СОЦИАЛНА ПЕДАГОГИКА

SOCIAL PEDAGOGY

REDUCING AGGRESSIVE BEHAVIOUR AMONG CHILDREN IN EDUCATIONAL AND SOCIAL PRACTICES

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Abstract: *Current study research possible strategies in reducing aggressive behaviour of 3 target groups – preschoolers, at-risk children deprived of parental care and youth with severe disabilities. Target group 1 is researched within gathering evidence of the attitude of Bulgarian teachers and parents (n=1436) towards the Emotional Intelligence education of the preschoolers by applying a questionnaire with 7 items Likert scale. Bulgarian children without parents (n=40) comprised intervention within 4 interaction strategies using normal and high voice, positive and negative language and have been subjected to surveillance in a pre-standardized checklist. Children and youth with severe disabilities in Bulgaria comprised intervention (n=12) in a non-verbal alternative communication program and have been subjected by questionnaires and surveillance. Results of current study demonstrate that developing emotional intelligence and using different language and alternative strategies would reduce the aggression but should be considerate with individual specifics of children and current educational and social reality.*

Key words: *aggression; preschoolers; children at risk; youth with severe disabilities; emotional intelligence; alternative communication.*

INTRODUCTION

Aggression and its increasing levels are proven a widely spread issue throughout the modern society and are having a significant influence over people's behaviour. Reports on violence are showing that it is rapidly decreasing only in the high-income countries. Even though countries are investing in different action plans on national level, prevention programs and are enacting laws relevant to violence, the results are not satisfying due to the fact that most countries lack proper knowledge of the exact measures, factors and consequences of aggression (Global status report on violence prevention 2014).

Aggression

Aggression has traits like intent, expression, and factors that are influencing it and may be considered as personal trait throughout a person's life (Kozina 2007). Some authors describe it as a causing harm or intended to cause harm behaviour that can be directed to another person of to self. (Kozina 2007; Tremblay 2000).

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There are several categorizations of aggression that can be found in literature:

• By intention including constructive (construction orientation), destructive (destruction and harm orientation), instrumental (achieving certain goals orientation), and frustration aggression (discharging energy or frustration orientation).

• By orientation:

– oriented in – direct (guilt, auto destruction, suicide) or indirect (psychosomatic illnesses, depression, alcoholism)

– oriented out – direct (physical, verbal, negativism) or indirect (hostility, anger, suspicion) (Kozina 2007)

In a conceptual study of the aggression made by J. Liu (Liu 2004) the following classifications are described:

• Clinical classification

– Affective, reactive, defensive, impulsive, hot-blooded–uncontrolled

– Predatory, proactive, instrumental, attack, cold-blooded–controlled

• Stimulus-based classification, which includes predatory, fear-induced, irritable-induced, territorial, maternal and instrumental aggression

• Other classifications are instrumental vs. Hostile; positive vs. Negative; male vs. female aggression (Liu 2004: 693–714)

Aggression can be a predictor of social, psychological, behavioural, educational problems (Kozina, 2007), as well as criminal behaviour (Kozina 2007; Tremblay 2000).

Factors of aggression

Age is proven a factor that influences with physical aggression decreasing though adolescence and verbal and internal aggression tending to increase in time (Kozina 2007). A reason for this can be the decline of physical strength, better cognitive and social skills. In addition, there is significantly higher use of physical aggression in kids with insufficient or lacking verbal skills. As soon as they are acquired, the level of aggressive behaviour decreases (Fares, et al. 2011).

Another factor is gender – males tend to use direct forms such as physical aggression, in comparison to females who use indirect forms for coping with anger such as verbal aggression more often (Fares et al. 2011; Kozina 2007) and both genders tend to justify the form of aggression that is typical for them more easily (Fares et al. 2011).

The effects of socioeconomic status are also very important. (Fares et al. 2011) A Unicef report reveals that the lower the income of the household where a child lives, the higher the percentage of children experiencing bullying is country wise (Brazier 2017).

A. Kozina (Kozina 2007) divides the factors in four groups:

– *Biochemical factors:* testosterone, cholesterol, nitro oxide and serotonin levels, dysfunctional amygdale, etc.

– *Chemical factors:* this includes substance abuse.

– *Psychological factors:* low IQ, dysfunctions of the brain, anxiety, hyperactivity, early childhood aggression, arousal in a low level, etc.

– *Sociological factors:* reaction to aggressive behaviour of others, lack of success, competitiveness, crimes of parents, neglecting, abuse, spoiling or strict discipline, lack of parental involvement, inconsistency in punishment, lack of emotional attachment in family, prevailing punishment within parental education, family ethos and parenting styles (Кутева-Цветкова 2000; Ценова 2014), constantly change of residence, parent separation from child, failure in education. Other reported sociological factors include low educational aspiration that leads to increasing level of aggression, extra curriculum activities, school ethos and safety environment that reduce the aggression. Emotional intelligence is negatively correlated to the amount of aggression (García-Sancho, Salguero & Fernández-Berrocal 2014).

All the above confirms the assumption that aggression is a complex issue and the attempts of researchers to reduce aggression among individuals should be considered by using appropriate methods pursuant to the specifics of certain group.

Current report

The report is aimed to research current problems with youth social functioning such as the impact of specific programs on child's behaviour. Proposed target groups provide insight into the issue from different perspectives and ensure broader coverage of the study, tailored to the specifics of each investigated group. All the target groups are from Bulgaria.

The scope of the report includes three different groups of children, taking into account the capabilities of each group and realistic goals for their development:

• Target group 1 – Preschool children, raised by their family and part of the educational system.

• Target group 2 – At-risk children grown outside their family – these are children taken by their families as a protection policy and settled in specialized institution (homes for children) or residential care due to parents antisocial aggressive or inadequate behaviour that puts children at risk.

• Target group 3 – Children and adolescents with special needs grown outside their family and in residential care services – these are children and adolescents with severe physical and mental disorder.

The general hypothesis of the report states that the development of emotional intelligence or applying specific communication techniques for interaction according to child development specifics would affect aggressive behaviour of children.

Each of the three groups will have a sub-hypothesis formulated and specific objectives enumerated.

METHODOLOGY

Target group 1

This part of the research aimed to gather evidence of the attitude of teachers and parents towards the Emotional Intelligence education of the preschoolers.

The research question it answered is the following: Do the type of respondents e.g school teacher, kindergarden teacher or parent, affects the reported level of effect the emotional intelligence (EI) will have on different types of aggressive behaviour.

The null hypothesis that can be formulated as follows: The means of all three types of respondents and their opinion about the different aggression types are equal.

$H0 : \mu_1 = \mu_2 = ... = \mu_k$

The alternative hypothesis will test that there would be at least one mean that differs from the others.

$H1 : \mu_1 \neq \mu_2 \neq ... \neq \mu_k$

The questionnaire structured for this purpose is using a Likert scale of 7 items with 5 degrees each, having 5 as the highest option i.e strongly agree. The questions are evaluating the extent to which the person surveyed is agreeing whether increasing of EI will decrease aggression (2 items) and which type of aggression in particular (physical, verbal, indirect, auto aggression or antisocial behaviour – resulting in 5 items). The survey is anonymous, voluntary, and confidential and submitting a response is considered a consent with that.

The survey was distributed online, using social media channels, public e-mail list retrieved from the websites of the Regional Education Experts offices; also, several were distributed on paper. The period for collecting data was from May to July 2019. There are 1436 respondents (921 teachers; 515 parents).

Qualitative data from the survey was calculated using IBM SPSS Statistics 19 with descriptive statistics, correlations and MANOVA.

Target group 2

Current study is aimed to research the impact of lexical and paralinguistic signs on the aggression of at-risk children deprived of parental care. Tone (power of the voice) is the specific paralinguistic cue experienced in the research and lexical sign is the use of positive and negative language. **General hypothesis** predicts possible strongest significance of negative language with high tone on the increase of the aggression of children.

At – risk youth raised outside family and living across Bulgarian residential homes (n=40) comprised intervention performed by volunteers using 4 interaction strategies: normal voice and positive language (N+); high tone and positive language (H+); normal tone and negative language (N-) and high tone and negative language (H-). Intervention participants have been subjected to surveillance by independent observer in a standardized checklist using the Buss-Durky classification of aggression. Surveillance was conducted within

structured scientific observation using the 4 intervention strategies measuring following 5 of 8 aggression indicators (Mihran 2005: 116): **physical aggression** (fighting); **verbal aggression** (rude language and offend others); **aggressive irritability** (gets irritated and loses quickly temper); **hostility** (sabotages other children) and **indirect aggression** (unfounded gets angry to others).

All variables were measured by certain observed behaviour reactions showing expression of aggressive indicators (dependent variables).

The power of the voice (tone) is measured in advance and each word is used with a normal tone (sound of 200 Hz) and with a high tone – 450 Hz.

A new intervention group (n=11) with highest degree of aggressive behaviour has been defined after the results proceedings on the basis of a comparison of means   among the participants of all residential centres within the experienced 4 strategies. New intervention group has been conducted repeated measures to check the significance of registered aggressive behaviour and if results are influenced by the experimental impact strategies rather than is a general personality characteristic or accent in the child's character. Verification of same 5 aggression indicators is performed through an assessment scale completed by specialists and care givers who look after children on daily basis: **Physical Aggression**; **Verbal aggression**; **Indirect aggression**; **Aggressive irritability**; **Hostility**. All variables were measured by same observed behaviour reactions showing expression of aggressive indicators that have been experienced within the surveillance. The assessment rating scale contains same five behavioural expressions of aggression from 1 to 4. Every child from second intervention group has been assessed by all the 6 specialists and care givers who look after children and have daily contact with them and means of all estimates has been formed which creates a prerequisite for objective results in order to reduce the limitations.

Target group 3

An additional study about children and youth with severe disabilities has been completed in local residential care homes in order to research the alternative communication techniques impact on the levels of their physical aggression. The following **hypothesis** has been formulated: the purposeful and systematic implementation of group work with elements of non-verbal communication techniques aimed at acquiring social skills, can reduce aggressive behaviour of children and youths in the activities.

The **target group** of the study is defined as the population of children and youth with severe communicative disorders, raised in residential care homes in Bulgaria for children and youth with disabilities. At-risk youth with severe disabilities raised outside their family and living across residential care home in the town of Veliko Tarnovo, Bulgaria comprised intervention (n=12). At-risk youth with severe disabilities raised outside family and living in residential care homes in the town of Gorna Oryahovitsa and Vratsa remained non-intervention (n=24). Intervention and non-intervention groups applied similar regulatory characteristics and features in terms of type of residential care applied to them. Research interaction carried out 24 sessions in 6 months with 50 minutes' duration each session in the residential care home in Veliko Tarnovo. Intervention activities are completed out by a team of 6 specialists and volunteers who do not work in the Centre.

A Program for group work with children and youth with severe disabilities has been developed that contains several essential elements. First, it consists implementing partially tools from Makaton alternative communication system to facilitate communication. In addition to this, some techniques are experienced such as traditional start and finish action, visual program, multisensory activities, tasks presenting through different levels of difficulty according to participant's skills, stimulation of initiative through applying conditions, etc. The Program is based on fundamental principles of using non-verbal communication systems (Enderby, Judge, Creer, John 2013; Frost, Bondy 2002; Gilmour 2017).

Aggression is one of the main tracked indicators in this study and is counted as a behaviour of physical treatment to the others. An aggressive action that actually leads to the risk of physical disability is assumed taking into account the fact that most intervention youth have psychotic personality structure (Клутур, Макали 2008; Лакаде 2008; Roa 2005).

Instruments for problem areas of aggressive behaviour measurement of both intervention and non-intervention group have been determined according to the specifics of the target group. Forty managers of residential care homes for children and youth with special needs completed questionnaire for defining most serious difficulties in target group care. Additionally, a structured interview has been carried out with social workers in residential centres included in survey for aggressive behaviour assessment of intervention group

in their daily life within following indicators: frequency of aggressive reactions, motivation and type of aggressive behaviour (physical, verbal, direct, indirect, immediate, and postponed). Surveillance was conducted within structured scientific observation measuring the frequency, causes and type of aggressive expressions in their usual environment, as well as direct and unregistered observation recording aggressive reactions of each participant in intervention in following criteria – number of aggressive reactions and forms of aggression (physical, verbal, provoked, initiated).

RESULTS
Target group 1
The demographics of the two groups are as follows:

• Teachers – 56,2% kindergarden teachers and 43,8% school teachers; 17% from the capital, 65,5% from towns and 17,5% from villages; 2,95% of the teachers are from private schools as opposed to 97,1% from public or state schools; 25% teach preschoolers at the moment, 29,2% have done that before and 45,8% have never taught preschoolers; 24,1% have less than 5 years work experience, 16,3% are in the 5 to 10 range, 9,2% in the 11 to 15; 10,2% in the 16 to 20, 40,2% have over 20 years work experience.

• Parents – 43,5% of parent respondents have 1 kid, 47,2% have 2; 8,3% have 3, 0,8% have 4 and 0.2 have 5 kids; 64,3% work full time, 2,5% – part time; 10,7% are freelancers, 6,8% are unemployed, and 15,7% on maternity leave.

Fig.1 *shows the comparative distribution of teachers' and parents' age and education level.*
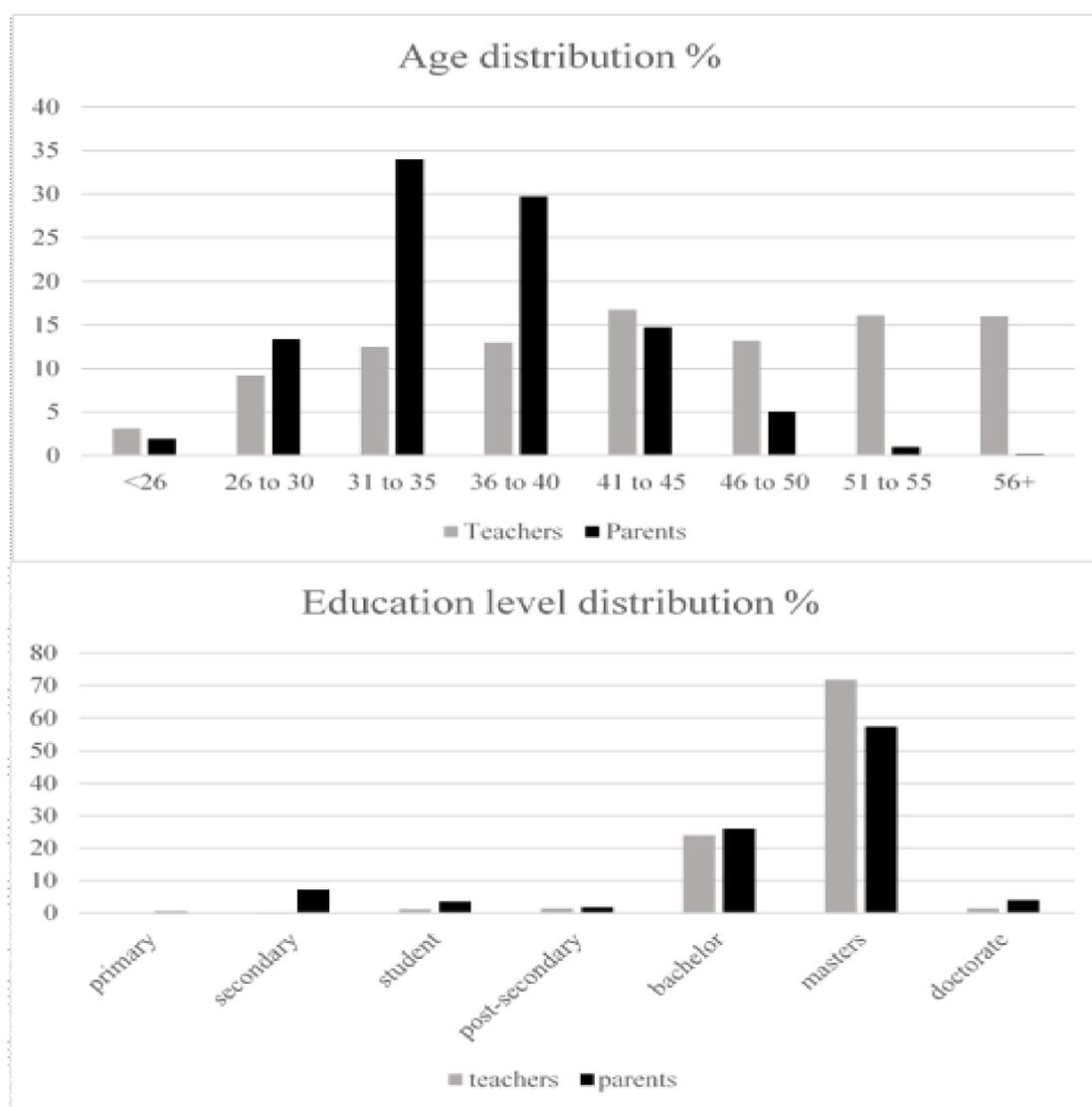
Fig.1 *Age and education level distribution %.*

The crosstabulation of the answers of the three groups of respondents showed that in general all think that EI should be taught to preschoolers (a total of 57,5%), while the school teachers are the ones who gave lowest present – 51,9% strongly agree, and the parents are the ones agreeing with the statement the most – 65,8%. School teachers showed the highest number of strong disagreement – 1,4% (see Table 1).

Table 1. *Cross tabulation Need of emotional intelligence (EI) in pre-school*
Need of EI in pre-school? * ID Cross tabulation

			ID			
			School	Kindergarten	Parent	Total
Need of EI in pre-school?	strongly disagree	Count	7	1	4	12
		% within ID	1.4%	.2%	.8%	.8%
	disagree	Count	13	11	13	37
		% within ID	2.5%	2.7%	2.5%	2.6%
	neutral	Count	44	6	18	68
		% within ID	8.5%	1.5%	3.5%	4.7%
	agree	Count	185	168	141	494
		% within ID	35.7%	41.7%	27.4%	34.4%
	strongly agree	Count	269	217	339	825
		% within ID	51.9%	53.8%	65.8%	57.5%
Total		Count	518	403	515	1436
		% within ID	100.0%	100.0%	100.0%	100.0%

Respondents were also less certain on the effect EI will have in decreasing aggression with $n = 1436$, $M = 4.45$, $SD = .773$ for the importance and $n = 1424$, $M = 4.32$, $SD = .710$ for the question on the decrease of aggressive behaviour (see Table 1 and 2).

However, the tendency within groups was the same with parents being the most certain in the decrease of aggression (48,9%), opposed to school teachers with 41,1% (see Table 1 and Table 2). The two questions appeared to be strongly correlated r (1424) = 0.426, $p < .001$.

There is a debate in the literature about the way Likert scales should be analysed (Boone, Jr. & Boone, 2012). In this particular case parametric analysis is used as the size of the samples is adequate and the items are forming a scale that has a relatively high internal consistency (5 items, $\alpha = .86$).

Table 2. *Cross tabulation Decrease of aggression within pre-schoolers if faught emotional intelligence*
*Decrease aggression? * ID Cross tabulation*

			ID			
			School	Kindergarten	Parent	Total
Decrease aggression?	strongly disagree	Count	0	0	1	1
		% within ID	.0%	.0%	.2%	.1%
	disagree	Count	13	7	9	29
		% within ID	2.5%	1.7%	1.8%	2.0%
	neutral	Count	46	25	40	111
		% within ID	9.0%	6.2%	7.8%	7.8%
	agree	Count	242	201	211	654
		% within ID	47.4%	50.0%	41.3%	45.9%
	strongly agree	Count	210	169	250	629
		% within ID	41.1%	42.0%	48.9%	44.2%
Total		Count	511	402	511	1424
		% within ID	100.0%	100.0%	100.0%	100.0%

In order to answer the research question a MANOVA analysis was performed. The independent variable represented a sample size of 511 school teachers, 401 kindergarden teachers and 515 parents. This group sizes were big enough to make the MANOVA robust against violations of homogeneity of variance-covariance matrices assumption (Allen & Bennett 2007).

The Multivariate tests table showed no evidence of a significant across the levels of the independent variable on a linear combination of the dependent variables (Pillais' Trace = .012, F (10, 2834) = 1.74, p > .05). The effect size was estimated at .006, or 0.6% of the variance within the answers on the different type of aggression can be explained by the type of respondent.

Therefore, it does appear that the group the surveyed people fall in is not significant to their opinion on the aggression and which type of aggression will be more or less influenced by the increase of the emotional intelligence of preschool children.

Target group 2

Negative language in both the normal and high tone of the voice increase aggressive behaviour of children according to mean values which leads to a presumption that the semantic meaning of the language has a stronger impact compared to the tone as a paralinguistic sign (see Table 3). The largest relative share of intervention group (80%) demonstrated high scores of *aggressive irritability* variable when negative language with a normal tone of voice is used. The values of the same variable in the use of high tone of voice also register high results.

Table 3. *Mean values of 4 strategies*

	Positive language Normal tone		Positive language High tone		Negative language Normal tone		Negative language High tone	
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
Physical aggression	0.00	0.00	0.00	0.00	0.07	0.26	0.07	0.26
Verbal aggression	0.07	0.26	0.05	0.22	0.35	0.48	0.50	0.50
Aggressive irritability	0.07	0.26	0.07	0.26	0.80	0.40	0.75	0.43
Hostility	0.15	0.36	0.07	0.26	0.47	0.50	0.40	0.49
Indirect aggression	0.07	0.26	0.02	0.16	0.77	0.42	0.62	0.49

However, the use of negative language in both high and normal tone provokes, above all, *indirect aggression* manifestations as well as *aggressive irritability* which are not directly targeted to the source of negative experience (the user of strategy) but are indirectly transferred to other person by demonstrating irritation and dissatisfaction with the other intervention participants. Only *verbal aggression* as a direct form of negative response to the source occurs among children with the use of negative language with high tone ($\hat{I}$ = 0.50, SD = .50).

Dynamics of four strategies influence among aggression variables is investigated within correlation analysis that registers best results between direct and non-direct aggression manifestations (*verbal aggression* and *hostility*) and occurs mainly in negative language use in both normal r (40) = .56; p < .001 and high tone r (40) = .6124; p < .001, although the direct aggression expressions – *physical aggression* means in both high and normal tone (M = 0.07, SD = .26) and *verbal aggression* variable means in both normal (M = 0.35, SD = .48) and high tone (M = 0.50, SD = .50) are lower than *indirect aggression* values (M = 0.62, SD = .49 – high tone and M = 0.77, SD = .42 – normal tone). This conclusion could be explained by the one-time intervention fact and could not register all the nuances of behavioural features of investigated. Despite the limitations of the strategies used it could be assumed that negative language would increase aggressive behaviour among children by initially displaying indirect forms of aggressive behaviour, and they would express more direct forms as verbal aggression within extended intervention

Dynamics and impact of the four used strategies due the intervention are in particular interest of the study (see Table 4).

Table 4. *Mean values and t-test of 4 strategies*

| | Test of means against reference constant (value) | | | | | | |
	Mean	Std. Dv.	N	Std. Err.	t-value	df	p
Positive language normal tone	0.37	0.92	40	0.14	2.56379	39	0.014322
Positive language high tone	0.27	0.71	40	0.11	2.43025	39	0.019791
Negative language normal tone	2.47	1.32	40	0.20	11.85667	39	0.0000000
Negative language high tone	2.35	1.56	40	0.24	9.51787	39	0.0000000

Mean values indicates that negative language with normal tone most induces the aggressive behaviour reactions of children ($M = 2.47$, $SD = 1.32$) which does not confirm the hypothesis of the study assuming that positive language and high tone ($M = 2.35$, $SD = 1.56$) will have higher impact on increasing aggressive behaviour among intervention group. However, the results strongly confirm the direct dependence presumption between negative stimulus and aggressive behaviour but the power of the voice as paralinguistic sign has an additional impact that should be considered more deeply.

Despite ANOVA analysis of *residential centre* variable does not report significant impact $F(12,87,601) = 1.6465$; $p = .09$ comparative analysis of the mean values registers highest aggression results among children from one residential care centre ($M = 1.70$, $SD = 1.33$). These data warranted the selection of a new intervention group to be surveyed and to repeat the research whether registered aggressive behaviours are influenced by 4 intervention strategies rather than as a result of their personality. Specialists and caregivers reported very high levels of aggression, and register the highest mean values for *aggressive irritability* ($M = 3.08$, $SD = .72$), followed by *verbal aggression* ($M = 2.95$, $SD = .82$) and *indirect aggression* ($M = 2.83$, $SD = .72$) with minimal differences between them. *Hostility* also demonstrates high values ($M = 2.65$, $SD = .93$), and *physical aggression* ($M = 2.10$, $SD = .84$) is comparatively higher to the results of the first experiment with strategies.

Correlation analysis registers very high and significant relation between all 5 variables of aggression with values above $r > 0,7$, $p < .001$).

Data analysis from the 4 strategies impact experiment only for the second intervention group with repeated survey about their aggressive behaviour in usual environment outputs a new independent variable – *aggression*. ANOVA analysis of variance reported significant effect in *aggression* variable $F(8, 32) = 2.7877$, $p = .01$, as in all 4 strategies more aggressive children in generally exhibit higher aggressive reactions within specific intervention but demonstrate significantly higher mean values ($M = 4.2$, $SD = 1.03$) in the negative language of high tone (see Figure 2). Overall results of all children from first intervention demonstrate higher impact of negative language with normal tone ($M = 2.47$, $SD = 1.32$) than negative language with high tone ($M = 2.35$, $SD = 1.56$). Comparative analysis outlines that increasing the tone and negative language would not lead to effective results in reducing destructive behaviour within more aggressive children but would provoke them even more.

Comparative analysis of the results in both experiments for only the re-examined group of children outlines that increasing the tone of the voice rise the *physical aggression* as a good correlation is registered between physical aggression variable for positive language with high tone use ($r = .5737$, $p < .001$) and use of lexical content with negative semantic meaning with high tone ($r = .4854$, $p < .001$). High tone with negative language strategy also reports a very good correlation with the *hostility* ($r = .4880$, $p < .001$) and *indirect aggression* ($r = .6393$, $p < .001$) variables and confirms the assumption that increasing of the tone would rather rise both direct and indirect aggressive behaviour reactions. Results outline following regularity: children with more aggressive behaviour as a personal quality would increase their aggressive expressions mainly in the use of high tone and negative language that confirms the main hypothesis of current research.

Target group 3

Data analysis of the survey with children and youth with severe disabilities who live in residential centres indicates several significant trends.
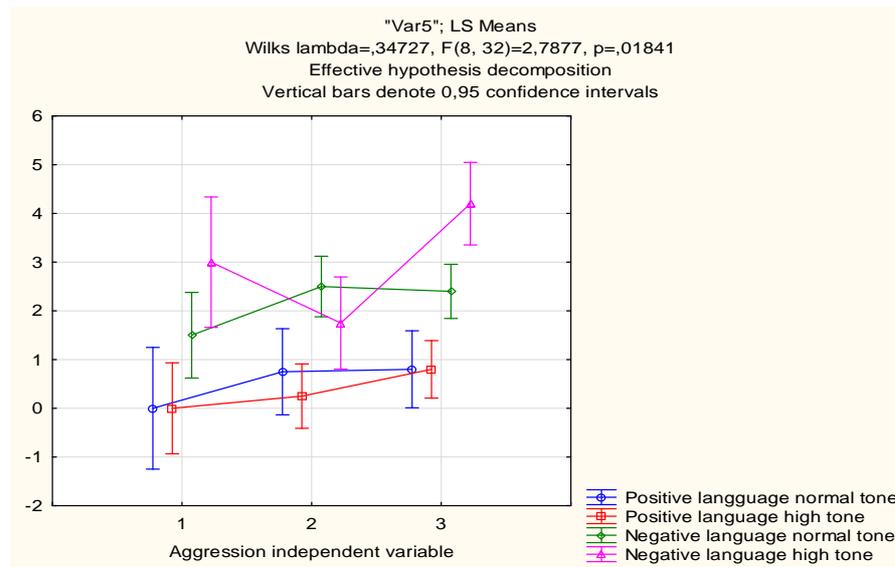
**Figure 2.** *Aggression variable interaction*

Primarily, it is considered that aggressive behaviour of children and youth with severe disabilities living in residential centres are conceded as one of the most problematic issues in the care given by staff and specialists ($n = 40$) ($M = 4.93$, $SD = 3.85$). Therefore, reducing aggressive expressions among target group would have a high practical significance.

No significant difference was found between intervention and non-intervention groups at pre intervention stage on the *aggression reactions* variable assigned by Student t-distribution in surveillance ($t = 0.2$, $p < 0.05$) as well as in interview with social worker ($t = 0.33$, $p < 0.05$).

Post intervention stage in surveillance considered significant difference between intervention and non-intervention groups on *aggression reactions* variable ($t = 0.046$, $p < 0.05$). Reducing aggression is reported amendment ($M = 0.67$, $SD = .98$) in pre intervention and ($M = 0.08$, $SD = .29$) in post intervention stage. Repeated measures from interview with social worker at post intervention stage does not report significant difference ($t = 1$; $p < 0.05$).

Data analysis outlines three main hypotheses. First, it could be assumed that group intervention activities have indirect impact to youth daily life behaviour that was not confirmed by the data obtained from the social worker interview. Second hypotheses outlines the observer's influence on participant's aggressive reactions by associating with the principles performed during group activities. Third assumption affirms the possible impact of situational factors that are beyond participants. Longer monitoring and refinement of the criteria is required in order to confirm or reject hypotheses mentioned above.

Data analysis of direct and unplanned observation during the experimental interaction outlines a tendency to reduce aggressive reactions during time (1.36 – initial value of the tendency; 1.09 – final value of tendency) (see Figure 3).
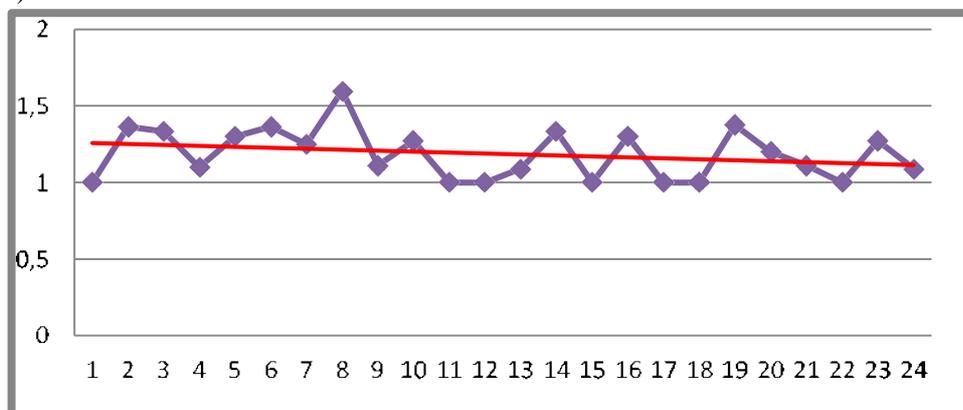
Figure 3. *Aggression change trend over time for intervention group*

The reported trend above is possible to be explained with the communication (verbal and non-verbal) inclusion as a strategy for express a desire, as well as the alternative communicative systems initial learning process features that conveys immediate satisfaction of expressed desires. Data processing includes analysis of the individual trends for each participant regarding the indicator's changes in time and taking into account the specifics of the target group as well as the theories of numerous researchers who recommend individual case studies for individuals with severe disorders studies (Левтерова-Гаджалова, 2002; Nazarovoy, 2000; Цветкова-Арсова, 2015).

Intervention participants are divided into 3 groups regarding to outlined trends –with reduced aggression ($n = 5$, 42%); no changes in ($n = 4$, 33%); increased aggression ($n = 3$, 25%). Data is shown on Figure 4.
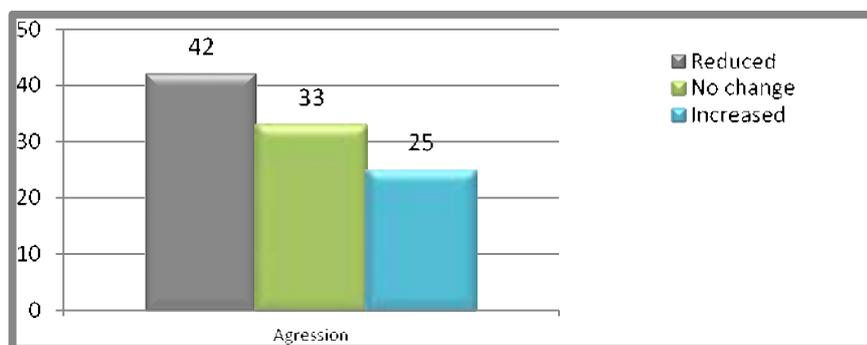
Figure 4. *Distribution of participants according to trends in the change of the aggression indicator (in %)*

Results presented in the graph correspond with data analysis of the whole intervention group – most participants register aggression expressions reduction or no change in aggression.

Significant reduction of aggressive behaviour for only one participant has been reported between *time* variable and trends of aggression changes indicator within significance test for Kendall's Tau-b rank correlation (see Table 5).

Table 5. *Kendall's Tau-b rank correlation between trends of aggression changes and time for each participant in intervention ($p < 0.05$), P – participant*

Interve ntion group	P-1	P-2	P-3	P-4	P-5	P-6	P-7	P-8	P-9	P-10	P-11	P-12
τB	0.26	-0.26	-0.25	-0.24	0.3	-0.21	-0.16	0	0	-0.4	0	0

Data processing requires additional in-depth analysis of certain case study of participant (P-10).

Case study presents a 16-years old male participant. The child has been diagnosed with 99% disability with severe mental retardation as a leading diagnosis and accompanying Grand mal seizures, unspecified; Cerebral cyst. The child can serve himself and needs reminder when performing part of daily activities. He helps to care for other children and youth; his speech is sentence-levelled, and is initiative in communication. The child expresses intense emotions often with upward gradation. He exhibits physical and self-aggression in case of frustration. He does not respect social boundaries in communication and exhibits an adherence tendency.

Data analysis from surveillance show high level of aggression at the beginning and at the end of the intervention before the activities conducted (Table 6).

Table 6. *Information from structured interviews with a social worker and objective observation at the beginning and at the end of the experimental interaction (the value is determined by a predefined scale)*

	Pre intervention - interview	Pre intervention - surveillance	Post intervention - interview	Post intervention -surveillance
Aggression	0 – does not express	2 – express more than 2 times for period	0 – does not express	0 – does not express

The child selectively participates in experimental interaction activities according to his moment condition. He often seeks outside support and approval from the team. He is noticed to be highly committed to communication with adults, and expresses strong suggestibility and uncritical execution of instructions. Increased levels of aggressive behaviour have been reported in the beginning of intervention. Aggressive reactions have not been recorded until the end of the experimental interaction.

Content-analysis of the case study from dossier information indicates that current participant has an aggressive strategy to deal with frustration situations while the interview with social worker data collection assigns lack of aggressive reactions in daily life environment. Surveillance data analysis confirms the case information from his dossier. Results could outline the assumption that the child does not express aggressive behaviour when social worker is present at intervention sessions due to fact he has built up an authority relationship taking into account the specific characteristics of the child, namely his suggestibility and strong dependence on the elderly opinion and support. The hypotheses mentioned above would explain significant reduce of *aggression* variable in pre and post intervention stages of experimental interaction. Relationship between leaders of activities (also performing surveillance) and intervention group at the beginning of experiment is still unstable and is created on short-term interaction. The leader of interaction has already build up authority over participants at post intervention stage who also have become familiar with the program principles including non-tolerance to aggressive reactions or giving them an opportunity to verbalise (or show with gesture) their desires or disagreement. Therefore, the facilitator presence in daily life of participants leads to a projection of the principles of group work in their daily life environment. In addition to this, the strong need of approval would reduce aggressive behaviour of the participant researched within the case study.

DISCUSSION
Target group 1

Just a few of the surveys were gathered on paper. Responses from teachers were easier to gather mostly because they are used to doing paper work in general, compared to parents.

There are two possible reasons for the high amount of answers from teachers from small villages. One can be that they are more involved with their work due to usually smaller amount of pupils in class and more time to interact with each student or the other that most if not all the classes are with mixed ethnical groups and they might experience more segregation issues, which leave to increase in aggressive behaviour within the class unit.

The results are clearly showing that all three groups of respondents are aware of the impact that the emotional intelligence will have on preschoolers and the different types of aggressive behaviours that they are displaying.

Even though most school teachers haven't worked with preschoolers at all, they are showing lower certainty in the effect of emotional intelligence. This might be due to the fact that they are evaluating the greater importance other factors have on the aggressive behaviour, especially from the point of view of a school environment, which is for sure less secure and more open to outside influences than the family environment and the one in kindergàrdens.

As per the Peace Alliance a possible method to prevent aggressive behaviour within children in preschool and school age, engaged in the educational system is to implement a Social and Emotional Learning program involving students of all age groups, which together with the social and emotional skills, and academic achievement will have its positive impact on the attitude and behaviour of the children, with a significant decrease in physical and verbal aggression, significant improvement of the pro-social behaviour. A study showed that for every dollar invested in a social and emotional learning program, there is a return of more than 11 dollars ("Statistics on violence & peace").

Apparently, teachers and parents are all on the same page concerning the social and emotional education, the next step will be to be determined what is the best way for its implementation within the existing educational system.

Limitations

This questionnaire is part of a bigger survey, exploring teacher's/parents' role for including Emotional intelligence as a subject in preschool. Future study of the attitude towards aggression can include additional questions for gender, ethnical group, income, location and scale for satisfaction of life/work based on Maslow's theory for the participants.

Increasing emotional intelligence for preschoolers is highly accepted way to influence aggression and antisocial behaviour among preschoolers according to both teachers and parents as main participants in the educational process. Further work is to be done in the domain and should be matched to the current educational reality in the country.

Target group 2

Results of current study demonstrate contradictory tendencies and partially confirm the underlying hypothesis that lexical signs with negative semantic meaning and high tone would have strongest impact on increasing the aggression of children as it has been only evident with regard to children that are more aggressive in general. Analysis experienced that aggressive behaviour would increase to a greater extent with the use of negative language without raising the tone. However, it could be assumed that the negative language would increase the aggressive behaviour among children, by initially displaying the indirect forms of aggression, and they would express more direct forms within extended intervention. Current study firmly reaffirms the presumption of the direct dependence between negative stimulus and aggressive behaviour, but the power of voice as a paralinguistic sign has an additional influence, which is manifested according to individual features and personality of the children – normal tone combined with a negative language greatly increases aggressive behaviour among majority of children, while the use of high tone ad negative language provokes the destructive behaviours among more aggressive even more. The survey digests more significant effect of linguistic signs than paralinguistic cues and outlines the regularity that aggressive manifestations are greatly influenced by the language we use, rather than the power of tone and voice.

Target group 3

Results analysis of the study assigns several conclusions relevant to the topic under consideration. First of all, aggressive and self-aggressive expressions of youth and children with severe disabilities living across residential centres are reported as a basic problem area that troubles staff members to provide adequate care and support. Therefore, it is strongly recommended to develop various methods of reducing aggression in order to provide more favourable environment for developing youth potential. Current research outlines that providing a personal workplace where participants have the opportunity to communicate with accessible sources would reduce their aggressive reactions. In addition to this, the authority of the intervention team as well as staff specialists in youth daily life is essential. Enabling youth with special needs to have choice and adhering to certain principles can reduce the tense of misunderstanding the world and others and can provide a more beneficial psycho-climate.

Therefore, it is recommended individual principles in work methods selection as well as their implementation should be respected, as results for each individual depend on his/her personal background, limitations of violation, personal features and compensatory mechanisms to develop skills.

CONCLUSION

Current study does not research all possible methods and strategies that would affect aggressive behaviour among children and only refers some basic guidance that would reduce aggression. The approaches applied in the context of educational and social practices should be considerate with individual specifics of children as well as current educational and social reality in the country. Increasing emotional intelligence would have an impact on the aggression of preschool children but would not be an appropriate method for children with severe disorders because of higher intellectual functioning requirement that they do not meet. Emotional development of children raise outside their family is specific due to emotional disturbances that demonstrate greater discrepancies in the perception of different communication channels (Friend & Becker 1987), therefore the emotional intelligence development approach should be adapted for them. Communicative strategies with different linguistic signs and paralinguistic cues would also not be relevant to children with severe disabilities. Alternative communication systems would not be applicable in a mass preschool as it does not match the level of preschooler's development and their communicative behaviour would be threatened. However, certain features of experienced techniques could be adapted and effectively applied to the three cross-examined groups of children, and further in-depth studies are needed to be developed.

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