

## Risk assessment and treatment in Dutch forensic psychiatry

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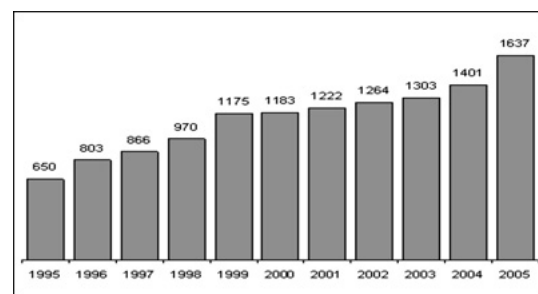
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The Dutch Code of Criminal Law has a special measure for defendants who are considered to have diminished responsibility for their offence on account of a serious mental disorder. This is known as the TBS order. The TBS is directed at changing the offender's recidivism risk by means of forensic psychiatric treatment. During the last decade, structured violence risk assessment has received increasing attention in research and practice within Dutch forensic psychiatry. Several risk assessment tools, such as the HCR-20 and HKT-30, have been validated for Dutch forensic psychiatric patients. Research into the effectiveness of forensic treatment under the TBS order is scarce and consists mainly of naturalistic pre-post designs. These studies show limited effectiveness of the treatment, but were carried out in just a few of the 13 forensic hospitals. Currently, a few studies using a control group consisting of care-as-usual, are underway. Notwithstanding these recent research efforts, Dutch forensic psychiatry remains under the close scrutiny of the media, politicians and public to show its effectiveness in reducing violent crime. (*Netherlands Journal of Psychology*, 63, 166-175.)

During the past decade, the number of beds in forensic hospitals in the Netherlands has shown a steady increase

from 650 in 1995 to around 1650 in 2006 (figure 1). The number of prison cells and the number of beds in youth forensic treatment centres are showing a similar increase. This dramatic development is paralleled by an increase in the crime rate, in particular violent crime (Wittebrood, 2000). There is a growing societal and political awareness in the Netherlands that the current, 'tough on crime' policy is ineffective in reducing the rate of criminal offending. In the Spring of 2005, the Dutch Ministry of Justice presented the results of a study revealing that reoffence rates six years following release from adult imprisonment and youth detention were 73 and 78%, respectively (Wartna, Tollenaar & Essers, 2005; Wartna, el Harbachi & van der Laan, 2005). Dutch Minister of Justice Donner admitted that these high recidivism rates showed that punishment and imprisonment alone do not help in preventing relapse into crime. He made a comparison with the 'tough on crime' policy in the USA, which also failed to result in decreasing (violent) crime rates (Donner in a Press release, 3 March 2005).

There is a growing uneasiness about crime and public safety and an awareness that alternative strategies are



**Figure 1** Formal capacity in number of beds in Dutch forensic psychiatric hospitals (1995-2005).

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needed. This is demonstrated by the fact that both the Dutch parliament and the Ministries of Health and Justice have recently asked for advisory reports on 1) the state-of-the-art in the Dutch forensic hospitals and 2) on the prevention and treatment of antisocial personality disorder, respectively. Both reports appeared at the beginning of May, 2006 (Health Council of the Netherlands, 2006; Parliamentary Committee TBS, 2006) and made a strong case for more evidence-based treatment in the forensic mental health field.

In this article, we will start with a brief overview of the legal context in which the treatment of mentally disordered offenders takes place in the Netherlands. Subsequently, we will describe recent research on risk prediction in Dutch mentally disordered offenders. Next, current treatment practices are described, with a special emphasis on recently started innovative projects. Finally, future developments will be discussed, with attention to research and practice.

### Legal context

According to the Dutch Code of Criminal Procedure (CCP; Art. 352, section 2) and the Dutch Code of Criminal Law (CCL; Art. 39), in cases where the criminal act is proven but the offender cannot be held responsible for his act due to a mental defect or disorder, the offender will not be considered punishable (for a more extensive discussion of Dutch criminal law in relation to mentally disordered offenders, see De Ruiter & Hildebrand, 2003). The question whether the defendant has committed the offence precedes and is distinguished from the question whether he or she is punishable, which depends on (among other things) whether the defendant is to be held responsible with regard to the crime committed (see Art. 350 CCP). Thus, Dutch law distinguishes both blameworthiness/unlawfulness of the acts and the blameworthiness of the defendant. Both types of blameworthiness are a precondition for a conviction. In this article, the male pronoun is used to refer to both genders.

Dutch criminal law recognises two measures that can be applied to mentally disturbed offenders. First, the law offers the possibility for a defendant who is found not responsible for the crime to be admitted to a psychiatric hospital if he is a danger to himself or to others or to the general safety of persons or property (Art. 37, section 1 CCL). Second, Article 37a of the Dutch CCL states that a defendant who, at the time of the alleged crime, suffered from a mental defect or disorder may receive what is called a 'disposal to be involuntarily admitted to a forensic psychiatric hospital on behalf of the state' (*maatregel van terbeschikkingstelling*, TBS). In the remainder of this

paper, we will refer to this judicial measure as 'TBS order'. The court can impose a TBS order if all of the following conditions apply (Art. 37a CCL):

1. The defendant must suffer from a mental disorder, which means that his responsibility for the alleged crime is (severely) diminished or absent (we will later elaborate on the degrees of criminal responsibility in the Dutch legal system);
2. The crime carries a prison sentence of at least four years, or the offence belongs to a category of offences specifically mentioned in the law as carrying a lesser sentence;
3. There is a risk for the safety of other people or for the general safety of persons or goods.

Theoretically, a TBS order is of indefinite duration (Art. 38e, section 2 CCL). Initially imposed for two years (Art. 38d, section 1 CCL), it may be extended for one or two yearly periods as the court re-evaluates the patient to determine whether the risk for the safety of society is still too high (Art. 38d, section 2 CCL). TBS involves involuntary admission to a specialised maximum-security forensic psychiatric hospital (Art. 37d, section 1 CCL) aimed at motivating the patient to participate voluntarily in the treatment programmes offered by the hospital. Although there are differences in the treatment models the 13 Dutch forensic psychiatric institutions adhere to, the treatment provided within the legal framework of the TBS generally strives to effect enduring psychological and behavioural change that results in a reduction in violence risk. As to the differences in the treatment models, some hospitals adhere to a therapeutic community model in which patients with different mental disorders are mixed (e.g., Van der Hoeven Clinic), whereas other hospitals have created special units for patients with different forms of psychopathology (e.g., autism spectrum disorders, sex offenders with deviant sexual preferences, psychotic disorders).

### Structured violence risk assessment

In the past, risk judgements were mostly based on a global clinical judgement of the patient, which led to a lack of accountability and transparency, and to inaccuracy, in risk judgements. Starting at the end of the 1990s, Dutch forensic psychiatric hospitals started to use structured risk assessment instruments to judge the risk of violence risk in their patients. Such judgements are needed regularly during the course of TBS treatment, for instance, when starting unsupervised leave and when the annual or biannual advice to the court is presented. These instruments, such as the HCR-20 (Webster,

Douglas, Eaves & Hart, 1997; Dutch translation: Philippe, de Ruiter, Hildebrand & Bouman, 2000) and SVR-20 (Boer, Hart, Kropp & Webster, 1997; Dutch translation: Hildebrand, de Ruiter & van Beek, 2001), are significantly better predictors of violent recidivism than unstructured clinical judgement (De Vogel, de Ruiter, van Beek & Mead, 2003; de Vogel, de Ruiter, Hildebrand, Bos & van de Ven, 2004). Structured tools for violence risk assessment originate from North America, but are now in use in many other jurisdictions. Research from several different European countries supports the predictive accuracy of the HCR-20 and the SVR-20, and related instruments (Sweden, HCR-20; Belfrage, Fransson & Strand, 2000; United Kingdom, SVR-20; McPherson, 2003; Switzerland, SVR-20; Dietiker, Dittman & Graf, 2007; Germany, HCR-20; Dahle, 2006). Nowadays, as a general procedure, Dutch forensic psychiatric institutions perform structured risk assessments of 'TBS patients' and base their judgements on these structured methods.

The HCR-20 is a structured professional guideline (checklist) for the assessment of risk for violence in adult offenders. The HCR-20 consists of 20 items, all developed from a thorough consideration of the empirical literature and the clinical expertise of a number of experienced forensic mental health professionals. Ten items relate to risk factors in the past (historical scale), five items relate to the present state of the patient (clinical scale), and five items relate to the future (risk management scale). Table 1 presents the items of the HCR-20.

The items are coded on a three-point scale: '0' = item does not apply according to the available information, '1' = item probably or partially applies, '2' = item definitely applies. Information needed to code the items of the HCR-20 includes, for example, criminal records/police files, psychological/psychiatric reports, observations,

and is preferably from different sources and gathered using different methods. The coding of the 20 items should be viewed as the first step in the assessment process. In any given risk assessment, there can be additional, case-specific risk factors that are relevant. *The final risk judgement*, the structured professional judgement that is arrived at through the process of coding the items and integrating all available information, has to be judged as 'low', 'moderate' or 'high' and is valid for a specific time period (e.g., during a specific treatment phase) and/or for a given context (e.g., inpatient or outpatient). The final risk judgement is not a simple summation of the HCR-20 items scores, but (also) depends on specific combinations or factors or other considerations (i.e., case-specific factors).

De Vogel, de Ruiter, Hildebrand, Bos and van de Ven (2004) retrospectively examined the predictive validity of the HCR-20 for violent recidivism after discharge. The HCR-20 was coded on the basis of file information of 120 forensic psychiatric patients discharged from the Dr Henri van der Hoeven Clinic between 1993 and 1999. The patients were divided into four groups based on their type of discharge:

1. Transmural. Discharge by the court in line with the hospital staff's advice and after a 'transmural phase' a resocialisation period in which the patient lives outside the secure forensic hospital, but is still supervised and treated by the staff of the hospital;
2. Conforming. Discharge by the court in line with the hospital staff's advice, but without a preceding transmural phase;
3. Contrary. Discharge by the court against the hospital staff's advice;
4. Readmission. The treatment is not terminated; instead the patient is readmitted to another forensic psychiatric hospital or to a penitentiary institution.

**Table 1** Items of the HCR-20.

Historical items			Clinical items		Risk management items	
H1	Previous violence	C1	Lack of insight	R1	Plans lack feasibility	
H2	Young age at first violence incident	C2	Negative attitude	R2	Exposure to destabilisers	
H3	Relationship instability	C3	Active symptoms of major mental illness	R3	Lack of personal support	
H4	Employment problems	C4	Impulsivity	R4	Noncompliance with remediation attempts	
H5	Substance use problems	C5	Unresponsive to treatment	R5	Stress	
H6	Major mental illness					
H7	Psychopathy					
H8	Early maladjustment					
H9	Personality disorders					
H10	Prior supervision failure					

**Table 2** Predictive validity of the HCR-20 ( $n = 119$ ). Source: De Vogel, de Ruiter, Hildebrand, Bos & van de Ven (2004).

HCR-20	Violent offending			General offending		
	AUC	SE	r	AUC	SE	R
Total score	0.82 <sup>***</sup>	0.04	0.52 <sup>**</sup>	0.70 <sup>***</sup>	0.05	0.35 <sup>**</sup>
Final risk judgement	0.79 <sup>***</sup>	0.04	0.51 <sup>**</sup>	0.66 <sup>**</sup>	0.05	0.30 <sup>**</sup>
Historical scale	0.80 <sup>***</sup>	0.04	0.47 <sup>**</sup>	0.70 <sup>***</sup>	0.05	0.34 <sup>**</sup>
Clinical scale	0.77 <sup>***</sup>	0.04	0.46 <sup>**</sup>	0.67 <sup>**</sup>	0.05	0.30 <sup>**</sup>
Risk management scale	0.79 <sup>***</sup>	0.04	0.47 <sup>**</sup>	0.67 <sup>**</sup>	0.05	0.30 <sup>**</sup>
Unstructured clinical judgement	0.68 <sup>**</sup>	0.05	0.32 <sup>**</sup>	0.63 <sup>*</sup>	0.05	0.22 <sup>*</sup>

HCR-20 = Historical Clinical Risk Management-20, AUC = area under the curve, SE = standard error,  $r$  = point-biserial correlation, violent offending = including sexual and homicide offences. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$  (two-tailed).

**Table 3** Predictive validity of the HCR-20 for physical violence during treatment ( $n = 127$ ). Source: De Vogel & De Ruiter (2006).

HCR-20	Consensus judgement		
	AUC	SE	R
Total score	0.85 <sup>***</sup>	0.04	0.43 <sup>**</sup>
Final risk judgement	0.86 <sup>***</sup>	0.04	0.49 <sup>**</sup>
Historical scale	0.77 <sup>***</sup>	0.05	0.32 <sup>**</sup>
Clinical scale	0.80 <sup>***</sup>	0.05	0.36 <sup>**</sup>
Risk management scale	0.79 <sup>***</sup>	0.05	0.35 <sup>**</sup>

HCR-20 = Historical Clinical Risk Management-20, AUC = area under the curve, SE = standard error,  $r$  = Pearson point-biserial correlation. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$  (two-tailed).

According to De Vogel et al. (2004), these types of discharge reflect different unstructured clinical risk judgements. Discharge in line with the hospital staff's advice after a transmural phase reflects the lowest risk, readmission to another secure institution is considered to represent the highest risk. The HCR-20 demonstrated good predictive validity for violent recidivism. Also, the HCR-20 was a significantly better predictor of violent recidivism than the unstructured clinical judgement(s) (table 2).

In a subsequent prospective study, De Vogel and De Ruiter (2006) related HCR-20 scores to incidents of physical violence during forensic psychiatric treatment in 127 male mentally disordered offenders. Ratings were conducted by three independent assessors (treatment supervisor, group leader and researcher) who reached a consensus during a case conference. As table 3 shows, the historical, clinical and risk management subscales all performed quite well (AUCs between 0.77 and 0.80); the final risk judgement yielded the highest degree of predictive accuracy (AUC = 0.86).

Philipse, van Erven and Peters (2002) retrospectively examined the predictive validity of the HCR-20 in a sample of 69 forensic psychiatric patients (64 men, 5 women) discharged between 1996 and 1998. Table 4 presents AUC values for a subgroup of patients ( $n =$

**Table 4** Predictive validity HCR-20 ( $n = 45$ ). Source: Philipse, van Erven & Peters (2002).

HCR-20	Serious violent recidivism ( $n = 6$ )	
	AUC	R
Total score	0.78 <sup>*</sup>	
Final risk judgement	0.82 <sup>*</sup>	
Historical scale	0.89 <sup>**</sup>	
Clinical scale	0.67	
Risk management scale	0.64	
Unstructured clinical judgement	0.76 <sup>*</sup>	

HCR-20 = Historical Clinical Risk Management-20, AUC = area under the curve, serious violent recidivism = including physical threats, not including sexual recidivism. \*  $p < 0.05$ , \*\*  $p < 0.01$ .

45) who were free and at risk during the follow-up period ( $M = 4.3$  years; min. = 1.75, max. = 5.75 years) and not recidivated with a sexual offence. The results show that the predictive validity of the HCR-20 for violent offences was good for the HCR-20 total score (AUC = 0.78), the Historical scale (AUC = 0.89) and for the final risk judgement (AUC = 0.82). The Clinical and Risk management scale showed no significant association with violent recidivism in this study.

Canton (2004) examined the predictive accuracy of the HKT-30, a Dutch risk assessment tool that was developed in the Netherlands based on several national and international instruments. The HKT-30 consists of 30 items (11 historical items, 13 clinical and dynamic items, and 6 future items) scored on a five-point scale. The HKT-30 was coded on the basis of 123 psychological/psychiatric reports written for the court (in Dutch: *Pro Justitia rapportages*) in the years 1993-1995. Recidivism was defined as a new conviction. The predictive validity of the HKT-30 total score for serious recidivism (e.g., homicide, sexual offences, assault) was 0.71 and comparable with the unstructured clinical judgement (AUC = 0.70). The author did not examine the predictive accuracy of the final risk judgement based on the HKT-30. The AUC value of 0.71 is considerably lower

than the HCR-20 AUC values reported by De Vogel and colleagues (De Vogel et al., 2003, 2004; de Vogel & de Ruiter, 2006). However, the question which instrument is best suited for the prediction of violent behaviour and should therefore be used in Dutch forensic hospitals as a general procedure is still unclear.

Hildebrand, Hesper, Spreen and Nijman (2005) retrospectively investigated whether the HCR-20 and HKT-30 led to accurate predictions of future violence after discharge in a sample of 156 male mentally disordered offenders involuntarily admitted to one of eight forensic psychiatric hospitals in the Netherlands. An important question was whether one risk assessment instrument predicts more accurately than the other. The study variables (HCR-20, HKT-30) were coded from institutional files. All files were reviewed by two independent raters: one rater coded the HCR-20, and one rater coded the HKT-30. Violent recidivism was defined as a new conviction by the court for a violent offence in accordance with Dutch criminal law. It was found that all AUC values for the HCR-20 and HKT-30 subscales, total score and final risk judgement were significant (table 5). The AUCs demonstrating the strength of the relationship of the HCR-20 historical scale (AUC = 0.71), the HKT-30 final risk judgement (AUC = 0.73) and HKT-30 total score (AUC = 0.72) were moderate to good. Statistical comparison of AUC values of (scales of) the HCR-20 and HKT-30 revealed no significant differences between the instruments. However, a trend was found indicating that the final risk judgement based on the HKT-30 was more accurate than the final risk judgement based on the HCR-20 ( $\bar{\tau}^2(1, 153) = 3.4, p = 0.066$ ).

**Table 5** Predictive validity of the HCR-20 and HKT-30 (n = 152). Source: Hildebrand et al. (2005).

Instrument	Violent recidivism			R
	AUC	SE	95% CI	
<b>HCR-20</b>				
Total score	0.67**	0.05	0.57-0.77	0.27**
Final risk judgement	0.64**	0.05	0.54-0.75	0.22**
Historical scale	0.71***	0.05	0.61-0.81	0.28***
Clinical scale	0.62*	0.05	0.52-0.72	0.17*
Risk management scale	0.62*	0.05	0.54-0.75	0.19*
<b>HKT-30</b>				
Total score	0.72***	0.05	0.63-0.81	0.32***
Final risk judgement	0.73***	0.05	0.64-0.81	0.36***
Historical scale	0.67**	0.05	0.57-0.76	0.24**
Clinical and dynamic scale	0.69***	0.05	0.60-0.79	0.28***
Future scale	0.68**	0.05	0.58-0.79	0.28***

HCR-20 = Historical Clinical Risk Management-20, HKT-30 = Historical, Clinical, Future-30 (in Dutch: Historisch Klinisch Toekomst-30), AUC = area under the curve, SE = standard error. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$  (two-tailed).

The way forensic psychiatric patients leave a treatment institution has impact on the risk of recidivism. Therefore, an essential part of the treatment of forensic psychiatric patients is a gradual and supervised return to society. Based on leave it is tested whether the expected change in behaviour has occurred and will persist if liberties and responsibilities increase. Moreover, it is tested whether the patient is able to manage specific risks effectively in case of increasing liberties.

In two recent studies, by order of the Ministry of Justice, Hildebrand and colleagues retrospectively reported on the scale, nature and prediction of absconding from leave and recidivism after absconding from leave during forensic treatment in the period 2000-2005 (Hildebrand, Schönberger & Spreen, 2007; Hildebrand, Spreen, Schönberger, Augustinus & Hesper, 2006). With the exception of quantitative data on absconding and recidivism, as well as historic background data, the study variables (e.g., attitude towards treatment, coping skills, impulsivity, substance use) were coded from institutional files available at the Justice department. In general, these files were extensive and contained psychiatric and psychological evaluations, criminal history, treatment plans and treatment evaluations, the hospital's (bi)annual advice to the court about the need for prolongation of the treatment, family background data, etc. Quantitative data on absconding and recidivism were independently retrieved from the Dutch Ministry of Justice. Recidivism was defined as a new charge for an offence in accordance with Dutch criminal law.

A total of 488 incidents of absconding from leave were identified in the study period (the empirical chance of an abscondment from leave incident in the period 2000-2005 is approximately 0.002 (488 abscondments from leave divided by six years, and multiplied by 50,000 annual leaves)). The majority of the abscondments from leave incidents took place during unsupervised leave, namely in 63% of the cases; in 24% of the cases the abscondment from leave took place during supervised leave. The remaining abscondments took place during a transmural leave (7%) and probationary leave (6%). The following variables predicted absconding from leave rather well: Psychopathy Checklist-Revised (PCL-R; Hare, 2003)<sup>1</sup> total score (AUC = 0.74,  $p < 0.001$ ), total number of absences without leave (AUC = 0.72,  $p < 0.001$ ), attitude towards treatment (AUC = 0.71,  $p < 0.001$ ), use of soft drugs during treatment (AUC = 0.72,  $p < 0.001$ ), use of alcohol during treatment (AUC = 0.71,  $p < 0.001$ ), and use of

<sup>1</sup> The PCL-R is a dimensional 20-item rating scale used to assess psychopathic personality disorder, psychopathy for short. Psychopathy is a strong predictor of institutional violence, rule violation and violent reoffending after release (see Hildebrand, 2004 for a review of the pertinent research).

hard drugs during treatment ( $AUC = 0.70, p < 0.001$ ). Absconding from leave was best predicted by the total score on the nine dynamic risk factors studied (i.e., use of alcohol, soft drugs and hard drugs during treatment, impulsivity, hostility, social and relational skills, attitude towards treatment, responsibility for the offence, and coping skills),  $AUC = 0.82, p \geq 0.001$  (Hildebrand et al., 2006).

With regard to recidivism during leave, 46 new offences took place in the study period. The best individual predictors of violent recidivism were: attitude towards treatment ( $AUC = 0.75, p < 0.001$ ), use of alcohol during treatment ( $AUC = 0.70, p < 0.001$ ), PCL-R total score ( $AUC = 0.75, p < 0.001$ ), PCL-R factor 2 ( $AUC = 0.72, p < 0.01$ ), and violation of conditions ( $AUC = 0.70, p < 0.001$ ). The total score on the nine dynamic factors concerning the treatment progress appeared to be the best predictor of violent recidivism,  $AUC = 0.79, p \geq 0.001$  (Hildebrand et al., 2007). All in all the favourable research findings with these violence risk assessment instruments support their use in Dutch forensic clinical practice. Still, they are far from perfect, and continuing research into their improvement and the importance of high-quality training in forensic risk assessment cannot be overemphasised.

In recent years, a number of new risk assessment tools have been developed that focus relatively more on dynamic risk factors. These instruments, such as the Structured Outcome Assessment and Community Risk Monitoring (SORM; Grann, Sturidsson, Haggard-Grann, Hiscoke, Alm et al., 2005) and the Short Term Assessment of Risk and Treatability (START; Webster, Nicholls, Martin, Desmarais & Brink, 2006) have also been translated into Dutch, and research with these instruments is currently underway in several inpatient and outpatient forensic settings in the Netherlands. Finally, the latest development in violence risk assessment is an increasing attention to protective factors. Rogers (2000) criticised risk assessment research and practice for its unbalanced emphasis on risk factors, ignoring possible protective or buffering factors. On the basis of a literature review and consultation with experienced forensic mental health professionals, De Vogel, De Ruiter, Bouman and De Vries Robbé (2007) developed the Structured Assessment of PROtective Factors for violence risk (SAPROF). Preliminary findings with the SAPROF show that the instrument can be rated reliably and forensic clinicians find it useful in motivating patients and treatment planning (De Vogel, De Ruiter & Bouman, 2007). An instrument such as the SAPROF should always be used in conjunction with a risk assessment instruments such as the HCR-20 or SVR-20.

## Forensic mental health treatment

A large proportion of patients in Dutch forensic hospitals are suffering from a personality disorder (PD) without a concomitant major mental disorder. Hildebrand and De Ruiter (2004) found in a sample of 94 TBS patients from the Dr Henri van der Hoeven Clinic, using the Dutch version of the Structured Interview for DSM-IV Personality Disorders (SIDP; Pfohl, Blum & Zimmerman, 1997) that 66% fulfilled diagnostic criteria for a cluster B personality disorder. Lifetime comorbidity between Axis I and Axis II disorders was 72%; 48% met criteria for at least one substance-related disorder (Hildebrand & De Ruiter, 2004). Seventeen percent of the sample met criteria for schizophrenia or another psychotic disorder. Timmerman and Emmelkamp (2001) studied the prevalence of DSM-III-R Axis I and Axis II disorders with standardised semi-structured interviews in a sample of 39 TBS patients from Forensic Psychiatric Centre Veldzicht. They found 87% received a diagnosis of personality disorder, most often from Cluster B. Only three of the 39 patients were diagnosed with a major mental disorder (schizophrenia, bipolar disorder).

The Dutch forensic mental health field is increasingly aware that forensic treatment needs to be evidence-based. The recent introduction of structured risk assessment instruments has resulted in a focus on treatment of dynamic risk factors for new offences. Most forensic hospitals offer cognitive-behavioural treatments, but thus far, no controlled studies of outcome have been reported. Timmerman and Emmelkamp (2005) conducted a naturalistic follow-up study with 39 forensic inpatients across a three-year follow-up period. They reported a significant decrease on self-report measures of distrust and anger, and a significant decrease in oppositional behaviour on staff ratings, but no effect on pro-social behaviours. Most significant effects were moderate in terms of Cohen's effect size *d*. Greeven and De Ruiter (2004) obtained somewhat more favourable findings with their naturalistic study design in a sample of 59 personality disordered TBS patients. After two years of inpatient forensic treatment, the Personality Disorder Questionnaire-Revised (PDQ-R) showed significant improvement on all personality disorder dimensions, except for histrionic PD. Thirty-nine percent of the sample improved reliably (by more than two standard deviations; Jacobson & Truax, 1991) and 27% also fulfilled criteria for clinically significant change on self-reported personality disorder symptoms. The PDQ-R, however, is a self-report measure and it should be noted that the use of self-report measures to diagnose PDs, in particular in forensic populations, has serious drawbacks because of underreporting (De Ruiter & Greeven, 2000).

Hildebrand, de Ruiter and Van Zaane (submitted) studied 87 mentally disordered offenders during a two-year time interval, from admission to two years into treatment in one forensic hospital, the Van der Hoeven clinic. They used a standardised test battery including semi-structured interviews, self-report inventories, staff observation scales and performance-based personality tests to examine change on dynamic risk factors for violence such as egocentricity, hostility, impulsivity and distrust. In this study, the same risk factor (e.g. hostility) was always assessed using more than one diagnostic method (e.g. staff observation *and* self-report). The results indicated that the patients on average showed very little change on the dynamic risk factors, employing multimethod assessment. Of course, the generalisability of these findings to other forensic hospitals is limited. However, this study shows that it is not easy to effect psychological and behavioural change in patients who are staying in a forensic hospital, even though the assessment instruments that were used had been sensitive to change in earlier research, with other patient populations.

### Future research

In recent years, a number of cognitive-behavioural treatments that were initially developed for other populations have been introduced in the forensic field. Among these are Dialectical Behaviour Therapy (Van den Bosch, 2003), Aggression Replacement Training (Hornsveld, Van Dam-Baggen, Leenaars & Jonkers (2004), Liberman modules and Schema Focused Therapy (SFT; Bernstein, 2006; Bernstein, Arntz & De Vos, 2007). The original treatment protocols had to be adapted for use with forensic patients and these implementation projects included intensive training and supervisory programmes. For example, SFT is now being used with TBS patients diagnosed with antisocial personality disorder. All projects are joined by quasi-experimental research designs, in most cases the experimental treatment is compared with treatment-as-usual. A new feature of these projects, consistent with a growing international clinical research trend, is their multicentre nature; in two of the studies, three or more forensic hospitals are participating. This is an effective way of obtaining a large enough sample and it increases the generalisability of the findings.

As mentioned at the beginning of this article, Dutch forensic psychiatry is currently under close scrutiny. In their respective reports, both the Parliamentary Committee TBS and the Health Council have recommended that major investments should be made in research and development in the forensic field. Studies into the

effectiveness of forensic psychiatric treatments offered are a priority. Only when proven effective risk management strategies are available, can violence risk in mentally disordered offenders be reduced.

### Author's note

Parts of this article were taken from a recent article by Corine de Ruiter and Robert L. Trestman, entitled 'Prevalence and treatment of personality disorders in Dutch forensic mental health services', which appeared in the *Journal of the American Academy of Psychiatry and the Law*, 35, 92-97, in 2007.

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