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EFFECTIVENESS OF AGGRESSION REPLACEMENT TRAINING IN DEVELOPING SOCIAL SKILLS OF OLDER SCHOOL PUPILS*

Introduction: Aggression replacement training (ART) is a multimodal psychoeducational intervention designed to change aggressive behaviour. The skills acquired during training provide alternative ways of behaving pro-socially. Social competences determine the effectiveness of coping with specific types of social situations and also contribute to building appropriate relationships. Many educational programs that turn out to be exceptionally effective today are directly or indirectly related to social competences.

Research Aim: The aim of this text is to find out the effectiveness of ART in developing social skills of older primary school pupils.

Method: In this study, a pedagogical experiment was used as the research method.

Results: A significant increase in the social skills of pupils participating in the training was indicated. A difference was noticed in the way of understanding and recognising anger control sequences. During the moral reasoning session, the participants experienced looking at the problem from the perspective of different people.

Conclusions: The obtained results prove that ART effectively contributes to the increase in social competences. Among people who completed the entire cycle of ART, improvement in behavioural results was noted in all three components of the Training: social skills, anger control and moral reasoning.

Keywords: aggression replacement training (ART), primary school pupils, pedagogical experiment

I know that…
Nobody and nothing can make me angry.
I always get angry alone.
I and only I am completely responsible for my anger,
nothing and no one but me, my way of thinking
and acting has any influence on the formation of my
anger,
its course and its effects.

A.P. Goldstein, Malmo, Sweden 1999

INTRODUCTION

Currently, there is an increased interest in improving educational techniques in the school environment, aimed at precise diagnosis and the most effective prevention in the area of, for example, counteracting students' aggressive behaviour towards others, conflict resolution, counteracting harmful use of digital media or in the area of psychoactive substance-related risks. It should be emphasised that the behavioural disorders of an individual may also create serious difficulties in the everyday functioning of the whole family of the person affected, and may even impinge on the whole social relations in which the person functions (referring to adolescents, e.g. the whole class, grade or school). The determinants of behavioural problems are related to risk factors and protective factors. Effective programmes should reflect this complexity (Hill et al., 1991). Among the intervention approaches that address these factors, those derived from the cognitive-behavioural approach appear to be particularly well documented (Dowden and Andrews, 2000). The multifaceted nature of this approach and its integrative nature – with relevance to the development of an individual's cognitive, emotional and behavioural spheres – is emphasised (Czarnecka-Dzialuk et al., 2017). Many of the educational programmes that are proving to be extremely effective today are directly or indirectly linked to social competence. In this regard, Gottfredson (1997) concluded that the most effective programmes are those that include the reinforcement of a range of social skills in pupils (e.g. developing self-control, coping with stress, learning responsible decision-making, or developing communication skills).

One prominent cognitive-behavioural intervention aimed at reducing aggression is aggression replacement training (ART). It was developed at Syracuse University's Aggression Research Institute in the United States by Goldstein, Glick and Gibbs in the 1980s under the name "Aggression Replacement Training" (ART). In the text presented here, the names given will be used interchangeably.

Aggression replacement training is a multimodal psychoeducational intervention designed to change aggressive behaviour in adolescents towards socially de-

sirable behaviour (Goldstein and Glick, 1994, as cited in Ensafdaran et al., 2019) – it is a proposal for an action that fosters upbringing.

The theoretical assumptions of ART

The ART programme is based on Bandura's (1973) social learning theory (Czarnecka-Dzialuk et al., 2017; Wójcik et al., 2015). The theory of social learning explains the process of the emergence of new behaviours, both socially acceptable and problem behaviours, which arise through classical conditioning as well as causal conditioning, but also through the observation and subsequent imitation of the behaviours of people significant and attractive to a given individual. The first people a child imitates are the parents and those closest to the family. Later on, these include peers, authority figures or celebrities.

The turning point for this issue is when the child starts to imitate an aggressive character (role model) and then, by imitating this character, to introduce aggression into the range of his/her behaviour. Actions aimed at reducing aggressive behaviour and replacing such a role model with a socially expected attitude should target both the emotional element (change of feelings), the cognitive aspect (change of thinking) and the behavioural aspect (change of behaviour) and thus should be implemented in an integral way (Czarnecka-Dzialuk et al., 2017). Causal conditioning, on the other hand, is a form of learning in which the learner's actions are rewarded – during ART, desired behaviours are rewarded through the awarding of a gratification called an "achievement" during training (such an achievement can be awarded for, for example, signalling to speak up in advance, waiting for one's turn, following the trainer's instructions). Achievements are awarded by both the participants themselves and the trainers. The number of achievements that need to be earned to complete the training is indicated at the beginning of the training by the trainers.

Morawska (2004), through the lens of education, points to three ways of looking at ART, viewing it as:
- a method of skill formation (according to the core curriculum),
- a prevention programme (selective prevention),
- a set of methods to support education.

Referring to the basic assumptions of ART and the areas affected by the programme (upbringing, teaching skills, prevention), Morawska and Morawski (2004) proposed the following graphic:

The box that is delimited by the intersections of all three circles indicates the basic method of the programme, which is the presentation of the situation. This method has been defined by the authors as learning by doing (Morawska and Morawski, 2004).

Figure 1.

The place of the ART programme method: Role-play in the areas influenced by the programme
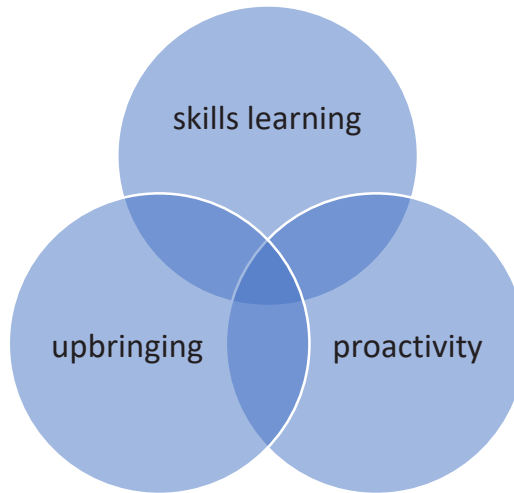
Source: (Morawska and Morawski, 2004).

Aggression replacement training is an intervention programme that originated in the behavioural-cognitive stream and has been called "one of the first multimodal programmes aimed at changing: a person's thinking, emotions and behaviour" (Czarnecka-Dzialuk et al., 2017). The skills acquired during training provide alternative ways of behaving that can be applied in everyday life by choosing the appropriate skill for a given situation. Hence, training is referred to as an alternative and situational method. The aim of ART is to reduce antisocial and aggressive behaviour among young people by providing them with opportunities to learn pro-social skills, control aggressive impulses and develop reasoning in line with moral norms.

Aggression replacement training was developed for adolescents aged 12–17 years. The programme lasts for 10 weeks and is conducted in groups of 8 to 12 pupils, in one-hour sessions that take place three times a week bringing the total duration of the programme to 30 hours (Goldstein et al., 2018). Potempska and Kołodziejczyk (2001) indicate that for the programme to be effective, the duration should be between six months and two years). The programme consists of 3 components: social skills training (behavioural component), anger control training (emotional component), moral reasoning (cognitive component).

The first training module is the one related to the development of pro-social skills (skill streaming), i.e. skills that can be used in interaction with other people (e.g. preparing for a difficult conversation, dealing with an accusation, expressing sympathy, reacting to failure, ability to avoid situations that could potentially end

in, e.g. a fight). The programme covers 50 skills that, in the opinion of the authors are necessary for efficient functioning in social life (Pawliczuk et al., 2015). High social skills allow us to achieve the intended purpose in interpersonal relationships, while the ability to apply them at a high level is intended to make the response of the person with whom we interact not only positive at one time, but also to build a mutually beneficial lasting relationship (Glick and Gibbs, 2011). The aim of social skills training is to provide participants with the tools to be able to cope consciously with future difficult life situations. Developing pro-social behaviour therefore also leads to self-reliance on the part of the trainee. The sessions use a behavioural technique based on the modelling of appropriate behaviour by the leading trainers, which is then practised by the participants. The tools are "skill steps", with which participants practise skills by role-playing situations based on participants' experiences. Observers of the situation give feedback to those practising the skill – a part of the training in which an important cognitive technique is used. Giving feedback allows participants to see the problem presented from another person's perspective, indicating what in the behaviour is good for the participant, what the participant has benefited from, and what could be done differently. At the end of each session, participants receive a home exercise report, encouraging the trainees to apply the learned skill outside the training room and adapt it in everyday life (Pawliczuk et al., 2015).

The second component of ART is anger control. In developing anger control training, Goldstein's team collaborated with Feindler and her colleagues (2016), drawing on the work of Meichenbaum (1977) and Novaco (1975), whose theory of anger highlighted the importance of being able to recognise the signals that trigger anger in the human body. Aggression replacement training theorists place great importance on emotions in the development of children and adolescents, drawing on the publications of Valentini and Giontarelli (2022), who point out in their research that emotional tension can have different origins and how important it is to be able to regulate emotions as well as express them. The ability to control internal emotional states influences the child's educational process and his/her physical and psychological well-being, which globally translates into improved social functioning. According to the creators of ART, being able to control anger means having the inner strength within oneself to control one's own reactions, regardless of the provocative behaviour of others (Glick and Gibbs, 2011). The aim of this module is to teach trainees to recognise the impulses to which we react with anger or become stressed (external triggers, e.g. an object or an interpersonal external situation, and internal triggers, e.g. a sudden thought or a spontaneous feeling); in this module, trainees also learn anger signals, i.e. what starts to happen to the human body as a result of anger.

A session during anger control training, as with social skills training, involves the following steps in sequence: discussion, modelling, role-play and an out-of-session home exercise (Glick and Gibbs, 2011). In each session, one link in the chain of anger control is discussed: triggers, signals, anger reducers, monitors,

thinking about the future, self-evaluation. Participants learn to notice the things to which they react with anger; ways to control anger are also discussed.

The last module, Moral Reasoning Training, is based on Kolberg's (1984) theory of levels and stages of moral development. The aim of moral reasoning training is to broaden the participants' knowledge of values, but also to strive for the creation of an individual value hierarchy by each participant. The work during the session is based on each participant's individual values rather than group values. During the first moral reasoning session, participants reflect on what is important to them in life, thus creating their own value hierarchy.

In the following session, descriptions are given of situations that contain value conflicts, e.g. dilemmas that boil down to a choice between friendship and honesty. Moral reasoning training is conducted according to the following ANIMA steps (Morawska and Morawski, 2006):

1. Alternatives (how can one behave in such a situation?)
2. Consequences (what might happen?)
3. Stakeholders (who has an interest in what happens?)
4. Motives (what do you do when you find yourself in this situation?)
5. Affects (how do you feel about the decision you have made?)

The questions asked by the trainer require participants to have a more mature moral understanding and a more socialised view of the problem (Glick and Gibbs, 2011). The participant is faced with making a moral choice (Czarnecka-Dzialuk et al., 2017).

There are four phases in moral reasoning, the first of which is "confronting a moral dilemma", the next phase is "creating an atmosphere for mature decision-making", while the third phase is "making value judgements that are consistent with moral norms". The last phase constitutes "the consolidation of mature decisions" (Potempska and Kołodziejczyk, 2002).

The programme is spreading rapidly in the United States, Canada, South American and European countries. It has received favourable recommendations from the US Department of Education and Department of Justice and the American Correctional Association, as well as accreditation from the UK Home Office (Pawliczuk et al., 2015). On the Polish ground, the ART programme was approved for implementation in the National Programme for the Prevention of Social Maladjustment and Delinquency of Children and Adolescents, adopted by the Council of Ministers on 13 January 2004 (Godawa and Niemiec, 2009). In 2013, an agreement was signed between the Justice Institute, the Central Prison Service Board, the Amity Institute and the Violence Prevention Institute to conduct an evaluation of two programmes directed at reducing aggression. One of these programmes was the ART disseminated by the Amity Institute, operating since 1993 under the direction of Director Jacek Morawski and Ewa Morawska, the Master Trainer of the ART Aggression Replacement Training.

RESEARCH AIM AND QUESTIONS

The reason for undertaking the research was to find out the effectiveness of the training in older schoolchildren. The subject of the research is therefore the effectiveness of the Aggression Replacement Training among primary school pupils. For the purpose of this text, the definition of effectiveness is the one developed by Pszczółkowski (1978, p. 60), according to whom it is understood as "a positive characteristic of actions producing a positively evaluated result, regardless of whether it was intended or not". At this point, it is worth emphasising that the concept of effectiveness (under which is understood merely the degree of conformity of the result with the intention) would be understood differently.

The aim of this article is to explore the effectiveness of ART in developing the social skills of older primary school pupils. The main research problem is therefore whether and to what extent ART contributes to the development of social skills in older primary school pupils displaying aggressive behaviour. In the context of the main research problem thus posed, additional specific questions related to the ART modules were used:

1. Will the pro-social skills of the students tested increase and to what extent as a result of the training?
2. Will participation in ART increase anger control in the pupils under study?
3. Will there be a change in the awareness of moral reasoning in the pupils under study after participation in ART?

With the theoretical assumptions of ART in mind, the following hypotheses were constructed:

1. Participation in ART will increase pro-social skills in senior primary school pupils.
2. Anger control will increase in older primary school pupils participating in ART.
3. The participation of senior primary school pupils in the training will contribute to their awareness of moral reasoning.

RESEARCH METHOD AND SAMPLE CHARACTERISTICS

A pedagogical experiment was used to verify the assumptions made. "A pedagogical experiment is a method of studying phenomena related to upbringing, teaching and education, specially induced by the researcher under conditions controlled by him/her, in order to learn about these phenomena" (Łobocki, 2004, p. 106). It is a method of investigating the relationship between one or more factors (ways) of pedagogical interactions – the independent variables, and their specific consequences – the dependent variables (Łobocki, 2004, p. 106). The experiment consisted in the introduction of an independent variable in the form of conducting

Aggression replacement training in the studied group, in order to examine the impact of this variable on reducing the amount of aggressive behaviour, and on increasing the level of application of pro-social skills. The dependent variables were the effects of the interventions as determined by indicators such as the increase in pro-social skills, knowledge of anger control steps and moral reasoning skills (including seeing the situation from the point of view of others).

An important requirement for a pedagogical experiment is to conduct it in natural conditions (Łobocki, 2004, p. 258). In the presented study, a natural experiment was used – the research was conducted in the real conditions of the respondents' functioning. In the search for the most reliable method possible, corresponding to the specificities of educational establishments, it was decided to use this type of research, as research carried out in the form of a natural experiment, as it is uninfluential, contributes to causal inference without using controlled randomisation.

The research was conducted in a natural setting while conducting ART for three representative groups of pupils aged 13 between January and June 2023. The study involved sessions conducted in three different, randomly selected, public primary schools in the Lublin Voivodeship. A total of 30 pupils (17 boys and 13 girls) took part in the training. The evaluation of the effectiveness of the aggression replacement training was made possible by the description and the quantitative and qualitative analysis of the collected research material, especially the comparison of mean values obtained in the initial and final measurements of the experimental group.

The research used the Amity ART Pro-social Skills Questionnaire (Morawski and Morawska, 2020). In addition, ancillary worksheets (on anger control sequences) completed by the trainers during the training sessions and observation of certified ART trainers were qualitatively analysed. A brief description of the indicated research tools is presented below.

The Amity ART Pro-Social Skills Questionnaire is constructed of 24 questions to which pupils respond on a scale of 1 to 5 to how much the indicated skill is used in a given situation, where 1 means *never*, 2 – *rarely*, 3 – *sometimes*, 4 – *often*, 5 – *always*. Each question refers to a specific skill, which include advanced pro-social skills (asking for help, giving directions, convincing others), emotional skills (knowing your feelings, expressing your feelings, dealing with someone's anger, dealing with fear, understanding someone's feelings, expressing affection and love), alternative to aggression skills (practicing self-control, defending one's rights, responding to taunts, avoiding getting into trouble with others, avoiding fights, helping others), stress control skills (dealing with embarrassment, dealing with being left out, responding to persuasion, responding to failure, dealing with accusation, preparing for a difficult conversation, dealing with group pressure); planning skills (decision-making).

The use of the questionnaire at the pre-test stage can guide trainers on which skills to choose to practise during pro-social skills training (skills that need improvement are indicated by low scores marked on the scale, i.e. 2 or less). The work sheet – an overview of the anger control sequence – is a tool that contains all the steps of anger control. The trainees are asked to state their understanding of the anger control sequence and to give concrete examples of the sequences. The trainees completed the card twice: during the initial sessions of the anger control module and at the end of the entire training. The answers given were analysed – by comparing the answers in detail at the beginning and after the training. Through the analysis discussed, it is possible to indicate whether the trainees are able to use the language adopted for ART.

Pupils were qualified for the training on the basis of an assessment by the form tutor and on the basis of indications by the educationalist or school psychologist indicating aggressive behaviour by pupils attending the 7th grade of primary school. Aggression replacement training was conducted in 3 groups of pupils aged 13, with 8, 10, 12 pupils per group, between January and June 2023 in three different public primary schools in the Lublin Voivodeship. A total of 17 boys and 13 girls took part in the training.

STATISTICAL DATA ANALYSIS PROCEDURE

The collected research material was analysed, consisting of three stages. The first stage consisted of organising and grouping the collected materials, then they were read in order to understand the collected data during the study. In the third stage, conclusions were drawn from the developed materials and a description of the collected material was made. In addition, the quantitative results from the Amity ART Pro-social Skills Questionnaire filled in by the trainees before and after the whole training cycle were processed with Statistica software, using the *t*-test procedure for dependent samples.

RESULTS

The first stage of data analysis involved the change in the social skills of the pupils tested before and after the applied training (Table 1). The mean, standard deviation and significance of differences in the social skills scale were calculated. The mean and standard deviation of the social skills scale before training were *M* (81.08), *SD* (8.23), and after training were *M* (112.5), *SD* (6.35). The table shows a comparison of the two averages.

Table 1.

Analysis of differences by t-test for dependent groups in the level of social skills of the pupils studied

Pro-social skills – overall result	*M*	*SD*	*t*	*Df*	*p*	Cohen's *d*
Sum – Pre	81.08	8.23				4.2
Sum – Post	112.5	6.35	-21.45	23	<0.001	

M – mean, SD – standard deviation

Source: Author's own study.

The results obtained show a statistically significant difference in the level of social skills before and after the application of the training. The results indicate a significantly higher level of measured skills after the training. The means, standard deviation and significance of differences were then calculated for each skill tested with the questionnaire. Table 2 shows a comparison of the means for each skill.

Table 2.

Analysis of the change in the level of each skill before and after training of the pupils tested

Skill	Measurement I		Measurement II		t	df	p	Cohen's d
	M	SD	M	SD				
Asking for help	2.53	0.73	3.67	0.80	-6.62	29	<0.001	1.46
Giving directions	2.6	0.97	2.87	0.78	-6.62	29	<0.001	0.03
Convincing others	2.67	0.76	3.63	0.93	-5.7	29	<0.001	1.11
Recognising your feelings	2.97	0.72	3.93	0.83	-6.55	29	<0.001	1.21
Expressing your feelings	2.43	0.9	3.53	0.94	-5.09	29	<0.001	1.18
Coping with someone's anger	2.37	0.1	3.5	1.22	-5.78	29	<0.001	1.28
Coping with fear	2.97	0.93	3.77	0.97	-3.31	29	0.002	0.8
Practising self-control	2.97	1.16	3.9	1.16	-3.9	29	<0.001	0.79
Defending your rights	2.5	1.07	3.97	1.03	-7.71	29	<0.001	1.38
Responding to taunts	2.6	0.81	3.93	0.98	-8.65	29	<0.001	1.45
Avoiding trouble with others	2.77	1.04	3.77	1.07	-4.09	29	<0.001	0.93
Avoiding fights	2.5	1.68	3.73	0.94	-4.80	29	<0.001	0.89
Overcoming embarrassment	3.03	0.89	3.43	1.07	-2.05	29	0.050	0.4
Coping with omission	2.53	1.04	3.67	1.27	-4.26	29	<0.001	0.97
Response to persuasion	2.7	1.02	4.03	1.16	-6.33	29	<0.001	1.2
Reaction to failure	2.33	1.06	3.63	1.07	-6.2	29	<0.001	1.2
Dealing with an accusation	3	0.64	3.87	0.97	-4.88	29	<0.001	1.04

Preparing for a difficult conversation	2.83	0.22	3.8	0.18	-4.97	29	<0.001	4.74
Coping with group pressure	2.5	0.63	3.8	1.05	-7.92	29	<0.001	1.21
Decision-making	3.23	0.77	4.1	1.03	-3.56	29	<0.001	0.94
Understanding someone's feelings	3.07	0.98	3.83	1.05	-3.6	29	<0.001	0.74
Expressing sympathy and friendship	2.63	0.89	3.7	1.24	-6.4	29	<0.001	0.97
Helping others	2.97	0.89	3.73	0.94	-3.52	29	<0.001	0.82
Complaining	2.13	1.14	3.13	1.38	-3.87	29	<0.001	0.78

M – mean, SD – standard deviation

Source: Author's own study.

The effect size found indicates significant differences in the level of the skills tested before and after training. It can also be seen that the vast majority of skills obtained a large effect size. Skills such as coping with fear (0.8), practising self-control (0.79), understanding someone's feelings (0.74) and complaining (0.78) obtained a medium effect size. In contrast, only two skills, such as giving directions (0.03) and overcoming embarrassment (0.4), received a small effect size.

This indicates that the training sessions undoubtedly had a significant impact on the respondents' use of individual skills, with significant improvements in almost every category.

The anger management sessions clearly contributed to increased control in anger-provoking situations. During and after the module, participants completed a worksheet (an overview of the anger control sequence), on which they defined the elements of the anger control sequence (triggers, signals, anger reducers, monitors, thinking about the future, social skills, self-esteem) in their own words. Initially, the cards were completed with a single word, an example illustrating the concept or the space was simply left blank. After the training was completed, the trainees explicitly used the language adopted for anger control training by writing down their understanding of the concept in a full sentence (Table 3).

The trainers collected feedback from participants on anger control skills. A selection is presented below:

- "At the anger control training I learned anger reduction techniques that I now use often" (Filip).
- "What I liked most about the meeting was that we talked about prompts, which are sayings that pop up in your mind to better deal with anger. My favourite prompt is »Calm saves you«" (Nikola).
- "I now know that the consequences of my behaviour under emotion can be long-term. Before, I didn't think about this at all" (Michał).

Table 3.
Defining elements of the anger control sequence by pupils before and after training

Anger sequence	Defining when training is conducted	Defining after training is completed
Triggers	When someone is abusing me	Triggers are what make me start to feel angry.
	Something that makes me angry	These are situations, thoughts, behaviours of people that make me angry e.g. an unfair assessment of my behaviour, or unfairly judging me for something I didn't do.
Signals	I feel like punching him	Signals are the thoughts that pop up in my head and how my body reacts in situations that are difficult for me.
	E.g. clenched fists, or a clenched jaw	Anger signals are body language when a person starts to feel angry.
Anger reducers	I don't know	This is a skill by which I am able to control an outburst of anger.
	Counting myself 10	Reducers are techniques that help to control anger.
Prompts	Relax, you can handle it	This is my inner voice that calms me down
	pull yourself together	Prompt is an internal clue as to what I should do now.
Thinking about the future	If he gets his lumps he'll feel better	When I think about the future I think about the consequences further out than, say, a week.
	–	Thinking about the future involves thinking about what the consequences of my behaviour might be in the near and distant future.
Self-evaluation	I have succeeded	When I manage a difficult situation then I can reward myself.
	–	After controlling my anger, I always praise myself in my mind

Source: Author's own study.

Participants recognised and applied all anger control links correctly. The anger control training helped to deepen the students' awareness of short- and long-term consequences. At this point, it is worth noting that the trainees in the homework exercise "Anger Report" mostly presented situations that took place at school. When discussing the homework, the trainer asked the trainees directly why they did not cite a situation in which they felt anger at home. The trainees unanimously

answered that they definitely felt anger at school more often and suffered the consequences, and not always (in their opinion) rightly. Thus, they showed that the period of the training session is a time for them to present situations in which they find it difficult to control their emotions, while at the same time they can revisit and analyse them again during the coaching.

During the moral reasoning module, the work consisted of introducing participants to a situation that contained the characteristics of a moral dilemma. Participants had to choose between two equally valid reasons. The training took the form of a discussion. Given the small groups, each participant took the floor. The trainer asked questions to stimulate participants to think and look at the problem from different perspectives. This form of discussion allows for a deeper analysis of the situation, to empathise with people who are facing a difficult choice. The choice of position will always be close to the values that dominate the chooser (cf. Czarnecka-Dzialuk et al., 2017). The effectiveness of the activities in the moral reasoning module was assessed on the basis of the trainers' general observation of the groups.

Trainers in all three groups noted the difficulty of students naming values and choosing those in line with social norms. The participants initially had a very narrow perspective on the problem, mainly through the lens of their own self. When implementing this module, the trainers chose situations that were familiar to the participants. As a result, when asked if they had been in a similar situation, participants referred to their own experiences.

In one group, during a moral reasoning session on dealing with an accusation, when analysing the situation presented, students found it difficult to choose socially acceptable values; they found, for example, that it was not worth admitting guilt because they would be punished with negative points (the school system has a point system for assessing pupil behaviour). This meant that pupils who admit their mistake (even by accepting remorse and apologising) still suffer the consequences in the form of negative points.

In another group, there was resentment towards teachers for not receiving extra points despite taking extra measures, while in situations of misbehaviour, points appear immediately. In order to appreciate the pupils' participation in the training, the school psychologist added the relevant points in the electronic diary immediately after the cycle.

The situations presented show that it was difficult for the trainees to agree with commonly accepted social norms, either because in their school environment such behaviour was not positively reinforced or the reinforcement was postponed. In the group studied, moral reasoning sessions appeared to be an extremely important element of ART. With that said, in the observations of the trainers of all three groups, a common conclusion emerged that a prerequisite for the effectiveness of the running of the programme was the involvement and consistency in the thinking and actions of all school actors, in order not to disrupt the educational process.

Despite the difficulties that emerged in the moral reasoning module, during the sessions the trainees were stimulated to concede that the same situation could look different from the perspective of other people.

The results are confirmed by the teachers working directly with the group that completed the training. The teachers' reports indicate that the pupils are more reflective in difficult situations and that there is a higher level of reflection on the near and far consequences of a given behaviour. This is corroborated by the words of an educator of pupils from one of the training groups:

> During the form time I noticed a greater openness of the class to discussion. The topic was about the harmful use of psychoactive substances. Until now, with similar topics, some pupils listened, others made jokes. Generally they seemed uninterested. After the training, after a break of 5 months from teaching, I had the impression that I was talking to more mature boys, who were able to discuss, share situations from their lives and find out the consequences of their actions and solutions. I can say that the pupils definitely have more insight into their behaviour. (Educator statement, 2023)

The effects of ART were also evident in the home environment in the parents' assessment. Thus, as expected, the effects of ART generalised to the home environment. The homework – practising skills, anger control – are aimed at consolidating the skills over a longer period of time and transferring them to different situations in a non-school environment.

DISCUSSION

The research carried out for the purposes of this publication – indicating the effectiveness of ART in reducing levels of aggression and increasing levels of pro-social skills in primary school pupils, the ability to define elements of anger control sequences and greater awareness of moral reasoning – is a kind of confirmation of the thesis of the general effectiveness of ART evidenced by research carried out on this topic in other environments (e.g. in secondary schools, universities, or prisons). At the same time, the results obtained in relation to pupils from primary schools constitute a certain addition to previous research concerning other environments mentioned above - with data specific to the environment studied for the purposes of this article.

Comparing the obtained results concerning primary school pupils with the results of the research conducted by Morawska and Morawski (2004, 2006) which concerned junior high school pupils, it is worth noting that in the case of the latter, the researchers recorded as many as 107 aggressive behaviours before the realisation of ART, while after the realisation of the ART cycle only 61. The percentage of improvement in behaviour, based on the observation, for the tested age pupils was 43%. Another observation concerned the second grade of middle school and

took place in the school corridor during the long break. The results showed a 28% decrease in aggressive behaviour after the training.

The observation of aggressive behaviour was conducted among middle school students, during a 3-hour sports training session. Another study that is worth contrasting with the research conducted for this publication at this point is the research carried out among students. They used the Amity ART Pro-social Skills Questionnaire – as in this article, there is research by Durkalevych conducted in a group of 12 second-year students of pedagogy at the State Academy of Applied Sciences in Krosno. The training lasted ten weeks and included 30 sessions. Quantitative research was conducted with the "Anger Index" questionnaire and the Amity ART Pro-social Skills Questionnaire (Morawska and Morawski, 2020) using pre-tests and post-tests. The results show a reduced anger index and a higher social skills index. The author indicates a broader application of ART than as an intervention or prevention programme. Durkalevych (2017) points out that it "serves a much broader purpose of mental health promotion, teaching the understanding, analysis and control of anger as well as the acquisition of habits of pro-social behaviour, which corresponds to the criteria of health promotion".

Finally, it is worth mentioning here the results of research on the effectiveness of the training among prison inmates (Jaworska, 2012; Morwska and Morawski, 2016; Tajak-Bobek, 2020) and in the context of studying the impact of ART on the behaviour of children with the autism spectrum Aggression Replacement Training was adapted here by Gęsiarz and Chrzanowska (n.d.). Again, these mentioned studies indicate the effectiveness of ART in the indicated researched groups.

In conclusion to the above discussion, it should be stated that in response to the increasing level of aggression among pupils in primary school (which is a well-known fact reported by teachers and educators), it is justified to widely introduce programmes such as ART, aimed at preventing aggression, as their effectiveness is a scientifically proven fact. An independent advantage of such programmes is that they also enhance social skills.

CONCLUSIONS

The presented results of the study indicated the effectiveness of ART in developing the social skills of pupils in older primary school classes. The results of the quantitative pre- and post-tests show a statistically significant increase in the level of pro-social skills. Trained pupils have a greater knowledge of anger control steps, are able to recognise anger in themselves and define sequences. Observations by educators indicate that trained students are more reflective with fewer aggressive behaviours. Aggression replacement training is a programme that helps young people acquire the skills to communicate courageously in certain types of social situations.

STUDY LIMITATIONS

The research conducted has some limitations related to the size of the study group. First of all, they are not representative, i.e. their results cannot be generalised to all primary school pupils. It can be assumed that many schools experienced similar difficulties and solutions in conducting ART, however, it should be emphasised that the presented results and conclusions are the result of the trainers' experience, and the developed solutions can be a source of knowledge, support and inspiration for educators, trainers, as well as the authorities running educational institutions.

Due to the evaluation of the programme on small samples of respondents, it seems justified to continue the research on a larger group of respondents, using standardised research tools, and to conduct longitudinal studies in order to assess how sustainable the effects of the programme will be.

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EFEKTYWNOŚĆ TRENINGU ZASTĘPOWANIA AGRESJI W ROZWIJANIU UMIEJĘTNOŚCI SPOŁECZNYCH UCZNIÓW KLAS STARSZYCH SZKOŁY PODSTAWOWEJ

Wprowadzenie: Trening Zastępowania Agresji jest multimodalną interwencją psychoedukacyjną zaprojektowaną w celu zmiany zachowań agresywnych. Umiejętności zdobyte podczas treningu stanowią alternatywne sposoby prospołecznego zachowania się. Kompetencje społeczne warunkują efektywność poradzenia sobie w określonego typu sytuacjach społecznych, a także przyczyniają się do budowania właściwych relacji. Wiele programów wychowawczych, które okazują się współcześnie wyjątkowo skuteczne, jest bezpośrednio lub pośrednio powiązanych z kompetencjami społecznymi.

Cel badań: Celem niniejszego tekstu jest poznanie efektywności Treningu Zastępowania Agresji w rozwijaniu umiejętności społecznych uczniów klas starszych szkoły podstawowej.

Metoda badań: W niniejszej pracy jako metodę badań wykorzystano eksperyment pedagogiczny.

Wyniki: Ustalono istotny wzrost umiejętności społecznych uczniów biorących udział w treningu. Stwierdzono znaczącą różnicę w sposobie rozumienia i rozpoznawania sekwencji kontroli złości. W czasie sesji wnioskowania moralnego badane osoby doświadczyły spojrzenia na problem z perspektywy różnych osób.

Wnioski: Uzyskane wyniki wskazują, że Trening Zastępowania Agresji skutecznie przyczynia się do wzrostu kompetencji społecznych wśród uczniów klas starszych szkoły podstawowej. Wśród osób, które ukończyły cały cykl Treningu Zastępowania Agresji odnotowano poprawę wyników zachowania we wszystkich trzech komponentach Treningu: umiejętności społecznych, kontroli złości oraz wnioskowania moralnego.

Słowa kluczowe: Trening Zastępowania Agresji (ART), uczniowie szkoły podstawowej, eksperyment pedagogiczny