school teachers perceive relational aggression as less serious than physical and verbal aggression. Therefore, 38.6% (N = 126) of teachers perceive verbal aggression as serious, while 23.8% of them perceive relational aggression as very serious. At the same time, we found that the perceived severity predicts the probability of the teacher's reaction to the incidents of aggression. Thus, if teachers perceive an aggressive act as serious, there is an increased likelihood that they will intervene in the incidents of aggression. In all three situations of aggression examined (physical, verbal and relational) we obtained strong correlations between the perceived severity and the probability of reaction towards the aggressors and the victims of bullying. For example, there is a positive association between perceived severity and likelihood of reaction to victims of relational aggression ($r = .557, p = .000 < 0.005$). At the level of the scientific literature, it is recognized that teachers' reaction influences the future behaviors of students involved in aggression (Yoon & Kerber, 2003).

The purpose of this research phase was to investigate the reliability of the items and the internal structure of the constructs measured. Therefore, exploratory factor analysis was conducted to evaluate the structure of the factors. Second, a reliability analysis was performed. The statistical analyses were performed using SPSS 26.0.

Exploratory factor analysis was conducted on the 18 items with an Oblimin with Kaiser Normalization rotation using the Principal Axis Component Factoring method. In this study, the three factors (the perceived severity, the likelihood of responding to the bully and the likelihood of responding to the victim) were used to determine the pattern of the structure in the 18-item PSRBVBQ and were used to create a scree plot (Thompson, 2004).

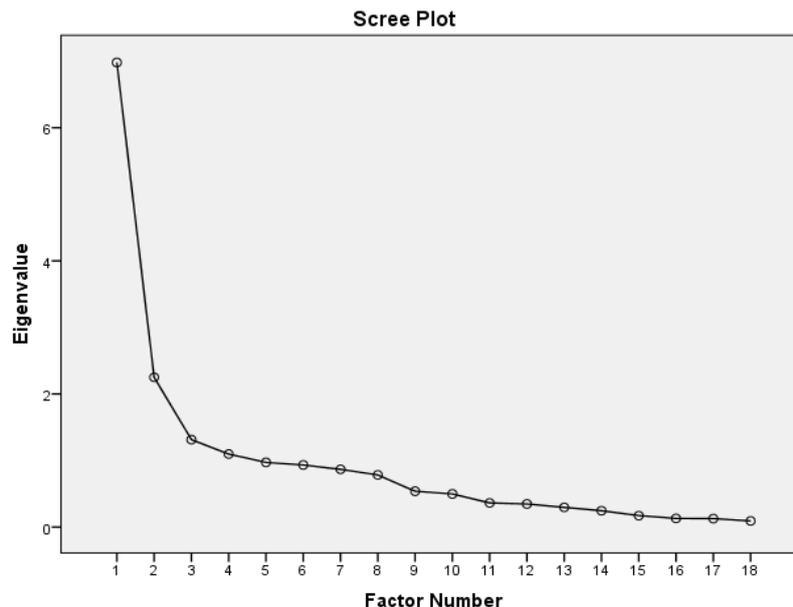


Figure 1. Scree Plot for the questionnaire Perceived Severity and Response to Bullies and Victims of Bullying Questionnaire

The Kaiser-Meyer-Olkin Measure was used to verify the sampling adequacy for the factor analysis, $KMO=0.81 > 0.60$ which means that EFA can be performed (Kaiser, 1974). Bartlett's test of sphericity $\chi^2 (153) = 3762,570$, $p < 0.001$, suggests that items-correlations are sufficiently large for EFA and a three-factor solution resulted. The 18-item structure explained 51.45% of the variance in the pattern of relationships among the items. The percentages explained by each factor were 36.35% (perceived seriousness), 10.21% (likelihood of response to the bully), respectively 4.88% (likelihood of response to the victim). The correlation between factor 1 (perceived seriousness) and factor 2 (likelihood of response to the bully) was .462; the correlation between factor 2 and factor 3 (likelihood of response to the victim) was .177; the correlation between factor 1 and factor 3 was .020 (Table 2).

Table 2. Factor Correlation Matrix

Factor	1	2	3
1	1.000	.462	.020
2	.462	1.000	.177
3	.020	.177	1.00

Extraction Method: Principal Axis Factoring
 Rotation Method: Promax with Kaiser Normalization

The factorial analysis of the 18 items that measure teachers' perceptions and likelihood of reaction towards bullies and victims validated a three factorial structure and partially satisfies the statistical criteria related to this type of analysis. The factors are balanced, six items per factor, each item loading in a single factor. Hence, the instrument that measures perceived severity and likelihood of responding to bully and victim of bullying contains three scales: the scale that measures the *perceived severity* contains 6 items (items 13, 14, 10, 1, 16, 7); the scale that measures the *likelihood of responding to bully* contains 6 items (items 6, 12, 15, 18, 9, 3); the scale that measures the *likelihood of responding to the victim* contains 6 items (items 5, 8, 17, 2, 11, 4).

Table 3. Eigenvalues, Total Variances Explained for the Three-Factor Structure

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6,980	38,778	38,778	6,544	36,356	36,356	4,082
2	2,250	12,498	51,276	1,839	10,216	46,572	4,917
3	1,314	7,298	58,574	,879	4,883	51,455	4,545

Extraction Method: Principal Axis Factoring

Table 4. Items and factor loadings of the three-factor model using a principal axis factoring

Items	Factor loadings			Communalities
	F1	F2	F3	
13. perceived severity- relational	,790			,582
4. perceived severity - physical	,673			,563
10. perceived severity - verbal	,482			,380
1. perceived severity - physical	,454			,240
16. perceived severity – relational	,417			,344
7. perceived severity - verbal	,328			,322
6. likelihood of responding to the victim – physical		-,858		,815
12. likelihood of responding to the victim - verbal		-,845		,700
15. likelihood of responding to the victim – relational		-,825		,790
18. likelihood of responding to the victim – relational		-,674		,622
9. likelihood of responding to the victim - verbal		-,670		,707
3. likelihood of responding to the victim - physical		-,642		,408
5. likelihood of responding to the bully - physical			-,776	,569
8. likelihood of responding to the bully - verbal			-,639	,569
17. likelihood of responding to the bully - relational			-,545	,568
2. likelihood of responding to the bully - physical			-,544	,485
11. likelihood of responding to the bully – verbal			-,379	,462
14. likelihood of responding to the bully - verbal			-,325	,136
Eigenvalue	6,544	1,839	,879	
Variance explained	36,356	10,216	4,883	

Item Analysis for Reliability

To test the reliability of each factor of the questionnaire, an item analysis was conducted. The satisfactory internal consistency index varies from 0.70 to 0.90 (Blunch, 2008) and all three factors on this scale had a high rating for reliability. The Cronbach's alpha for perceived severity, the likelihood of responding to the bully, and the likelihood of responding to the victim were .732, .841, and .897.

Table 4. Cronbach's Alpha for Each Factor of the PSRBVBQ

	Number of items	Alpha Cronbach value
Perceived seriousness	6	.732
Likelihood of response to the bully	6	.841
Likelihood of response to the victim	6	.897

Discussions

The present study focuses on the examination of the psychometric properties of the Romanian version of the *Perceived Severity and Response to Bullies and Victims of Bullying Questionnaire*, namely, internal consistency and factors structure. One limitation of this study is the socio-cultural influences that have an impact on teachers' perceptions of bullying. The magnitude of the bullying phenomenon in schools reflects the general state of violence in the community (Adăscăliță et al, 2017). Social, cultural norms, myths can influence teachers' perceptions of how they experienced violence when they were students. In this sense, we discuss the educational practices in Romania from thirty years ago in terms of disciplining the children when physical violence predominated. Convictions and beliefs that assert some positive effects of physical punishment may influence how teachers perceive the severity of physical violence. According to Byers et al. (2011) argue that traditional forms of violence, namely physical violence, are better known and understood, which is why they are no longer perceived as very serious. Moreover, the predominant age segment of our study is represented by the 40-49 years age category which means that a significant number of teachers were students thirty years ago. Specifically, there is a possibility that teachers may have witnessed violence in schools or other settings during childhood, which explains the desensitization and corrosion of their ability to distinguish between serious and very serious forms of aggression. This observation is in agreement with the results of the qualitative study conducted by Mishna et al. (2006) which brings to light an important aspect, most of the teachers investigated in their study stated that they were victims of bullying when they were students. At the same time, experienced teachers become desensitized to hostility to compensate for the lack of intervention skills in offensive incidents (Bauman & Del Rio, 2006).

At the beginning of this paper, we mentioned that the authors of two independent studies contributed to the construction of this questionnaire. The version we use is the latest published and contains some changes. The first objective was to adapt the questionnaire to the Romanian population. The analysis of the exploratory factors shows that the factorial structure with 3 factors, compared to factor 2 and factor 4, is the most stable, because the factors are balanced (6 items per factor) and each item loads a single factor. This is the main advantage of the model. The data obtained highlight the three-factor factorial structure similar to the initial study (Harrison, 2015). Although the author of the questionnaire built the instrument around these three factors, he failed to provide data on reliability or validity indicators. Therefore, it is impossible to contrast our results. Being a scenario based questionnaire validity testing requires more specific analysis such as Generalizability Theory or Item-response theory which are not covered by the present research.

Some teachers might have difficulties in identifying different types of bullying and their psychological and academic consequences (Yoon & Kerber, 2003). Therefore, we considered this instrument as the most suitable for Romanian teachers. This

questionnaire exposes them to concrete scenarios from school reality. Therefore, it should amplify teachers' objective output over the situation. The questionnaire estimates the severity of hostility scenarios for both the bully and the victim for each type of bullying (physical, verbal, and relational). This questionnaire can be used to explore teachers' perceptions of bullying.

Conclusion

We consider this instrument as an useful tool in Romanian school practice for identifying teachers' perceptions regarding the three types of aggression: physical, verbal and relational. The data collected could also indicate teachers' training needs regarding bullying prevention. Teachers and school counselors can access the Romanian version of the questionnaire in the author's paper (Gradinariu, 2021).

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School drop - out in Romania: impact assessment of preventive-curative strategies in children

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Abstract

Remedial activities are considered by many authors as an effective strategy for preventing and reducing school dropout. In recent years however, numerous studies showed evidence that we cannot point to one factor that influences the decision to leave school and to only one strategy to prevent or reduce it. Meanwhile the results in the field of social and emotional development emphasize the essential role of these skills in school success. This is way more and more researchers and practitioners recommend that school dropout must be looked at and addressed from a more complex perspective. In the present study we aimed to evaluate the impact of a complex intervention program, developed in order to prevent and reduce school dropout for 242 students from disadvantaged backgrounds in Vâlcea County. The children were tested at the beginning and at the end of the program using 6 scales selected from BASC and ASEBA evaluation systems. Due to the pandemic situation, the questionnaires measuring adaptability, social skills, learning abilities, affective problems, anxiety problems and ADHD problems have been completed by teachers, using google forms application. Using ANOVA with repeated measures, the data collected emphasize that the proficiency profile of primary school and secondary- school children, changes significantly between the results obtained in pre and post-test, for all variables evaluated. The data collected showed that the program increases adaptability to the school environment and learning skills, and anxiety, loneliness and inattention decrease significantly. Even though, we considered it necessary to identify demographic factors that may impact the effectiveness of such an intervention. Practical implications for similar future projects, are further discussed in the article.

Keywords: school dropout; remedial and psycho- educational intervention; social-emotional competencies

Introduction

An increasing number of specialized studies suggest that school dropout is only the final stage of a dynamic and cumulative process involving disengagement or distancing from

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school (Korhonen et al., 2014; Fortin et al., 2013; Rumberger & Arelleno, 2007; Appleton et al., 2006). This disengagement in education can start as early as primary school, when students fail to get properly involved in academic or social activities. Poor performance in academic tasks, especially in core subjects, inappropriate behavior, repeated failure to do homework and lack of participation in extracurricular activities are all early signs of a problem that can often lead to a large number of corrective activities, corrective absences, repetition and / or repeated transfers between different educational units (Belfanz et al., 2007; Heppen & Therriault, 2008, Gottfried, 2010). In the case of dropping out of school, we cannot talk about a single cause or a single factor responsible for leaving school early. On the contrary, several risk factors can be identified (Bradshaw et al., 2008; De Witte et al., 2013). These in combination with each other and / or through mutual empowerment, increase the probability that young people / children will not complete their studies (e.g. Gleason & Dynarski, 2002). Using a careful assessment of all these factors (causal or facilitators) that are frequently associated with abandonment, specialists in the field have managed to place them in four broad categories (Hammond, Linton, Smink, & Drew, 2007):

a. Factors related to the individual (student) - for example: absenteeism, repetition, cognitive and learning difficulties, negative attitude towards school, deviant / inappropriate behavior

b. Family factors - for example: socio-economic status, lack of parental involvement in the child's school / academic life

c. Factors related to school - for example: negative school climate, too high or too low expectations of teachers towards students

d. Community factors - for example: high crime, lack of community support for schools and students

There are also studies that draw attention upon individual risk factors as internalizing and externalizing disorders on school dropout. Disruptive behavior seems to be one of the most impeding factor for educational attainment (Esch et al., 2014), while depression and anxiety are related to poor academic achievement and dropout (Quiroga et al., 2013; Marcotte et al. 2006; Fortin et al., 2013). Socio-emotional competence is a multidimensional construct that is critical to the success in school and life of children and adolescents, including those at high risk of dropping out due to disadvantaged socio-economic status, minority status or early emotional problems, or behavioral (Domitrovich, Durlak, Staley & Weissberg, 2017). The scientific studies and the reality itself has indicated that a child with reduced social interaction skills, and exhibiting difficulties with emotional self-regulation is more predisposed to dropout, than a child with poor academic results, but who has well developed socio-emotional competencies. The great stake of interventions focused on socio-emotional skills is the fact that they not only predict the academic success and professional development of future adults, but also contribute significantly to well-being and personal development, provide conditions for people to become better citizens, reduce risky behaviors (e.g. violence, substance abuse)

(Durlak, Weissberg & Pachan, 2010; Taylor et al., 2017), and reduce even the dropout rate and learning anxiety (Wang et al., 2016). Another frequent recommendation of researchers in this field is that interventions to reduce school dropout has to begin early, especially where factors that can predispose to this phenomenon can be unequivocally identified (Stegelin, 2004). That is why most of the recommendations resulting from research on the phenomenon of early school leaving mention that interventions should aim not only to optimize academic performance, but also a number of other related factors, like social –emotional competencies. Taking into account these recommendations, starting with the fall of 2018, the World Vision Romania Foundation, together with the Romanian Patriarchate, Babes-Bolyai University and Consult Plus got involved in a large project focused on school dropout. The central aimed of the project was to carry out a complex, multidisciplinary intervention whose purpose was to increase students' involvement in school activities and implicitly, the prevention and reduction of school dropout. In this article we want to present only a part of this complex approach and results, especially the way in which remedial and personal development interventions carried out by socio-educational pedagogues and psychologists have influenced the development of children in primary and secondary school.

Aim of the study

The purpose of this research was to evaluate the impact that the Choose School- A chance for the future program, carried out in Vâlcea County (within the project POCU / 74/6/18/106002) (POCU: Operational Program Human Capital), had on the social and emotional development of students from the target group, in order to prevent school dropout. More exactly, we set out to assess the degree to which remedial and psycho-pedagogical activities have an measurable influence on several relevant variables for prevention and reduce the school dropout. The variables that we have monitoring and measure were: level of adaptability, social skills, learning skills, affective problems, anxiety problems and ADHD problems. In the same time, we aimed to explore the correlation between the effectiveness of the program and several social and demographic variables such as: gender, ethnicity, family size, parental status etc.

Because in this research project, the group of participants was selected based on certain specific criteria, the hypotheses formulated were strictly related to the intervention group. By implementation the remedial and counselling activities we anticipated to significantly increase the level of school adaptability, learning abilities and social skills. By contrast we have expected to significantly decrease the level of affective disturbances, anxiety, and ADHD problems. For all variables we have expected a statistical significant difference between pre-intervention and post intervention faze.

Measurements

The battery of psycho-pedagogical tests used in our investigative approach consisted of scales that evaluated the 5 categories of "academic activators" identified by DiPerna,

Volpe and Elliot (2002). Due to the restrictions generated by the COVID 19 crisis, in both evaluation moments these instruments were completed online. This constrain have forced us to choose only those tests that had a teacher report form. Moreover, this criterion was also important due to the fact that the participants selected to benefit from intervention come from disadvantaged backgrounds, with very low access to technology (PC, laptop, iPad), but also with low digital skills (difficulties in filling in google forms documents). Thus, we opted for the BASC-2-TRS test batteries (Behavior Assessment System for Children-2- Teacher Rating Scale, Reynolds & Kamphaus, 2004, translated and adapted by Mitrofan N, Ion A. & Iliescu D. in 2011) and ASEBA -TRF (Achenbach System of Empirically Based Assessment- Teacher Report Form, Achenbach & Rescola, 1991, translated and adapted by Dobrean et all. in 2007). This complex test batteries, are validated on the Romanian population.

From the BASC assessment system, we used the scales of adaptability, social skills, and learning skills, and from ASEBA, the scale of emotional problems, anxiety problems, and ADHD problems scale.

The questionnaires include items evaluated on a Likert scale with 3 points or 4 points which allowed their transposition in the google forms application in order to be completed online.

Participants

The participants in this research project were selected based on the POCU project requirements. Namely, we have included children from disadvantaged backgrounds, from families with low socio-economic status, with parents working abroad, or living in the rural zone of Vâlcea County. Although at the beginning of the program (pre-intervention stage), teachers filled in evaluation forms for 352 primary students and 210 secondary -school students, at the end of the intervention only 148 primary and 94 secondary school children could be fully evaluated.

In the primary school sample (N=148) there were 59 girls (40%) and 89 boys (60%) with an average age $M=8.59$ ($SD= 1.35$). In the secondary school sample there were 57 girls (61%) and 37 boys (39%) with an average age $M= 12.78$ ($SD= 0.98$).

A large number of students left the program due to the change determined by the pandemic situation, which made it impossible for them to participate in all the activities of the project, because of the lack of internet access or technology.

Procedure

After the initial assessment was completed, the students in the target group participated in a series of activities specific to their age. These group activities took place online and face-to-face, in a span of eight months. Every week, the project team carried out one hour of remedial education activities on Romanian language and mathematics, one personal development activity and one school counselling activity. These last categories of activities were adapted to the child's needs and had as general objectives self-knowledge,

social-awareness, emotional development, emotion regulation, social development etc. Depending on the needs identified, some of the counselling activities were performed individually.

Results and discussions

As a data analysis tool, we used the SPSS statistical program, and set the significance thresholds for statistical tests at $p < 0.05$ and $p < 0.01$ (indicators that prove the existence or non-existence of an effect and allow us to generalize the data obtained). In order to test the effectiveness of the program, we compared the test scores obtained by the students in the post-intervention stage with the results obtained in the pre-intervention stage. Because for the two educational groups (primary, respectively gymnasium) in the case of the BASC questionnaire, the items that measure the evaluated dimensions are different depending on the age, we performed a separate analysis of the data. Both in the case of 7-11 year old students (see table 1) and in the case of 11-15 year old (see table 2), the intervention had the expected effects (i.e. the healthy competence level of the children was significantly improved and the level of dysfunctional problems significantly decreased).

Table 1. The effectiveness of the program for the primary school sample

Outcomes	Pre-intervention		Post-intervention		t	p	d
	M	SD	M	SD			
Adaptability	14.52	4.58	17.28	4.56	-9.21	0.001	0.60
Social skills	13.54	6.04	16.53	6.52	-7.96	0.001	0.49
Learning skills	12.05	6.23	14.39	6.75	-6.02	0.001	0.37
Affective problems	3.22	2.77	2.38	2.09	3.87	0.001	0.30
Anxiety problems	1.73	2.26	0.50	1.17	6.39	0.001	0.54
ADHD problems	7.75	7.51	4.54	5.52	6.18	0.001	0.42

Analyzing the data presented in the table above, it can be seen that the proficiency profile of primary school students changes significantly, meaning there is a statistically significant difference ($p < 0.01$) between the results obtained in pre and post-test (analysis with repeated measurements), for all variables evaluated. These results lead us to conclude that the activities carried out with these children (the intervention) have enhanced their level of adaptability to the school environment, the level of social and emotional skills, an increase in the level of learning skills and a decrease in problems of inattention and hyperactivity. Analyzing the effect sizes, the direct impact of the intervention for this group varies between 0.30 and 0.60 (from small to medium), the biggest impact being on adaptability and anxiety problems. In other words, we can state that the first three hypothesis were confirmed.

Table 2. Effectiveness of the program for the secondary school sample

Outcomes	Pre-intervention		Post-intervention		t	p	d
	M	SD	M	SD			
Learning skills	12.70	8.74	16.32	9.55	-5.68	0.001	0.41
Adaptability	14.21	4.60	17.17	4.77	-7.44	0.001	0.64
Social skills	11.60	6.55	16.18	7.40	-8.19	0.001	0.69
Affective problems	2.73	2.98	1.76	3.02	5.06	0.001	0.32
Anxiety problems	1.20	1.76	0.69	1.31	5.28	0.001	0.29
ADHD problems	7.25	7.85	5.14	7.01	4.82	0.001	0.26

In table 2 we present the results obtained by comparing the data obtained in pre- and post-intervention for students in the gymnasium cycle. The observed values support that the level of development cognitive and social-emotional skills assessed in the two moments of the intervention is significantly optimized ($p < 0.01$). Therefore we can conclude that due to the intervention, learning skills, adaptability, social and emotional skills of pre-adolescents improved significantly. On the other hand, the level of anxiety and ADHD symptoms decreased significantly. In the same time, if we look at the effect size of the intervention, we find that its size is moderate to high (0.30-0.60), especially in the case of social skills and adaptability of students to the school environment. We can thus state that the formulated hypotheses are confirmed, the value of the effect size making us claim that the observed effects are outcomes of the intervention.

Correlates of change

As we have already mentioned, this research also aimed to identify possible predictors of intervention effectiveness. Therefore, the difference between individual performance between post and pre intervention (Delta) was also computed for the group of participants who participated in both stages of the study (pre and post -intervention, $N = 148$ students, respectively $N = 94$). Factors such as age, gender, ethnicity, family size (number of children in the family), parental status and attendance in the project activities were taken into account.

As far as age is concerned, for both primary and secondary school samples, there were no significant correlations with the effectiveness of the program. However, there are several negative low to medium intensity correlations, even if not significant with the change in social skills ($r = -0.15$ for the primary school sample), learning skills ($r = -0.18$ for the secondary school sample) and anxiety problems ($r = -0.17$ for the secondary school samples). This means that the effectiveness of the intervention tends to be greater for the younger ages, inside each educational cycle (see table 3).

Table 3. The correlations between age and effectiveness of the program

Effectiveness upon	Age	
	Primary school sample (N=148)	Secondary school sample (N=94)
Adaptability	.059	-.048
Social skills	-.157	-.129
Learning abilities	-.106	-.182
Affective problems	.035	.030
Anxiety problems	.040	-.176
ADHD problems	.083	-.095

** p< 0.01, * p< 0.05

Regarding the gender differences, the effectiveness of the program was assessed. The results have revealed that for the primary school sample, for boys, the program had a significantly higher effectiveness for social skills ($p < 0.05$), and a marginally significant higher effectiveness for anxiety problems ($p = 0.06$). For the secondary school sample, the data suggest that only in the case of problems related to attention deficit and hyperactivity there is a significant difference, with a significantly higher effectiveness for boys. So, we can state that for boys, the intervention program had a big impact on social and emotional skills (see table 4).

Table 4. Gender differences in the effectiveness of the program

Effectiveness upon	Primary school sample (N=148)				t	Secondary school sample (N=94)				t
	Boys		Girls			Boys		Girls		
	M	SD	M	SD		M	SD	M	SD	
Adaptability	3.07	3.48	2.29	3.86	1.27	3.59	3.55	2.42	3.81	1.49
Social skills	3.63	4.52	2.02	4.48	2.13*	5.00	5.34	4.18	5.36	.73
Learning abilities	2.82	4.72	1.61	4.67	1.53	4.41	5.57	3.09	6.53	1.01
Affective problems	-.83	2.22	-.86	3.21	.07	-1.24	2.40	-.77	1.39	-1.20
Anxiety problems	-1.53	2.11	-.80	2.63	-1.86 ^a	-.51	1.02	-.51	.89	-.02
ADHD problems	-3.54	5.87	-3.54	5.87	-.77	-3.14	4.77	-1.35	3.74	-2.02*

** p< 0.01, * p< 0.05, ^ap< 0.10

In what concerns the ethnicity, for primary education level, Romanian students significantly reduced their emotional problems compared to Roma students. In the case of secondary school children, the data revealed significant differences ($p < 0.01$) in the efficiency of the intervention for: adaptability, social and learning skills, respectively emotional problems, in the sense that Romanian students registered significantly higher improvements than Roma students, in 4 of the 6 evaluated dimensions. This result, in our opinion, can be interpreted from two different angles: a. On the one hand, the proposed

intervention is more useful for Romanian children, which means that in future projects it will be possible to follow the same principles of intervention as in this project; b. on the other hand, the fact that for Roma adolescents, the intervention seems to have smaller effects, suggest that maybe in the future, the intervention strategies should be thought differently for them - for example, (possibly) more remedial sessions will be needed, the intervention should respond more to their specific educational and personal needs; perhaps it would even be appropriate for the intervention to be designed only after identifying their development profile (i.e. to have as a starting point, objective data, specific to the group to be intervened). For this specific factor (ethnicity), we have to take into account also the number of attendances and the implication in the remedial and counselling activities, which was higher for Romanians. Although we couldn't find a significant correlation between ethnicity and the implication of students in project activities, this factor might influence the results of future intervention programs.

Table 5. Ethnical differences in the effectiveness of the program

Effectiveness upon	Primary school sample (N=148)					Secondary school sample (N=94)				
	Romanian		Roma		t	Romanian		Rroma		t
	M	SD	M	SD		M	SD	M	SD	
Adaptability	2.63	3.54	3.18	3.95	-.81	4.96	6.69	.08	2.04	3.57**
Social skills	2.85	4.75	3.43	4.09	-.67	3.53	4.01	1.00	2.00	3.01**
Learning abilities	2.38	5.08	2.28	3.71	.12	5.51	5.90	1.92	1.63	2.99**
Affective problems	-1.14	2.19	-.05	3.54	-2.24*	-1.22	2.04	-.28	1.02	-2.20*
Anxiety problems	-1.24	2.29	-1.25	2.56	.01	-.54	1.01	-.44	.71	-.47
ADHD problems	-3.36	5.97	-2.88	7.29	-.40	-1.97	4.59	-2.36	3.26	.389

** p< 0.01, * p< 0.05, ^ap< 0.10

Also, there were some other important factors that could predict the efficiency of the intervention program for pre-adolescents. The data emphasize that the number of children in the family correlates significantly with the effectiveness of the intervention on anxiety problems (negative correlation, $p < 0.01$). Adolescents who have divorced or separated parents, have a low / limited improvement in learning skills compared to students whose parents are married ($p < 0.01$).

Table 6. The correlations between the number of children in each family and the effectiveness of the program

Effectiveness upon	No. of children	
	Primary school sample (N=148)	Secondary school sample (N=94)
Adaptability	.091	-.178
Social skills	.065	-.154
Learning abilities	-.004	-.199
Affective problems	-.010	-.035
Anxiety problems	-.003	-.299**
ADHD problems	.010	-.130

** p< 0.01, * p< 0.05

We also noted that the degree of presence in the project activities is significantly and positively associated with the efficiency of the intervention on the areas of

adaptability, social skills and learning skills (table 7). In other words, the higher the number of students attendances in the project activities, the better they developed their relationship skills, learning or perfecting skills (for all domains $p < 0.01$) and their ability to successfully adapt to the school environment and at the specific demands of the school was higher ($p < 0.05$). These three areas of development are very important for the adolescent, because, on the one hand, the level of self-efficacy related to school can change in a positive way (so it can increase motivation / self-determination for school), and on the other hand optimizing interactions in the school environment, creates a supportive, reliable educational space (this in turn favors academic performance).

Table 7. The correlations between the presence in the project activities and the effectiveness of the program

Effectiveness upon	Presence (daily activities/month)	
	Primary school sample (N=148)	Secondary school sample (N=94)
Adaptability	.029	.260*
Social skills	.136	.268**
Learning abilities	-.045	.392**
Affective problems	.017	-.084
Anxiety problems	.089	.141
ADHD problems	.088	.023

** $p < 0.01$, * $p < 0.05$

Another important information observed for this age group in relation to school adaptability was that the highest efficiency of the program implemented within the project, occurs in students who spend more time with someone else rather than with their parents or just their mother. In other words, those teenagers who do not spend most of their time with close family members, become more adapted to the school / educational context as a result of participating in the activities within the project. In our opinion this is a salient aspect because in Romania, especially in rural zones, the majority of the parents are working abroad and grandparents or other family members are taking care of the children. Our data emphasize that there is a real need to design these types of intervention programs in order to help learners adapt to school and complete their education.

Limitations and future directions

Besides the relevant results revealed, our research has several limits that could impose caution when interpreting these results.

First, the instruments used to measure the psychological concepts, were addressed to teachers, who reported all the answers and so the teachers' subjectivity might have influenced the data.

Second, for pragmatic reasons, our research did not include a control group. Consequently, we could not quantify the proportion of the total change generated by other factors than the intervention (e.g. endogenous changes, maturation).

Third, there are also some limitations from a statistical point of view. First, even if the pre-intervention sample generated sufficient statistical power for our analysis, the sample size from the post-intervention phase represented less than half of the initial sample. Besides the deficit of statistical power, the reduced sample size in post-intervention phase could actually generate an over-estimation of change if the reason for attrition was the inefficiency of the intervention.

Fourth, the Covid-19 Pandemic overlapped with the activities of the project. This means that the changes in teaching and evaluation methods, and generally in the way school adapted to these circumstances, could have been generated a set of potentially confounding variables, that were not measured nor controlled.

As far as future research directions are concerned, our study could be developed as a more complex investigation regarding school dropout by including additional variables, such as: cognitive abilities (attention, cognitive inhibition, comprehension, computational abilities, etc.), motivation for study, school identification, motor skills etc. Beside the efficacy assessment, the analysis of the mechanisms of change would be also relevant. This could allow us to identify the active components of the intervention and to find the contribution of each component to the total efficacy. Also, it would be relevant to expand the set of potential moderators of the effect, both the individual characteristics of children and the characteristics of the counselor and the way the intervention is delivered.

Conclusions and practical implications

The concern for keeping children and adolescents in school is both challenging and complex. Research in this area has shown that the most effective strategies to reduce school dropout require preventive interventions for children at risk of dropping out of school before they enter high school. These interventions need additional support (eg guidance, counselling), as well as actions to monitor risk indicators, which allow for the correct guidance of interventions. There are aspects that the decision makers and the people directly involved in the implementation, within this project, have capitalized on. The intervention itself also aimed at carrying out activities that could lead to increased school performance, involvement in teaching and thus to the extension of the schooling period by (a) providing direct, individualized guidance and support for the fulfillment of tasks from home, participating in class activities; (b) student participation in counseling and career guidance classes - activities validated in terms of efficiency through specialized studies (Wahner, 1995; Wagner, Blackorby, & Hebbeler, 1993). Therefore, we can unequivocally state that the results obtained here, within the project, come to add and confirm the data obtained in other similar studies found in the national and international literature. In the following statements we resume and formulate same conclusions regarding the most relevant results from this research.

For primary school children:

a. the intervention carried out in the project had a statistically significant effect ($p < 0.01$) on all evaluated dimensions (analysis with repeated measurements)

b. for the analyzed sample, the activities had the same effect regardless of the chronological age.

c. in terms of social skills and anxiety problems, intervention is more effective for boys than for girls

d. Romanian students significantly reduced their emotional problems compared to Roma students

e. the greatest effect of the intervention in terms of reducing problems of affectivity, anxiety and ADHD, was recorded for students who spend most of their time with their mother. In contrast, adaptability has improved the most for students who spend the most time with both parents.

f. students who spend most of their time with their mother, had the lowest level of adaptability when entering the project; it was optimized through the activities in the project

g. students who spend more time with someone other than their parents had the lowest initial score on social skills

h. ethnicity (translated by different educational principles and values) is an important vulnerability for all dimensions that impact the child's ability to respond successfully to the challenges of the school environment.

For secondary-school children:

a. the intervention carried out had a statistically significant effect ($p < 0.01$) on all evaluated dimensions (Analysis with repeated measurements)

b. for the analyzed sample, the activities had the same effect regardless of the chronological age.

c. in terms of social skills and anxiety problems, intervention is more effective for boys than for girls

d. Romanian students significantly reduced their emotional problems compared to Roma students

e. the greatest effect of the intervention in terms of reducing problems of affectivity, anxiety and ADHD, was recorded for students who spend most of their time with their mother. In contrast, adaptability has improved the most for students who spend the most time with both parents.

f. students who spend most of their time with their mother, had the lowest level of adaptability when entering the project; it was optimized through the activities in the project

g. students who spend more time with someone other than their parents had the lowest initial score on social skills

h. ethnicity (translated by different educational principles and values) is an important vulnerability for all dimensions that impact the child's ability to respond successfully to the challenges of the school environment.

Analyzing both the numerical data collected in the two stages of testing, and especially the result of the analyzes and interpretations we performed in this study, it is clear that the multidimensional intervention implemented by experts in the project led to changes in accordance with the expectations expressed. The intervention included both remedial activities (to increase school performance) and social and emotional development activities. Even if in the initially assessed groups (primary and secondary school) about half of the children had serious deficits in the assessed skills, we find that the intervention had effects on all. That mean that students made a real progress regardless of the initial level of school or socio-emotional competencies. Obviously, as in the context of any correctly conducted study, attention must also be drawn to certain investigative or outcome limits. Thus, although almost all dimensions evaluated and monitored showed statistically significant changes, the magnitudes of the effect of the intervention varied between small, moderate and medium values. This may be due to several factors (the presence of confused variables): a. the relatively small number of children who were evaluated in both stages (those who were evaluated in pre-test vs. post-test); b. the changes due to the natural biological maturation of children and adolescents; c. the atypical implementation of the project activities, in the conditions of the pandemic generated by the new coronavirus, etc. Therefore, we can argue that the intervention led to objectively noticeable effects that are in line with the general purpose of the project, namely to reduce the number or severity of variables that favor school dropout. Moreover, it is obvious that the school population in our country is in great need of such projects. They are needed to support children who have multiple vulnerabilities and who urgently require such support activities provided by a qualified human resource. There are several reasons why such initiatives should continue in the coming years. Here are just a few:

1. the educational contexts in our country are of a high heterogeneity, and some require remedial interventions and extensive recovery
2. school dropout continues to provoke Romanian education sistem, at all levels
3. functional illiteracy is on the rise and forces us to intervene
4. The Romanian education system needs a multilevel and multifaceted intervention - support and specific domain corrections, prophylactic - curative interventions at the level of socio-emotional competencies and, obviously, an axiological / moral sanogenesis.

However, taking into account the outcomes, but also the limits of the study, we can make some recommendations or future directions of action that (we believe) can be useful to others who assume projects similar to the one analysed here. These are:

- a. remedial activities aimed at optimizing school results must be accompanied (in some cases even preceded) by specific activities for the development of social and emotional skills;
- b. children from single-parent families are a vulnerable group in relation to all dimensions measured in the project; we therefore consider that for them individualized

psychological counselling activities would be extremely useful in the context of such remedial interventions and could enhance their compliance with remedial activities;

c. adolescents who do not spend time with their parents could be a separate vulnerable group, and interventions aimed at them should aim to identify factors that determine these vulnerabilities (emotional, cognitive, social), in order to subsequently propose prevention programs or specific intervention;

d. psycho-social and cognitive development strategies must be implemented from primary school. Building a robust school self-efficacy can be the basis of educational identity and can thus reduce school dropout. In this project, the small number of children present at both times of the evaluation can be a testament to the risk of dropping out of school from an early stage, their subsequent efforts to reintegrate into school are very large and costly;

e. it is necessary to assess the vocational and educational identity of adolescents in high school, as this can provide very clear directions for intervention for this age group. Although we aimed to assess this dimension as well, the prevention measures imposed by the COVID-19 pandemic prevented us in this respect, the students being unable to complete the specific questionnaires, which require assisted self-reporting. However, we recommend that this dimension be taken into account in subsequent projects and studies addressed to this population.

In conclusion, we add to those already formulated, 3 more recommendations that integrate in our opinion, the guidelines of any preventive intervention addressed to vulnerable school populations.

a. Experts who implement such intervention programs have to combine discipline remedial activities with the principles of social and emotional learning. This can be done through a training program addressed to counsellors / teachers; in the training sessions, beyond the elements of terrorist-empirical substantiation, concrete examples of practical activities that facilitate social and emotional development can be presented (by using the principles of rational-emotional and behavioral education)

b. The counsellors (psychologists and pedagogues) involved in the project to prove that they possess, in advance, skills to perform activities designed to develop children's emotional and social skills. In this sense, a set of specific training strategies will be used, supported by a series of means / support materials developed ad hoc - therapeutic stories, didactic-formative games, team activities, role play, etc.

c. The implementation team directly involved (teachers, counsellors) must permanently benefit from support and advice provided by people with psychological and pedagogical expertise.

Summarizing, by virtue of an integrative analysis of the results obtained by involving all the actors of this partnership, we can say, without hesitation, that they prove the success of the project program. Moreover, we consider that they are a real plea for collaboration - the work of teachers with educational counsellors, psychologists and pedagogues. We are convinced that such a professional collaboration will favour the

achievement of the goal pursued by all those who are sincerely concerned about the educational, psychological and moral health of the young generation.

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Teachers' adaptability to online education during COVID-19

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Abstract

Nowadays, the world is facing a pandemic that affects millions of people, leading to serious illness and social dysfunction. This poses a threat not only to the population, but also to the economic and social fields. The negative impact on these sectors is represented by economic instability and restrictions on social activities, in particular by the closure of schools and the launch of online courses that affect the educational environment. Therefore, the central theme of this research is the capacity and level of teachers in Romanian education to adapt to the COVID-19 pandemic situation. Due to the restrictions imposed to limit the spread of coronavirus, this has brought changes to the level of the education system, being performed in an online format.

The entire education system has faced difficulties such as school dropout, social inequities, lack of access to technology and the internet, lack of digital skills, transition to the online learning system, poor health conditions in school institutions, even the problem of resuming or closing the school year. Thus, in this research we analysed the level of adaptability of teachers, identifying the adaptability differences between urban and rural environments or between the levels of education at which they teach. We also identified the need to readapt the subject to be taught in the virtual environment and how much of the personal time they allocate to prepare the courses taught remotely, but above all we determined the obstacles that teachers encounter in teaching and conducting courses with students during the coronavirus period.

Keywords: COVID-19 pandemic, online education, adaptability, difficulties, school dropout

Introduction

The COVID-19 pandemic currently affects the lives of hundreds of millions of people globally, generating serious social dysfunctions, having in the same time a devastating impact on the economic and social field. Economic instability, restrictions that limit social activities - implicitly the closure of educational establishments and the conduct of courses in online format are direct results of this impact.

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With the onset of the crisis, all people involved in the educational process were affected, either the persons who are educated, educators or their families. Before the Coronavirus pandemic, education in Romania was already *"in a deplorable state"* due to the countless changes of ministers that were accompanied by the abandonment of the predecessor's initiatives, leading to other new reforms, which were never completed without public consultation (Hosszu & Rughiniş, 2020). It can be stated that Romania was not at all prepared for the forced implementation of a new type of education conducted in online format given the lack of access to technology, Internet, the lack of IT knowledge of students, parents and teachers, the lack of materials adapted for online teaching and many other barriers faced by the education system. Students and teachers were in a unique situation, given the duration of the pandemic and its effects on everyday life, costs and other financial problems that directly affected the continuity of education. The pandemic has thus generated unfavourable conditions, such as school dropout, feelings of exclusion, highlighting a picture of inequity in the education system.

If initially, on March 13, 2020, 45 countries declared the closure of schools (400 million students being affected by this measure), between April 25-26, 2020 the number of countries with altered education system increased to 165 (over 1,37 billion of students being affected by this situation). On this occasion, the problems that already existed in education systems came to light: according to the report published by UNESCO, 1 in 10 students from disadvantaged schools have no internet connection or access to technology to conduct remote education: *"only a minority of countries have the basic infrastructure to focus on the pedagogical challenges of online approaches to teaching and learning"*(UNESCO, 2020B).

At the country level, Romania already faces numerous barriers in the education system in 2019: high school dropout rate (15.3%), functional illiteracy rate 44% and especially insufficient investment in education 2.9% of gross domestic product (GDP) (Peticila, 2020). With the onset of the COVID-19 Pandemic, there were other issues that surfaced related to old education reforms that were supposed to include addressing the lack of digitalization of schools and the lack of digital skills, teacher training, curriculum adjusting, school infrastructure, educational gaps, unequal access and quality of education. (Butnaru, Nița, Anichiti, & Brînza, 2021).

This study presents the situation at the Romanian level of the capacity of teachers to adapt to the new requirements of remote education during the COVID-19 pandemic and aims to analyse the opinions of the teachers in Romania with reference to online education and the situation imposed by the new conditions. Also, the purpose of the analysis is to highlight and raise a red flag in order to take action on the problems caused by the pandemic so that teachers are prepared and trained, having access to technology and materials adapted to the digital age in which we live, in order to finally provide a quality education.

Our research is based on determining the level of adaptability of teachers, identifying differences in adaptability between urban and rural environments, between the levels of

education at which they teach and also between the age and seniority in education of teachers. At the same time, we want to observe the intensity of the difficulties faced by our subjects: the need to readapt the subject to be taught in the virtual environment or the obstacles they encounter in teaching and conducting courses with students. Finally, another aspect that concerned us, was the teachers' opinion on the potential of online education in the near future, as well as possible solutions for improvement.

Theoretical framework.

Education during pandemic

At the educational level, education systems are facing a crisis situation, reaching decisions to maintain the health of students and families from which they come, but also in order to stop the spread of the Covid-19 virus. Initially these decisions were recommendations: short-term closure of schools for cleaning or disinfection (especially if there were cases of infections) or social distancing strategies (postponing or cancelling conferences, gatherings, trips, physical education or meals at the school cafeteria), even precautions such as wearing masks and disinfecting hands (Centers for Disease Control and Prevention [CDC], 2021).

The scientific literature has recently been enriched with valuable contributions focusing on the impact of the pandemic on education systems worldwide (Pattison et al. 2021); studies focused on the challenges encountered in designing and implementing educational policies in the COVID-19 pandemic (Fotheringham et al. 2021); studies addressing the challenges of education in rural or peripheral areas (Campbell et al. 2021), as well as studies analysing the psychological and social impact of remote education among different school populations (Tomasik et al. 2021; Hoffman et al. 2020; Aurini & Davies 2021). The effects of the COVID-19 pandemic on the Romanian educational system are analysed by Radu Săgeată (2020); also by Florian Bogdan and Sebastian Țoc (Bogdan & Țoc, 2020).

During the pandemic, education ranks first as the percentage of employees working from home, given that almost all global education was conducted from home without physical participation in courses, but only online (Ahrendt, et al., 2020, p. 32).

Students who come from privileged backgrounds, who are eager and able to learn, can easily find a variant when suspending courses towards a learning alternative, due to opportunities and support by parents. Those from disadvantaged backgrounds (especially those in rural areas) often remain outside the education system when schools close. Therefore, this crisis has revealed the many inadequacies and inequities in education systems - from access to teaching materials and computers needed for online education and the support of the environment needed to focus on learning, to the imbalance between resources and needs (Schleicher, 2020, p. 4). Thus, the pandemic further exacerbates the problems that many communities already faced in terms of education.

The ability to cope with school closure due to a pandemic differs depending on the level of development of a region or country. According to the United Nations (UN), in 2020, 86% of primary school students dropped out of school in low-development countries, compared to only 20% in highly developed countries. For example, in most European countries, pupils and students from low socio-economic backgrounds lack opportunities such as electricity, internet, technology, curriculum, a quiet room, and even parental support during school closure (UN, 2020, p. 5).

Also, a representative study from the Romanian Institute for Evaluation and Strategy (IRES) shows that 32% of children enrolled in pre-university education do not have access to a digital device (laptop, computer, tablet) for online school, and 12% of children at country level they do not have an internet connection to be able to take part in virtual courses (IRES, 2020).

At the level of teachers there are difficulties in the technological resources, the skills to work with them and of course the reconfiguration of the subject in order to teach in online format. With the implementation of remote education, teachers do not have enough guidance, training or resources, specifically they have no support to teach in the online environment, disseminated through computer or telephone applications. Teachers around the world were not entirely ready to support continuity of learning and adaptation to the new online teaching. According to the European Commission, disadvantaged schools, from rural area or disadvantaged areas, lack, in particular, the adequate digital capacity and the necessary infrastructure to provide distance learning. Significant differences in online teaching and learning resources can also exist in both private and public environment. In most countries, private schools are familiar with the Virtual Learning Environment (VLE) and more efficient compared to public schools. However, this is not found in European countries such as Slovenia, Austria, Italy, Czech Republic, Poland, Romania, Estonia, Malta and Croatia (Milasi et al., 2020, pp. 10-11).

Methodology

The research method we used for this study is the survey: quantitative, cross-sectional, quasi-experimental and statistical method, using the questionnaire as a tool. Our main objectives are to determine the level of adaptability of teachers to online school in a crisis situation and to identify the need and time to readjust the teaching materials of the teachers in the context of online education. We also aim to identify the biggest obstacles faced by teachers in online education and highlight the adaptability differences between the teachers who teach in rural and the one from urban areas or depending on the level of education they teach.

Assumptions:

1. Between the level of adaptability of teachers to online education there are significant differences depending on the environment in which teachers works.

2. There is an association between online education as being more beneficial for teachers teaching at an advanced level of education than other levels of education in a time of crisis.
3. There are significant differences between the level of readjustment of the subject for online teaching depending on the seniority of teachers in education.
4. There is a link between the obstacles in the preparation and online teaching process of teachers and the conduct of the class together with students.

The research tool consists of 23 questions. Half of them are opinion questions that reflect the level of adaptability of teachers and the problems and obstacles they face in online education. At the same time the last part is composed of factual questions. Thus, the questionnaire consists of closed questions, 4 semi-closed and one safe open that refers to the opinion of teachers in order to improve the online teaching activity. Also, scalar questions were used to obtain the accuracy of the respondents' opinion and a single filter question related to the level of education at which teachers teach, subsequently determining their didactic degree.

The population studied represents the totality of Romanian teachers who conducted the educational process in online format during the Coronavirus pandemic. And for the achievement of this study, the non-probabilistic sampling technique of convenience was used. This model involves the inclusion in the sample of subjects who have access to and are available to fill out the questionnaire on a voluntary basis.

Data collection took place over two months (November-December 2020). This period of application of the questionnaire is an advantage in the analysis of the results because we are before the winter vacation, in the middle of the school semester. It should be noted that the beginning of this semester was done in physical format for most schools in Romania, and in November it will be again restricted in the development of the learning process in online format. This moment was representative taking into account the return to virtual classes and the teachers who faced the obstacles of online school for the second time.

The questionnaire was disseminated both online through social media and communication platforms (e.g. *Facebook*, *Messenger*, *WhatsApp* as well as in the informal environment by informing the teachers and the acquaintances that could help by distributing the form, managing to accumulate a total of 437 questionnaires (of which 424 valid answers remained, having to exclude some answers in order not to limit the research and to have a study as accurate as possible).

Limits:

As a result of the data collection, we encountered difficulties such as the imbalance between the number of female and male respondents, thus preventing us from conducting statistical analyses according to gender. The discrepancy between the gender of the interviewed persons demonstrates on the other hand the reality at the educational level in Romania, namely that more than two thirds of the teachers are female. According to a report by the Ministry of Education and provided by the World Vision Romania

Foundation “in the total teachers, women are best represented in preschool education (where 99,7% of teachers is represented by women) and primary (90,2%)” (Sirbu, 2020). The fact that our research is based on 392 responses of female teachers and only 32 male responses, confirms the current situation of education in Romania and responds to the gender limit.

Another problem we faced in our research was the low number of responses to the invitation to complete the questionnaire of people who teach at the post-secondary education level (5 answers) and university (8 answers). As such, their answers were not included in our research because they are not relevant to our statistical analysis.

Another limit we have faced is the age of respondents. In our research we have groups of respondents divided by their age range. In order to analyse the level of adaptability of teachers we wanted to include as wide a range of teachers with as different ages as possible in order to achieve a more complete and truthful analysis. However, due to the unequal number of respondents across age ranges, we have not been able to have an accurate statistic.

Results

To perform this study, after data collection, and before analysing the hypotheses, we performed descriptive (frequency) analyses on certain questions to see the opinion of respondents regarding online education and how they adapted to the conditions of the virtual environment.

Out of the total number of 424 respondents, the largest number (143 responses), respectively percentage (33,7%) is represented by a neutral statement: (a direction neither good nor wrong), for the question “please appreciate the evolution of Romanian education, taking into account the pandemic we are going through”. Thus, a quarter of the teachers who completed the questionnaire have an invalid and undecided opinion related to the evolution of education. This percentage is followed by people who chose the answer “in the wrong direction”: 29,5% and 24,5%, respectively, of respondents who believe that education is going in the wrong and very wrong direction. Moreover, the average response rate to this question is 2,36, which demonstrates that more than half of teachers believe that Romania's education is heading in the wrong direction, and less in the right direction. For example, the percentage of people who rate the evolution of education as a good one represents an accumulated percentage of 12,3%. Therefore, due to the current pandemic, teachers have a negative position considering that education will evolve in the wrong and defective direction.

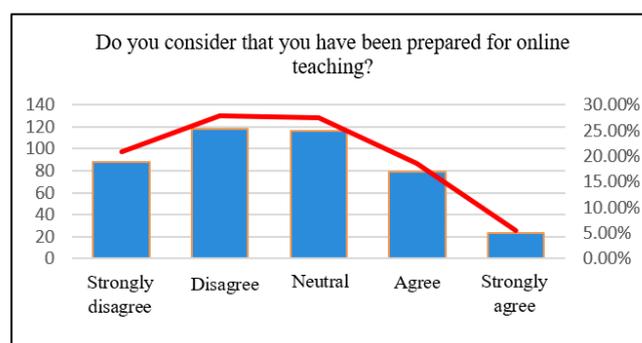


Figure 4.1. - The level of training for the online education

These results are closely related to the question of whether teachers were prepared for teaching in the online environment. According to figure 4.1 it can be seen that the average is slightly higher, of 2,6, which indicates that most respondents were not prepared, at most they were at an average level of preparation for online education. The highest percentage of respondents (27,8%) claimed that they were little prepared to deal with changes in education; and the lowest percentage was given by teachers who believe that they were prepared for teaching in the online environment (5,4%).

Following these analyses we can see that most of the teachers who claim that education will not have a very good evolution in the future, are the people who considered that they were not prepared for such a change at the educational level. For example, 44,3% of respondents who appreciate that education is heading in a very wrong direction, claim at the same time that they were not at all prepared for teaching in the virtual environment. Following a correlation between the two questions, using the Spearman test, we came to the result that there is a link statistically evidenced by the coefficient 0,33 (weak but significant correlation).

Thus, after analysing the data, we can say that those teachers who were not prepared by the online environment, believe that education will not have a good and beneficial evolution for the next generations. Therefore, teachers have a negative and critical attitude to the online environment in education, due to their insufficient preparation for virtual teaching. The fact that they have an unfavourable opinion regarding the future of education in Romania, raises a red flag about the idea of involvement and acceptance of the online environment and finally the digitalization of education.

Given the results obtained in the above, we will further study possible reasons or pretexts that lead to opposing views on online teaching. Thus, we analysed how much personal time the teachers allocate for training in teaching courses (materials, homework,

assessments, etc.), trying to see if there is a balance between professional and personal life.

We find that the average of the respondents is 4,33, a high average that reflects a lot, in fact really a lot, of personal time that teachers spends in readjusting the subject and materials for teaching in the online format. An insignificant percentage of 12% of teachers have a neutral position on this question regarding personal time and not even 1% of them

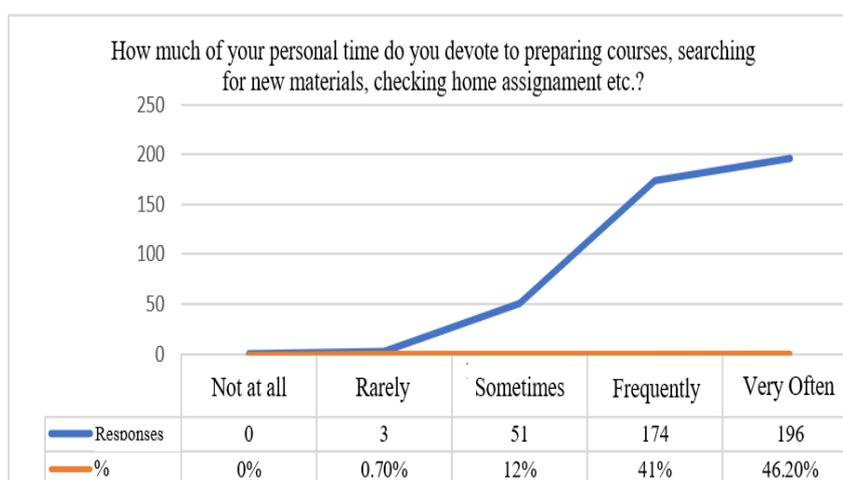


Figure 4.2 - Personal time devoted to the readjustment of courses in online education

claim that they spend very little time readjusting the discipline taught. Thus, more than 370 teachers (77,3%) believe that they need a lot of time from their personal lives for intensive training of courses in dealing with the online environment.

These results demonstrate once again the low level of training of teachers for online teaching, having to readapt the subject and give more time for this process.

Hypothesis 1: Between the level of adaptability of teachers to online education there are significant differences depending on the environment in which they work.

Within this hypothesis we want to analyse the level of adaptability of teachers according to the environment in which they operate, given the differences in economic development between the urban and rural environment, as specified and explained by Schleicher, an imbalance of education due to the pandemic (Schleicher, 2020, p. 4). To analyse this idea we used the Mann Withney U non-parametric test, which resulted in the following data:

We wanted to analyze in detail our hypothesis that at first glance is validated. Thus, we can note that for the urban category there are 280 answers whose average rank is 224,12. Unlike the rural category where there are 144 answers resulting in an average rank of 189,90. Therefore, the group of teachers who teach in urban areas has the higher rank average and tends to take higher values than those in rural areas.

There are significant differences in the level of adaptability of the teachers who teach in urban areas compared to those who work online in rural areas. This statement is specified by the value of the significance threshold which is less than 0,05 ($p=0,003$) and also by the value of the Mann-Whitney U test (16905,5). Thus, we demonstrate that urban teachers have adapted much better and more effectively to the pandemic situation with online education, compared to teachers from rural area.

Therefore, these results show us the discrepancy between the rural and the urban environment compared to the adaptability to the pandemic, respectively to the online education. This is due to the differences in the economic development of the environment in which the teaching activities take place, indicating the inequities between the environments. The Romanian rural environment is disadvantaged and has not been able to adapt so well to the online format of education, given the limited access to technology, teacher training and the virtual reality they had to face.

Hypothesis 2: There is an association between online education as being more beneficial for teachers teaching at an advanced level of education compared to other levels of education in a period of crisis.

Within this hypothesis we wanted to highlight whether there is a difference in education levels in relation to online education as a beneficial option in a time of crisis. To analyse this idea, we used The Chi-Square Association Test to see if there are significant differences between education levels. After applying the test we came to the result that affirms our hypothesis, indicated mainly by the significance threshold ($p<0,05$, $p=0,001$). However, the test result does not clearly and in detail demonstrate what are the associations between the levels and the three options preferred by the teachers. In

this context we used a recoding of the options chosen by teachers in new variables strictly on online education, physical education and hybrid education, each of them having as values "yes" and "no", respectively, representing the mention of the favourable option.

Therefore, we have chosen to re-analyse between the levels at which teachers teach and the option of online education to see if this is the most beneficial in terms of steps. We can see that there is no association between teachers at different levels and the preference of online education, indicated by the significance threshold ($p < 0,05$, $p = 0,75$) and the value of the standardized adjusted interval (which must be greater than 2 or -2).²

However, we can note that of all the respondents who preferred online education, the highest percentage is held by teachers in high school (47,1%), while the primary level supports online education only in 14%. Of the total number of respondents of 424 teachers, about three quarters (3/4) do not consider online education to be a beneficial option for a period of pandemic (303 responses against and only 121 supports online education).

In order not to leave the analysis incomplete, we repeated the same test for the other two answer variants (hybrid education and the one performed face to face). The analysis of the Chi-Square test applied for hybrid education and the levels in which teachers teach is very similar to the above, taking into account that there is no association between them ($p = 0,63$). Within these statistical results, 48,8% of the total respondents who prefer this hybrid teaching option are teachers in high school education. In contrast, the highest percentage who do not support hybrid teaching is represented by teachers who teach at the secondary level (41,4%).

Thus, we continued the analysis with the last option, that of face-to-face teaching, and we came to positive results, namely that physical education is associated with educational levels and that there are significant differences between primary and high school levels. These facts are due to the Chi-Square test which indicated a significance threshold of $p = 0,000$. Of the total respondents, 252 teachers do not support physical education being a beneficial one during a pandemic period, while 172 teachers choose this option to teach in face-to-face format. Of the 252 people, 48% of them do not agree with physical education, the percentage being represented by high school education. On the contrary, 27,3% (percentage represented by the primary level) support face-to-face teaching as the best option in a period of crisis. Therefore, the level of education is associated with the preferred option of carrying out physical education in a pandemic, taking into account that there is a positive association for the primary level and a negative one for the high school level in terms of face-to-face teaching.

Therefore, the only association is between physical education and the level of primary and secondary education. Thus, the opinions of the teachers who teach at primary level are that face-to-face teaching is the most beneficial option, while high school teachers consider that hybrid education, and perhaps online education is the most appropriate in a time of crisis.

Hypothesis 3: There are significant differences between the level of readaptability of the subject for teaching in online format according to the seniority of the teachers in education.

In order to affirm or refute this hypothesis, we used in the first phase a Kruskal-Wallis analysis, after which we noticed a disproportion of the answers, which led us to a recoding of teachers' seniority, thus performing another analysis based on Mann - Whitney U test. Within this hypothesis we wanted to investigate whether there are differences between the level of readaptability of the materials according to the seniority of the teachers.

In a first stage of the hypothesis analysis we proceeded to the use of the Kruskal-Wallis test which presented a result that affirms the idea that the readaptability of materials is done more or less, differently according to the years spent in education. From the following tables we can clearly notice the significance threshold ($p=0,29$, $p<0,05$) and also the Kruskal-Wallis value (Chi-Square $[H]=10,795$ with $df=4$) which thus demonstrates that there are statistically significant differences between seniority in

Table 4.1. – The results of hypotheses

Variables	Analysis I - Mann Whitney Test*			Analysis II** - Chi-square Test			Analysis III** - Mann Whitney Test		
	N	Mean Rank	Sum of Ranks	N	Percent	Adj. St	N	Mean	Sum of Ranks
Rural area	280	224.12	62754.50						
Urban area	144	189.90	27345.50						
Online education				121	28.8%	2			
Face to face education				172	41%	0.1			
Hybrid education				127	30.2%	1.8			
Less than 20 years of experience in education							205	204.83	41991.00
Over 20 years of experience in education							219	219.68	48109.00

* $p<0.05$ – the hypothesis is validated

** $p>0.05$ – the hypothesis is not validated

education on the level of readaptability of the subject for online courses.

Even if the significant threshold or p-value is below 0,05, if we look at table 3.4, we see disproportionate groups representing the seniority of the teachers. Following this finding we concluded that there is a possible influence on the result due to this inconsistency between groups. Thus, we will continue the analysis of the hypothesis in more detail, performing a recoding so that there is no longer such a large discrepancy between the groups. The subsequent tests we conducted were Mann-Whitney U to examine pairwise comparisons in a post hoc manner. In this context, we find two balanced groups with fairly close ranks, but with a significance threshold higher than 0,05 ($p = 0,188$), which demonstrates that there is no difference between the two groups

under 20 years and over 20 years of experience in education, in terms of readjusting teaching materials in online format. So our hypothesis is not validated.

Hypothesis 4: There is a link between obstacles in the preparation and online teaching process of the teachers and the conduct of the class with students.

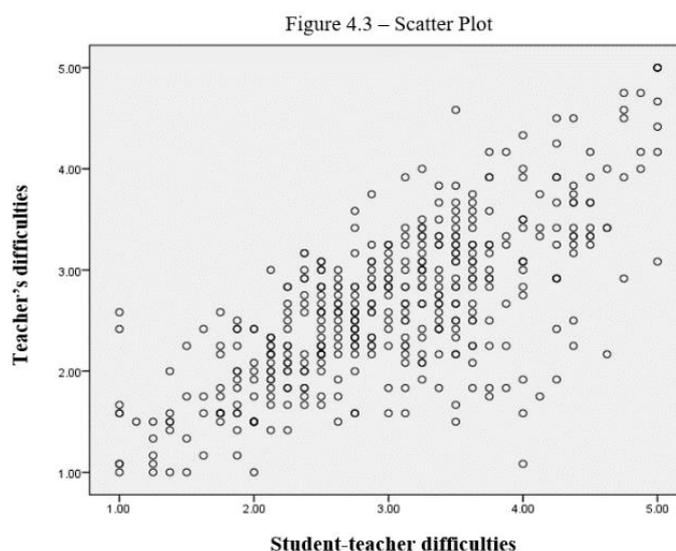
Within this hypothesis, we wanted to investigate whether there is a link between the obstacles faced by the teachers in the training process and the difficulties encountered by them in conducting classes with students. To analyse the hypothesis we used the Pearson bivariate correlation test and created a ScatterPlot graph to show us the extent to which the two variables are influenced. To perform these analyses we recoded the two questions in the questionnaire (Q6 and Q8), so that we have two numerical variables represented by the average of the answers given by the teachers to each item of the tables.

According to the result of the bivariate correlation test, we note a significant correlation between the two variables, indicated by the value of the Pearson Correlation coefficient falling between the values +1 and -1 ($R=0,719$). Given the R figure, it shows us a positive and strong relationship between the obstacles of teachers in training and online teaching and the difficulties they encounter in conducting classes with students. The significance threshold (p) is less than 0,05 alpha, which reinforces the assertion that there is a link between teacher barriers and barriers with students in online education. Thus, our hypothesis is validated taking into account the R and p values.

Next we made a Scatter Plot graph to determine the connection and its direction, that is, how the two variables influence. In our scatter plot, the points have an upward direction (they tend to form an oblique line, ascending from the value 0 to the meeting point of the 5 values of each variable). Even if there are points positioned outside the "line" or "point cloud", we can notice a dense positioning of most points from 0 at the top of the graph, which highlights

a positive correlation between variables. Taking into account the direction in which the points are heading, the two variables are directly proportional, which means that these increases of one variable are correlated with the increases of the other variable.

Therefore, we can see that there is a strong and positive link between the obstacles of teachers in preparing, namely teaching courses and conducting classes together with students. Thus, the higher the level of teaching problems in the online environment of teachers, the greater will be the difficulties of conducting virtual courses.



Finally, we will analyse the opinion of the respondents about the potential of online education in the future, as well as the answers of teachers to the question of how teaching can be improved in the virtual environment.

Investigating teachers' opinions on the potential of online teaching, although 70 of the respondents did not want to express their opinions on this issue, we find that there are a balanced number of teachers who see a potential and those who think otherwise. The balance between the two answers tilts slightly towards a negative one, having only 5 percent more, than optimistic views regarding online education in the future.

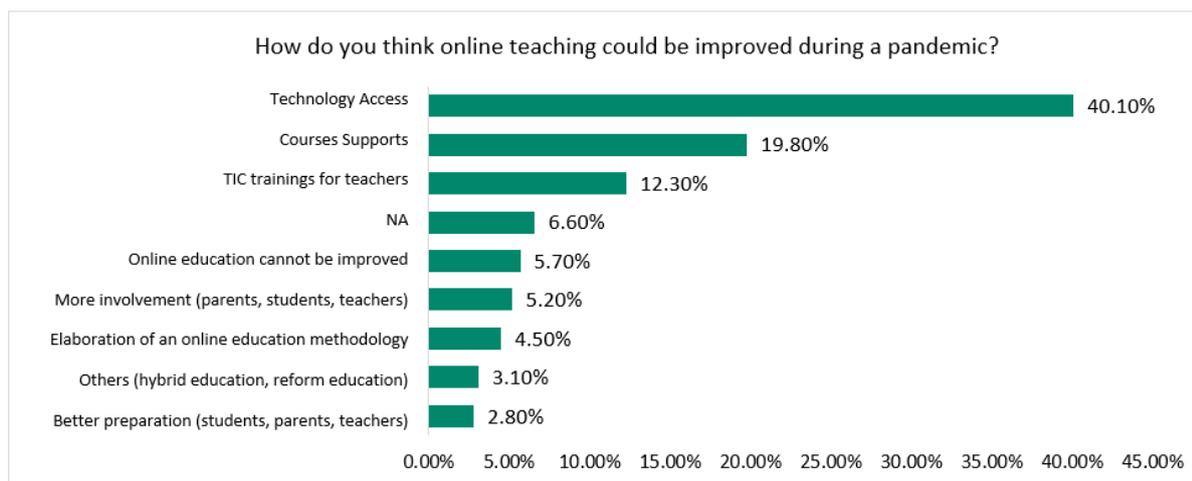


Figure 4.4. - Solutions to improve online education

Therefore, we can say that there is not much difference between respondents in terms of the potential of virtual education being a slightly higher percentage of teachers who do not have a vision of successful online teaching (52.8%). In this case, the answers are separate: some teachers believe that there is the possibility of the online environment in education, while others refuse this idea.

During the research, the teachers had to answer an open question regarding the improvement of the activity carried out in online format. The figure above (Figure 4.4) shows us the answers of teachers divided into categories. Thus, we observe that the most frequent response was related to the access to technology of both teachers and students (40%), followed by access to materials (materials adapted for the online environment, assessments for teaching in the online environment, etc.) with a percentage of 21,2%. Another large number of respondents (52) had the same opinion, namely that to improve the educational process carried out in the online environment requires a deeper training of teachers in the virtual environment (e.g. ICT courses, accessing platforms, etc.). The rest of the solutions for correcting problems in online teaching are stated in a percentage of 16,7%. They contain statements of improvement by developing a methodology (4,8%), by more active involvement of students and parents (5,6%), by preparing students and parents (3%) and others such as teaching in hybrid format or educational reform (3,3%). Also, in a percentage of 6% teachers state that there is no way to improve and that they want to carry out the education process in physical format, and 6,6% did not answer this question or claimed that education at the moment does not require improvement.

Therefore, teachers tend not to have a beneficial view of online education, a statement also highlighted by the countless solutions to improve teaching in the virtual environment.

Conclusions

According to the teachers who answered our questionnaire, 66,7% of them claim that they have been able to adapt well to this pandemic situation in which education is carried out in online format. On the other hand, they also state that they needed a lot of personal time to readjust the teaching materials and were not prepared for the crisis situation that changed our lives. Teachers also believe that education is heading in the wrong direction and that they do not see any future potential in this education carried out in virtual format, expressing as solutions access to technology and teaching materials, training and instruction of teachers and even diminishing online education in favour of face-to-face education. These problems highlight the fact that although teachers have adapted, they do not support online education and some of them do not agree with the continuation of this type of education. Therefore, we can say that the adaptability of the teachers was achieved due to the mandatory and non-existence of an alternative to achieve education in a period of crisis.

Also, another dimension that we will be able to integrate in the future research can be represented by the opinions of teachers about online education carried out during the pandemic period but also their vision of an alternative to it, specifically if there will be new solutions related to an education carried out during a period of crisis.

Finally, we can conclude that after about 8 months after the pandemic caused by Coronavirus, the teachers in Romania have adapted to the crisis situation, but their attitudes towards the new education carried out in the online environment is unfavourable. Teachers believe that there is no potential and a beneficial future for this new type of education introduced out of obligation.

In conclusion, although this pandemic has surprised the entire population of the globe, none of us being prepared for such a crisis, we should learn from these landmark moments that have brought to the surface the problems facing the whole world. Thus, we believe that for a future crisis situation we should be prepared and create economic, social systems, but above all education systems that are much better prepared. It should be mentioned and emphasized the poor preparation of the educational system in Romania given the lower quality of education of the generations who learned during the Coronavirus period.

Also, at the end of this pandemic, we believe that regulations for emergency situations should be introduced, given that most teachers in Romania are not satisfied with the education carried out in the pandemic. A good part of them believe that the entire education system should be changed and adapted to the current times of the digital age, some of them proposing as a solution to improve online education a real reform of the education system. These things should raise a red flag on the responsibility that many of

the representatives of the authorities and institutions, especially at the political level such as the Romanian government or the Ministry of education, but also the teachers in the system have on the next generations of students and students.

Thus, it is necessary to go through a crisis situation in order to notice problems such as functional illiteracy, social inequities (access to technology), poor teacher training, currently unsuitable materials and many other difficulties. Consequently, at country level we should take more responsibility for education and its level, in order to improve the education system as much as possible so that we can talk about quality education.

It should be noted, however, that although the pandemic will end and education will return to normal, the Romanian education system should integrate new teaching methods so as to reduce the discrepancy between the level of education and the needs of future generations for whom technology is not a novelty but a habit and a habit by which efficient information is obtained quickly. Thus, it can be said that the pandemic represents a test and a challenge for educational systems through which students, parents and teachers have felt the consequences of the problems of Romanian education in relation to the evolution of technology. The hope is that this attempt brought by the pandemic will lead to a future sustainable development of education through which students and teachers improve their knowledge, skills and abilities with which they will contribute to the future of society through quality education.

Finally, the Covid-19 pandemic reveals problematic aspects of education systems globally, mainly affecting the most vulnerable, those who come from poorly developed or disadvantaged environments. However, the educational community claims that it has adapted in an unexpectedly good way, laying the groundwork for a return to normal.

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The role of education in the social reintegration of young offenders and the influence of COVID19 pandemic period

Mihaela Tomita*, Roxana Ungureanu**

Abstract

The number of young people around the world, sanctioned with an educational measure depriving them of their liberty is increasing, which is also found in the statistics of educational centers in Romania. Custodial measures are those which punish juvenile offenders by depriving them of their liberty after they have been convicted of an offense. By being internment in the center, they are prevented from committing new offenses and, at least in theory, are allowed to be rehabilitated during the period of internment. In the custodial environment, education for minors and young people has been and remains different in many ways from that in the community. In this, beyond the architecture of the custodial environment, the profile of this type of criminals obviously has a significant role. In this paper, we aimed to highlight the particularities of education for minors and young people in the custody environment in general and in educational centers in Romania in particular, and how the pandemic period COVID19 influences programs in educational centers. 27 interviews were applied to professionals from two educational centers in Romania (Buziaș Educational Center and Târgu Ocna Educational Center). The interview guide for professionals and management staff totaled 22 questions. In this paper we have focused only on the questions that refer to the social reintegration of minors and young people interned in the centers. Our analysis shows us that young offenders faces several issues specific to custodial environments to which are added the restrictions imposed by the pandemic period. This restriction takes on specific forms, adapted to the custodial environment. Educators, psychologists, and schoolteachers can play an important role together with parents in social reintegration and defining and establishing their life projects.

Keywords: social reintegration, education, young offenders, COVID 19

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Minors and young teenagers in the criminal justice system in Romania

In the architecture of the criminal justice system in Romania, minors and young people occupy a special place.

The sanctioning system provided in the current Romanian Criminal Code is a system based exclusively on educational measures. The taking of an educational measure is conditioned by the commission of a crime by a minor who is criminally liable, even if at the time of the trial he had become an adult (he has reached the age of 18).

The educational measures provided by law applicable to juveniles who commit crimes are of two types: non-custodial educational measures (civic training, supervision, weekend registration and daily assistance) and educational measures depriving of liberty (internment in an educational center and internment in a detention center).

The regulation of the sanctioning regime of the minority is one of the matters that have undergone the greatest transformations in the new Criminal Code. An educational measure could be taken against the juvenile who is criminally liable, or a punishment could be applied. The new Criminal Code completely renounces punishments in the case of minors, establishing a sanctioning system based exclusively on educational measures. According to him, a non-custodial educational measure is usually taken against a minor who is criminally liable. An educational measure of deprivation of liberty may be taken against a minor in the following cases: a) if he has committed another crime, for which an educational measure has been applied to him which has been executed or whose execution began before committing the crime for which he is judged; b) when the punishment provided by law for the crime committed is imprisonment of 7 years or more or life imprisonment. Non-custodial educational measures are criminal law sanctions that apply to juveniles who have committed a crime whose seriousness does not require deprivation of liberty. The non-custodial measures are the preferred measures, but the raising numbers of decisions for non-custodial measures does not directly determined a decreasing in custodial ones (Tomiță, Predescu, & Dârjan, 2017).

The educational measure of internment in an educational center consists in the internment of the minor, for a period between 1 and 3 years, in an institution specialized in the recovery of minors, where he will follow a program of school training and professional training according to his skills, like social reintegration programs.

If during the internment the minor has shown constant interest in acquiring school and professional knowledge and has made obvious progress towards social reintegration, after the execution of at least half of the internment, the court may order: a) to replace the internment with the educational measure of daily assistance for a period equal to the duration of the unexecuted internment, but not more than 6 months, if the internment person has not reached the age of 18; b) release from the educational center, if the internment person has reached the age of 18.

With the replacement or release, the court imposes the observance of one or more obligations until the fulfillment of the duration of the internment measure. To the extent that the minor does not comply, in bad faith, with the conditions of execution of the daily

assistance measure or the imposed obligations, the court returns to the replacement or release and orders the execution of the remaining unexecuted measure during the measure of internment. The court may order the extension of the duration of the measure, without exceeding the maximum provided by law, or may replace it with the measure of internment in a detention center when: - during the internment the minor commits a new crime or is tried for a concurrent crime previously committed; - after the replacement with daily assistance, the person commits a new crime before reaching the age of 18. If during the execution of the educational measure the inmate, who has reached the age of 18, has a behavior that negatively influences or impedes the process of recovery and reintegration of other inmates, the court may order the continuation of the educational measure in a penitentiary.

The educational measure of internment in a detention center consists in the internment of a minor in an institution specialized in the recovery of minors, with a guard and supervision regime, where intensive social reintegration programs will follow, as well as school training and vocational training programs according to their skills. The internment is ordered for a period of between 2 and 5 years, unless the punishment provided by law for the crime committed is imprisonment of 20 years or more or life imprisonment, when the detention is for a period of between 5 and 15 years ([file:///C:/Users/01/Downloads/1 FLORIN STRETEANU noul cod penal coment%20\(1\).pdf](file:///C:/Users/01/Downloads/1%20FLORIN%20STRETEANU%20noul%20cod%20penal%20coment%20(1).pdf)).

Decisions about the special conditions, the intensity of supervision or the actual meaning of the control exercised, can have an important impact on the life of the young offender. That is why it is extremely important that in making these decisions, there is an in-depth consultation with probation services, which in turn may seek specialist advice from other service providers (Tomita & Ungureanu, 2016).

The effects of custodial environment

Psychological problems caused by detention are much less visible than physical ones, often people deprived of their liberty are unaware of them or realize them later, with the help of professionals in the system.

The effectiveness of imprisonment is analyzed in the light of the results of sociological and psychological studies, which are based on three hypotheses: of a wide range of crimes. a) the prison, as a "school of crime", where the detainees learn, from their cellmates, new techniques and ways of committing a very varied range of crimes. This view argues that some convicts, especially veterans, "train" young people at the beginning of their criminal careers, maintaining or even increasing their interest in this type of activity; b) imprisonment, as a pathological environment, which produces a series of negative effects on the mental health of individuals (problems with self-control, apathy, lethargy, despair, anger); c) prison, as a type of social institution, in which the official aspects, but especially the unofficial ones of the social organization of the prison are determining factors of the behaviors, opinions and beliefs adopted by individuals during

detention and which can persist even after release . The way in which detainees adapt to this environment influences their concerns: social relations, the activities they value, the importance of privacy, etc., and the ability to cope with the situation becomes prominent in the penitentiary (Popa, 2019).

Like adults in prisons, minors and young people in educational and detention centers exhibit extremely diverse behaviors, from forms involving social withdrawal to aggression and extreme violence. Deprivation of liberty favors the appearance and development of aggressive behaviors, often totally different from those manifested prior to hospitalization in the center. The causes of these aggressive behaviors can be generated by: the pressure of the closed environment, the appearance of states of despair, the lack or limited contact with the family, communication with the supervision staff and other professionals in the center, education and family patterns, etc.

The educational centers are intended for the re-socialization of minors and young people who have committed criminal acts and to whom the educational measure of internment in such an environment has been applied. These are the stated purpose of defending society from the danger of the proliferation of antisocial acts, in general, and the protection of minors and young people interned, against the factors that would jeopardize the proper development of their personality.

All activities are oriented towards the safety of its beneficiaries and aim at educational and psychosocial support for the realization of a continuous educational process, consisting of schooling, professionalization, education and psychosocial assistance activities that guarantee the balanced training of minors and young people interned in the center. Being well known that giving responsibility to the minors has a positive influence on their social reintegration process, and because the center is equipped with modern utilities, minors can perform household activities, such as: preparing and serving breakfast, self-serving in the dining hall, washing and ironing clothes and linen, cleaning and maintaining cleanliness in their rooms, classes and shops (Tomita, 2013).

In all cases where possible, in order to carry out the educational and therapeutic activities, the family is involved in maintaining or, as the case may be, improving the relationship with it, as well as the community through the partnership between non-governmental institutions and organizations.

The individualization of the recuperative interventions, of the programs and activities in which the minors and the young people are involved, is realized according to the characteristics of each of them, for a balanced physical and psychosocial development.

According to official data, the general objectives of the educational centers are: the schooling of the interned persons in accordance with the public education system so that, after their release, they can continue their school preparation without difficulties; the professional training of the interned persons in order to form some competencies that will facilitate their access and success on the labor market; educational intervention in

the perspective of acquiring pro-social attitudes; therapeutic intervention in order to reorganize and balance the personality; the inclusion of the interned persons in valorizing activities, highlighting their resources, in order to obtain positive changes in the self-image; preparing for the release of internees so that their social reintegration would be easy. (<http://anp.gov.ro/centrul-educativ-buzias>)

As we previously pointed out, minors and young people interned in educational centers benefit from: individualized rehabilitative psycho-social interventions, schooling and professional qualification, educational programs and recreational programs. Recovery intervention refers to the structured set of programs and activities that offer minors and young people different learning opportunities, through which they acquire those life skills that determine their constructive, autonomous and responsible behavior in the community.

Children with special educational needs are one of the target groups for the strategic priority *Ensuring everyone's access to education and improving the quality of education*. Several specific measures have been taken to support the integration process - including teacher training, support materials and specific legislation. (https://eacea.ec.europa.eu/national-policies/eurydice/content/special-education-needs-provision-within-mainstream-education-56_ro).

The specialized professionals who carry out their activity in the educational centers benefit from specific training so that they can ensure an inclusive educational environment.

The stage preceding the return to the community begins two months before the release, during which the inmate will participate in specific programs for preparation for family, professional and school reintegration.

Before leaving the center, each inmate is given an evaluation report that is a useful tool in the perspective of post-criminal assistance. It includes information on the inmate's expectations prior to release, future plans, identification of support factors for reintegration into society, social risk situations and proposals for probation services at the inmate's home.

Peculiarities of social reintegration of minors and youth

Young people interned in educational centers face a number of social, economic and personal problems that tend to become obstacles to reintegration into society (Borzycki & Baldry, 2003; Visher, Winterfield, & Coggeshall, 2005). Some of these challenges are the result of past experiences of young people and others are directly associated with the consequences of the time spent at the center (Borzycki, 2005). Young people may have a history of social isolation and marginalization, physical or emotional abuse, unemployment and involvement in a lifestyle that has fostered delinquency, starting at an early age.

Many young inmates face several challenges that make it difficult for them to reintegrate into society: poor interpersonal skills, low levels of formal education,

illiteracy, poor cognitive or emotional functioning and / or lack of financial planning and management skills. There are also some practical challenges that young people face when they are released from educational centers, including finding adequate accommodation with very limited resources, financial management with little or no savings.

The transition from custody to community can be particularly difficult for young people (Dârjan, Tomiță, & Predescu, 2017).

It is possible that internment itself had several "side effects" (Borzycki, 2005; Borzycki & Makkai, 2007) on many young people: they may have lost social relationships, family relationships; they may have experienced mental health difficulties or self-defeating habits and attitudes. Lack of housing can expose young people to the risk of committing other crimes (Annull, et al., 2007).

The programs offered in the educational centers vary in effectiveness and none of them is completely effective. Interventions can fail because not all young people are immediately treated: lack of willpower, taking responsibility for their actions, or a poor motivation to change can make a big difference (Stephenson and Jamieson, 2006).

The promotion of criminal policies that contribute to the safety of the community, by preventing recidivism, is one of the international concerns, as we have shown above, which remains current, in a period marked by medical, political, economic and social crises, which generate at least as many social tensions. "Now, perhaps more than ever in recent decades, the balance in the functioning of public administrations is sought, the concept of justice acquiring a predominantly social value, in which the treatment of citizens in conditions of respect and dignity for human quality, individual security and equality chances are defining, fundamental elements. In this context, we recall Rule 4 of the United Nations Minimum Rules for the Treatment of Prisoners - known as the Nelson Mandela Rules (2015), which states that: "1. The purpose of the custodial sentence is, first and foremost, to protect society from crime and to reduce recidivism. These purposes can only be achieved if the period of detention is applied to ensure reintegration into society after release. 2. To this end, the penitentiary administration and other competent authorities shall provide studies, vocational training and employment, as well as other appropriate and applicable forms of assistance, including those of a rehabilitative, moral, spiritual, social, medical and sporting nature" (<http://anp.gov.ro/revista-de-practica-penitenciara/noutati/strategia-nationala-de-reintegrare-sociala-a-persoanelor-private-2020-2024/>).

As a member of the European Union, Romania has sought to transpose the relevant international recommendations into domestic policies. The reform of the penitentiary system has been carried out precisely starting from these standards, strategies, recommendations, rules and European and international directives and is materialized through programmatic documents that take into account the national and cultural specifics. Taking advantage of opportunities of any kind as well as openness to the community essentially mark the transformations of the Romanian penitentiary system.

The experience of implementing the National Strategy for social reintegration of persons deprived of liberty 2015-2019, highlighted both the institutional capacity itself and the communication and inter-institutional cooperation in the field of resocialization and social reintegration of criminally sanctioned persons.

Through the current National Strategy for the social reintegration of persons deprived of liberty 2020-2024, the issue of social reintegration of detainees is demonstrated from the perspective of the ways of organizing, planning and implementing interventions targeting persons sentenced to imprisonment or deprivation of liberty. Consequently, they include all the recuperative and educational interventions applicable in the educational centers.

The new strategy considers the measures implemented in the period 2015-2019 that need to be continued, the development and customization of social support services, available locally, for people returning to the community, at risk of social marginalization, as well as new measures that require to be made during the reference period.

For the period 2020-2024, the strategic target aims at the functional reintegration of persons released from detention, in the family environment, in the community and on the labor market by consolidating, optimizing and developing legal and procedural mechanisms. By implementing the Strategy, respecting reference values, such as: humanism, integrity, professionalism, openness to the community, a coherent system of social reintegration of persons deprived of liberty will be ensured, with institutional involvement and community support, responding multisectoral to the needs of beneficiaries and society.

Method

The interviews were conducted with professionals from the two educational centers in Romania, namely the Buziaş Educational Center and the Târgu Ocna Educational Center. The application of this method was carried out on a number of 27 professionals, social workers, psychologists, educators, security personnel, but also people with management positions: Director of the Educational Center, head of the socio-educational service, head of the security service.

A number of 10 professionals from the Târgu Ocna Educational Center participated, and another 17 professionals were interviewed from the Buziaş Educational Center.

The semi-structured interview was used to gather information for an in-depth analysis of the elements related to the perception of professionals on educational measures of deprivation of liberty and the activities that take place in the center, and which support the social reintegration of juveniles. The interview guide for professionals and management staff totaled 22 questions (of which some were specific questions only for management staff), specifically on educational deprivation measures applied to juvenile delinquents and young offenders, and their social reintegration.

For the present paper, we have considered only those questions that refer to the education of young people in schools and how it influences their social reintegration.

The role of education in the social reintegration of minors and young people in the custodial environment

The penitentiary system in Romania ensures the necessary conditions for the school training of young people interned in educational centers, for the levels of general compulsory education, in accordance with the norms contained in the National Education Law no. 1/2011, with subsequent amendments and completions, and the conditions established in the collaboration protocol between the Ministry of Education and the Ministry of Justice regarding the schooling and professionalization of detainees. The number of course hours is established in compliance with the framework plans developed by the Ministry of Education. In each penitentiary, with the support of the county school inspectorates and of the Bucharest municipality, schools or classes affiliated to the educational institutions outside the place of detention are organized.

Illiterate people and young people have priority in school education activities. Young people have priority in vocational training.

The recovery activity of the interned persons is an individualized one, starting from the *assessment* of the developmental needs of each person (taking into account the age, health status, family of origin, personality and behavioral characteristics, individual abilities, educational level, causes and motivation that determined the commission of the crime), recorded in a personal evaluation and development file. The *educational intervention* aims at schooling, qualification, accumulation of knowledge about themselves and others, development of social skills, experimentation of non-conflicting ways of solving their life problems. The intervention is based on Personalised Education Plans. The last phase is a Transition Plan, that occurs before liberation and has the aim of assuring an effective transition to the new status.

The schooling activity of the interned persons is carried out in accordance with the Education Law and is assimilated to the one of special integrated education from the national education system. Therefore, the schools that are functioning inside Educational Centres are considered special schools, that reflects in a special curriculum and individualization of teaching and training.

The teachers who carry out the schooling activities come from the public education, and the plans and programs on which the instructive-educational process is based are in accordance with the exigencies of the national education system.

The qualification activity of the interned persons, who have exceeded the age of 16, can be achieved both through the courses of the school of arts and crafts, as well as through introductory and qualification courses, based on the Protocol concluded between the National Administration of Penitentiaries and the National Employment Agency of the Labor Force.

The introductory courses include the interns who have graduated from primary education (minimum 4 classes), and the qualification courses, the interns who have graduated from high school or are in the process of graduating.

The duration of the courses depends on the complexity of the job and is between 3 and 6 months. After graduation, the interns obtain diplomas attesting their professional training, recognized on the labor market and which give the possibility of employment after release from the educational centers. (<http://anp.gov.ro/centrul-educativ-buzias/despre-noi/>).

The last phase is a Transition Plan, that occurs before liberation and has the aim of assuring an effective transition to the new status.

There were three topics that occurred during the interviews:

1. The minors have a distinct profile. Most of them came from disadvantaged families or from a low-income environment. Most of them have developmental challenges, either intellectual, emotional, or social.
2. There is a strong preference for professional activities. The basic education is not so highly regarded by the minors. That could be the result of prior experiences. Also, they often report that they are not perceiving its benefits.
3. There is a strong need for building relations with peers from outside institution. This goal is achieved through different project with partners (NGOs and schools.)

The educational centers support the minors and the young people through the complex educational activities, social assistance and social rehabilitation programs and aim as finality of the developed activities, the following:

- training the ability to reflect on the world, to solve problems based on the relationship of acquired knowledge;
- valuing one's own examples for the purpose of rehabilitation and social reintegration;
- developing the capacity for active integration in different groups: family, professional environment, friends, etc.
- developing the functional competencies essential for school success: communication, critical thinking, decision making;
- formation of personal autonomy.

An important factor in the social reintegration of young offenders is the educational context. Research shows that schooling is an important factor in resilience for teens in general and delinquent teens in particular. In the answers of specialists, it can be seen that more than 50% of respondents say that the level of education is very important for the adaptation of young people in the center and their social reintegration.

The educational level is directly proportional to the person's attitude and behavior. Most of them have a low intellectual level and that is why an intervention adapted to the needs of each one is needed.

The mission of the professional (educator, social worker, psychologist, etc.) in the field of juvenile justice can be summarized as follows:

- To detect the socio-educational needs of the people he will take care of and to elaborate an individualized intervention program for each of them, in accordance with the rest of the professionals in the multidisciplinary team.
- Intervene to channel the needs detected through group dynamics or individually, making the person in charge improve your chances of social reintegration.
- To inform the appropriate legal and administrative courts about each case and its evolution.

We consider that education and the social reintegration of young offenders from the educational centers must continue to the point where we can speak of measures that reflect the authentic, autonomous, real life, a universe built on the resources and potential of each young person released from such an educational center (Ungureanu, Tomita, 2021).

The influence of the pandemic on the education and social reintegration of minors and young offenders

Since March 2020, the European Penitentiary Services have been under tremendous ongoing pressure to manage the impact of COVID-19 on the prison system, including schools, and to keep young people and staff safe. There have been times in most countries when restrictions have been relaxed, but both staff and minors and young interns have continued to take all measures to ensure their health. Young interns still suffer from a lack of reintegration activities and visits to those closed to them. (<https://www.euopris.org/covid-19-prevention-measures-in-european-prisons/>).

Penitentiary systems are recognized as high-risk environments for the transmission of diseases, especially with airborne transmission, as a result of both the origin of persons deprived of their liberty from disadvantaged population groups, with a higher frequency of illnesses and the conditions that favor the spread in the detention units - overcrowding, prison mobility, lack of ventilation, HIV infection or tuberculosis, as well as numerous chronic conditions are present in persons deprived of liberty. The management of an epidemiological situation due to an infectious-contagious disease with a high risk of transmission has always been, for the Romanian penitentiary system, a major public health problem. Measures to prevent and manage the ways of transmitting infectious diseases have been frequently implemented in the penitentiary population. The emergence of COVID-19 has once again raised the issue of prisons as an environment conducive to the development of infectious diseases.

“Outbreaks of COVID-19 in detention facilities are important for public health for at least two reasons: first, explosive outbreaks in these areas have the potential to overwhelm health care services in prisons and to require overcrowded specialist units. and, secondly, the fact that, with an estimated 30 million people released from prison each year worldwide, prisons are a vector for the Community transmission of potential

infections, which will have a disproportionate impact on marginalized communities” (Akiyama, Spaulding, Rich, 2020).

Among the measures imposed at the level of the National Administration of Penitentiaries (ANP) in Romania, we highlight the most relevant, as follows: isolation at home of staff who had direct contact / close contact with people from epidemiological risk areas or who have presented symptoms of respiratory infection, as well as isolation of persons deprived of their liberty falling under the precautionary measures of this type; elaboration and transmission to the subordinated units (penitentiaries, penitentiary hospitals, educational and detention centers) of a psychological guide regarding the maintenance of the emotional balance during the pandemic, complementary to the measures previously ordered on this line of activity; updating the content of the section on the official website, dedicated to informing the members; creation of the “COVID-19” section, on the ANP Internal Portal, for the correct information of all staff, with relevant information for the implementation of related measures (eg legislation, instructions issued by the Ministry of Internal Affairs, Department for Emergency Situations, recommendations of medical institutions such as the National Institute of Public Health, the National Center for Communicable Disease Surveillance, etc.).

People deprived of their liberty in prisons or other places of detention are much more vulnerable to the spread of the disease caused by the new coronavirus (COVID-19) in comparison with the general population due to the conditions of detention in which they live for extended periods of time. Moreover, experience shows that penitentiaries, arrests and other detention facilities where there are crowds of people close to each other, can be sources of infection, amplification and spread of infectious diseases inside and outside penitentiaries. That is why health in prisons is considered part of the public health system. The response to COVID-19 in prisons and other places of detention is particularly challenging.

1. Citizens detained in prisons and other places of detention should be considered as part of the wider public health response to COVID-19, given their vulnerability to infection.

2. Prisons are the epicenter of infectious diseases due to their higher prevalence of infection, higher levels of risk factors for infection, unavoidable close contact in often overcrowded, poorly ventilated areas, unsanitary facilities and poor access to health services. with the civilian population 3. Infections may be transmitted between prisoners, through staff and visitors, between penitentiaries by transfers or relocation / secondment of staff. As such, prisons and other prisons are an integral part of the public health response to coronavirus disease (SARSCoV-2) (Ștefan, Grecu, 2020).

The effect on the educational activities is less dramatic than on the general education systems. The schooling continued as before, based on direct interaction. However, there are two main effects:

1. The general protocol of isolation of those infected determined interruptions in the teaching process.

2. The interaction with the outside environment was drastically reduced. All the educational project regarding external partners had to stop at various times and that made the education of minors less effective. The lack of activities with outside partners gave the minors a sense of socialization and normalization, the lack of those activities had an emotional and social cost for them.

Conclusions

The COVID 19 pandemic, the restrictions imposed by it and the effects felt in all the plans, imposed evaluations and adapted interventions, based on the creativity and professionalism of the workers in all fields. Starting from the specificities of the penitentiary system and in particular, of the educational centers, the major challenge was generated by the lack or delay of the appearance of the legislative framework, of the methodologies, application norms and of the necessary procedures. The regulations related to the access to the Internet, specific to the penitentiary environment, have increased the difficulties related to the development of education in the educational centers. The situations that imposed the isolation of the teachers, of the minors and the young inmates and of the educators, limited the face-to-face meetings, and the didactic activity was carried out with difficulty. As we have shown, the identification of punctual solutions and adapted to each minor or young people, has been and continue to be a major concern of all staff working in educational centers. Obviously, a consequence of the restrictions imposed at national level, led to the limitation of the access of the beneficiaries of the center to the outings in the community, of the access of the partner institutions and organizations from the community and of the family visits.

Consequently, the adaptation of institutional capacities has been and is focused on reducing the vulnerabilities generated by the COVID 19 pandemic. Thus, the allocated resources must be designed and available to allow the system to recover from systemic and cascading interruption.

In conclusion, even if most of the expectations of professional who are working in the educational centers are to return to the pre-pandemic situation, we can appreciate that a number of useful developments can be an important opportunity to streamline recovery and education in the custody environment.

The specialized educators who deal with young delinquents have the mission of framing them, supporting and guiding them throughout the judicial process in order to develop together with them an educational project aimed at social, school and / or professional reintegration; restoring the relations between the young man, his family and society; the implementation of educational measures and the execution of court decisions regarding the young person. These skills may exist, but sometimes need to be questioned throughout your professional life. The realization of a training curriculum is part of the efforts to provide quality and means starting from a dynamic and constructive reflection on what is useful to the young person, the organization in which he works, as well as to achieve social expectations.

Finally, we consider that a new perspective of the organizational culture specific to the custodial environment, can find resources precisely starting from this period of challenges, based on the identified needs and solutions.

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Research report - Alternative public policies in providing integrated specialized services for children with autism spectrum disorders and for their families

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Abstract

The article is a research report that briefly describes the stages of an advocacy process and the results of the project: "Increasing the involvement of NGOs and social partners in promoting alternative public policies for children with ASD", an initiative of Help Autism Association which took place in 2019. Was used a mixed research methodology. In-depth interviews were collected from 134 specialists from institutions, NGO practitioners and parents of children with ASD. Focus-group were organized in 8 regions of Romania with participation of 139 representatives of the target group of the project. Through the method of the self-administered questionnaire, opinions from 47 specialists and 303 relatives/guardians of people with ASD were collected in order to identify the needs and to propose solutions in the field of providing integrated specialized services for people with ASD. Also 8 working meetings took place in all 8 development regions of Romania with participation of 151 specialists who were informed about the method of Assessing the Impact of Legislative Regulation and 96 representatives of the non-governmental sector were trained in the advocacy process. Following the project, a coalition of 80 non-governmental organizations was formed, reunited in the RO TSA Network. Through this project, the civil society, represented by this network of NGOs participated in the elaboration of the first National Plan on Autism in Romania.

Keywords: public policies; NGOs; advocacy; autism; integrated specialized services.

Introduction

In Romania, until recently, the capacity of NGOs to change public policies was generally low, but in recent years the involvement of civil society in formulating public policies has increased constantly. NGOs and civic groups are becoming progressively important in influencing public decisions. Laws such as 544/2001 on free access to information of public interest and Law 52/2003 on decision-making transparency in public administration are the main advocacy tools that have opened the access of civil society to influencing the decisions of power groups. NGOs influence public policies in two main ways: either when they are openly consulted by government authorities or Parliament and, in these cases, NGOs present the opinions of their experts or the reports/studies

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conducted over time on the subject in question, or through advocacy, when NGOs directly aim to change a public policy or law and make intense efforts in this regard with the competent authorities. However, influencing public policies is not a current and constant concern of NGOs, but rather emerges as an instant reaction to various community issues. A recent study (FDSC, 2017) shows that only 30% of NGOs have as main activities disseminating information, awareness, research, advocacy and monitoring public policies. The success rate of the proposals submitted is 15% in the case of NGOs, which state that, to some extent, they have succeeded in influencing the decision in the targeted direction. Regarding the methods used by NGOs to influence policies, 21% use requests for public information and 13% written requests for organizing public debates, namely the structural tools in advocacy processes provided by laws 544/2001 and 52/2003. Regarding the methods of transmitting their messages about public policies, the most commonly used ways are communication and mobilization of members, along with press releases. At the opposite pole are the participation in the sittings of the Parliament and the organization of demonstrations (FDSC, 2017: 109-110).

The article describes the approach of the Help Autism Association to develop and propose a public policy in the field of autism in order to influence the decision makers to improve the system of providing services for people with autism spectrum disorders and their families. The described stages are part of a research-intervention project namely "Increasing the involvement of NGOs and social partners in promoting alternative public policies for children with ASD (ONGPP)" implemented by the Help Autism Association and can be considered an example of good practice on how to advocate for other NGOs from various fields.

The problem of autism is a major one, as are many other health problems. There is an alarming incidence of autism worldwide, 1 in 59 children are diagnosed with autism spectrum disorder, according to the US Centers for Disease Control and Prevention (CDC) and 1 in 160 children, according to the World Health Organization. In Romania, the lack of a real specialized integrated system of services at national level and the insufficiency of recovery and rehabilitation services (in 2019 there were 38 state centers in all 41 counties and the Capital) were the premises from which the alternative policy proposal started and was designed to find solutions for the growing need of developing and normalizing Integrated Specialized Services (ISS) for people with autism.

In 2018, at national level, 11,214 children with ASD were registered by the National Authority for the Protection of Children's Rights and Adoption (ANPDCA) and approximately 1,000 children are diagnosed annually with ASD in Romania, according to the National Institute of Public Health. The Romanian society began to turn more attention to the issue of autism, when an inappropriate statement of the Prime Minister of Romania and later by the Minister of Health at that time (2018-2019), sparked a wave of outrage among parents who have children who suffer from this mental disorder and who have felt offended. One of the largest NGOs in the field of autism has notified the Government and the Council for Combating Discrimination (CNCD). At the same time,

CNCD, 2018 notified itself, analyzed the statements and the behavior from the perspective of committing a possible act of discrimination, by violating the right to human dignity of people with autism. The Prime Minister escaped sanctions following the voting of CNCD members, and later publicly apologized. Shortly after the incident, the President of Romania, Mr. Klaus Johannis, used the word "autistic" in a demeaning sense, indirectly harming the group of parents/relatives of people with autism in Romania.

A favourable context occurred in the fall of 2018, when the Prime Minister of Romania set up a committee whose main objective was to develop a National Plan for Autism for the period 2020-2022, the first plan developed by authorities for people with autism in Romania (by comparison, France has developed the 4th National Plan on Autism) in order to improve the living conditions of people with autism spectrum disorders, the national plan for autism will be approved by Government decision, at the proposal of the Ministry of Health. The Committee for the development of the National Plan for Autism in the period 2020 - 2022 was established by a decision of the Prime Minister, published in 2018 in the Official Gazette. According to the Prime Minister's decision, the Committee is an inter-ministerial body, with an advisory role, without legal personality, consisting of the General Secretariat of the Government (SGG), the Prime Minister's Office, the Ministry of Health, the Ministry of Education, the Ministry of Labor and Social Justice, the Ministry of Regional Development and Public Administration, the Ministry of Finance, the National Center for Mental Health, the National Authority for People with Disabilities and the National Authority for the Protection of the Rights of the Child and Adoption.

Another favorable context for improving the service delivery system for people with autism was April 2, 2019, when every year worldwide is marked World Autism Awareness Day. Taking into consideration that the support and social integration of people with autism spectrum disorders require not only medical facilities or services related to this, but also social and educational services, on April 2, 2019 was signed by the Ministry of Health, Ministry of Public Finance, Ministry of National Education and CNAS a *collaboration protocol on the implementation of measures necessary to increase the access of people diagnosed with autism spectrum disorders to integrated health, social and education services*. The objectives of the protocol are to create an exclusive subprogram for people with ASD within the National Mental Health Program, to organize and conduct a training program for teachers, school counselors and social workers. The training of families of children diagnosed with autism spectrum disorders will also be considered. These objectives will run from the second semester of 2019, for a period of 3 years.

Methods

In the elaboration of the alternative public policy proposal, in the field of providing personalized integrated specialized services (social, educational, health), several stages were completed, which taken together led to the development and promotion of the

public policy. Below are described the stages of the approach to the realization of the public policy proposal:

Stage 1 - Establishing an associative structure. Involvement in associative structures can be a useful working process in influencing public policies. NGOs are among the organizations most connected to everyday reality and are sometimes best able to provide solutions to the problems that the community are facing. Many NGOs have their own experts, who can share their knowledge in the public interest whenever needed or when it comes to considering the best alternative solutions recommended by public policy proposals. Of maximum importance is the collaboration between NGOs and institutions and carrying out actions in partnership, but in Romania, these collaborations-partnerships are still in an emergent phase. In Romania, 28% of organizations are members of national federations (up from 17.7% in 2010), and the rate of membership in networks/informal national coalitions is 25%. At European level, 12% of organizations are members of federations. 14% of Romanian NGOs are involved in informal European structures, and 18% were involved in advocacy actions at European level in 2015, up from 8.4% in 2009 (FDSC, 2017: 112).

One of the specific objectives of the project was to develop at national level a network of NGOs in autism in order to formulate and promote alternative proposals to existing public policies to support children with ASD and their families. Thus, based on collaboration agreements, 64 NGOs were initially co-opted into the RO ASD Network, the network of NGOs in autism, established within the project. Subsequently, during the implementation of the project, their number reached 80 NGOs, thus covering organizations across the country and being the largest network of NGOs in autism.

Help Autism Association, implementer of the project and one of the largest NGOs in the field, organized a launch conference of the RO ASD Network in Bucharest, in 2019, which was attended by 46 specialists, practitioners and presidents of NGOs / institutions in the field. Of these, 37 were representatives of NGOs and 9 representatives of institutions. Among the institutions, there were present the National Authority for the Protection of the Rights of the Child and Adoption (ANPDCA), the General Secretariat of the Government (SGG), the Ministry of National Education (MEN), Social Assistance Directorates (DASs), while from the non-governmental sector, representatives from 23 autism NGOs from Argeş, Bihor, Botoşani, Braşov, Bucharest, Constanţa, Suceava, Târgu Mureş, Timişoara and Tulcea were present.

The RO TSA Network is the largest associative structure, without legal personality that currently functions as an informal, noninstitutionalized union, open to new members, created in order to strengthen and increase the capacity of the network of NGOs in autism. In Romania, there is another coalition in this field, namely the Federation for Rights and Resources for People with Autism Spectrum Disorders (FEDRA, 2019) which aims to create and maintain an appropriate environment to stimulate and support people with autism spectrum disorders and their families. The Board of Directors of the RO TSA Network was democratically elected by online vote and is composed of a

representative from each of the 8 development regions of Romania and a president, represented by the president of the project implementing association. Once the associative structure was created, all steps to report irregularities in the system of providing services for people with ASD, the observation/violation of their rights, as well as concrete proposals for solutions are made in the name and with the consent of all network members.

Stage 2 - Carrying out qualitative research. The objective of the qualitative research was to analyze and to understand the practices and needs of the service delivery system for people with autism, from the point of view of the main actors - beneficiaries (parents and children), associations that provide therapy services (NGO sector) and public institutions involved in diagnosis, recovery, integration. Along with contacting the institutions and NGOs to co-opt the members in the target group of the project, interviews were also carried out with those who were to enter the project as beneficiaries. Data collection was done through in-depth interviews, by developing 3 interview guides (specialists from institutions, NGO practitioners and parents of children with ASD), and the data were collected from 8 development regions by 2 experts in public policies between August and September 2018. Each of these 3 guides contained between 25 and 40 open-ended questions on issues related to the practices of diagnosis, recovery and integration of people with ASD. Topics related to the specific needs of the system such as specialized staff, training, accreditation, work experience in advocacy networks, the relationship between the state and the private sector in the field of health, social and educational services were also addressed. The initiative aimed to obtain as much diversity as possible of practices, opinions, ways of relating to the intervention system by including in the lists of respondents specialists in education, health, social assistance, representatives of local public authorities, management and implementation staff. In total 134 interviews were collected through electronic communication methods (e-mail or telephone), but most of the interviews were conducted face-to-face by moving experts to the headquarters of institutions and associations. Interviews with parents/relatives of children with ASD were also conducted at NGOs headquarters. Following the interviews, a qualitative research report was made and can be found on the Project Forum (Help Autism Association, 2019).

Stage 3 - Regional debates with specialists from institutions and NGOs. In order to formulate alternative public policies, within the project 8 regional consultations of focus-group type were organized, one in each of the 8 development regions of Romania. The purpose of these consultations was to identify existing problems and formulate solutions because they can be developed into alternative public policy proposals. The consultations took place during one day, in Braşov (Center Region), Cluj (North West Region), Bucharest (South Muntenia Region and Bucharest-Ilfov Region), Constanţa (South East Region), Timişoara (West Region), Iaşi (North East Region) and Craiova (South West Oltenia Region). In total, 139 representatives of the target group of the project were consulted in the field of providing specialized services for children with

autism spectrum disorders and their families, as well as representatives of institutions such as General Directorates of Social Assistance and Child Protection (DGASPCs), educational institutions of inclusive education (CȘEI), county centers of resources and educational assistance (CJRAE), directions of social assistance (DASs) within the town halls, Mental Health Centers, (SCMs), county school inspectorates, (ISJs), individual medical offices (CIMS) and individual psychological offices (CIPs). Through these focus groups an attempt was made to obtain information, identify needs and solutions in a way that is as balanced and close to reality as possible, both from the perspective of non-governmental and institutional field.

Stage 4 - Participation in consultations on the implementation of the National Plan for Autism 2020-2022. The Help Autism Association as a representative of the RO TSA Network, along with 3 other NGOs in the field, were also part of the Committee set up within the Government for the elaboration of the National Plan on Autism 2020-2022. Help Autism provided the inter-ministerial committee with data, reports, studies on autism issues, at the request of the General Secretariat of the Government. Also, through its own approach, the association consulted both specialists from institutions and NGOs, as well as parents/relatives of people with autism from NGOs members of the RO TSA Network. The method of collecting opinions was the sociological survey based on a self-administered online questionnaire (Google Forms) in order to identify the needs and to propose solutions in the field of providing integrated specialized services for people with ASD. We collected 47 responses from specialists from institutions, members of the target group of the project and practitioners from NGOs and 303 responses from relatives/guardians of people with ASD. The centralized and synthesized responses were submitted to the Committee for the elaboration of the National Plan for Autism 2020-2022 by drawing up a *Report on Needs Analysis and Proposed Solutions in the Field of Providing Integrated Specialized Services for People with Autism Spectrum Disorders (Help Autism Association, 2019)*.

Stage 5 - Analysis of the Impact of Legislative Regulations in the field. During February-March 2019, 8 working meetings took place in all 8 development regions of Romania. The regional consultations took place during a day in the cities of Cluj, Brașov, Bucharest, Constanța, Timișoara, Iași and Craiova. These meetings were attended by 151 specialists, of which 90 representatives of public institutions (management and executive staff) and 61 representatives of NGOs who were informed about the method of *Assessing the Impact of Legislative Regulation* and proposed concrete solutions to identified problems in the practice of providing services for people with ASD and their families.

Stage 6 - Training the network members on the advocacy process. 8 training sessions in the field of advocacy were organized with representatives from NGOs in all 8 development regions in Romania. Advocacy training sessions took place between April and July 2019, in each region over 2 days, with a duration of 16 hours of training, as follows: Iași (14 participants), Timișoara (11 participants), Bucharest (27 participants in 4 days), Brașov (10 participants), Craiova (9 participants), Cluj (14 participants),

Constanța (11 participants). *A total of 96 representatives of the non-governmental sector were trained in the advocacy process* in all 8 training sessions. The Advocacy Knowledge and Skills Development Program has helped increase the target group's ability to promote, both during the project implementation period and after its completion, the social cause of children with ASD and their families and to rally citizens for solving the problem and for actively participating in the change of public policies, turning the activity of influencing public policies in the field into a constant, current concern of those interested. At the end of each advocacy training session, the members of the NGOs were presented with the horizontal principles of EU-funded projects in the Administrative Capacity Operational Program (AOCOP): equal opportunities and gender equality, non-discrimination and sustainable development in the context of integrated service delivery for people with ASD.

Stage 7 - Consultation of decision makers in inter-ministerial working groups.

3 working meetings were organized with an Inter-ministerial Group, based on personalized Invitations sent by e-mail to the representatives of the institutions and to the 8 members of the RO TSA College by ANPDCA and the project implementation team.

The purpose of these working meetings with an inter-ministerial group was to identify the topic of public policy to be written and promoted in the field of managing the situation of children with autism spectrum disorders. The 3 working meetings with the inter-ministerial group took place on a monthly basis. The inter-ministerial working groups included the consultation of 31 representatives from 17 non-governmental organizations providing services to people with ASD and 18 representatives of institutions from the Ministry of Health (MoH), the Ministry of National Education (MEN), the Ministry of Public Finance (MFP), the Ministry of Labor and Social Justice (MMJS) through the National Authority for the Protection of the Rights of the Child and Adoption (ANPDCA); National Health Insurance House (CNAS); National Center for Mental Health and Anti-Drug Control (CNSMLA); "Titan" Psychiatric Hospital Bucharest, National Qualifications Authority (ANC), Bucharest Center for Educational Resources and Assistance (CMBRAE), Complex Assessment Service (SEC) within the DGASPCs Sector 3 and Sector 6 and teachers from the University of Bucharest.

Stage 8 - Carrying out the advocacy campaign. Public consultation on the public policy proposal. The draft alternative public policy resulting from consultations with the inter-ministerial working group was posted for 30 days on the website of the initiating association, on the project forum and, using a link, on the website of the partner institution, ANPDCA. Thus, the announcement was sent to potential decision makers, and the approach invited citizens to express their opinion in writing, sending proposals/suggestions to the e-mail address of an expert in the project. The opinions received were systematized and conclusions and recommendations were drawn for policy makers.

Stage 9 - Conducting a public debate during a day. A public consultation took place in Bucharest, during a day, at the headquarters of the central authority with competences

in the field, ANPDCA. The announcement of the public consultation was made online, on the website of the central public authority, on the Project Forum and on the website of the initiating association. Following the public consultation, a document was prepared to record the conclusions of the discussions, which was made available to the decision-makers. A map of the interested participants was also elaborated in order to position in a chart those who can help or those who can hinder the approach to achieve the objectives (supporters, allies, opponents).

Stage 10 - Organizing a round table to sign an agreement in principle. The project implementation team submitted on the formalized channel, officially, to the attention of the central public authority responsible in the field, the alternative proposals to the current public policies. The implementation team took steps to organize a round table attended by policy makers in the field to sign an agreement in principle stating that they will further promote to existing public policies the alternatives proposed by the project. The conclusions were discussed following the analysis of the impact of legislative regulations, consultations with decision-makers in inter-ministerial working groups and following the advocacy campaign through public consultation and debate. The project team received a positive response from the central public authority, ANPDCA, through a written address, assumed by the legal representative of the institution by signature.

Results

The public policy proposal was created through an extensive consultative process to which representatives of 80 NGOs and 64 specialists from institutions (DGASPCs, CJRAE / CMBRAE, ISJs, School Education Centers) contributed. Inclusive (CESE), DAS, Mental Health Centers (SCM), as well as specialists from central institutions, ministries and public authorities.

Following the consultations of those involved in autism (parents/relatives, specialists of institutions and NGOs with responsibilities in the field), both through interviews and questionnaires applied, and following discussions in focus groups, the following problems in the provision of services for people with autism emerged: the lack of a framework for cooperation between all factors involved in managing the situation of children with autism spectrum disorders in order to monitor the stages of coping with this situation, late diagnosis of children and lack of early intervention, enrollment in a nationalized centralized record of ASD cases, the shortage of specialists in the field (both state and private), but also the insufficient theoretical and practical training of specialists, poorly developed services and difficult access of children to them (difficult route for parents and the need to guide them in this route and often even providing counseling on accepting the situation of raising the child with ASD), the difficult integration of children with ASD in schools and underdeveloped services for adults over 18 with ASD.

In the case of children with autism spectrum disorders, early diagnosis and intervention are essential in their total/partial recovery. Therefore, late diagnosis and lack of early

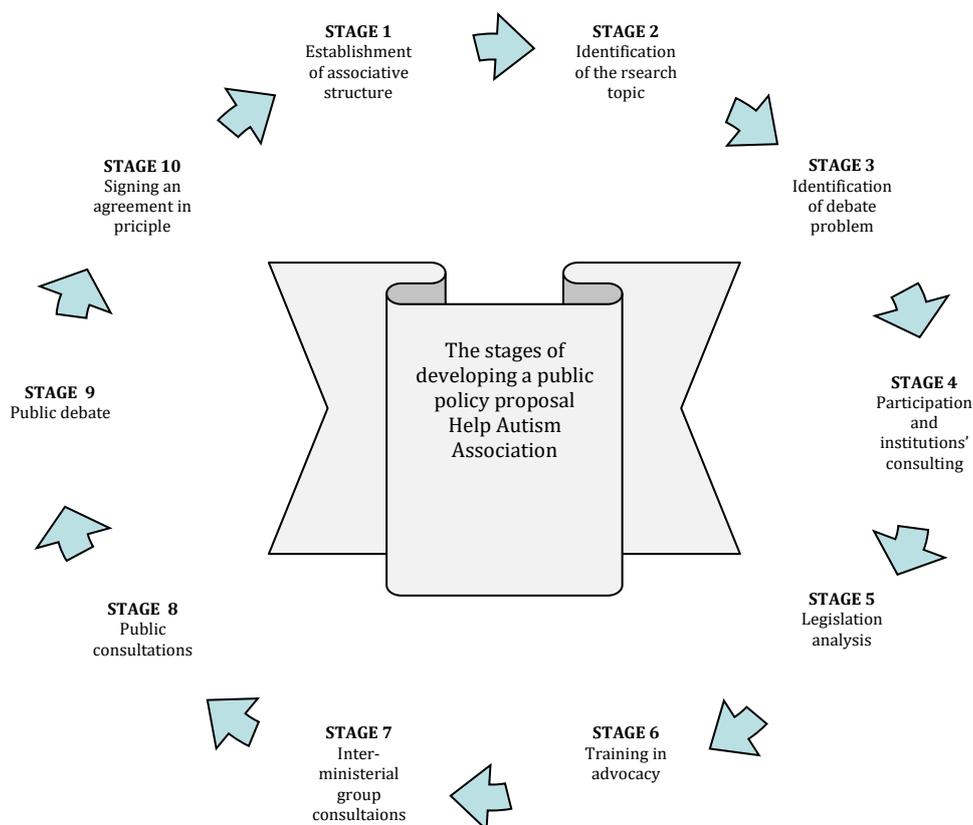
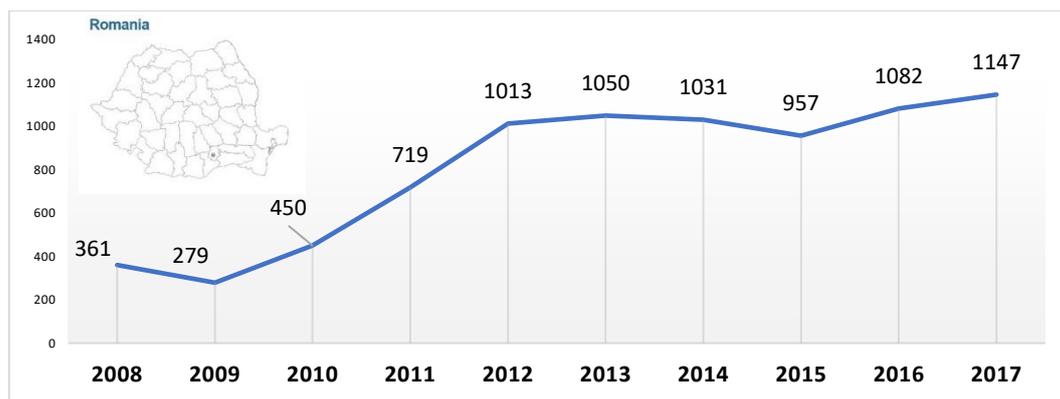


Figure 1. The stages of developing a public policy proposal

intervention have negative effects on the chances of recovery of children with autism. Gazibar, Petrescu, Stănilă, (2018) show a trend of increasing the access of the rural population to primary health services by the fact that the everyday presence of the general practitioners (family doctors) increased in rural areas from 11.5% in 2012 to 28.4 % in 2018. However, 10% of the respondents of the study (in the case of households where there are children under 5 years) still state that they have not benefited from a consultation of the general practitioner in the last year, the percentage increasing greatly compared to 2016 when only 3, 4% stated that these children were not consulted by the family doctor. In the case of people with ASD, the family doctor has a key role because he is the first medical specialist that has access to the child in the first months and he can detect autism early. In the last 10 years, the number of newly detected cases of people with ASD in family doctors' offices has increased from year to year, from 361 cases in 2008 to 1,147 in 2017 (Figure 2).



* According to ICD 10 - Other disorders of psychological development and without specification (CODE F83, F84, F88, F89)
 Source: National Institute of Public Health, family doctors' offices

Figure 2. New cases of autism spectrum disorders, between 2008-2017

In Romania, in 2019 there was no clear, centralized record of children with ASD, the only existing data were statistical data held by various interested institutions (INSP, ANPDCA, MEN), disparate, non-unitary, related to the services they provide. In 2019 there was not an established coherent framework for reporting and registration of children/people with ASD, there were no real databases at county or national level, there were only partial data in the statistics made by DGASPCs, but they included only cases of children registered for the issuance of the certificate of disability, as well as children who benefited from recovery therapies offered by DGASPCs. Existing data often do not distinguish between children with ASD and those with other types of developmental disorders. The effect of this state of affairs is the lack of accurate, public data on the number of people with ASD in Romania. This leads to difficulties in setting up evidence-based public policies on the need for ASD interventions and in assessing the need to fund measures to recover children with ASD.

Following the steps taken by the RO TSA Network, data were obtained from ANPDCA and the National Institute of Public Health (INSP). According to statistical data provided by ANPDCA, in 2019 there was registered a number of 11,214 children with ASD out of which 2,856 were female and 8,385 male. We specify that these data refer only to children with ASD (children with disabilities) who are in the records of the General Directorates of Social Assistance and Child Protection (DGASPC) at the county level. NGOs talk about a double number of children with ASD because there are cases where parents do not register their children with DGASPCs which can issue a certificate of disability for fear that the child might be discriminated in the future. From the perspective of the *age groups*, the situation of the data provided by ANPDCA in 2019 showed that in the age group 1-3 years there are 474 children, in the age group 3-6 years there are 2,415 children, and in the age group 6-18 years there are 8,352 children.

Table 1. Distribution by gender and age group

Gender	Female			Male		
Age	1-3 years	3-6 years	6-18 years	1-3 years	3-6 years	6-18 years
No.	132	632	2092	342	1783	6260
Total	2856			8385		

Source: Data received by project members from ANPDCA, 2019

From the perspective of *residence* of children with ASD, from the data provided by ANPDCA, it results that from the total number of children with ASD in evidence, in 2019, 6,709 children came from urban areas, and 4,532 children with ASD lived in rural areas.

Table 2. Distribution by residence

Residence	Urban			Rural		
Age	1-3 years	3-6 years	6-18 years	1-3 years	3-6 years	6-18 years
No	316	1527	4866	158	888	3486
Total	6709			4532		

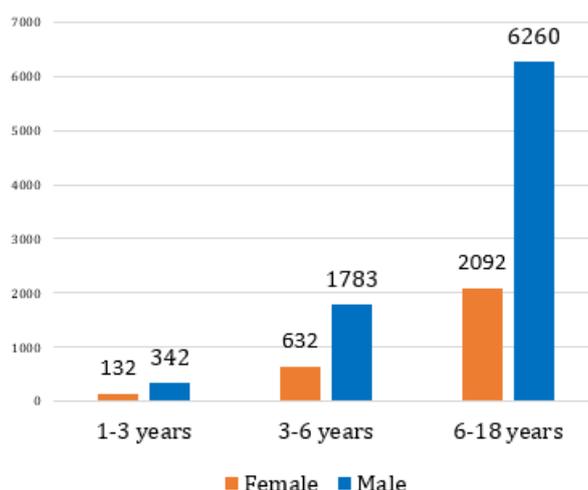
Source: Data received by project members from ANPDCA, 2019

From the perspective of the *social environment* in which children with ASD live (with their families or in the special protection system), the ANPDCA data show the following:

Table 3. The social situation of children with ASD in the records of the institutions

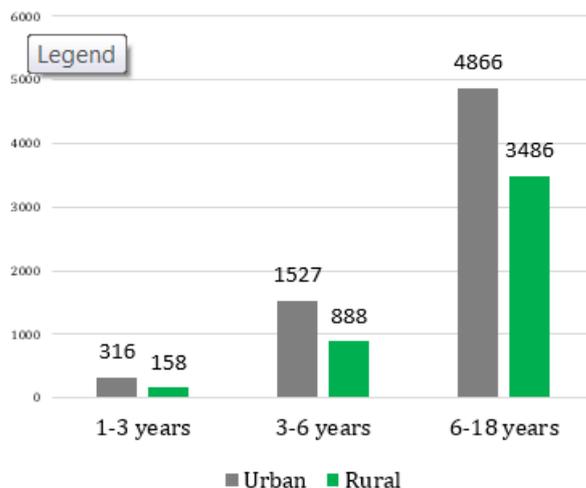
Number of children with certification of disability			Number of children in families			Number of children in social protection system		
1-3 years	3-6 years	6-18 years	1-3 years	3-6 years	6-18 years	1-3 years	3-6 years	6-18 years
470	2401	8343	459	2314	7743	15	100	608

Source: Data received by project members from ANPDCA, 2019

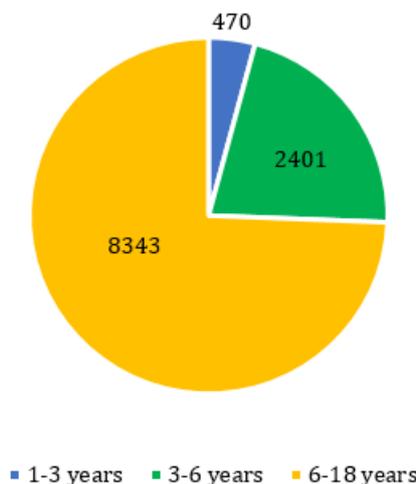


Source: Data received by project members from ANPDCA, 2019

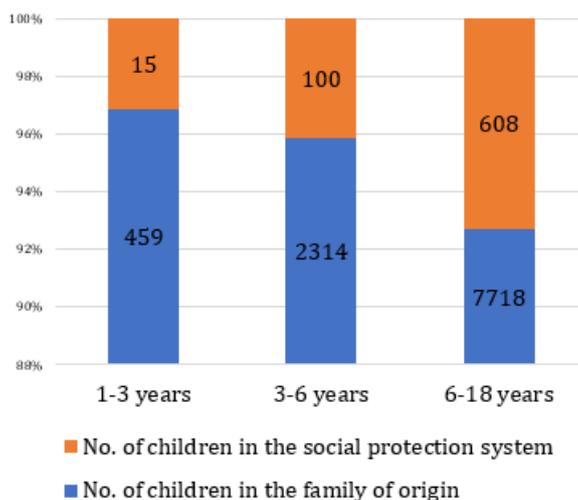
Figure 3. Number of children with ASD by age and gender



Source: Data received by project members from ANPDCA, 2019
 Figure 4. Number of children with ASD by age group and background



Source: Data received by project members from ANPDCA, 2019
 Figure 5: Number of children with certificate of disability



Source: Data received by project members from ANPDCA, 2019
 Figure 6. Number of children with ASD depending on the family environment

According to the data obtained from the INSP records, data referring to new cases detected by other disorders of psychological development and without specification (CODE ICD 10 - F83, F84, F88, F89), data reported by family doctors, in the last 10 years, a number of 8,089 new cases of children with ASD were identified in the period 2008-2017, distributed as follows:

Table 4. Number of annual cases of ASD by gender and area of residence

Year	New ASD cases	Gender		Residence	
		Male	Female	Urban	Rural
2008	361	186	175	252	109
2009	279	188	91	193	86
2010	450	267	183	312	138
2011	719	427	292	484	235
2012	1013	607	406	669	344
2013	1050	635	415	678	372
2014	1031	632	399	627	404
2015	957	614	343	569	388
2016	1082	708	374	607	475
2017	1147	763	384	690	457

Source: *National Institute of Public Health, 2019*

The data from The National Institute of Public Health (INSP) are divided by age groups, but the intervals of the age groups are different from the age ranges registered by ANPDCA. Thus, in the period 2008-2012, the age groups used in the INSP statistics were: 0-1 years and 1-14 years. Starting with 2013, the age groups used in INSP statistics are: 0-4 years, 5-9 years, 10-14 years and 15-19 years.

An analysis of the current legislative framework found that there are stipulations in providing integrated specialized health, education and social services aimed at early identification, treatment, recovery and improvement of the quality of life and social functioning of people diagnosed with autism spectrum disorders and with associated mental health disorders. The normative act that defines what are the *integrated specialized services addressed to people with ASD* is the Autism Law which at art. 2 mentions that: "*the integrated specialized health, education and social services are: early active detection, psychiatric clinical diagnosis and psychological clinical evaluation, psychopharmacological treatment, early specialized interventions, cognitive-behavioral psychotherapy, psychological counseling of parents and family, as well as educational services for children with autism spectrum disorders and associated mental health disorders*". The autism law 151/2010 used the term "*integrated services*", but until 2016, when the law enforcement rules were published, it was not known what these integrated services contained.

Thus, the *medical services* are provided by professionals accredited by the Romanian Medical College within the public or private health units, according to the legislation in force (art. 1 paragraph (1) letter f) point 1 of the Methodological Norms), **health services related to the medical act** are provided "*by professionals accredited by the Romanian*

*College of Psychologists, according to the legal stipulations in force in public or private institutions" (art. 1 paragraph (1) letter f) point 2 of the Methodological Norms), **social services** "are provided by accredited public and private social service providers, according to the legislation in force" (art. 1 paragraph (1) letter f) point 3 of the Methodological Norms), and **educational services** "are provided by teachers from public or private institutions authorized/accredited according to the National Education Law no. 1/2011, with subsequent amendments and completions" (art. 1 paragraph (1) letter f) point 4.1 of the Methodological Norms). Art. 7 para. (1) of the Methodological Norms stipulates that social services addressed to the person with ASD "have a proactive character and presuppose an integrated approach to his needs, taking into account the socio-economic situation of the person/parents/legal representative, health status, level of education and the social living environment and the recommendations contained in the Plan for the Recovery of the Child with Disabilities or, as the case may be, in the Individual Rehabilitation and Social Integration Program, in the case of the adult with ASD, respectively the Individual Services Plan". Para. (2) of the same article stipulates that "The Plan for the Recovery of the Child with ASD includes the objectives set by the multidisciplinary team to enable and or rehabilitate the child in all areas of interest, therapies recommended for this purpose, concrete ways to perform specific activities of habilitation and/or rehabilitation achievable in the specialized services closest to the child". Para. (9) stipulates that: "for the benefit of the person with ASD, social services may be organized and provided in an integrated system with employment, health, education services, as well as other social services of general interest, for a coherent, unitary and efficient intervention".*

Although Art. 5, para. 5 of Law 151/2010 stipulates that the Ministry of Health, the Ministry of Labor and Social Justice and the Ministry of National Education elaborate, in consultation with the Romanian Medical College and the Romanian College of Psychologists, *the standards for integrated specialized health, education and social services for people with autism spectrum disorders and associated mental health disorders*, which were supposed to be included in the methodological rules for the application of Law 151/2010, they do not exist even 9 years after the issuance of the law. The methodological norms for the application of Law no. 151/2010 were approved in 2016 by Joint Order no. 968 / 5 194 / 714 / 1 945 issued by the Ministry of Health, the Ministry of National Education and Scientific Research, the National Health Insurance House and the Ministry of Labor, Family, Social Protection and the Elderly, but they do not include a standard for integrated health, educational and social services for people with autism spectrum disorders.

Most NGOs in the field offer recovery services (therapies), but in the absence of official standards appropriate to the types of services they provide, children with autism spectrum disorders cannot be guaranteed quality services, and the risks that these children and young people with ASD not to receive integrated and personalized services (social, educational and health) and/or counseling services for their families and this to affect their chances of development are relatively high and should not be neglected.

Specific training standards in psychotherapy for people with autism spectrum disorders and associated mental disorders should be found in the methodological rules for the application of Law 151/2010. According to Art. 8, Paragraph 2 letters a) and b) specific training standards in psychotherapy for people with ASD and associated mental disorders include standards of continuous training, short-term specialization in autism spectrum disorders and associated mental disorders for the professionals certified in cognitive-behavioral psychotherapy and training standards in interventions specialized in autism spectrum disorders and associated mental disorders for the specialized multidisciplinary team provided in art. 3. According to Art. 8, para. 1 of law 151/2010 these should be carried out by the Romanian Medical College, the Romanian College of Psychologists and the Romanian Federation of Psychotherapy. Integrated specialized services are provided by professionals with competence established by the Romanian Medical College or by the Romanian College of Psychologists (Law 151/2010, art. 5, paragraph 1). Integrated specialized services are also provided by pediatric psychiatrists and clinical psychologists (Law 151/2010, Art. 7). For more than 9 years, these specialists have not been recognized by the Romanian State, only in 2019 on the website of the Romanian College of Psychologists, 2019a were published the conditions that the psychologist must meet, cumulatively, in order to carry out professional activities of psychological intervention for children diagnosed with autism spectrum disorders. Thus, for the first time in Romania, the creation of a Register of ASD Specialists, 2019b was discussed, through which the specialists would later have direct access to the settlement of services. And Help Autism Association, through the platform www.autismconnect.ro, started several years ago, the process of centralizing the specialists from the day centers of habilitation/rehabilitation services developed by NGOs and individual psychology offices, the data collected until currently requiring special attention, especially since specialists are still not interested in making public a professional profile on such platforms, as long as there is a high demand for services. The multidisciplinary team that provides services to people with autism spectrum disorders and associated mental health disorders also includes other categories of people who have no training in psychology and we are talking here about psychopedagogues (graduates of Special Psychopedagogy), speech therapists, physiotherapists, educators and social workers. In 2019, several aspects were unknown: which institutional entity will recognize these specialists, the needed skills in working with people with ASD and how they will end up being included in such a register. DGASPC specialists have also been trained/specialized over time, both in the country and abroad, to work with people with autism. However, although there are many specialists at the level of each DGASPC with training (short or long term), in 2019, there were specialists in DGASPCs in the country who stated that they have few trainings/courses in working with people with ASD. In our country, the number of specialists certified in Applied Behavioral Analysis (ABA) therapy (one of the therapies with scientifically proven results) is much lower than necessary. In 2019, there were only

35 ABA certified specialists in the entire country. Out of these, 21 were BCBA certified therapists and 14 were BcaBA certified.

In Romania, the National Health Insurance House (CNAS) reimburses the pediatric psychiatric medical services as well as psychological services, speech therapy, kinesiotherapy and physiotherapy, related to the medical act, necessary for patients with autism spectrum disorders, but also the services involving counseling the families which are carried out by pediatric psychiatrists. In 2019, their number was small throughout the country and nowadays this is still a problem. That is why autism NGOs propose another settlement system, directly through ASD specialists. The *specialized services and interventions* for people with autism spectrum disorders and other associated mental health disorders, related to the medical act are stipulated in the Framework Contract on providing medical assistance within the social health insurance system (Law 151/2010, Art. 5, paragraph 2). These services are: clinical psychological evaluation and psychodiagnosis (S1), individual psychotherapy (psychoses, obsessive-compulsive disorders, phobic disorders, anxiety disorders, dysthymia, addictions, autism spectrum disorders) (S2), clinical psychological counseling for children with autism spectrum disorders (only on the recommendation of a specialized pediatric psychiatrist) - in a psychotherapeutic method applicable to children diagnosed with autism spectrum disorders (S3), child and family psychotherapy - for children (only on the recommendation of a pediatric psychiatrist) - in a psychotherapeutic method applicable to the child diagnosed with autism spectrum disorders (S4) and services provided by the physiotherapist/physical education teacher/ kinesiotherapy (only on the recommendation of the pediatric psychiatrist) for the child diagnosed with autism spectrum disorders (S5). These are specified in Order no. 397/836/2018 regarding the approval of the Methodological Norms for the application in 2018 of the Government Decision no. 140/2018 for the approval of the service packages and of the Framework Contract that regulates the conditions for providing medical assistance, medicines and medical devices within the social health insurance system for the years 2018-2019. From 1st July 2019, the number of sessions that pediatric psychiatrists can prescribe in one day has doubled from 180 points/day to 360 points, so, if before they could prescribe 6 sessions related to the medical act, after this date they could prescribe 12 sessions/day related to the medical act. But these medical sessions are not only given to children diagnosed with ASD but also to those with psychosis, obsessive-compulsive disorder, phobic disorders, anxiety disorders, dysthymia and/or addictions, which further increases the recovering chances of children with ASD to be small. The National Strategy for the Protection and Promotion of the Rights of the Child 2014-2020 according to *General Objective 2. Respecting the rights and promoting the social inclusion of children in vulnerable situations* stipulates the elimination of attitude and environment barriers for rehabilitation and social reintegration of children with disabilities by providing social, educational and health integrated services, friendly and accessible facilities for children

with disabilities and their families. Children with disabilities should benefit from friendly and accessible services, the document states.

After the parents of children with autism spectrum disorders (ASD) completed the "*Needs Identification - Questionnaire for Parents*" resulted 303 responses provided by parents/relatives of children benefiting from the 80 member NGOs in the RO TSA Network. The results of the opinion poll based on an online self-administered questionnaire showed that 40% of parents/relatives say that the lack of empowerment/rehabilitation services for children with ASD is one of the biggest problems; 56% specified that for them the costs of therapeutic intervention represent a great financial effort due to the prices for the provision of therapies; 80% mentioned as a problem the path of the child with disability in order to receive diagnosis, registration in the level of disability and recovery, and 72% considered integration into the education system/society and insufficient state involvement as major problems.

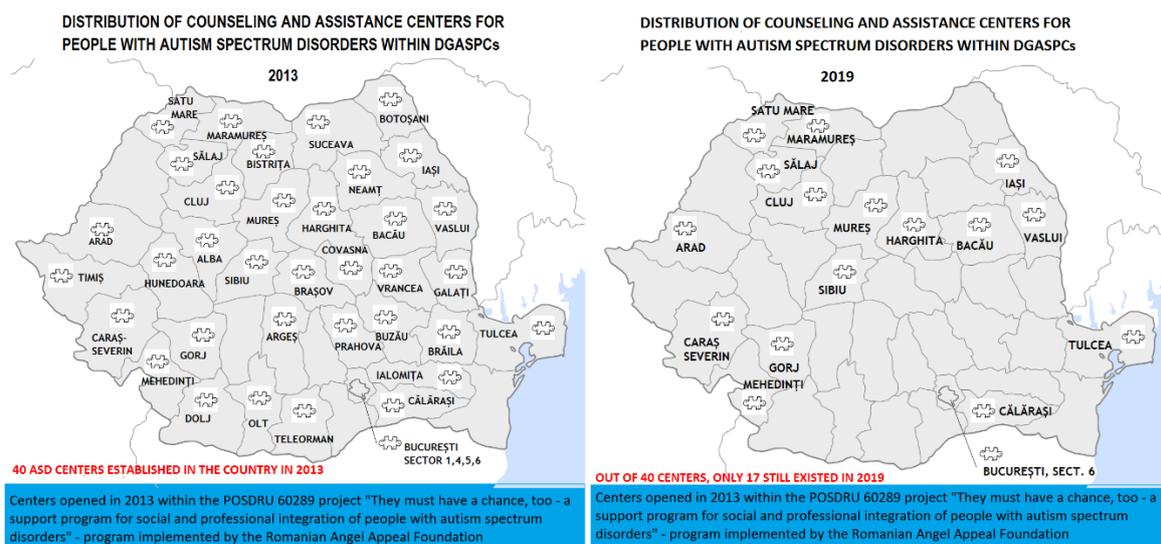
One problem that blocks the direct settlement of therapy services through NGOs is that NGOs in the field are licensed on social services, because this is was officially stipulated, although they mainly offer recovery services, therapeutic services and services related to the medical act. Even so, few NGOs in the field of autism offer licensed services and this is because, according to those in the field, the licensing procedure is cumbersome and the costs for meeting the standards are huge. Although the accreditation procedure for social service providers has been simplified due to the fact that in 2019 the Government, through the Ministry of Labor and Social Justice, decided on administrative simplification for accrediting social service providers and licensing social services, in order to revise the accreditation certificate application forms and operating license, but also in the sense of removing from the list of supporting documents the administrative authorizations issued by other public authorities, many of the NGOs did not know in 2019 the new regulations. One consequence is that this prevents the direct settlement of services provided by psychologists employed in the non-governmental sector. This is due to the fact that this licensing is done by the Ministry of Labor and not by the Ministry of Health. Of the 80 NGOs that are part of the RO TSA Network, only 30 NGOs were licensed in day centers where they provided services for people with autism (MMJS, 2019).

Another problem in the system is the lack of specialized services for empowering/rehabilitating children with ASD and associated mental health disorders and the uneven distribution of existing ones in the territory (mainly developed in urban areas). This type of integrated specialized services has not been developed in Romania, although they are described in detail in the norms of application of the autism law, these being offered within a small number of structures. In 2019 there were only 2 such centers, to our knowledge; they are also examples of good practice: the Regional Center for Educational Assistance "Speranța" Timisoara and the Center "Primăvara" in Reșița. Each of the services listed above are provided separately, by specialists accredited according

to the specific regulations in each field, not being a unitary, standardized framework in which to provide integrated specialized services.

In Romania, autism NGOs are the most numerous of all NGOs that offer services for different social categories at risk. Most services for people with autism spectrum disorders (ASD) are provided by the non-governmental sector and not by institutions. These organizations are set up mostly by parents of children with autism, formed in associations and foundations, the phrase "*behind every autism NGO is a parent*" is as true as possible. Seeing that, the state does not support them very much, many parents of children with ASD have started to set up NGOs with the idea of raising funds for therapies, both for their children and for those in the community in which they live.

In 2011, the Romanian Angel Appeal Foundation (RAA) showed that most of the public services, within the DGASPCs, were dedicated to people with disabilities in general. An analysis at that time showed that out of the 41 general directorates of social assistance and child protection, only 2 had specialized services for children with autism (both being in Bucharest). In 15 DGAPSCs, services were offered to children with autism spectrum disorders, in service centers for children with disabilities or in social service centers and in 24 DGASPCs, recovery services were not offered, as they only had the possibility to make assessments of children, within the Complex Assessment Services for placing children in a degree of disability. Thus, following a project implemented by the AAR, a network of 40 care and counseling centers was set up in 2013 in partnership with local authorities (DGASPCs) and, in some cases, with local NGOs, a network for social and professional integration of people with ASD and their relatives, distributed in 35 counties of the country and in Bucharest in order to provide free services. Unfortunately, in 2019, 6 years after their establishment, there were only 17 ASD centers operating under the coordination of DGASPCs (RRA, 2013).



Source: National Authority for the Protection of the Rights of the Child and Adoption (APDCA) 2019

Figure 7. Distribution of counseling and assistance centers for people with autism spectrum disorders within DGASPCs (2013 versus 2019)

Over the years, services for people with ASD have been developed, both by authorities (although the services developed within the institutions are not sufficient to cover the real need for services of empowerment/rehabilitation of children with ASD), and by private initiatives especially in big cities. In most counties, recovery services for people with ASD exist only in large cities, in county residences, while in smaller communities these services are absent, which drastically reduces the chance of children with autism living in rural areas or in small towns to have access to recovery services. Also, the services are not homogenously located, leading to difficult access for children with ASD and there are certain counties without any empowerment/rehabilitation services (for example, in 2019, Braşov and Harghita counties did not have such services). Data from 2019 showed that most DGASPCs in the country offered social services for the empowerment/rehabilitation of people with ASD and social support services for their relatives - in 38 counties, without accommodation. *Support services* can be: help with basic daily activities, information, personal care, social and participative integration, housing, assessment, work support services (assisted employment), ensuring access to training programs, other specialized services according to the specific and individual needs of people with ASD, according to the Norms for the application of the Autism Law 151/2010, Section 2: Social services, Art. 9, letter b. *Support services* without accommodation can be day centers, home care services, community services, social canteens, mobile food services, social ambulance, support services, etc., according to the Rules for the Application of the Autism Law 151/2010, Section 2: Social services, Art. 9, letter b.

Access is free to *integrated specialized services* for all people diagnosed with autism spectrum disorders and mental health disorders, but until recently children with ASD who could benefit from the services of day care centers in the state had to have a certificate of disability (Law 151/2010, art. 4, para. 2 of). At national level, the Romanian State, through DGASPCs, offers various types of social services addressed to people with ASD. These are:

- Assistance and support services in 17 counties, covering 35% of counties nationwide;
- Personal care, recovery, empowerment and rehabilitation services (with accommodation) in 16 counties with 34% national coverage;
- Personal care, recovery, empowerment and rehabilitation services (without accommodation) in 38 counties with national coverage of 80%;
- Social insertion/reinsertion services in one county - Iaşi;
- Training services for work and independent living in 5 counties representing 11% of the counties at national level;
- Other types of services for people with ASD (in 4 counties).

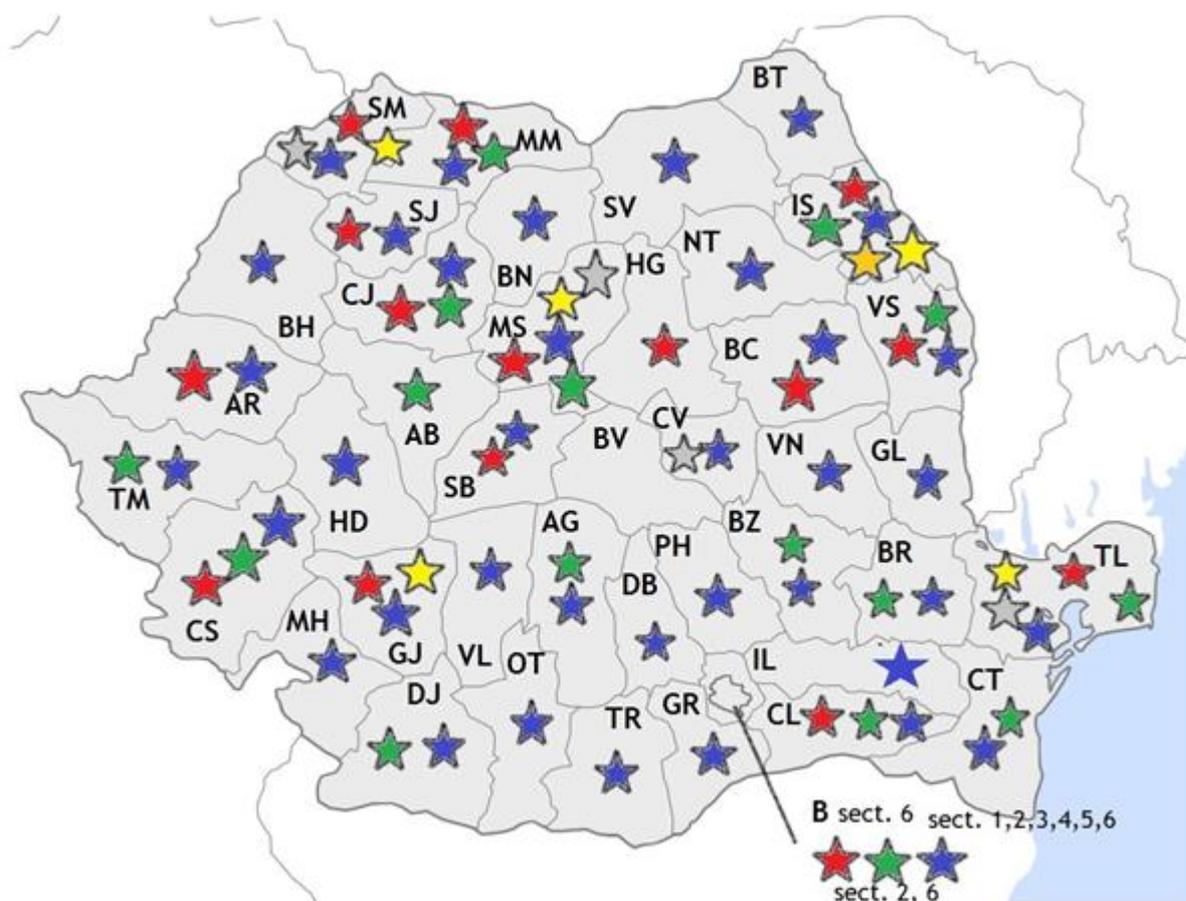


Figure 8. National distribution of social services addressed to people with autism spectrum disorders

Types of social services for people with ASD	Number of counties with services within DGAPSCs ⁵	Proportion of services by total counties
Services of social assistance and support ¹	17	36%
Services of personal care ² , recovery, empowerment and rehabilitation services (with accommodation ³)	16	34%
Services of personal care, recovery, empowerment and rehabilitation services (without accommodation ⁴)	38	80%
Services of social insertion/reinsertion	1	2%
Training services for work and independent living	5	11%
Other services	4	9%

¹ help for basic daily activities, information, personal care, social and participation integration, housing, assessment, work support services (assisted employment), ensuring access to vocational training programs, other specialized services according to the specific and individual characteristics of people with ASD

² is addressed to the person with ASD without functional autonomy and who needs support to perform the usual activities of daily living.

³ can be for a determined or indefinite period: residential centers, sheltered housing, night shelters, respiro centers, etc.

⁴ can be day centers, home care services, community services, social canteens, mobile food services, social ambulance, support services, etc.

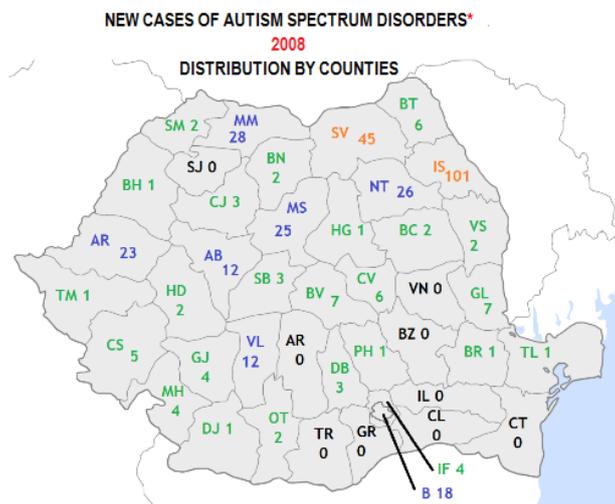
⁵ General Directorates of Social Assistance and Child Protection (DGASPC) at the level of each county.

Note: It is noted that all these types of social services for people with ASD are insufficient, in 2019 there was a county without any type of service (Braşov), and social insertion/ reintegration services as well as training services for work and independent living, were extremely few in 2019.

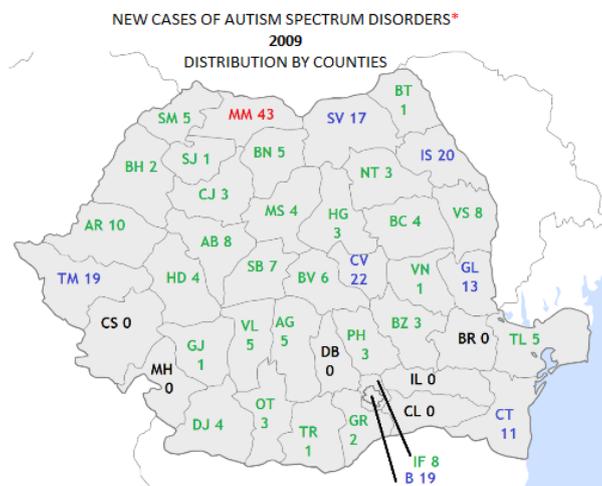
Source: National Authority for the Protection of the Rights of the Child and Adoption

Paradoxically, there were years when, in some counties, family doctors reported to the National Institute of Public Health no cases of autism: in 2008, in the counties of Sălaj, Argeş, Vrancea, Buzău, Teleorman, Giurgiu, Ialomiţa, Călăraşi and Constanţa. In 2009, no

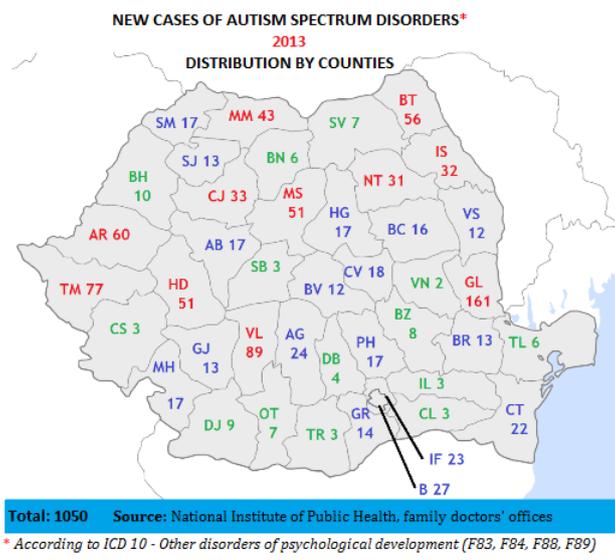
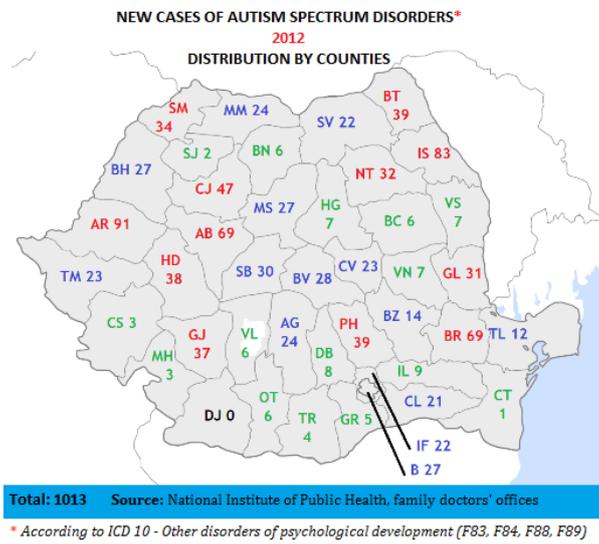
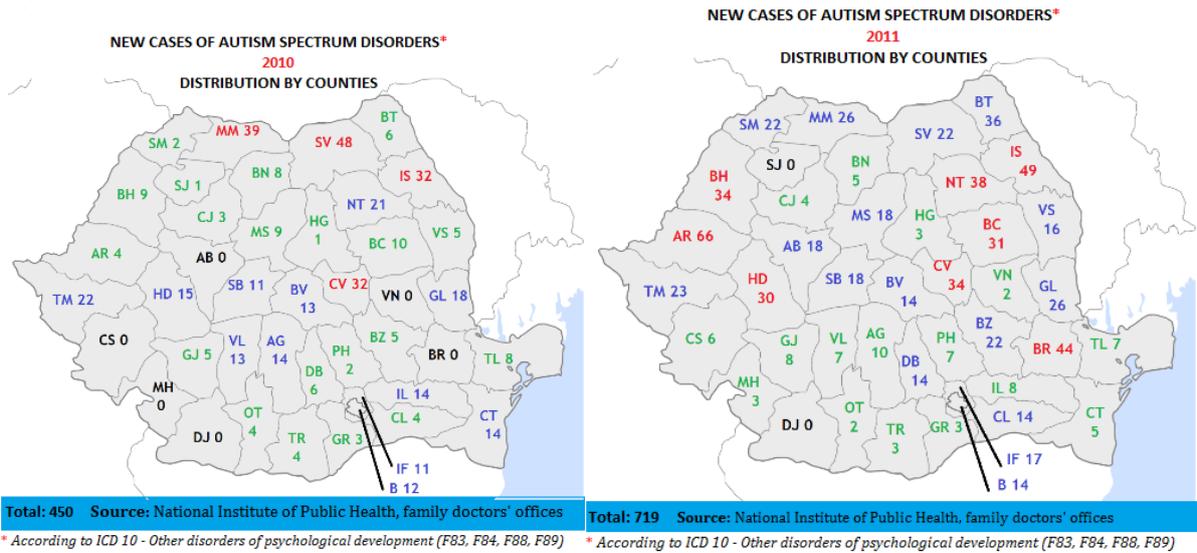
case of a person diagnosed with ASD was reported in the counties: Caraș-Severin, Mehedinți, Dâmbovița, Călărași, Ialomița and Brăila. In 2010, no case of autism was reported by family doctors from Alba, Caraș-Severin, Vrancea, Brăila and Dolj counties. In 2011, Sălaj and Dolj counties did not report any case of autism. In 2012 Dolj was the only county that reported 0 cases of autism, and in 2014 and 2017 Olt County was the only county that reported 0 cases of autism.



Total: 361 Source: National Institute of Public Health, family doctors' offices
* According to ICD 10 - Other disorders of psychological development (F83, F84, F88, F89)



Total: 279 Source: National Institute of Public Health, family doctors' offices
* According to ICD 10 - Other disorders of psychological development (F83, F84, F88, F89)



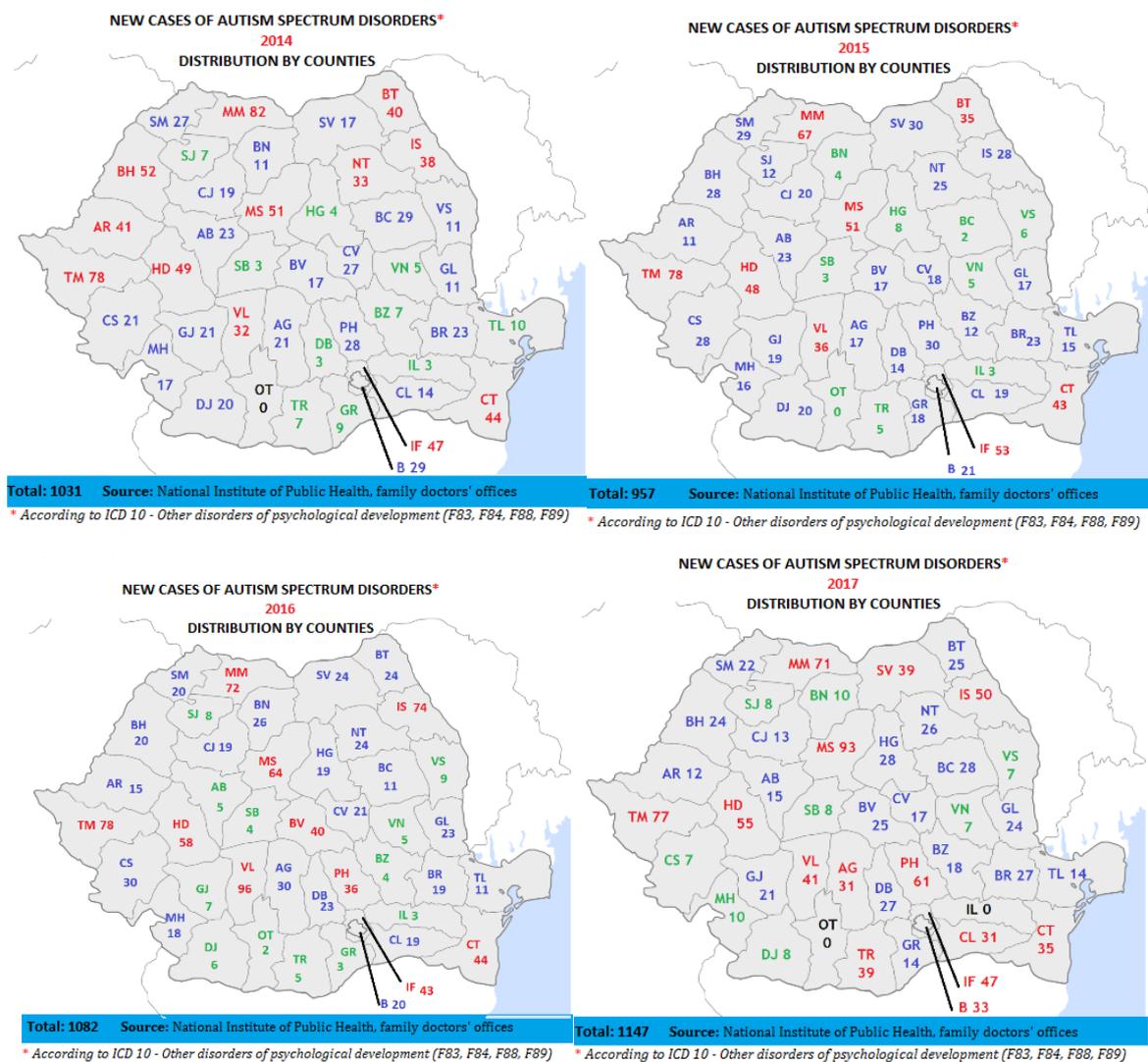


Figure 9. Maps of new cases of ASD in the last 10 years (distribution by counties 2008-2017)

During the 3 meetings of the inter-ministerial working group, each of the issues identified following the research, focus groups and working meetings in the territory were discussed in turn, on the analysis of current legislation. Thus, the main solution agreed by all specialists involved in the project was *to develop a framework for organizing integrated specialized health, education and social services for people with autism spectrum disorders and associated mental health disorders and their standardization*. Thus, the discussions revealed the need to configure an effective framework for providing integrated specialized services for children with autism spectrum disorders (ASD).

It was therefore necessary both to develop a public policy to increase children's participation in integrated specialized services and to increase the capacity of civil society (non-governmental organizations) to provide services for children with ASD, on two levels: on the one hand to increase the quality of services provided to children with ASD (by creating a quality standard of integrated specialized services), on the other hand streamlining the collaboration of NGOs in the field with different institutions: MMJS, DGASPCs, ISJs, CJRAE/CMBRAE, CŞEI, Mental Health Centers and with local public

authorities-town halls through DAS. At the same time, monitoring all activities and services for children with ASD is necessary to ensure that the quality of these services provided to them is maintained.

Discussions and conclusions

Among the solutions that can be successful in the involvement of NGOs in formulating public policies is to increase their interaction with Parliament, institutions with expertise in the field and other NGOs. Rarely used advocacy method, regular contact with political actors and decision makers can be intensified, especially through coalitions and federations in which NGOs operate. Reality shows us that the recent successes of the civil society sector have been based on constant and persevering communication with political actors and decision-makers. NGOs should adapt better their change requests to the institutional recipients of public policy proposals. The easier these proposals are to be introduced in the decision-making circuit of the respective institution, the more likely it is that their issuer will find an open decision maker to promote them (FDSC, 2017: 112). In the case of this project, although the main objective was to develop an alternative public policy proposal in the field of providing services for children with ASD and their families, Help Autism Association would not have succeeded without the support of an institution that assumed the role of taking over the public policy proposal and further promoting it. In fact, from a legal point of view, only institutions can propose and issue public policy proposals. However, the project "Increasing the involvement of NGOs and social partners in promoting alternative public policies for children with ASD (ONGPP)" implemented by the Help Autism Association is clear evidence that, through a civil society initiative, public policy proposals can be initiated and successfully completed. The project managed to develop the largest network of NGOs in the field and partnerships between civil society (NGO environment) and institutions with responsibilities in the field. The results of the project implementation are spectacular. Thus:

- The capacity of 80 NGOs to get involved in formulating alternative proposals and their constant interest in this direction have increased.
- 151 specialists participating in the regional consultations regarding the analysis of the impact of the legislative regulations in the field.
- 139 specialists from institutions and NGOs participating in the 8 regional debates on problems and identifying solutions for providing services for children with ASD and their families.
- Through the method of the self-administered questionnaire, opinions were collected from 47 specialists from institutions and practitioners from NGOs and 303 answers from the relatives/guardians of people with ASD;
- 134 in-depth interviews with specialists from institutions, practitioners from NGOs and parents of children with ASD;
- 39 NGO representatives acquired the skills to make good use of the advocacy method in order to promote the identified alternatives to current public policies in the field of providing services to children with ASD and their families and were aware of the

importance of cooperation between NGOs and public authorities to provide the best solutions to the legislative vacuum problems faced by children with ASD and their families.

- 31 representatives from non-governmental institutions and organizations participated in the 3 meetings in working groups, in order to obtain the harmonization of various alternative proposals to public policies and for their analysis in terms of their reality and sustainability.
- An advocacy campaign was implemented with the public consultation of the public policy proposal and the organization of a public debate.
- A meeting was organized with the participation of policy makers in the field to sign an agreement in principle that they will further promote the alternatives proposed by the project to existing public policies in order to support children with ASD and their families.
- An alternative public policy proposal was submitted to the Government for the establishment of Integrated Specialized Health, Education and Social Services for children with ASD and their families.

An unresolved issue in the field of ASD intervention refers to the number of children, young people and adults with these disorders that are not accurately recorded in Romania. The data currently existing in Romania are partial, administrative data, held by some institutions such as DGASPCs (centralized at the level of ANPDCA), the National Institute of Public Health (INSP) through the data provided by family doctors and MEN through CJRAE those who record the number of children with ASD who were issued a certificate of school and vocational guidance, CES certificates (special educational requirements), but all these data in 2019 were not publicly found and, therefore, there were no official published statistics in this area. It is necessary to achieve a centralized record of children/people suffering from ASD by establishing A Registry of People with Autism Spectrum Disorders. The existence of evidence is essential in the unitary approach to the issue of children with ASD. Such a register in which people with ASD are recorded would be an official and accurate source of data that would allow the authorities to determine the best ways to intervene and allocate resources since the number of people, the age of diagnosis, the geographical areas where they emerged, the need for therapies, the degree of disability will be known.

Guiding the parents of the child with ASD in managing the immediate measures to be taken in addressing his recovery, after establishing a diagnosis is essential. Once diagnosed with ASD, the child's parents should be guided/accompanied in the process of accepting the existing situation and establishing the most appropriate therapeutic path necessary for the partial/total recovery of the child, or at least to improve the quality of life for both the child, as well as for his family. In this context, it is useful to create a Methodological Guide for Parents containing information about ASD, about how parents

should approach the child with ASD, who to address and who to talk to or what therapies are needed.

A first step in carrying out the early intervention will be the diagnosis of ASD in children and, for this, the collaboration between the family doctor of the child and the child's parents is vital. Thus, all family doctors need to know and apply the tools to identify the early signs of ASD in the screening they perform on the health of the children they have in care. At the same time, parents must be involved, in an informed way, in monitoring the health of their children, as they are the ones who can observe the first possible problems that may arise. Specifically, regarding ASD, parents can be instructed to know and follow the normal stages of the child's development and to contact the family doctor as soon as they notice deviations from normal development. Therefore, the good cooperation between the family doctor and the parents creates the premises for diagnosing ASD and early intervention.

Furthermore, the difficult access to therapy for children with ASD is a problem due to the insufficient financial compensation of therapy services by the Ministry of Health through the National Health Insurance House. Establishing a number of therapy hours per day for children with ASD and a settlement on the compensated services, as well as a way to settle the necessary therapies for children with ASD is more than stringent. The costs of the necessary therapies for children with ASD are high and they are, in most cases, supported by the parents of these children. In 2019 there was at the level of the General Directorates of Social Assistance and Child Protection (DGASPC) the possibility to provide free therapies for children with autism, but they consist of a maximum of 2-4 hours per week and only in 38 counties. The need for therapy for these children is greater and therefore, in order to ensure the real access of children to therapies and to improve their chances of recovery, it is necessary to establish a number of hours of therapy per day to be reimbursed from health insurance. CNAS, together with non-governmental organizations in the field, worked on the implementation of the National Subprogram for Autism, which, according to the *Protocol* signed on April 2nd 2019, provides mechanisms and steps to reimburse medical services especially for children with ASD.

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