Development and evaluation of the Aggression Control Therapy for violent forensic psychiatric patients: summary

Introduction

For a long time, the psychoanalytic, client-centered frame of reference has been a dominant feature in the treatment of forensic psychiatric patients in the Netherlands. Partly as a consequence, the use of risk assessment, program development and effect studies in Dutch forensic psychiatry appeared much later than in countries like Canada and Great Britain. Under pressure of public opinion, however, systematic risk assessment of forensic psychiatric patients has been making strides in recent years. At the same time, there have been publications on the importance of risk assessment, the application of risk assessment instruments and scientific research on the risk of recidivism.

There have been few national or international publications on the development and evaluation of treatment programs in Dutch forensic psychiatry. Internationally, there is a substantial body of knowledge on effective factors of treatments for forensic psychiatric patients and disturbed nonpsychiatric offenders. As a result, Arnold P. Goldstein’s Aggression Replacement Training (ART), a cognitive-behavioral group training therapy for violent juvenile delinquents and students with aggression problems, was already being used in many places in the United States in the 1990s. Positive US experiences with it led to the question of whether ART might be suitable for use in adult Dutch forensic psychiatric patients. Aggression Control Therapy (ACT), based on ART, was developed to study this. Although it was initially developed for adult inpatients and outpatients, adolescent patients with a history of violent offences have also increasingly been given this therapy in recent years.

The population of Dutch forensic psychiatric hospitals differs, however, from that of other countries. In the Netherlands, a higher percentage of patients are admitted with a disorder on axis II of DSM-IV as primary diagnosis. For this reason, treatments proven effective in non-Dutch populations must be reevaluated. There is also the problem of an inadequacy of current knowledge, particularly that related to specific problem behaviors in Dutch subpopulations and the efficacy of specific treatment programs. Moreover, there is a lack of good measurement instruments for effect studies, whose psychometric properties have been studied in Dutch populations. This article might be able to fill in some of these gaps.

The Research and Documentation Center of the Dutch Ministry of Justice (WODC) has provided four years of funding (2001 t/m 2005) to the project “Development and evaluation of Aggression Control Therapy for violent forensic psychiatric patients.” The project design was approved by the Patient-related Scientific Research Review Board in Arnhem (the Netherlands). The author of the present article has performed a great deal of the work involved in his capacity as clinical psychologist and scientific researcher at De Kijvelanden Forensic Psychiatric Hospital (Poortugaal, the Netherlands) and Het Dok Outpatient and Day Clinic (Rotterdam, the Netherlands).

Aggression Control Therapy

Aggression Control Therapy is based on Arnold P. Goldstein’s Aggression Replacement Training, but was adapted to treatment of violent adolescents and adults in Dutch forensic psychiatric settings. The therapy consists of fifteen weekly 90 minute sessions (for the Anger management, Social skills and Moral reasoning modules) and three follow-up sessions at five-week intervals. It is given to groups of five to eight patients. A module entitled Self-regulation skills has also been added to the therapy, which provides patients with a method for solving problems in interactions with others by the end of treatment. In addition to ACT, two modules were developed for in-patients, i.e. Psychomotor therapy and Movement therapy.

Questions

The following questions were formulated for the project in consultation with the WODC:

1.1 Can Aggression Control Therapy be implemented as intended?
1.2 Are there indications that Aggression Control Therapy (in conjunction with other care offered) result in a decrease in aggressive behavior and an increase in socially competent behavior?
1.3 Is there a subgroup for which Aggression Control Therapy seems indicated and if so, how can the subgroup be determined?
1.4 Is Aggression Control Therapy effective for the group mentioned in 1.3, which is to be more specifically described?
1.5 Are there any recommendations for further improvement of effectiveness and for treatment provided to the subgroups for which Aggression Control Therapy appears less suitable?
2. Are there differences in aggressive and socially competent behavior between prisoners serving long-term sentences and forensic psychiatric patients?

**Patient characteristics**

Forensic psychiatric patients are offenders for whom a significant relationship has been established between "deficient mental development or mental disorders" and the crime committed, based on examination by a psychiatrist and/or psychologist (usually involving a Pro Justitia report). The chance of recidivism is considered high without inpatient or outpatient treatment. For this reason, the chief goal of inpatient or outpatient treatment is to bring about a behavior change that will reduce the risk of recidivism to an acceptable minimum.

Forensic psychiatric inpatients are offenders who have committed a crime punishable by a prison sentence of at least four years. Treatment takes place in a closed, secure institution and is geared towards a safe return of the inmates to society. Forensic psychiatric outpatients are offenders for whom the court has imposed compulsory treatment. It can be imposed as a special condition in sentencing in the case of offences punishable by a maximum prison term of three years or as a training order for offences punishable by a maximum prison term of six months. Outpatients receive therapy at a forensic psychiatric outpatient and day clinic. The three groups of forensic psychiatric patients with a history of violent crimes that took part in Aggressive Control Therapy were as follows:

(a) Adult inpatients (forensic psychiatric patients) with a primary diagnosis of an antisocial personality disorder on axis II (of the DSM-IV) or a (chronic) psychotic disorder on axis I combined with an antisocial personality disorder on axis II. Common secondary diagnoses were substance dependency or dependencies on axis I and/or borderline or narcissistic personality disorder on axis II. The condition of psychotic patients was stabilized to the extent that their personality disorder had become prominent at the start of Aggressive Control Therapy.

(b) Adult outpatients with an antisocial personality disorder on axis II as primary diagnosis, often combined with secondary diagnoses such as substance dependency or dependencies on axis I and/or borderline or narcissistic personality disorder on axis II.

(c) Adolescent outpatients with a primary diagnosis of an (oppositional defiant) behavior disorder on axis I or, if over 18 years old, an antisocial personality disorder on axis II. Many adolescent patients also had a secondary diagnosis of cannabis dependency or abuse on axis I.

**New measurement instruments**

The measurement instruments used in the various sub studies were as follows: (a) Structured interview in combination with file studies: Psychopathy Checklist-Revised (PCL-R); (b) File study: Static-99; (c) Self-report questionnaires: NEO Five Factor Inventory (NEO-FFI), Zelf-Analyse Vragenlijst (ZAV; Dutch version of the Aggression Questionnaire, Novaco Anger Scale (NAS), Inventory of Interpersonal Situations (IOA), Alexithymia Questionnaire (BVAQ); and (d) Observation scale: Forensic Inpatient Observation Scale (FIOS).

Two new instruments were developed for the evaluation and effect study:

(1) Attribution Questionnaire for measuring hostility and (2) Observation Scale for Aggressive Behaviour (OSAB) with the subscales Irritation/anger, Anxiety/gloominess, Aggressive behavior, Social behavior, Antecedent and Sanction.

**Study results**

The various sub studies provided the following results:

Question 1.1. Aggression Control Therapy could be implemented as intended. During the first two years of the study (2001 and 2002), the therapy was applied in six inpatient and two outpatient institutions in accordance with the treatment manual. Therapists were satisfied with the design and working method. The dropout rate was, however, very high among outpatients. Dropouts scored higher on the psychopathy personality trait and probably had a higher rate of recidivism.

Question 1.2. The first evaluation for the 2002-2003 period revealed that Aggression Control Therapy brought about a decrease in aggressive behavior in outpatients, both at the end of therapy and at the follow-up. Similar results were found for inpatients, although the therapy was provided to them in combination with other care. Contrary to expectations, neither a decrease in social anxiety nor an increase in social skills could be detected in either group with questionnaires. A possible explanation is that patients reported more aggressive behavior than ‘normals,’ but considered themselves less socially anxious and more socially competent than the average Dutch person. In daily life, however, they seem to mainly display “boundary-setting” behavior (giving criticism, refusing something) and much less “approaching” behavior (giving compliments, offering help). However, it seemed undesirable to teach “approaching” skills to patients scoring high on psychopathy.
Question 1.3. In its present form, Aggression Control Therapy is indicated for patients who mainly display reactive aggressive behavior and score relatively low on factor 1 of the Psychopathy Checklist-Revised. The Social skills module should be given to patients who mainly show instrumental aggression and the Character formation module should be added to the therapy.

Question 1.4. Studies with a control condition from 2004-2005 showed that Aggression Control Therapy results in a decrease in aggressive behavior in outpatients, both at the end of therapy and at the follow-up. The control condition had a waiting period between intake and the start of therapy. Aggressive behavior did not decrease during the waiting period nor did socially competent behavior increase. The results from inpatients were compared to a matched group of patients not involved in the therapy but who received regular treatment and training (comparison with “care as usual”). Compared to the control group, the inpatients scored lower on aggressive behavior on both the observation scale and self-report questionnaires. No changes were observed in socially competent behavior on either the observation scale or the questionnaires.

Question 1.5. Two modules should be added to the therapy to enhance efficacy, i.e. Character formation and Parental support (only for adolescent outpatients). The therapy should be included in a clinical or day clinic treatment program, “Violent Offences associated with cluster B personality disorders,” for patients with a relatively high risk of recidivism. Booster sessions should be organized for inpatients during their external resocialization phase.

Question 2. Some differences were found between prisoners serving a long-term sentence and forensic psychiatric patients. The patients were more neurotic and hostile, but the groups did not differ in terms of aggressive behavior. The risk of recidivism is possibly higher for patients due to their psychological instability and distrust. Prisoners with aggression problems (including perpetrators of domestic violence) can also probably benefit from Aggression Control Therapy. A distinction will have to be made in this population, however, between those scoring low and those scoring high on psychopathy. The therapy is probably not indicated for prisoners who score high on psychopathy.

Policy recommendations
The therapists maintain that Aggression Control Therapy basically works to alleviate violent forensic psychiatric patients’ main problem, i.e. aggressive behavior. The therapy is primarily intended for adults, but it can also be used for adolescent outpatients. In the latter case, it is advisable to also invite the parents or parent for the intake and discharge interviews. Adding the “Character formation” module to the therapy in the short term is desirable. It is also advisable to add a “Parent support” module for adolescent outpatients.

The focus should be on reduction of social anxiety in patients with a relatively low score on factor 1 of the PCL-R. Patients with a relatively high score on factor 1, however, benefit from more insight into the negative consequences of their behavior. It is recommendable to concentrate on the Anger management and Social skills modules in Aggression Control Therapy for the former group, focusing mainly on teaching “approaching” skills in the latter module. In general, the two patient groups experience little anger. The Anger management module can be devoted to offence analysis, using what in Dutch is called the five Gs (event, thought, emotion, behavior and consequence). The Social skills module should be normative in this case, similar to the Moral reasoning module. A “Character formation” module should also be added to the therapy, confronting patients with the long-term consequences of their behavior, both for potential victims and themselves.

Not all patients who started the treatment finished it. The dropout rate was high, particularly among outpatients. For example, participants who had been absent more than twice without a legitimate excuse were omitted from the therapy. Those who dropped out scored relatively lower on agreeableness, higher on aggressive behavior, lower on social anxiety and higher on social skills. The outpatient dropouts also scored higher on psychopathy than finishers, which indicates an increased risk of recidivism. That is why custodial institutions should work with forensic psychiatric hospitals to pursue a policy that will keep dropout rates to a minimum.

The therapy for inpatients, as part of the treatment program “Violent offences associated with cluster B personality disorders,” should be extended through the external resocialization phase. Treatment of substance dependency, psychomotor therapy, movement therapy and psycho education in the area of sexuality and relationships should be part of this type of program.

(1) The Observation Scale for Aggressive Behavior (OSAB) can be obtained by contacting the author at r.hornsveld@tiscali.nl
Anger management is not the most important element of treatment programs for sexually violent outpatients with a “low average” risk of recidivism. The programs must provide social skills therapy. They should mainly focus on reducing social anxiety and concentrate less on increasing social skills.

There are no great differences between forensic psychiatric patients and prisoners serving long-term sentences. Since the study used self-report questionnaires, it is advisable to also score the Psychopathy Checklist-Revised for a group of prisoners serving long-term sentences. This provides an opportunity to also compare both groups in terms of the psychopathy personality trait and support statements on differences in the risk of recidivism. Aggression Control Therapy is indicated for prisoners serving a long-term sentence who have a history of violent crimes if there is an increased risk of recidivism due to criminogenic factors such as limited self-control, deficiency of social skills and antisocial attitude.

There are relatively few forensic psychiatric inpatients in each institution and in general a limited amount of patients’ moving on. For this reason, it is recommendable for institutions in this field to intensively cooperate in evaluation and effect studies (multicenter research). This should result in an availability of data on larger groups of patients. Conditions for this are that (a) institutions use the same distribution of subpopulations, (b) develop identical treatment programs for these subpopulations and (c) use the same assessment instruments. The eluation and effect study described in this article gives credence to violent forensic patients’ ability to benefit from Aggression Control Therapy. Only multicenter research, where patients are randomly assigned to a therapy or a control group, will decisively establish the effectiveness of Aggression Control Therapy in various subpopulations.

Treatment programs focus on behavior change. Since a reduction in the risk of recidivism is usually used as the final criterion, institutions must have access to recidivism figures. It is recommendable to further study the applicability of Aggression Control Therapy in other subpopulations of violent forensic psychiatric patients, such as rapists and perpetrators of domestic violence.