

Aggression Replacement Training: Decreasing Behaviour Problems by Increasing Emotional Competence

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INTRODUCTION

Research evidence suggests a causal connection between lack of social and emotional competence and difficulties such as loneliness (Jones, Hobbs, and Hockenbury 1982), depression (Tse and Bond 2004), bullying and aggression (DeRosier 2004) as well as drug and alcohol abuse (Gaffney *et al.* 1998). A causal relationship has also been identified between children's ability to develop friendships and the degree of life-long mental health problems (Hay, Payne, and Chadwick 2004). Lack of social skills has also been found to contribute to behaviour problems in persons with autism (Njardvik, Matson and Cherry 1999) and mental disability (Patel 2004). The strong correlation between positive changes in socio-emotional competence and decrease in behaviour difficulties (Najaka, Gottfredson and Wilson 2001) also indicates that training in emotional competence should be one of the key strategies for dealing with social, emotional and behaviour difficulties. In this respect, the growing emphasis on training programmes in this area in both schools and institutions has positive implications.

Gottfredson (1997) concluded that the most effective programmes that address behaviour problems are those that include 'a range of social compe-

tency skills e.g. developing self control, stress management, responsible decision making, social problem solving, and communication skills' (p.55). Further, Sørli (2000) found that the most promising intervention for behaviour problems is the training in a broad spectrum of social skills in relation to peers and adults, combined with the correction of the behaviour problems (see Gundersen and Svartdal 2006).

AGGRESSION REPLACEMENT TRAINING

Aggression replacement training (ART) (Goldstein, Glick and Gibbs 1998) is one of the interventions that are gaining momentum in Norway as well as in other European and trans-Atlantic countries. ART is a programme developed over a 15-year period by Arnold Goldstein and his colleagues at the Center for Aggression Research, Syracuse University, USA. The programme has gradually been developed and adapted to different age groups and specific problem areas, including parents who have abused children (Goldstein *et al.* 1985) and drug addicts (Goldstein *et al.* 1990). It has its roots in operant theory, behaviour modification and behaviour therapy, social learning theory, cognitive therapy and cognitive behavioral analysis. Most social competence training programmes are rooted within such a framework and are often denoted as cognitive behavioural and cognitive approaches (Andreassen 2005[AQ]; Hollin 2004).

ART is one of the best-validated programmes in its field (Barnoski and Aos 2004; Gundersen and Svartdal 2006; Nugent and Bruley 1998; Nugent, Bruley and Winimaki 1999) and has been used both as a primary prevention measure and as an intervention for persons with severe behavioral disorders. The conclusion from a research-based evaluation of current programmes for behaviour problems in Norway (Nordahl *et al.* 2006) has been that 'the program has been evaluated as belonging to category 3: Programs with documented effects. The research group recommends ART in lower secondary schools for those groups which have developed, or are in danger of developing, behavior problems' (p.17). ART is also recommended for children and adolescents with behaviour problems living in residential homes (Andreassen 2005) and currently the Norwegian Ministry for Children and Equality has built six new research institutions which include ART as one of their main components.

Rationale and components of programme

The rationale behind the development of ART is to help participants in establishing new prosocial behaviours to replace previous problematic behaviour

patterns, particularly verbal or physical aggression and withdrawal. Anger is a natural emotion that may be regarded as a defence mechanism to protect oneself when feeling threatened. It is not until it reaches a level where it prevents one from making rational assessments of the actual situation, resulting in inappropriate aggression, that it becomes dysfunctional. ART seeks to help the individual control the negative impact of anger and use its energy in positive ways. It focuses on the emotional, cognitive and behavioural processes involved in controlling anger and replacing with more adaptive behaviour.

Aggression replacement training is a multimodal programme and consists of three components, namely anger control, prosocial skills training and moral reasoning. Anger control training (the affective or emotional component) entails young people being trained to recognize their external and internal triggers for aggression and to control anger using various techniques. Social skills training (the action component) focuses on training various structured skills, ranging from simple (e.g. listening to someone else, starting a conversation) to more complex ones (e.g. avoiding disruption, handling group pressure). Generally, research shows that individuals with behaviour difficulties score poorly on social skills tests, and that training in such skills leads to enhanced social perception, social cognition and social performance which in turn lead to an improvement in prosocial behaviour (Robinson and Porporino 2001).

In moral reasoning training (the thought and values component), participants are given training in dealing with challenging ethical and moral dilemmas, and in handling situations in their own lives in line with their moral and ethical values. Through cognitive restructuring strategies, the participants are helped to identify irrational thought patterns, such as cognitive distortions or self-centred thinking like blaming others, minimizing/mislabeling and assuming the worst in a situation, and replace them with a more rational understanding and assessment of the situation. The individual is encouraged to develop alternative thought patterns or self-instructions that help both reduce the conflict and *create* 'mental distance' from the anger triggers (Feindler and Baker 2004).

Even if the three components are trained separately, elements of each are partly integrated in the others (e.g. social skills as part of anger control training). Training takes place in groups of five to eight participants. Groups are matched in terms of age, similarity of behaviour challenges and friendship between participants. Elliot and Gresham (1991) also recommend the inclusion of group members with a higher level of social competence as positive role models. Two trainers conduct ART sessions. Rules and consequences for behaviour infractions are clearly defined. Participation is voluntary, and the use of positive reinforcement and small non-competitive games, are highly recommended to

secure the motivation of participants. There is a firm structure in the programme, including defining the theme of the session, demonstration, role-playing, questioning where and when to use the skill, feedback/evaluation and homework. Goldstein *et al.* (1998) recommend that the three components of the programme are scheduled for training at least once a week over a period of ten weeks. In order to transfer and maintain skills, it is important to establish contact with important individuals (family members, teachers, club leaders) in the participants' social environments (Gundersen and Svartdal 2006).

EFFECTIVENESS OF ART TRAINING IN NORWAY

In Norway, ART has been making continuous inroads in the past five years and has been used in preschool centres (Dolmen 2005), primary schools (Dolmen and Solid 2005), junior secondary schools (Onsager 2005), and child welfare institutions (Hellerdal 2005; Olsen and Bouter 2005[AQ]). A slightly modified ART programme has also been used with young persons with Asperger's syndrome (Husby and Sagstad 2005) and autism (Moynahan 2003).

The ART Centre at Diakonhjemmet University College in Oslo has developed a postgraduate programme in Training in Social Competencies with ART as the main subject. The ART Centre offers also a short training course in ART for teachers, seminars in Family ART for children and their family, and courses in Junior ART-trainers, which involves training young people with former behaviour problems to become trainers for peers (Olsen and Bouter 2005; Finne, Olsen and Gundersen 2008).

As a part of its postgraduate training course in Social Competence at Diakonhjemmet University College, the students undertake a 30-session ART training programme for children and adolescents with behaviour problems. Two studies have been carried out to evaluate the effectiveness of the programme. In the first study, (Gundersen and Svartdal 2006), 11 groups of students performed a 24-session ART intervention programme as part of their studies. The participants included 65 children and young persons with varying degrees of behaviour problems. Forty-seven participants received the ART programme, whereas 18 received standard social and educational services and served as control subjects. Social problems and skills were assessed before and after the ART intervention using multi-informant instruments, namely the Social Skills Rating System (Gresham and Elliot 1990), the Child and Adolescent Disruptive Behaviour Inventory (Burns, Taylor and Rusby 2001), the How I Think Questionnaire (Barriga *et al.* 2001) and the Achenbach System of Empirically Based Assessment (Achenbach and Rescorla 2001).

Post-intervention, the ART group showed significant improvement on nine of the eleven outcome measures following the intervention, both in terms of increased social skills and reduced behaviour problems. Generally the parents reported more improvement in behaviour problems than the teachers, while improvements in social skills were equally perceived by both teachers and parents. There were also significant positive changes in the self-report scales for problem behaviour, but not on the measure of social skills. On the other hand, with two exceptions, there was little improvement in behaviour amongst the participants in the control group. The results from the self-report scales were less clear. One of the reasons was that the young people had problems in filling out the questionnaires.

Results from the second study (Gundersen and Svartdal 2008) indicate similar conclusions. This study was carried out by the same authors and involved 140 children and young persons. The preliminary findings were quite similar to those of the first study, with significant changes in the predicted direction in 13 of 19 measures, while the control group participants obtained significant changes in the same direction as in the ART groups in only two of the 19 measures.

The conclusions from these two studies confirm that ART has been found to be effective in reducing behaviour problems and increasing socio-emotional skills in children and young persons with behaviour difficulties. However, the positive changes in the control group went contrary to prediction, and three hypotheses have been suggested to explain this finding, namely test-retest effect (repeated administration of same tests); diffusion of intervention (ART interventions directed at the ART groups also affected control subjects); and model effects (behaviour changes in models in the ART groups affected subjects in the control groups). After eliminating the test-retest hypothesis by testing for changes without intervention, diffusion of treatment and model effects are probably the most likely explanations. If true, effects (especially the model effect) in the control groups should be most pronounced in projects with pronounced effects in the ART group. The correlation between change indices in the ART and control groups was quite high ($r = .58$), indicating that participants in the control group were affected in a positive direction to a larger extent if the change in the ART group was significant.

Our findings also indicate that programmes like ART could be carried out with young people with various levels of socio-emotional competence. This heterogeneity of competence makes it easier to establish a positive climate in the group and is likely to lead to more positive behaviour amongst young people with behaviour problems through role-modeling. More research, however, needs to be undertaken to establish the impact of such role-modeling

on behaviour change. This also includes the effect of using 'junior ART-trainers'; that is, young persons with previous behaviour problems, as role-models for younger peers during ART sessions.

CONCLUSION

ART is spreading very quickly both in Norway and other European countries. Even if there is a need of more studies to measure its effect in larger-scale studies, the two studies described above and the more anecdotal evidence, suggest that ART works. The research group appointed by the Norwegian Ministry for Children and Equality (Nordahl *et al.* 2006) and the research programme in the Norwegian services for residential homes for children, both agreed that ART is useful and effective in supporting the behaviour change of children and young people with behaviour difficulties. The programme has now been translated into Polish, Dutch, Norwegian, Swedish, English, Icelandic and Russian. There are also plans to include other components in the programme, such as situational perception training and problem-solving. Even if it is promising, more effort should be made to ensure more rigorous and faithful implementation of the programme. This includes adequate training, with at least eight days training for teachers, and supervision and monitoring of trainers. More effort should also be made to facilitate the generalization of the programme skills to applied contexts in real life.

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