Psychology, Crime & Law, December 2005; 11(4): 403–410

Evaluation of Aggression Control Therapy for violent forensic psychiatric patients

RUUD H. J. HORNSVELD

Department of Medical Psychology, Radboud University Nijmegen, Nijmegen, The Netherlands, and De Kijvelanden Forensic Psychiatric Hospital, Rhoon, The Netherlands

Abstract

Aggression Control Therapy is meant for Dutch forensic psychiatric patients and consists of 15 weekly sessions and three follow-up sessions at 5-week intervals after completion. It includes the components: Anger Management, Social Skills, Moral Reasoning and Self-regulation Skills.

It has been shown in various forensic psychiatric hospitals that Aggression Control Therapy can be given to both inpatients and outpatients. Inpatients had a 12% dropout rate and outpatients a 34% dropout rate. The self-report questionnaires showed a significant decrease in hostile and aggressive behaviour in both inpatients and outpatients. This decrease was maintained at the follow-up assessment. Follow-up research with a control condition and with more objective outcome measures is needed to confirm this improvement. No changes in socially competent behaviour were observed, probably because patients reported at the beginning of the therapy less social anxiety and more social skills than a norm group. The therapy turned out to be beneficial for patients who had a comparatively high level of anger as a personality characteristic.

It is recommended that the Social Skills component of the therapy focuses on a decrease in "limit-setting" skills like giving criticism and more on an increase of "approaching" skills like giving a compliment. A design for a future controlled study is described briefly.

Keywords: *Forensic psychiatry, therapy evaluation, aggression, violence*

Introduction

In recent years, increasingly more cognitive-behavioural therapeutic methods have been developed and implemented in forensic psychiatry in the Netherlands, especially for chronic psychotic patients (Hornsveld & Nijman, 2005) and patients with a history of sexual offences (Hornsveld & De Kruyk, 2005). Aggression Control Therapy, which is based on Aggression Replacement Training (Goldstein, Glick & Gibbs, 1998), was developed because until a few years ago there was no Dutch programme for violent patients (Hornsveld, 2004a; Hornsveld, Van Dam-Baggen, Leenaars, & Jonkers, 2004). The therapy focuses on general criminogenic factors such as limited self-control, deficiencies in social skills and antisocial attitudes (De Ruiter, 2002) and was designed as follows:

- *Anger Management* (weeks 1–5): recognizing and adequately dealing with emotions such as irritation, anger, and rage;

Correspondence: Ruud H. J. Hornsveld, Lange Dreef 52, 2285 La Rijswijk, The Netherlands. E-mail: r.hornsveld@tiscali.nl

ISSN 1068-316X print/ISSN 1477-2744 online © 2005 Taylor & Francis
DOI: 10.1080/10683160500255596

- *Social Skills* (weeks 6–10): enhancing or expanding relevant social skills;
- *Moral Reasoning* (weeks 11–15): becoming familiar with common values and norms and learning to solve moral issues;
- *Self-regulation Skills* (weeks 6–15): altering inadequate aspiration levels, self-reinforcement for results achieved, and developing programmes for new behaviour;
- *Follow-up sessions* (weeks 20, 25 and 30): evaluation and reporting.

The first evaluation of Aggression Control Therapy considered whether therapy could be implemented as intended, whether treatment goals were achieved and which participants benefited most from the therapy. Aggressive behaviour was expected to be reduced in patients and prosocial behaviour enhanced. This evaluation concerns an exploratory study, since no control condition was used.

Method

Patients

The evaluation was carried out with 109 forensic psychiatric inpatients and 44 forensic psychiatric outpatients, all males. The inpatients were inmates at five hospitals[1] and had been convicted of serious violent crimes. Their average age was 32.5 years (SD = 7.1; range: 21–51 years). Their principal diagnosis was an axis II antisocial personality disorder or an axis I psychotic disorder in combination with an axis II antisocial personality disorder (DSM-IV: American Psychiatric Association, 1994). The chronic psychiatric condition of psychotic patients was stabilized to such an extent that their personality disorder became prominent. The group studied was not representative of the forensic psychiatric inpatient population: patients with a psychotic disorder that had not yet been stabilized and patients who could not function in a group were excluded from participation in the therapy programme. There were also some patients who refused to participate in Aggression Control Therapy: forensic psychiatric patients are not sentenced to compulsory treatment in the Netherlands.

The outpatients in this study were treated at two forensic psychiatric outpatient clinics[2] as a result of treatment prescribed by the court for violent offences. The average age of the outpatients was 23.4 years (SD = 8.3; range: 16–47 years). The patients had an axis I conduct disorder or an axis II antisocial personality disorder as principal diagnosis (DSM-IV: American Psychiatric Association, 1994). The patients treated were representative of the population of perpetrators of violent offences, whom the court had directly or indirectly sentenced to ambulant treatment. Only in a few cases was it necessary to exclude patients from participation on the basis of acute psychotic symptoms, acute addiction problems and/or the inability to function in a group.

Nearly all of the outpatient and inpatient subjects had completed primary school, followed by a maximum of a few years of junior secondary vocational education.

Measurement instruments

The following measurement instruments were used in this study:

Structured interview in combination with file research. The *Psychopathy Checklist-Revised* (PCL-R; Hare, 1991; Dutch version: Vertommen, Verheul, De Ruiter, & Hildebrand, 2002) is a psychopathy checklist that is completed on the basis of a structured interview and patients'

file research. The checklist has two factors: "egocentricity, manipulativeness, shallow emotions, deceptiveness and lack of empathy, remorse or guilt" (factor 1), and "impulsive, irresponsible, unstable lifestyle and persistent violation of social norms and expectations" (factor 2).

Self-report questionnaires. Two questionnaires were used to measure personality traits. The NEO Five Factor Inventory (NEO-FFI; Costa & McCrae, 1992; Dutch version: Hoekstra, Ormel, & De Fruyt, 1996) has 60 items and measures five personality "domains", i.e. neuroticism, extraversion, openness, agreeableness and conscientiousness (Big Five). The *Zelf-Analyse Vragenlijst* (Self-Analysis Questionnaire) is a Dutch translation of the Spielberger State-Trait Anger Scale (Spielberger, 1980). Ten trait items were used from this questionnaire (ZAV; Van der Ploeg, Defares, & Spielberger, 1982) for assessing anger as disposition.

Patients had to complete four questionnaires to assess aggressive and socially competent behaviour. The *Attributie Vragenlijst* (Attribution Questionnaire) is an experimental instrument that measures hostility. Patients have to write down their reaction to 17 vignettes describing ambiguous, provocative situations. Answers were rated on a seven-point Likert scale, ranging from 1 = not at all hostile to 7 = extremely hostile (ATV; Hornsveld, Nijman & Kraaimaat, 2002). Cronbach's α in this study was 0.83.

The *Agressie Vragenlijst* (Aggression Questionnaire) is a Dutch adaptation of Buss and Perry's Aggression Questionnaire (Buss & Perry, 1992). This 29-item questionnaire measures different types of aggressive behaviour, i.e. physical aggression, verbal aggression, anger and hostility (AVL; Meesters, Muris, Bosma, Schouten, & Beuving, 1996).

The *Novaco Anger Scale* (NAS; Novaco, 1994) used in this study was a translation of a provisional version, containing 48 items in part A and 25 items in part B. Patients only had to complete part A, which focuses on how individuals experience anger (Cronbach's α in this study was 0.95).

In the *Inventarisatielijst Omgaan met Anderen* (Inventory of Interpersonal Situations), patients were presented with two questions related to 35 interpersonal situations, i.e. how nervous they would feel (social anxiety) and how often they would perform the behaviour described in that situation (social skills). The five sub-scales of the questionnaire, both for social anxiety and social skills, are Criticizing, Giving your opinion, Giving a compliment to somebody, Making contact, and Appreciating yourself (IOA; Van Dam-Baggen & Kraaimaat, 2000).

Regarding personality traits, outpatients' scores on the NEO-FFI were compared with those of "Men over age 17" from the norm group, derived from a broad-based population sample (Hoekstra, Ormel, & De Fruyt, 1996). The outpatient group was also compared with a norm group of "randomly selected male residents of Leiden between the ages of 16 and 71 (Van der Ploeg, Defares, & Spielberger, 1982) on disposition to become angry (ZAV-D). The outpatients could be compared to a norm group ranging in age from 16 to 80 years old, on the basis of reported problem behaviours in the area of social competence (Van Dam-Baggen & Kraaimaat, 2000).

Procedure

The questionnaires were individually administered at the start of the therapy programme, after the 15 weekly sessions and after the last follow-up session. This was done in some institutions by the therapists and in others by a researcher. The PCL-R was usually scored by the author on the basis of file studies, combined with information from intake interviews or impressions of therapists while implementing the therapy programme. Although the

PCL-R is intended for people aged 18 years and older, scores from 16- and 17-year-olds were also included in the current explorative research. Patients were free to refuse to participate in the study.

The therapists gave the therapy using a detailed treatment manual (Hornsveld, 2004b). Patients received a workbook at the beginning of therapy for homework assignments. The object of these assignments is for participants to learn to use the behaviour practised in the therapy in new situations.

Results

Applicability

In an initial study, we analysed possible differences in pre-measures between those who completed the therapy and those who dropped out (Table I).

Dropouts were participants who were absent for more than two sessions without a legitimate excuse or who were not allowed to continue in the therapy due to their constantly provocative behaviour. Eighty-eight per cent of the inpatients completed the therapy and 12% dropped out; 66% of the outpatients completed and 34% dropped out. Dropouts scored significantly lower on the personality trait of agreeableness and higher on the problem behaviours of hostility and aggression; they also scored lower on social anxiety and higher on social skills.

As the PCL-R score (Hare, 1991) appears to be an important measure of the risk of recidivism, the total scores of completers and dropouts in the inpatient and outpatient groups were compared (Table II).

There was no difference in the PCL-R scores between inpatients who completed the therapy and those who dropped out. However, there was a difference in the outpatient group scores: dropouts scored significantly higher on the PCL-R than patients who completed the therapy.

Table I. Differences in scores on measurement instruments between completers ($n = 125$) and dropouts ($n = 28$).

		Completers		Dropouts		Statistics	
Measurement instruments	Factors or sub-scales	*M*	SD	*M*	SD	d.f.	*t*
Age		30.9	8.6	28.7	7.7	144	1.2
PCL-R	Total	20.0	7.2	22.4	6.1	112	−1.6
NEO-FFI	Neuroticism	33.9	7.1	33.4	8.5	143	0.3
	Extraversion	39.9	5.1	41.2	6.7	143	−1.2
	Openness	36.0	5.8	34.2	4.4	142	1.5
	Agreeableness	39.9	5.5	37.0	6.0	143	2.3*
	Conscientiousness	44.5	6.0	44.4	4.8	143	0.1
ZAV	Disposition to anger	19.1	6.0	20.6	8.3	112	−1.0
ATV		44.9	14.6	55.4	13.9	111	−2.9*
AVL		81.2	19.1	90.6	23.6	142	−2.1*
NAS	Part A	86.4	16.0	95.3	21.5	126	−2.3*
IOA	Social anxiety	66.1	19.4	53.8	15.0	141	3.0*
	Social skills	114.4	19.6	125.0	21.1	141	−2.4*

*$p < 0.05$ (two sided).

Table II. PCL-R scores of completers ($n = 86$) and dropouts ($n = 28$).

	PCL-R total					
	Completers		Dropouts		Statistics	
	M	SD	*M*	SD	d.f.	*t*
All patients	20.0	7.2	22.4	6.1	112	−1.6
Inpatients	21.0	7.6	24.4	6.5	75	−1.5
Outpatients	17.2	5.3	20.7	5.4	35	−1.9*

*$p < 0.05$ (one sided).

Behavioural changes

In a second explorative analysis, we compared the scores on the self-report questionnaires at pre-measurement, post-measurement and follow-up measurements (Table III). The data concern pre-measures of 153 patients (109 inpatients and 44 outpatients), post-measures of 104 patients (79 inpatients and 25 outpatients) and follow-up measures of 49 patients (33 inpatients and 16 outpatients). A significant decrease in reported hostility (ATV) and aggressive behaviour (AVL and NAS) could be observed in a comparison of pre- and post-measures. This decrease was still apparent at the follow-up measurement. There were no significant differences perceived in reported social anxiety or social skills (IOA).

The inpatients generally did their homework assignments with the assistance of instructors employed at the forensic psychiatric hospitals participating in the study. Accordingly, they worked on the therapy twice a week. The outpatients were thought to be capable of independently completing their homework assignments, but in practice they seldom did so.

A third analysis was performed to find an explanation for the lack of significant differences between the pre- and post-measures of social anxiety and social skills. For this, scores on the IOA sub-scales of patients who completed the therapy were compared with those of a norm group: at the beginning of the therapy, patients had a significantly lower score on social anxiety and a significantly higher score on social skills in the Giving criticism sub-scale, and a significantly higher score on social anxiety and a significantly lower score on social skills in the Giving somebody else a compliment sub-scale (Table IV).

Table III. Aggressive and socially competent behaviour on three measures.

		Pre-measurement		Post-measurement		Pre- *vs* post-measurement		Pre-measurement		Follow-up measurement		Pre- *vs* follow-up measurement	
Questionnaires		*M*	SD	*M*	SD	d.f.	*t*	*M*	SD	*M*	SD	d.f.	*t*
ATV		45.0	14.8	36.2	13.2	69	5.7*	44.5	15.4	36.6	11.7	44	3.7*
AVL		81.6	19.4	76.6	20.3	88	2.8*	84.8	20.6	78.7	19.0	50	2.8*
NAS		86.7	16.1	83.2	14.2	79	2.5*	86.4	17.1	83.0	14.0	47	1.8*
IOA	Social anxiety	65.5	19.8	62.6	20.1	86	1.2	67.2	18.5	65.3	20.1	47	0.8
	Social skills	115.7	18.7	116.8	19.2	88	−0.5	111.9	20.4	115.4	19.2	47	−1.2

*$p < 0.05$ (one sided). *Note*. A complete dataset of all patients was not available, since a number of patients dropped out between the post- and follow-up measure. That is why a comparison has been made between pre- and post-measures and between pre- and follow-up measures.

Table IV. Comparison of patients with a norm group on social anxiety and social skills (IOA).

	Sub-scales	Norm group *M* (SD)	Patients *M* (SD)	Score for Norm group	Statistics
Social anxiety	Total	70.5 (17.8)	63.5 (19.0)	Average	$t(87) = -3.5^{**}$
	Criticizing	19.0 (5.2)	14.7 (4.5)	Below average	$t(87) = -9.0^{**}$
	Giving opinion	12.6 (4.0)	10.9 (4.0)	Average	$t(87) = -4.1^{**}$
	Complimenting somebody else	5.3 (2.2)	6.3 (2.9)	Above average	$t(87) = 3.3^{**}$
	Initiating contact	9.6 (3.3)	9.2 (3.1)	Average	$t(87) = -1.2$
	Appreciating yourself	7.7 (2.7)	7.1 (2.8)	Average	$t(87) = -2.2^{*}$
Social skills	Total	111.3 (15.8)	116.5 (18.9)	Above average	$t(88) = 2.6^{*}$
	Criticizing	18.0 (4.6)	21.8 (5.0	Above average	$t(88) = 7.1^{**}$
	Giving opinion	18.9 (3.5)	19.5 (4.1)	Above average	$t(88) = 1.3$
	Complimenting somebody else	16.2 (2.7)	15.3 (3.1)	Average	$t(88) = -2.9^{**}$
	Initiating contact	15.8 (3.1)	16.0 (3.4)	Average	$t(88) = 0.52$
	Appreciating yourself	11.7 (3.0)	12.7 (3.3)	Above average	$t(88) = 0.28$

$^{*}p < 0.05$; $^{**}p < 0.01$ (two sided).

Forensic psychiatric patients appear to consider themselves as less anxious and more socially skilful than a norm group, which is perhaps why they are not motivated to change their social behaviour. However, they report problems with specific behaviours such as giving criticism (too often) and giving compliments to others (too seldom).

Subgroups

A fourth explorative analysis was performed to determine which patients had benefited most from the therapy. The difference scores for aggressive behaviour (ATV, AVL and NAS) and for social behaviour (IOA) were correlated with personality traits (PCL-R, NEO-FFI and ZAV) and age (Table V) for the patients with available pre- and post-measures ($n = 51$).

Table V. Correlations between difference scores (pre-measurement – post-measurement) on problem behaviours and personality characteristics.

		Difference between pre- and post-measurement				
Measurement instrument		ATV	AVL	NAS	IOA (social anxiety)	IOA (social skills)
Age		−0.09 (67)	0.06 (89)	−0.02 (80)	0.03 (87)	−0.07 (89)
PCL-R	Total	−0.03 (48)	0.02 (69)	−0.12 (61)	−0.29 (62)*	0.02 (64)
NEO-FFI	Neuroticism	0.05 (69)	0.16 (89)	0.11 (79)	−0.04 (87)	0.01 (89)
	Extraversion	0.01(69)	−0.14 (89)	0.02 (79)	−0.09 (87)	0.25 (89)*
	Openness	−0.03 (68)	−0.05 (89)	0.14 (79)	−0.02 (86)	−0.08 (88)
	Agreeableness	−0.14 (69)	−0.11 (89)	−0.04 (79)	0.13 (87)	0.21 (89)*
	Conscientiousness	0.18 (69)	−0.07 (89)	0.12 (79)	−0.01 (87)	0.08 (89)
ZAV	Disposition to anger	0.09 (63)	0.21 (65)	0.41 (71)**	−0.14 (68)	0.23 (69)

$^{*}p < 0.05$; $^{**}p < 0.01$; the number of subjects are given in parentheses.

Particularly patients with a relatively high score on disposition to anger seemed to have benefited from the therapy: they showed the greatest decrease in aggressive behaviour. Contrary to expectations, the reduction in aggressive behaviour was not related to age.

Discussion

The therapy could be implemented both for inpatients and outpatients with violent offences at various forensic psychiatric hospitals. However, not all patients who began the therapy completed it. Twelve per cent of the inpatients and 34% of the outpatients dropped out. Inpatients can easily be summoned in the event of possible absences, but the institution for after-care of offenders can only be notified after the conclusion of a therapy session. Patients who dropped out, e.g. because they were absent more than twice without a legitimate excuse, scored relatively lower on agreeableness, higher on aggressive behaviour, lower on social anxiety and higher on social skills.

Aggression Control Therapy seems to have resulted in a reduction of reported hostility and aggressive behaviour in the total group of forensic psychiatric patients, not only after completion of treatment but also at follow-up. Based, however, on the questionnaires, a decrease in social anxiety and an increase in social skills were indiscernible. A possible explanation for this is that patients reported more aggressive behaviour at the start of the therapy than norm groups, but considered themselves as less socially anxious and more socially skilled than the average Dutch person (Hornsveld, Van Dam-Baggen, Lammers, Nijman, & Kraaimaat, 2004). In daily life, however, they appear to exhibit mainly limit-setting behaviour (giving criticism, refusing something) and much less approach behaviour (giving compliments, offering help). This could mean that not only learning "prosocial" behaviour, but also unlearning "antisocial" behaviours should be emphasized in the Social Skills component of the therapy.

A correlation between difference scores on problem behaviour and personality traits indicated that patients who scored relatively high on disposition to anger at the beginning of therapy benefited relatively the most from the therapy.

The findings of this evaluation must be interpreted with particular caution because a control condition was not used. In a follow-up study, the inpatients who complete the Aggression Control Therapy will be compared with patients who did not participate. In addition, observation scales will be used together with questionnaires. The effect of the therapy on outpatients will be determined with a baseline comparison. For this, the questionnaires will be administered 5 weeks prior to the beginning of therapy.

Acknowledgements

This study was conducted with financial support from the Research and Documentation Centre of the Dutch Ministry of Justice.

Notes

1 De Kijvelanden Forensic Psychiatric Hospital, De Singel TBS Hospital (currently Flevo Future, Amsterdam branch), Dr F.S. Meijers Hospital (currently Flevo Future, Utrecht branch), De Rooyse Wissel Forensic Psychiatric Hospital and the Forensic Psychiatry Department of the Drenthe Mental Health Agency.

2 Het Dok Outpatient Department in Rotterdam and the Youth Division of the Forensic Psychiatry Outpatient Department in Assen.

References

American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders* (4th edn). Washington, DC: American Psychiatric Association.

Buss, A. H., & Perry, M. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology*, *63*, 452–459.

Costa, P. T. Jr., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources.

De Ruiter, C. (2002). De terbeschikkingstelling [Placed at the disposal of the government]. In P. J. van Koppen, D. J. Hessing, H. L. G. J. Merckelbach, & H. F. M. Crombag (Eds.), *Het recht van binnen: Psychologie van het recht [Inside the law: Psychology of the law]* (pp. 991–1001). Deventer, the Netherlands: Kluwer.

Goldstein, A. P., Glick, B., & Gibbs, J. C. (1998). *Aggression Replacement Training: A comprehensive intervention for aggressive youth*. Champaign, IL: Research Press.

Hare, R. D. (1991). *The Hare Psychopathy Checklist—Revised*. Toronto: Multi-Health Systems.

Hoekstra, H. A., Ormel, J., & De Fruyt, F. (1996). *Handleiding NEO persoonlijkheidsvragenlijsten [Manual NEO Personality Questionnaires]*. Lisse, The Netherlands: Swets Test Services.

Hornsveld, R. H. J. (2004a). Aggression Control Therapy for forensic psychiatric patients: Development and preliminary results. In A. P. Goldstein, R. Nensén, B. Daleflod, & M. Kalt (Eds.), *New perspectives on aggression replacement training* (pp. 189–196). Chichester, UK: Wiley.

Hornsveld, R. H. J. (2004b). *Held zonder geweld: Behandeling van agressief gedrag (draai- en werkboek) [Hero without violence: Treatment of aggressive behaviour (treatment manual and workbook)]*. Amsterdam: Boom.

Hornsveld, R. H. J., & De Kruyk, C. (2005). Forensic psychiatric outpatients with sexual offences: personality characteristics, aggression and social competence. *Psychology, Crime and Law*, *11*, 479–488.

Hornsveld, R. H. J., & Nijman, H. L. I. (2005). Evaluation of a cognitive-behavioral program for chronically psychotic inpatients. *International Journal of Law and Psychiatry*, *28*, 246–254.

Hornsveld, R. H. J., Nijman, H. L. I., & Kraaimaat, F. W. (2002). *Attributie Vragenlijst [Attribution Questionnaire]*. Rijswijk, the Netherlands: eigen beheer [private edition].

Hornsveld, R. H. J., Van Dam-Baggen, C. M. J., Lammers, S. M. M., Nijman, H. L. I., & Kraaimaat, F. W. (2004). Forensisch psychiatrische patiënten met geweldsdelicten: persoonlijkheidskenmerken en gedrag [Violent forensic psychiatric patients: personality characteristics and behaviour]. *Tijdschrift voor Psychiatrie [Dutch Journal of Psychiatry]*, *46*, 133–143.

Hornsveld, R., Van Dam-Baggen, R., Leenaars, E., & Jonkers, Ph. (2004). Agressiehanteringstherapie voor forensisch psychiatrische patiënten met geweldsdelicten: ontwikkeling en praktijk [Aggression Control Therapy for forensic psychiatric patients with violent offences: development and application]. *Tijdschrift voor Psychotherapie [Dutch Journal of Psychotherapy]*, *30*, 22–38.

Meesters, C., Muris, P., Bosma, H., Schouten, E., & Beuving, S. (1996). Psychometric evaluation of the Dutch version of the Aggression Questionnaire. *Behaviour Research and Therapy*, *34*, 839–843.

Novaco, R. W. (1994). Anger as a risk factor for violence among the mentally disordered. In J. Monahan, & H. J. Steadman (Eds.), *Violence and Mental Disorder* (pp. 21–59). Chicago: The University of Chicago Press.

Spielberger, C. D. (1980). *Preliminary manual for the State – Trait Anger Scale (STAS)*. Tampa, FL: University of South Florida.

Van Dam-Baggen, C. M. J., & Kraaimaat, F. W. (2000). *Inventarisatielijst Omgaan met Anderen (IOA). Hand leiding (2e geheel herziene druk) [Inventory of Interpersonal Situations (IOA)]* (Manual, 2nd revised edn). Lisse, The Netherlands: Swets Test Services.

Van der Ploeg, H. M., Defares, P. B., & Spielberger, C. D. (1982). *Handleiding bij de Zelf-Analyse Vragenlijst, ZAV [Manual for the Self-Analysis Questionnaire, ZAV]*. Lisse, the Netherlands: Swets & Zeitlinger.

Vertommen, H., Verheul, R., De Ruiter, C., & Hildebrand, M. (2002). *De herziene versie van Hare's Psychopathie Checklist (PCL-R) [The revised version of Hare's Psychopathy Checklist (PCL-R)]*. Lisse, the Netherlands: Swets Test Publishers.