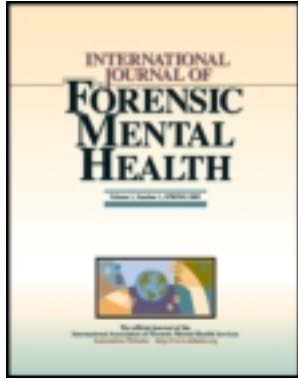


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Publisher: Routledge

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International Journal of Forensic Mental Health

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/ufmh20>

Protective Factors in Forensic Mental Health: A New Frontier

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Available online: 02 Sep 2011

To cite this article: Corine de Ruiter & Tonia L. Nicholls (2011): Protective Factors in Forensic Mental Health: A New Frontier, International Journal of Forensic Mental Health, 10:3, 160-170

To link to this article: <http://dx.doi.org/10.1080/14999013.2011.600602>

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SPECIAL SECTION:
PROTECTIVE FACTORS IN FORENSIC MENTAL HEALTH

Protective Factors in Forensic Mental Health:
A New Frontier

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The field of violence risk assessment has made substantial strides in the past four decades. In large part, these advances reflect the addition of purpose-designed risk assessment measures such as the HCR-20 and COVR as well as the contributions of prolific scholars and state of the art studies (Hodgins' Aftercare Project; Monahan, Steadman et al.'s MacArthur Violence Risk Assessment study). However, important areas of inquiry have been left largely unexplored. The potential incremental value to be added by dynamic risk factors to historical and static factors is relatively unexamined. Yet, changeable factors offer the capacity to identify new opportunities for the prevention and management of violence risk. Similarly, the added value to be offered by a consideration of protective factors in addition to risk factors is only now emerging as a field of inquiry in adult forensic mental health. This special section is dedicated to addressing some of these limitations and provides papers describing two new measures (SAPROF and START) and empirical evidence supporting the role of protective factors in risk assessment and risk management research.

Keywords: dynamic factors, forensic, mental health, protective factors, violence risk assessment

Since John Monahan's now historic monograph, *The Clinical Prediction of Violent Behavior* (Monahan, 1981), in which the poor performance of mental health professionals' violence risk predictions and subsequent decision making was critically evaluated, a lot has changed. Professionals working in forensic mental health services now have a variety of well-validated risk assessment tools at their disposal (for an overview of these tools and their research base, see Otto & Douglas, 2010). The meta-analysis by Mossman (1994) indicated that unstructured clinical violence predictions were more accurate than chance (Area Under the Curve [AUC]

= .67), but less accurate than the mean AUC for actuarial predictions (.78). More recently, Hanson and Morton-Bourgon (2009) reviewed research into the risk of recidivism among sexual offenders and concluded that actuarial risk instruments consistently were more accurate than unstructured clinical judgment in predicting sexual recidivism. There are now also a handful of meta-analyses (Campbell, French, & Gendreau, 2009; Guy, 2008; Singh, Grann, & Fazel, 2011; Yang, Wong, & Coid, 2010) demonstrating that available structured tools are largely interchangeable with respect to predictive validity; the implication being that clinicians can have some confidence in selecting measures that best serve their purpose and population (see also Skeem & Monahan, 2011). Ultimately, the state of the field largely suggests that we should now be redirecting our focus in research and knowledge exchange to advancing primary prevention and

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the reduction of recidivism and reoffending. This seems to be particularly true given that a small minority of individuals tend to be responsible for a large proportion of institutional and societal violence. Research has demonstrated that a large proportion of serious offending is committed by a small segment of the total criminal population (Blumstein & Cohen, 1987) with as little as 6% of individuals accounting for as much as 50% of serious offenses (Coid, 2003; Farrington, Ohlin, & Wilson, 1986). Similarly, in inpatient forensic settings as few as 10% of patients account for as much as 60% of all violent episodes (e.g., Lussier, Verdun-Jones, Deslauriers-Varin, Nicholls, & Brink, 2009).

Risk assessment research shows that violence risk is determined by a combination and interaction of historical (e.g., history of violence, being a victim of child abuse), contextual (e.g., poor social support), and individual/clinical factors (e.g., substance abuse, mental disorder, impulsivity). Despite recognition of the importance of clinical and situational variables to the task, risk assessment instrument development and associated research has focused heavily on factors that are static or stable and thus, difficult or impossible to change, and to a lesser extent on dynamic, changeable risk factors (Quinsey, Harris, Rice, & Cormier, 1998). In 1988, British psychiatrist Sir Michael Rutter (1988) lamented that we know little about “escape from the risk process” (p. 3), and more than two decades later this has not changed in any fundamental way. The adult forensic mental health field has done relatively little to advance our understanding of the management and prevention of violence through a balanced consideration of clients’ strengths (i.e., protective factors) as well as their vulnerabilities (i.e., risk factors).

This special issue includes papers on two relatively new measures that attempt to fill this gap in the field: The *Structured Assessment of Protective Factors for Violence Risk* (SAPROF; de Vogel, de Ruiter, Bouman, & de Vries Robbé, 2009) and the *Short-Term Assessment of Risk and Treatability* (START; Webster, Martin, Brink, Nicholls, & Middleton, 2004; Webster, Martin, Brink, Nicholls, & Desmarais, 2009). The SAPROF was designed as an add-on for use with structured risk assessment tools such as the HCR-20 (Webster, Douglas, Eaves, & Hart, 1997), thereby providing a more balanced and well-rounded approach to informing assessment and management of individuals at risk for violence. The START fills a different niche in that it is intended to structure short-term assessments (days to months) and treatment planning for the diverse mental health concerns (suicide, self-harm, violence, substance abuse, self-neglect, victimization) that arise in caring for and managing persons with mental and personality disorders. The START includes 20 items, each evaluated simultaneously as strength and vulnerability. For instance, a person with substance abuse problems may exhibit insight into the negative effects of his use on its relationships with criminal behavior and might be attending treatment (strength) while still reporting experiencing cravings and using on occasion (vulnerability).

APPROACHES TO RISK ASSESSMENT: THE NEGLECT OF DYNAMIC VARIABLES

Structured risk assessment instruments are traditionally divided into actuarial and structured professional judgment (SPJ) approaches. A third approach, the anamnestic approach, uses behavior analytic techniques to gather information on an individual’s previous offenses, in order to identify risk-relevant intervention targets to reduce the risk of future violence (Heilbrun, Yasuhara, & Shah, 2010). The latter approach will not be discussed further here, because it is entirely ideographic and does not yet have a research base.

Actuarial risk assessment instruments, such as the *STATIC-99* (Hanson & Thornton, 1999, 2000; Anderson & Hanson, 2010) or the *Violence Risk Appraisal Guide* (VRAG; Harris, Rice, & Cormier, 1993; Rice, Harris, & Hilton, 2010) contain a fixed set of risk factors that are scored and entered into an equation, formula, or actuarial table to arrive at a probability estimate of risk. The actuarial judgment method is mechanical and algorithmic (Grove & Meehl, 1996) and has a strong empirical basis. The variables in actuarial instruments are selected on the basis of their association with the outcome (i.e., violent recidivism) derived from empirical studies, either a single dataset or meta-analysis. Another example of an actuarial risk assessment method is the Iterative Classification Tree method derived from empirical data of the MacArthur Risk Assessment Study (see Monahan et al., 2001; Steadman et al., 2000). The Classification of Violence Risk (*COVR*; Monahan et al., 2006) risk assessment instrument revealed high predictive accuracy ($AUC = .88$) in the original derivation sample, but lower AUCs (.63 to .70) in a cross-validation study (Monahan et al., 2005). Advantages of the actuarial risk assessment methods are standardization, transparency, and objectivity. Moreover, risk assessment conducted with actuarial instruments is a rather simple, cost effective, and time-efficient procedure that usually does not require specific training.

There are also a number of important drawbacks to actuarial risk assessment tools, most notably the issue of changeability in risk status (Douglas & Skeem, 2005; Dvoskin & Heilbrun, 2001). With few exceptions, such as the *Level of Service/Case Management Inventory* (Andrews, Bonta, & Wormith, 2010) and the *Violence Risk Scale* (Wong & Gordon, 1999–2003; Wong & Olver, 2010), this type of instrument is of limited value in a treatment setting because the risk factors are not amenable to change. For this reason, actuarial instruments are most useful for moderate to long-term risk ‘predictions’ as opposed to risk management and treatment planning, yet even then they may be poor predictors if clients have improved or deteriorated on dynamic factors. For instance, Olver and Wong (2011) found that dynamic assessments of sexual offenders outperformed static actuarial assessments for offenders who demonstrated treatment gains. The relative

focus in the field to date, on highly stable variables that offer clinicians limited guidance in terms of informing day to day management and interventions and which are insensitive to measuring therapeutic progress likely contributes in large part to our failure to have bridged the gap between research and practice in risk assessment. Despite now nearly 40 years of accumulated research documenting the improvements in accuracy achieved with structured clinical judgment (via actuarial or SPJ instruments), in day to day practice, the most prevalent approach to care planning and decision making is often still unstructured clinical decision making.

A consideration of both conceptual (e.g., Douglas & Skeem, 2005; Dvoskin & Heilbrun, 2001) and empirical (e.g., Elbogen, Mercado, Scalora, & Tomkins, 2002) literature supports the necessity of infusing dynamic variables into assessments of violence risk. In a U.S. study, Elbogen and colleagues (2002) found that clinicians perceived dynamic behavioral variables (e.g., physical aggression whilst in care, impulsive behavior, medication non-compliance) to be significantly more relevant than static-historical factors (e.g., childhood maladjustment, educational history, marital history). Similarly, Crocker, Braithwaite, Coté, Nicholls, and Seto (2011) conducted a Canadian study intended to identify correlates of review board dispositions of Not Criminally Responsible on Account of Mental Disorder cases (Canada's version of insanity acquittees) through prospective, interview-based assessments of risk. The authors found that dynamic, clinical factors were associated with decisions to detain or release NCRMD individuals rather than traditional historical risk factors, such as criminal history. The authors concluded that although less well-established in the literature, dynamic variables seem appropriate for review boards to consider given that changeable characteristics provide direction for the determination of treatment and supervision. Finally, a user-satisfaction study of the START indicated that 81% of clinicians view the measure's attention to changeable variables a particular advantage (Desmarais, Collins, Nicholls, & Brink, 2011). Thus, measures that attend to dynamic variables are more likely to have ecological validity from the perspective of the clinicians and decision makers.

In addition to evidence that clinicians perceive the consideration of dynamic risk variables as essential to violence risk assessment, particularly in the short-term, there are good reasons to refrain from relying solely or largely on static or historical variables when making decisions about civil liberties. From both a legal and ethical standpoint, regardless of the nature of the risk (i.e., violence, suicide, self-harm, substance abuse, general offending), good practice in risk assessment and risk management requires a consideration of dynamic variables that attend to the client's recent and current presentation in addition to static and stable variables. Risk fluctuates (Ogloff & Daffern, 2006) and even high-risk individuals are only violent a small proportion of the time and under particular circumstances (McNiel, 2009). As Ogloff and Daffern (2006) caution, in inpatient psychiatric settings, in-

appropriate restrictive interventions may result in frustration and derailed therapeutic alliances that backfire and actually escalate a patient's risk levels: "Risk assessment instruments that are weighted toward static variables also have limited utility for managing patients' levels of aggression" (p. 802).

These recommendations also reflect a growing body of research pointing to the contribution to the accuracy of risk evaluations made by dynamic variables, particularly in acute and short-term assessments. Some studies suggest measures that emphasize *traits* (e.g., psychopathy; see Hare, 2003) and *historical* risk markers (e.g., HCR-20; Webster et al., 1997) have relatively less utility for predicting acute violence risk (e.g., McNiel, Gregory, Lam, Binder, & Sullivan, 2003) and low-level aggression (i.e., not resulting in injury, not involving weapon use, see Skeem & Mulvey, 2001). In a sample of 50 physically assaultive clients matched with 50 non-assaultive clients in a short-term psychiatric unit, McNiel and colleagues (2003) conducted a pseudo-prospective examination of the HCR-20, the Screening Version of the Hare Psychopathy Checklist-Revised (PCL:SV; Hart, Cox, & Hare, 1995), and the McNiel-Binder Violence Screening Checklist (VSC; McNiel & Binder, 1994). The VSC is a five-item tool intended to assess acute violence risk potential. The median length of stay was 9.5 days and violence was operationalized as physical attacks on persons. In contrast to research involving long-term follow-ups (e.g., Douglas et al., 1999; Nicholls, Ogloff, & Douglas, 2004; Skeem & Mulvey, 2001), only the Clinical subscale of the HCR-20 and the VSC independently contributed to violence prediction in logistic regression analyses. Of note, the VSC and Clinical subscale of the HCR-20 made independent contributions, suggesting they might serve to complement one another in short-term violence risk assessments. McNiel and colleagues concluded that active symptomatology appeared to be more relevant to acute violence risk than historical (e.g., Historical subscale of the HCR-20) or trait (e.g., psychopathy as measured by the PCL:SV) indicators of violence potential.

Webster and colleagues have long recognized the value of including changeable variables in risk assessment and management efforts (Webster, Eaves, Douglas, & Wintrup, 1995; Webster et al., 1997) and there are now a number of measures that encourage evaluators to consider dynamic items (also see Ogloff & Daffern, 2006; Wong & Gordon, 1999–2003). As Borum and Reddy (2001) put it, the clinician should "conceptualize and gauge the client's risk as a dynamic pathway from idea to action" (p. 381).

Structured professional judgment risk instruments such as the HCR-20 and the SVR-20 consist of static *and* dynamic risk factors, supporting their utility in clinical practice. However, in empirical research, the extent of change on the items and their relevance to risk prevention has taken a back seat to the much more prevalent predictive validation studies (for a quantitative review of these studies, see Yang et al., 2010). Despite more than 50 empirical studies of the predictive

validity of the HCR-20 (Guy, 2008), research on its ability to prevent future violence is extremely limited.

Belfrage and Douglas (2002) demonstrated that the dynamic factors in the HCR-20 can indeed change as a result of clinical intervention. In another study designed to examine the extent to which supposed dynamic items are variable over time, Wilson, Desmarais, Nicholls, Hart, and Brink (2010) completed repeated assessments over a one-year period. Research assistants conducted file-based HCR-20 and START assessments using four 3-month intervals with 30 male forensic inpatients. Aggressive incident outcome information was obtained from files using a modified version of the *Overt Aggression Scale* revised for use with the START. The authors found that the historical factors had predictive validity, and, in fact, demonstrated the strongest predictive validity when the follow-up period was nine to 12 months after assessment. However, when the dynamic C and R items and the START vulnerability ratings were included in the prediction model, the historical factors were no longer significant predictors of short-term aggression. Notably, it was the *change* in dynamic item scores that was predictive of future aggression, an attribute unique to dynamic factors. Another study is of particular relevance to our discussion. Colleagues in The Netherlands are conducting a randomized controlled trial that is intended to assess the extent to which assessment with the START and evaluation of care with the client at regular intervals help to prevent violent behavior as compared with a control group receiving no formal method of risk assessment or care evaluation, but care-as-usual. The Risk Assessment and Care Evaluation Study (RACE-study trial number 1042, www.trialregister.nl; Van Den Brink et al., 2009; Troquete et al., 2011) has thus far indicated that by addressing both risk and protective factors and through encouraging active client involvement in care planning, there is a concomitant increase in client satisfaction and longer treatment adherence. But compared to the numerous studies on the ability to predict future violence, studies documenting the relevance of dynamic variables to management and their incremental validity over static or stable variables are rare.

CONCEPTUALIZATION OF PROTECTIVE FACTORS: THEIR POTENTIAL CONTRIBUTION TO VIOLENCE RISK ASSESSMENT AND RISK MANAGEMENT

In 2000, Rogers warned scholars in the risk assessment field that the “overfocus on risk factors is likely to contribute to professional negativism and result in client stigmatization” (p. 598). Hart (2008) noted similar limitations in the field and the potential contribution to be made by protective factors or personal strengths: “All forms of risk assessment appear to share some problems or deficiencies. One is that they tend to focus on factors associated with increased risk, characteristics or features that are inherently negative, rather

than personal strengths, resources, or ‘buffer factors’ [. . .] A comprehensive risk assessment designed to assist in the development of intervention strategies should take into account such positive features” (p. 6). There appears to be a growing wave of support for the inclusion of protective factors in violence risk assessments (e.g., Borum, Lodewijks, & Forth, 2010; Ullrich & Coid, 2011). The benefits of attending to dynamic, protective variables include the reduced likelihood of bias resulting in over-predicting risk and reduced accuracy, as well as perceived fairness in handling within the criminal justice system (Gagliardi, Lovell, Peterson, & Jemelka, 2004; Rogers, 2000). Some authors have asserted that viewing an individual’s potential for violence through a narrow focus on the individual’s risk factors alone may actually lead to “the construction of risk” (Webster, Martin, Brink, Nicholls, & Desmarais, 2009, p. 27).

There are also several potential clinical advantages to attending to protective factors in violence risk assessments: reducing therapeutic nihilism, creating and maintaining a strong therapeutic alliance with the client, and helping clients to identify their strengths, and areas for continued positive growth. Considering protective factors may be a potentially effective means of enhancing insight into an individual’s capacity for growth and recovery and provide a pathway to fostering motivation. Webster and colleagues (2009) asserted that once ascribed, even by very seasoned clinicians and researchers, high risk scores can overshadow discussions and possibly limit imaginative thinking around risk prevention and management. Borum, Bartel, and Forth (2006) similarly proposed that including opposite, protective factors, ought to help assessors consider what “may be integrated in treatment or intervention planning to enhance or facilitate risk reduction efforts” (p. 8).

The continued neglect of protective factors has the potential for important negative social and political implications such as restricting civil liberties unnecessarily and misappropriating limited resources to the wrong individuals. Once an individual is identified as ‘high risk,’ integrating buffers into a case conceptualization and treatment plan may become increasingly difficult. Indeed, in The Netherlands, the introduction of structured violence risk assessment tools in forensic psychiatry in the 21st century, seems to have become paralleled by stricter release policies and the advent of long-stay and long-care facilities for forensic patients (Petrila & de Ruiter, 2011). A comparable development can be seen in the UK, where the number of Dangerous and Severe Personality Disorder (DSPD) offenders who are indefinitely detained or monitored has grown from 2,677 (or 8.7% of sentenced offenders) in 1989 to 7,274 (or 11.5%) in 2006 (de Boer, Whyte, & Maden, 2008). Similar effects are also being seen in other western nations. For instance, in nearly 20 states of the U.S., indeterminate civil commitment of sexually violent predators (SVPs) has been permitted and mental health professionals have testified as experts, using (mostly actuarial) risk-only assessment instruments to judge

a person at high risk of sexual re-offending. This practice has met with serious opposition from both legal scholars (Petrla, 2008) and behavioral scientists (Prentky, Janus, Barbaree, Schwartz, & Kafka, 2006). Obviously, repressive political sentiments and new laws have played an important role in these developments, but the emphasis on static risk factors and risk prediction, to the exclusion of protective factors and risk prevention strategies, has not helped safeguard a realistic balance between risk and rehabilitation. As long as we limit our attention to risk factors in risk assessment measures we have a concomitant limited capacity to foster rehabilitation and thus fulfill the legal mandate put to us to support the recovery and safe community reintegration of (forensic) psychiatric patients, inmates, and clients.

Traditionally, protective factors have received more attention in research into child and adolescent offending trajectories (Farrington, Loeber, Jolliffe, & Pardini, 2008; Loeber, Slot, & Stouthamer-Loeber, 2008) than in research with adults. Protective factors are mostly conceptualized as variables that moderate the effects of risk on problem behavior (Fergusson & Lynskey, 1996; Pollard Hawkins, & Arthur, 1999; Rutter, 1987, 2003). Research has shown that protective factors can act as buffers against risk factors and predict desistance from reoffending in children and adolescents (Lodewijks, de Ruiter, & Doreleijers, 2010; Stouthamer-Loeber, Wei, Masten, & Loeber, 2004). Another study provided support for a compensatory model that assumes main effects of risk and promotive factors on problem behaviors, but failed to find support for a protective effect (van der Laan, Veenstra, Bogaerts, Verhulst, & Ormel, 2010).

There presently exists one structured professional risk assessment tool for youth which incorporates risk and protective factors for violence risk, the *Structured Assessment of Violence Risk in Youth* (SAVRY; Borum, Bartel, & Forth, 2006; also see START: Adolescent Version; Nicholls, Viljoen, Cruise, Desmarais, & Webster, 2010). Although the absence of a risk factor may, in some sense, be considered 'protective,' and used accordingly in risk judgments, the factors contained in the SAVRY (Borum et al., 2006) are all positive protective factors. This means that they are notable for their presence, as opposed to a negative protective factor, notable for the absence of a risk factor. Obviously, the absence of negative attitudes towards school does not automatically mean that the adolescent has positive attitudes towards school. In accordance with Jessor, Van den Bos, Vanderryn, Costa, and Turbin (1995) positive protective factors are conceptualized "as variables that reflect involvement with and commitment to conventional society, that control against nonnormative activities, and that refer to activities incompatible with normative transgression" (p. 931). This definition is consistent with the conceptualization of protective factors by others (Luthar, Cicchetti, & Becker, 2000; Masten, Hubbard, Gest, Tellegen, Garmezy et al., 1999; Rutter, 2003).

As noted previously, research into protective factors for future violence risk in adult forensic psychiatric patients is

limited. Moreover, most studies in adults have focused on general offender samples. For example, employment status has often been found to be a protective factor which influences the risk of delinquent behaviour (see e.g., Gendreau, Goggin, & Gray, 2000; Sampson & Laub, 1990), but also a more subjective employment rating, such as when an offender is able to pinpoint work needs, has been related to reduced risk in a meta-analysis (Gendreau et al., 2000). Being in an intimate relationship (Klassen & O'Connor, 1989) and, more specifically being married, have been identified as protective factors for criminal recidivism, although the quality of the relationship seems of greater importance than merely being married (Odone-Paolucci, Violato, & Schofield, 2000; Sampson & Laub, 2005; Wright & Wright, 1992). In studies of adult samples, the social network seems to have a protective function (Goggin, Gendreau, & Gray, 1998; Hilterman, 2000), although the relationship of the size of the social network with desistance from criminal behaviour has not been supported in every study (e.g., Estroff & Zimmer, 1994) and the preferred size of the network might vary by the individual. As Hodgins (2001) proposed, for instance, patients who prefer to limit their social interactions may be demonstrating insight and limiting their potential for inflicting harm by opting out of events/contacts that they are aware have the potential for being excessively stressful for them. This perspective also has been found in the limited work on desistance and recovery of high risk individuals who go on to not reoffend; these individuals often report limiting their contact with others and to some extent appear to withdraw socially (Haggård, Gumpert, & Grann, 2001).

Recently, in a sample of forensic outpatients ($N = 55$), the relationship between social ties (social contacts and participation in social institutions) and short-term self-reported re-offenses was studied (Bouman, de Ruiter, & Schene, 2010). The results provide evidence for a protective function of club participation (i.e., structured leisure activities) among high-risk patients, as determined by means of the *Level of Service Inventory-Revised*. For violent offences, the protective function of social institutions remained, even when the patient also had network members with a criminal background.

DeMatteo, Heilbrun, and Marczyk (2005) examined psychopathy and protective factors in a normal population sample. Results indicated a significant association between protective factors and subjects PCL-R (Hare, 2003) scores and involvement in criminal behavior. In addition, compared to criminal participants, noncriminal participants endorsed significantly more protective factors. The authors concluded that protective factors might offer insights into why some individuals who appear to be high risk are able to successfully avoid contact with the criminal justice system. Conversely, additional research on protective factors might help to differentiate individuals who appear to be moderate risk but who, due to a lack of protective factors, might actually represent a more substantial risk. Another study found that among Norwegian high-secure patients for whom strength scores on the

START met or exceeded vulnerability scores there was an absence of inpatient physical aggression against staff over a 3-month follow-up period (Nonstad et al., 2010). In sum, a balanced comprehensive assessment of risk that includes a consideration of both risk and protective factors might serve to improve the accuracy of violence risk assessments, and more importantly, might lead to a new generation of empirical studies into risk prevention and risk management.

RISK ASSESSMENT INSTRUMENTS INCLUDING PROTECTIVE FACTORS

Consistent with the conceptualization of protective factors set out in the SAVRY, recently developed structured risk assessment tools for adults have adopted the perspective that protective factors reflect more than merely the absence of risk. With the development of the START and the SAPROF, violence risk assessment research can finally take up the challenge set by Rogers (2000) more than 10 years ago. Obviously, our knowledge on the role and functioning of protective factors can only increase when we start measuring them. Conversely, risk-only assessments limit our capacity to measure and demonstrate positive therapeutic change (Becker & Murphy, 1998).

Early research with these measures is promising. For example, the SAPROF has good interrater reliability and predictive validity for nonreoffending at one and two years after inpatient treatment in a forensic psychiatric hospital (de Vries Robbé, de Vogel, & de Spa, this issue). Also, the SAPROF appears sensitive to treatment efforts as repeated assessments of the same patients over time demonstrated a significant improvement of SAPROF scores. Similarly, a consideration of the average START scores of patients within a forensic service showed that the mean vulnerability (risk) scores decrease and strength (protective) scores increase (at both the item and scale level) as patients move through the care pathway (i.e., secure/locked units to open units within a secure forensic hospital; Nicholls, Desmarais, & Brink, 2009). Preliminary validity and reliability was demonstrated in an early study of START (Nicholls, Brink, Desmarais, Webster, & Martin, 2006) and has been extended in more recent research (Braithwaite et al., 2010; Desmarais, Nicholls, Wilson, Hart, & Brink, 2011; Nonstad et al., 2010; Wilson et al., 2010). Early work on the relevance of the START to acute settings and civil psychiatric populations, including risk of harm to self as well as violence to others and the other adverse patient safety events considered in the START (substance abuse, victimization) are promising (Petersen, Douglas, & Nicholls, 2011). Research has also been conducted to examine the relevance to female psychiatric patients. Much like the HCR-20 (Douglas & Reeves, 2010; de Vogel & de Ruiter, 2005), the START appears to have relevance to both genders (Petersen, Douglas, & Nicholls, 2011b; Nicholls, Petersen, & Brink, 2011). Wilson, Desmarais, Nicholls, and Brink (2010) ex-

amined the capacity of risk and strength variables to inform short-term assessments of violence risk. This study is one of the first to demonstrate the relevance of dynamic variables to short-term evaluations of inpatient aggression. The authors found that the START had a robust relationship with inpatient aggression over short-term follow-ups (3, 6, and 9 months). Analyses indicated that when the total strength score was greater than the vulnerability score, there was a decreased likelihood of aggression during the following 3 months, suggesting a protective role for strengths. Of note, the SPJ final risk judgments of low, moderate and high risk met or exceeded, but were not statistically different from, the AUC values produced by the actuarial sum of the START items. Evidence for the incremental validity of the strengths over the vulnerability scores was not found. In comparison, in another Canadian study of the START, Desmarais, Nicholls, Wilson, and Brink (2011) found that START strength scores added incrementally to the validity of the vulnerability scores when assessing inpatient aggression in forensic psychiatric patients.

THEORETICAL MODELS

Risk factors are positively related to recidivism in empirical research (e.g., Bonta, Law, & Hanson, 1998; Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005; Monahan et al., 2001). However, a comprehensive theoretical model to understand or explain relapse into criminal behavior is hardly ever used in this type of research. Previously, Bonta (1997) has termed this kind of atheoretical identification of risk factors “dustbowl empiricism.”

A comprehensive risk assessment and management model, which is based on theoretical principles, is the Risk-Needs-Responsivity model (RNR) (Andrews & Bonta, 1998; Andrews, Bonta, & Wormith, 2006; Bonta & Andrews, 2007). In RNR, the risk principle “asserts that criminal behaviour can be reliably predicted and that treatment should focus on the higher risk offenders. . . the need principle highlights the importance of criminogenic needs in the design and delivery of treatment; and. . . the responsivity principle describes how treatment should be provided” (Bonta & Andrews, 2007, p. i). As Bonta and colleagues have demonstrated in their Risk-Needs-Responsivity model, the circumstance we want to avoid is interfering too much with the low-risk group and not enough with the high-risk group. Consistent with the field’s call for a consideration of protective factors in risk assessments (Hart et al., 2003; Rogers, 2000), Webster and colleagues assert that a risk assessment that considers only risk factors or that fails to allow ‘high scores’ on protective factors may inadvertently bias assessors.

In an elaboration on the RNR model, Ward, Melsner, and Yates (2007) stated that a reduction of dynamic risk is “a necessary but not sufficient condition for effective treatment” (p. 210), and that, in conjunction with risk reduction, the

promotion of human goods, which “are experiences and activities that are likely to result in enhanced levels of well-being” (Ward, Mann, & Gannon, 2007, p. 90), should be taken into account when formulating treatment plans. In line with this critique, Ward and colleagues (Ward, 2002; Ward & Brown, 2004; Ward, Mann, & Gannon, 2007) developed a treatment model, the Good Lives model, which is a strengths-based approach and offers forensic clinicians guidelines to target human goods (i.e., valued aspects of human functioning and living; Ward & Brown, 2004, p. 246). They proposed “that the best way to lower offending recidivism rates is to equip individuals with the tools to live more fulfilling lives rather than to simply develop increasingly sophisticated risk management measures and strategies” (Ward & Brown, 2004, p. 244). Empirical support for the effectiveness of Good Lives-based risk prevention is still wanting.

A comprehensive model of risk assessment in forensic psychiatric patients should include static, historical risk factors, which help to establish the base rate of risk for future criminal behavior; dynamic risk factors in order to diminish risk; and strengths-based protective factors (Douglas et al., 2001; Farrington & Loeber, 2000; Miller, 2006; Rogers, 2000) to decrease the risk of re-offending and to enhance engagement in treatment through increased emphasis on positive aspects of the patient’s life.

The Good Lives Model is obviously not the only theoretical model that can be used to generate hypotheses that can be tested in risk prevention research that includes protective next to risk factors. All theoretical frameworks that include a focus on positive outcomes and solutions instead of a singular focus on risk and problem behaviors are good candidates for informing research on what works in violence risk prevention. For instance, Ullrich and Coid (2011) point to control theory and the possibility that protective factors such as religion might be regarded as an important socializing institution for promoting law abiding behaviour. Similarly, social learning theory is highly relevant given the protective role of intact and close relationships, absent persons who are themselves drug users, criminals, or violent (Ullrich & Coid, 2011). Another model is solution-focused treatment (SFT; De Jong & Berg, 2008), a relatively new and increasingly popular model of intervention in mental health care. The central assertion of SFT is that the individual’s problem or difficulty (and its causes) need not determine the focus of the intervention. Instead the role of the SFT practitioner is to identify what the individual wants to be different and then to explore and elaborate on that difference (Wand, 2010). A strengths-focused forensic clinician might ask the patient questions such as:

- Given the challenges in your life what strategies have you used, what qualities do you have that have been effective for you?
- Which people have given you special understanding, support, guidance?
- What are your hopes, visions, aspirations?

- When people say good things about you, what are they likely to say?
- When things have gone well in your life is there anything you would attribute that to? (Gutierrez, 2006)

Employing a positive, protective approach in the risk assessment and management of psychiatric patients may affect their responsivity and might make treatment of this population more effective and efficient.

FUTURE RESEARCH

Reflecting the relative dearth of research on protective factors and dynamic risk factors there is no shortage of need for further inquiry. In addition, the SAPROF and START are both new measures in need of cross-validation and psychometric evaluation across geographic regions and cultures, settings/legal contexts, and gender and age groups (e.g., consider the aging population in our forensic institutions). In particular, it is important to determine if measures of this nature demonstrate Differential Item Functioning (DIF) across key demographic groups, such as men and women. In addition, authors have rarely examined these issues in homogeneous samples (in terms of psychopathology, for instance). Research is needed into the extent to which these measures offer useful information across different types of samples and different time-frames (acute, short-term, and long-term risk) and with relevance to specific outcomes (e.g., sexual vs. general violence).

A further area of inquiry that has been left largely untouched to date is the examination of high-risk individuals who are successfully released into the community. In our experience, this neglected aspect of violence risk assessment research is a possibly highly valuable though a challenging undertaking, given that former patients and inmates often are eager to leave their histories well behind them. Not only quantitative studies, but also qualitative case studies, using time series for example, may be valuable in pointing out what role dynamic risk and protective factors put in the balance over time. Consideration of the role of patients in assessments and treatment planning is a further area of study that would appear to have the potential to lend itself to important practice and policy implications. In general clinical assessment, collaborative approaches to assessment have proven highly effective in terms of treatment engagement and treatment response (Fischer & Finn, 2008). Studies should move beyond traditional psychometric and measure validation research to examine the longitudinal effects of cumulative risk and protective factors. Researchers should also examine process, training, and implementation issues (e.g., McNiel et al., 2008). Additionally, previous findings (Wilson et al., 2010) suggest that assessors tend to focus on the vulnerability ratings, to the neglect of the strength ratings, when arriving at the final risk estimate of low, moderate, or high. In other words,

the vulnerability ratings appear to overshadow the strength ratings in the assessors' overall estimate of short-term violence risk. This may be due to a lack of understanding of how to integrate strength factors into an assessment, due to a focus on the psychiatric diagnosis and historical risk variables, or due to the carryover effects from previous risk assessment training and practice focused exclusively on risk. Working in a forensic setting in and of itself may create a bias toward risk factors, given patients are generally admitted based on prior violent behavior and the need to protect society.

Finally, notably absent from the literature are investigations into the effectiveness of risk management and treatment following from risk assessments. Randomized controlled trials, in particular, are relatively rare in our field.

THIS SPECIAL SECTION

The ensuing three articles in this Special Section of *International Journal of Forensic Mental Health* mark the introduction of the SAPROF (de Vogel et al., 2009) in the international peer-reviewed literature.

The rationale for the development of the SAPROF is described in detail in the first article by de Vogel et al., as well as its structure and pilot implementation in a Dutch forensic psychiatric hospital. The article ends with a brief case example which illustrates the use of the instrument in clinical forensic practice, and shows how the use of the instrument alongside a risk-focused instrument, can foster a more collaborative relationship between clinician and patient.

In the second article, de Vries Robbé and his colleagues report the first findings on the predictive validity of the SAPROF in a sample of male forensic psychiatric patients with a violent index offense. The study was retrospective and files were coded by researchers, not clinical staff. SAPROF and HCR-20 scores and final risk judgments were related to official reconstructions for a violent offense at 1-, 2- and 3-year follow-up intervals after release. Results indicated that the SAPROF had good interrater agreement and predictive validity, particularly at the 1- and 2-year follow-up points. The combined SAPROF-HCR-20 rating showed somewhat higher predictive validity than the HCR-20 alone. Furthermore, dynamic SAPROF items showed meaningful changes over the course of treatment, attesting to the utility of the instrument in the planning and evaluation of forensic treatment.

In the final article, Nicholls, Petersen, Brink, and Webster report on the clinical and risk profile of a Canadian forensic population, using the START ($N = 1,059$). Their prospective study was intended to provide insight into the risks and needs of forensic psychiatric patients and also will begin to provide normative data for the START in forensic psychiatric patients. In addition, the article provides some of the first published data on STARTs completed by mental health teams using it in clinical practice. Results revealed excellent

dispersion (at the item, scale, and risk estimate levels, alike) as well as good internal consistency, when completed collaboratively by a treatment team (generally consisting of case managers, nurses and psychiatrists). Male and female patients were considered to present with nearly identical mean strength and vulnerability scores. As such, there were only three strength scores (recreation, social skills, and substance use) and one vulnerability score (emotional state) that was found to differ significantly between the male and female patients. Somewhat unexpectedly, signature risk signs, anticipated by the developers of the measure to be relatively rare, were reported on nearly 1/3 of all STARTs. With regard to the population profile, it is also notable that it was an exception for patients to be rated high risk on any of the violence risk estimates, with the exception of substance abuse.

We have termed the study of protective factors in forensic mental health a "new frontier." The advent of instruments such as the START and the SAPROF makes it possible to explore the roads beyond the frontier. We hope this exploration will result in an increase in our knowledge of what works in risk prevention, in more balanced risk assessments in forensic practice, and an increase in the numbers of safe and successful reintegration of (forensic) psychiatric patients and offenders into society.

REFERENCES

- Anderson, D., & Hanson, R. K. (2010). Static-99: An actuarial tool to assess risk of sexual violent recidivism among sexual offenders. In R. K. Otto & K. S. Douglas (Eds.), *Handbook of violence risk assessment* (pp. 251–267). New York, NY: Routledge.
- Andrews, D. A., Bonta, J., & Wormith, J. S. (2010). The Level of Service (LS) assessment of adults and older adolescents. In R. K. Otto & K. S. Douglas (Eds.), *Handbook of violence risk assessment* (pp. 199–225). New York, NY: Routledge.
- Becker, J. V., & Murphy, W. D. (1998). What we know and do not know about assessing and treating sex offenders. *Psychology, Public Policy, and Law*, 4, 116–137.
- Belfrage, H., & Douglas, K. S. (2002). Treatment effects on forensic psychiatric patients measured with the HCR-20 violence risk assessment scheme. *International Journal of Forensic Mental Health*, 1, 25–36.
- de Boer, J., Whyte, S., & Maden, T. (2008). Compulsory treatment of dangerous offenders with severe personality disorders: A comparison of the English DSPD and Dutch TBS systems. *Journal of Forensic Psychiatry & Psychology*, 19, 148–163.
- Blumstein, A., & Cohen, J. (1987). Characterizing criminal careers. *Science*, 237, 985–991.
- Borum, R., Bartel, P., & Forth, A. (2006). *Manual for the Structured Assessment for Violence Risk in Youth (SAVRY)*. Odessa, FL: Psychological Assessment Resources.
- Borum, R., Lodewijks, H. P. B., Bartel, P., & Forth, A. (2006). Structured Assessment of Violence Risk in Youth (SAVRY). In R. K. Otto & K. S. Douglas (Eds.), *Handbook of violence risk assessment* (pp. 63–79). New York, NY: Routledge.
- Borum, R., & Reddy, M. (2001). Assessing violence risk in Tarasoff situations: A fact-based model of inquiry. *Behavioral Sciences and the Law*, 19, 375–385.

- Bouman, Y. H. A., de Ruiter, C., & Schene, A. H. (2010). Social ties and short-term self-reported delinquent behaviour of personality disordered forensic outpatients. *Legal and Criminological Psychology, 15*, 357–372. [DOI:10.1348/135532509X444528.]
- Braithwaite, E., Charette, Y., Crocker, A. G., & Reyes, A. (2010). The predictive validity of clinical ratings of the Short-Term Assessment of Risk and Treatability (START). *International Journal of Forensic Mental Health, 9*, 271–281.
- van den Brink, R. et al. (n.d.). Risk Assessment and Care Evaluation (RACE) study. Trial number 1042. Retrieved from www.trialregister.nl
- van den Brink, R., Troquete, N., Van Os, T., Schaafsma, G., Schram, A., & Wiersma, D. (2009, June). *Patient self-appraisal of the risk and protective factors of the START*. Paper presented at the 9th annual conference of the International Association of Forensic Mental Health Services, Edinburgh, United Kingdom.
- Campbell, M., French, S., & Gendreau, P. (2009). The prediction of violence in adult offenders: A meta-analytic comparison of instruments and methods of assessment. *Criminal Justice and Behavior, 36*, 567–590.
- Coid, J. W. (2003). Formulating strategies for the primary prevention of adult antisocial behaviour: “High risk” or “population” strategies? In D. P. Farrington & J. W. Coid (Eds.), *Early prevention of adult antisocial behaviour* (pp. 32–78). Cambridge, UK: Cambridge University Press.
- Crocker, A., Braithwaite, E., Côté, G., Nicholls, T., & Seto, M. (2011). To detain or release? Correlates of dispositions for individuals declared not criminally responsible on account of mental disorder. *Canadian Journal of Psychiatry, 56*, 293–302.
- Daffern, M., Howells, K., & Ogloff, J. R. P. (2007). What’s the point? Towards a methodology for assessing the purpose of psychiatric inpatient aggression. *Behaviour Research and Therapy, 24*, 101–11.
- De Jong, P., & Berg, I. K. (2008). *Interviewing for solutions* (3rd ed.). Belmont, CA: Thompson Brooks.
- DeMatteo, D., Heilbrun, K., & Marczyk, G. (2005). Psychopathy, risk of violence, and protective factors in a noninstitutionalized and noncriminal sample. *International Journal of Forensic Mental Health, 4*, 147–157.
- Desmarais, S. L., Collins, M., Nicholls, T. L., & Brink, J. (2011). Perceptions of the Short-Term Assessment of Risk and Treatability as implemented in forensic psychiatric practice. Manuscript submitted for publication.
- Desmarais, S., Nicholls, T. L., Wilson, C., & Brink, J. (2011). Reliability and validity of the Short-Term Assessment of Risk and Treatability in assessing risk for inpatient aggression. Manuscript submitted for publication.
- Douglas, K. S., Ogloff, J. R. P., & Hart, S. D. (2003). Evaluation of a model of violence risk assessment among forensic psychiatric patients. *Psychiatric Services, 54*, 1372–1379.
- Douglas, K. C., Ogloff, J. R. P., Nicholls, T. L., & Grant, I. (1999). Assessing risk for violence among psychiatric patients: The HCR-20 violence risk assessment scheme and the Psychopathy Checklist: Screening Version. *Journal of Consulting and Clinical Psychology, 67*, 917–930.
- Douglas, K. S., & Reeves, K. (2010). Historical-Clinical-Risk Management-20 (HCR-20) Violence Risk Assessment Scheme. In R. K. Otto & K. S. Douglas (Eds.), *Handbook of violence risk assessment* (pp. 147–185). New York, NY: Routledge.
- Douglas, K. S., & Skeem, J. (2005). Violence risk assessment: Getting specific about being dynamic. *Psychology, Public Policy, and Law, 11*, 347–383.
- Dvoskin, J. A., & Heilbrun, K. (2001). Risk assessment and release decision making: Toward resolving the great debate. *Journal of the American Academy of Psychiatry and the Law, 29*, 6–10.
- Estroff, S. E., & Zimmer, C. (1994). Social networks, social support, and violence among persons with severe, persistent mental illness. In J. Monahan & H. J. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment* (pp. 249–295). Chicago, IL: University of Chicago Press.
- Farrington, D. P., Loeber, R., Jolliffe, D., & Pardini, D. A. (2008). Promotive and risk processes at different life stages. In R. Loeber, D. P. Farrington, M. Stouthamer-Loeber, & H. Raskin White (Eds.), *Violence and serious theft. Development and prediction from childhood to adulthood* (pp. 169–230). New York, NY: Routledge.
- Farrington, D. P., Ohlin, C. E., & Wilson, J. Q. (1986). *Understanding and controlling crime: Toward a new research strategy*. New York, NY: Springer.
- Fergusson, D. M., & Lynskey, M. T. (1996). Adolescent resiliency to family adversity. *Journal of Child Psychology and Psychiatry, 37*, 281–292.
- Fischer, C. T., & Finn, S. E. (2008). Developing the life meaning of psychological test data: Collaborative and therapeutic approaches. In R. Archer & S. Smith (Eds.), *Personality assessment* (pp. 379–404). New York, NY: Routledge.
- Gendreau, P., Goggin, C., & Gray, G. (2000). *Case need review: Employment domain*. Saint John, Canada: Centre for Criminal Justice Studies, University of New Brunswick.
- Goggin, C., Gendreau, P., & Gray, G. (1998). *Case needs review: Associates/Social interaction Domain*. Saint John, Canada: Centre for Criminal Justice Studies, University of New Brunswick.
- Grove, W. M., & Meehl, P. E. (1996). Comparative efficiency of informal (subjective, impressionistic) and formal (mechanical, algorithmic) prediction procedures: The clinical-statistical controversy. *Psychology, Public Policy, and Law, 2*, 293–323.
- Gutierrez, P. M. (2006). Integratively assessing risk and protective factors for adolescent suicide. *Suicide and Life-Threatening Behavior, 36*, 129–135.
- Guy, L. S. (2008). *Performance indicators of the structured professional judgment approach for assessing risk for violence to others: A meta-analytic survey* (Unpublished doctoral dissertation). Simon Fraser University, Burnaby, Canada.
- Haggård, U. A., Gumpert, C. H., & Grann, M. (2001). Against all odds: A qualitative follow-up study of high-risk violent offenders who were not reconvicted. *Journal of Interpersonal Violence, 16*, 1048–1065.
- Hanson, R. K., & Morton-Bourgon, K. (2009). The accuracy of recidivism risk assessments for sexual offenders: A meta-analysis. *Psychological Assessment, 21*, 1–21.
- Hanson, R. K., & Thornton, D. (1999). *Static-99: Improving actuarial risk assessments for sex offenders* (User report No.1999–02). Ottawa, Canada: Department of the Solicitor General of Canada.
- Hanson, R. K., & Thornton, D. (2000). Improving risk assessment for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior, 24*, 119–136.
- Harris, G. T., Rice, M. E., & Cormier, C. A. (1993). Violent recidivism of mentally disordered offenders: The development of a statistical prediction instrument. *Criminal Justice and Behavior, 20*, 315–335.
- Hart, S. (2008). Preventing violence: The role of risk assessment and management. In A. C. Baldry & F. W. Winkel (Eds.), *Intimate partner violence prevention and intervention* (pp. 7–18). Hauppauge, NY: Nova Science.
- Hart, S. D., Cox, D., & Hare, R. D. (1995). *The Hare Psychopathy Checklist: Screening Version (PCL:SV)*. Toronto, Ontario, Canada: Multi-Health Systems.
- Heilbrun, K., Yasuhara, K., & Shah, S. (2010). Violence risk assessment tools: Overview and critical analysis. In R. K. Otto & K. S. Douglas (Eds.), *Handbook of violence risk assessment* (pp. 1–17). New York, NY: Routledge.
- Hilterman, E. L. B. (2000). Tijdens de oefening terug naar af. Een onderzoek naar de predictie van ernstige recidive door tbs-gestelden tijdens verlof [Back to square one during treatment. A research of the prediction of severe recidivism by forensic patients during leave]. *Tijdschrift voor Criminologie, 42*, 232–52.
- Jessor, R., Van den Bos, J., Vanderryn, J., Costa, F., & Turbin, M. (1995). Protective factors in adolescent problem behaviour: Moderator effects and developmental change. *Developmental Psychology, 31*, 923–933.
- Klassen, D., & O’Connor, W. A. (1989). Assessing the risk of violence in released mental patients: A cross-validation study. *Psychological Assessment, 1*, 75–81.
- van der Laan, A. M., Veenstra, R., Bogaerts, S., Verhulst, F. C., & Ormel, J. (2010). Serious, minor, and non-delinquents in early adolescence: The

- impact of cumulative risk and promotive factors. The TRAILS study. *Journal of Abnormal Child Psychology*, 38, 339–351.
- Lodewijks, H. P. B., de Ruiter, C., & Doreleijers, T. A. H. (2010). The impact of protective factors in desistance from violent reoffending: A study in three samples of adolescent violent offenders. *Journal of Interpersonal Violence*, 25, 568–587.
- Loeber, R., Slot, N. W., & Stouthamer-Loeber, M. (2008). A cumulative developmental model of risk and promotive factors. In R. Loeber, N. W. Slot, P. H. Van der Laan, & M. Hoeve (Eds.), *Tomorrow's criminals: The development of child delinquency and effective interventions* (pp. 133–161). Farnham, UK: Ashgate.
- Lussier, P., Verdun-Jones, S., Deslauriers-Varin, N., Nicholls, T. L., & Brink, J. (2009). Chronic violent patients in an inpatient psychiatric hospital: Prevalence, description, and identification. *Criminal Justice and Behavior*, 37, 5–28.
- Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71, 543–562.
- Masten, A. S., Hubbard, J. J., Gest, S. D., Tellegen, A., Garmezy, N., & Ramirez, M. (1999). Competence in the context of adversity: Pathways to resilience and maladaptation from childhood to late adolescence. *Development and Psychopathology*, 11, 143–169.
- McNiell, D. E. (2009). Assessment and management of acute risk of violence in adult patients. In P. Kleespies (Ed.), *Evaluating and managing behavioral emergencies: An evidence-based resource for mental health practitioners* (pp. 125–145). Washington, DC: American Psychological Association.
- McNiell, D. E., & Binder, R. L. (1994). Screening for risk of inpatient violence: Validation of an actuarial tool. *Law and Human Behavior*, 18, 579–586.
- McNiell, D. E., Chamberlain, J. R., Weaver, C. M., Hall, S. E., Fordwood, S. R., & Binder, R. L. (2008). Impact of clinical training on violence risk assessment. *American Journal of Psychiatry*, 165, 195–200.
- McNiell, D. E., Gregory, A., Lam, J., Binder, R. L., & Sullivan, G. (2003). Utility of decision support tools for assessing acute risk of violence. *Journal of Consulting and Clinical Psychology*, 71, 945–953.
- Monahan, J. (1981). *The clinical prediction of violent behavior*. Rockville, MD: National Institute of Mental Health.
- Monahan, J., Steadman, H. J., Appelbaum, P. S., Grisso, T., Mulvey, E. P., Roth, L. H., . . . & Silver, E. (2006). The classification of violence risk. *Behavioral Sciences and the Law*, 24, 721–730.
- Monahan, J., Steadman, H. J., Robbins, P. C., Appelbaum, P., Banks, S., Grisso, T., . . . Silver, E. (2005). Prospective validation of the multiple iterative classification tree model of violence risk assessment. *Psychiatric Services*, 56, 810–815.
- Monahan, J., Steadman, H. J., Silver, E., Appelbaum, P. S., Robbins, P. C., Mulvey, E. P., . . . Banks, S. (2001). *Rethinking risk assessment: The MacArthur study of mental disorder and violence*. Oxford, UK: University Press.
- Mossman, D. (1994). Assessing predictions of violence: Being accurate about accuracy. *Journal of Consulting and Clinical Psychology*, 62, 783–792.
- Nicholls, T. L., Brink, J., Desmarais, S., Webster, C. D., & Martin, M. L. (2006). The Short-Term Assessment of Risk and Treatability (START): A prospective validation study in a forensic psychiatric sample. *Assessment*, 13, 313–327.
- Nicholls, T. L., Desmarais, S. L., & Brink, J. (2009, June). The START across the continuum of care: Implementation in a forensic psychiatric service. In T. Nicholls (Chair), *Implementation and evaluation of START in civil and forensic psychiatric services*. Symposium presented at the 9th annual conference of the International Association of Forensic Mental Health Services, Edinburgh, Scotland.
- Nicholls, T. L., Ogloff, J. R. P., & Douglas, K. S. (2004). Assessing risk for violence among female and male civil psychiatric patients: The HCR-20, PCL:SV, and McNeil & Binder's VSC. *Behavioral Sciences and the Law*, 22, 127–158.
- Nicholls, T. L., Petersen, K., & Brink, J. (2011, March). *Field reliability of the START: The relationship between treatment team assessments and diverse patient safety events*. Paper presented at the American Psychology Law Society conference, Miami, FL.
- Nicholls, T. L., Viljoen, J. L., Cruise, C., Desmarais, S. L., & Webster, C. D. (2010). *Abbreviated manual for the Short-Term Assessment of Risk and Treatability (START): Adolescent version. Consultation version*. Port Coquitlam, Canada: BC Forensic Psychiatric Services Commission.
- Nonstad, K., Nettet, M. B., Kroppan, E., Pedersen, T. W., Nöttestad, J. A., Almvik, R., & Palmstierna, T. (2010). Predictive validity and other psychometric properties of the Short-Term Assessment of Risk and Treatability (START) in a Norwegian high secure hospital. *International Journal of Forensic Mental Health*, 9, 294–299.
- Odonne-Paolucci, E. O., Violato, C., & Schofield, M. A. (2000). *A review of marital and family variables as they relate to adult criminal recidivism*. Calgary, Canada: National Foundation for Family Research and Education.
- Ogloff, J. R. P., & Daffern, M. (2006). The dynamic appraisal of situational aggression: An instrument to assess risk for imminent aggression in psychiatric inpatients. *Behavioral Sciences and the Law*, 24, 799–813.
- Olver, M. E., & Wong, S. C. P. (2011). A comparison of static and dynamic assessment of sexual offender risk and need in a treatment context. *Criminal Justice and Behavior*, 38, 113–126.
- Otto, R. K., & Douglas, K. S. (Eds.). (2010). *Handbook of violence risk assessment*. New York, NY: Routledge.
- Petersen, K. L., Douglas, K. S., & Nicholls T. L. (2011, March). *Gender differences in the psychometric properties of the Short-Term Assessment of Risk and Treatability (START) in an acute civil psychiatric sample*. Paper presented at the American Psychology Law Society conference, Miami, FL.
- Petersen, K. L., Douglas, K. S., & Nicholls, T. L. (2011, June). The psychometric properties of the Short-Term Assessment of Risk and Treatability (START) in an acute civil psychiatric population. Paper presented in T. Nicholls (Chair), *The Short-Term Assessment of Risk and Treatability (START): Research in community forensic, acute civil psychiatric, and adolescent populations*. Symposium accepted for presentation at the 11th annual conference of the International Association of Forensic Mental Health Services, Barcelona, Spain.
- Petrila, J. (2008). Because they do horrible things: Fear, science, and the erosion of civil liberties in sexually violent predator proceedings. *Journal of Psychiatry & Law*, 36, 359–387.
- Petrila, J., & de Ruiter, C. (2011). The competing faces of mental health law: Recovery and access versus the expanding use of preventive confinement. *Amsterdam Law Forum*, 3(1), 72–83.
- Pollard, J. A., Hawkins, J. D., & Arthur, M. W. (1999). Risk and protection: Are both necessary to understand diverse behavioral outcomes in adolescence? *Social Work Research*, 23, 145–159.
- Prentky, R. A., Janus, E., Barbaree, H., Schwartz, B. K., & Kafka, M. P. (2006). Sexually violent predators in the courtroom: Science on trial. *Psychology, Public Policy, and Law*, 12, 357–386.
- Quinsey, V. L., Harris, G. T., Rice, M. E., & Cormier, C. A. (1998). *Violent offenders: Appraising and managing risk*. Washington, DC: American Psychological Association.
- Rice, M. E., Harris, G. T., & Hilton, N. Z. (2010). The Violence Risk Appraisal Guide and Sex Offender Risk Appraisal Guide and the Ontario Domestic Assault Risk Assessment and Domestic Violence Risk Appraisal Guide for Wife Assault Risk Assessment. In R. K. Otto & K. S. Douglas (Eds.) (2010). *Handbook of violence risk assessment* (pp. 99–119). New York, NY: Routledge.
- Rogers, R. (2000). The uncritical acceptance of risk assessment in forensic practice. *Law and Human Behavior*, 24, 595–605.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, 57, 316–331.

- Rutter, M. (Ed.). (1988). *Studies of psychosocial risk: The power of longitudinal data*. Cambridge, UK: Cambridge University Press.
- Rutter, M. (2003). Crucial paths from risk indicator to causal mechanism. In B. B. Lahey, T. E. Moffitt, & A. Caspi (Eds.), *Causes of conduct disorder and juvenile delinquency* (pp. 3–26). New York, NY: Guilford.
- Sampson, R. J., & Laub, J. H. (1990). Crime and deviance over the life course: The salience of adult social bonds. *American Sociological Review*, *55*, 609–627.
- Sampson, R. J., & Laub, J. H. (2005). A life-course view of the development of crime. *Annals of the American Academy of Political and Social Sciences*, *602*, 12–45.
- Singh, J. P., Grann, M., & Fazel, S. (2011). A comparative study of violence risk assessment tools: A systematic review and meta regression analysis of 68 studies involving 25,980 participants. *Clinical Psychology Review*, *31*, 499–513. doi: 10.1016/j.cpr.2010.11.009
- Skeem, J. L., & Monahan, J. (2011). Current directions in violence risk assessment. *Current Directions in Psychological Science*, *20*, 38–42. doi: 10.1177/0963721410397271
- Skeem, J. L., & Mulvey, E. P. (2001). Psychopathy and community violence among civil psychiatric patients: Results from the MacArthur Violence Risk Assessment Study. *Journal of Consulting and Clinical Psychology*, *69*, 358–374.
- Steadman, H. J., Silver, E., Monahan, J., Appelbaum, P., Robbins, P. C., Mulvey, E. P., Grisso, T., Roth, L., & Banks, S. (2000). A classification tree approach to the development of actuarial violence risk assessment tools. *Law and Human Behavior*, *24*, 83–100.
- Stouthamer-Loeber, M., Wei, E., Loeber, R., & Masten, A. S. (2004). Desistance from persistent serious delinquency in the transition to adulthood. *Development and Psychopathology*, *16*, 897–918.
- Studer, L. H., & Reddon, J. R. (1998). Treatment may change risk prediction for sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, *10*, 175–181.
- Troquete, N., Van den Brink, R., Van Os, T., Mulder, T., Visser, N., & Wiersma, D. (2011, June). *Effects of risk assessment and shared care planning on violent behaviour and QoL in outpatient forensic psychiatry: A cluster RCT*. Paper presented at the 11th annual conference of the International Association of Forensic Mental Health Services, Barcelona, Spain.
- Ullrich, S., & Coid, J. (2011). Protective factors for violence among released prisoners: Effects over time and interactions with static risk. *Journal of Consulting and Clinical Psychology*, *79*, 381–390. doi: 10.1037/a0023613
- Vogel, V. de, & de Ruiter, C. (2005). The HCR-20 in personality disordered female offenders: A comparison with a matched sample of males. *Clinical Psychology and Psychotherapy*, *12*, 226–240.
- Vogel, V. de, & de Ruiter, C. (2006). Structured professional judgment of violence risk in forensic clinical practice: A prospective study into the predictive validity of the Dutch HCR-20. *Psychology, Crime and Law*, *12*, 321–336.
- Vogel, V. de, de Ruiter, C., Bouman, Y., & de Vries Robbé, M. (2009). *SAPROF: Guidelines for the assessment of protective factors for violence risk* [English version of the Dutch original]. Utrecht, The Netherlands: Forum Educatief.
- Webster, C. D., Eaves, D., Douglas, K., & Wintrup, A. (1995). *The HCR-20 scheme: The assessment of dangerousness and risk*. Burnaby, Canada: Simon Fraser University and BC Forensic Psychiatric Services Commission.
- Webster, C. D., Douglas, K. S., Eaves, D., & Hart, S. D. (1997). *HCR-20: Assessing the risk of violence. Version 2*. Vancouver, Canada: Simon Fraser University and BC Forensic Psychiatric Services Commission.
- Webster, C. D., Martin, M. L., Brink, J., Nicholls, T. L., & Desmarais, S. (2009). *Manual for the Short-Term Assessment of Risk and Treatability (START) (Version 1.1)*. Port Coquitlam, BC: Forensic Psychiatric Services Commission and St. Joseph's Healthcare.
- Webster, C. D., Martin, M. L., Brink, J., Nicholls, T. L., & Middleton, C. (2004). *Manual for the Short Term Assessment of Risk and Treatability (START) (Version 1.0 Consultation Edition)*. Port Coquitlam, Canada: Forensic Psychiatric Services Commission and St. Joseph's Healthcare.
- Wilson, C., Desmarais, S., Nicholls, T. L. & Brink, J. (2010). The role of strengths in assessments of short-term violence risk. *International Journal of Forensic Mental Health*, *9*, 282–293.
- Wilson, C. M., Desmarais, S. L., Nicholls, T. L., Hart, S. D., & Brink, J. (2010). *Incremental validity of dynamic factors in the assessment of violence risk using the HCR-20 and START*. Manuscript submitted for publication.
- Wong, S. C. P., & Gordon, A. (1998–2003). *Violence Risk Scale*. (Available from the authors, Department of Psychology, University of Saskatchewan, Saskatoon, Saskatchewan, Canada S7N 5A5, or online at <http://www.psynergy.ca>).
- Wong, S. C. P., & Olver, M. E. (2010). Two treatment- and change-oriented risk assessment tools: The Violence Risk Scale and Violence Risk Scale-Sexual Offender Version. In R. K. Otto & K. S. Douglas (Eds.), *Handbook of violence risk assessment* (pp. 121–146). New York, NY: Routledge.
- Wright, K. N., & Wright, K. E. (1992). Does getting married reduce the likelihood of criminality? A review of the literature. *Federal Probation*, *56*, 50–56.
- Yang, M., Wong, S. C. P., & Coid, J. (2010). The efficacy of violence prediction: A meta-analytic comparison of nine risk assessment tools. *Psychological Bulletin*, *136*, 740–767.