

Chapter 2.2

Violence Risk: From Prediction to Management

Kirk Heilbrun

MCP Hahnemann University, USA

INTRODUCTION

There has been enormous progress in violence risk assessment during the last decade. Much of this progress has been seen in the improved capacity to accurately identify individuals at high risk for future violent behavior, in populations including adults with severe mental illness (Monahan et al., 2001; Steadman et al., 1998), correctional populations (Douglas and Webster, 1999; Andrews and Bonta, 1995), mentally disordered offenders (Webster et al., 1997; Quinsey et al., 1998), and sexual offenders (Hanson, 1998). Associated with these advances have been both conceptual changes (Monahan and Steadman, 1994a; Steadman et al., 1994) and implications for improved practice (Dvoskin and Heilbrun, 2001).

The term 'risk assessment' may be construed narrowly, to describe the process of identifying risk of future violence and enhancing the accuracy of predictions of such future violence. It may also be considered more broadly, to include the areas of *risk management* (identifying and delivering interventions to reduce the risk of future violent behavior), *decision-making* (drawing conclusions and determining consequences in light of the information obtained in the two previous steps), and *risk communication* (describing the process and outcome of the entire assessment process). Whether 'risk assessment' is considered broadly or narrowly, however, it is important to consider the interrelationship of these four areas.

The great majority of work in risk assessment during the last decade has been focused on prediction and risk level classification. However, there has been an increasing recognition during recent years of the importance of risk management, both as a frequent priority of legal decision-makers, clinicians, and policy-makers, and an important consequence of the larger assessment process (Carson, 1994; Heilbrun, 1997).

The present chapter will focus on risk management, and has two major purposes. First, we will describe recent conceptual, empirical, and practice advances in risk management. Second, we will discuss the implications of the changes in each of these areas, and describe strategies that might yield important further advances.

THEORETICAL ADVANCES IN RISK MANAGEMENT

One of the most important conceptual advances in both prediction/classification and risk management occurred with the disaggregation of the term ‘dangerousness’, which even today often appears in law, policy, and practice. This term was divided into three components—*risk factors* (influences associated with the probability that violence will occur, as contrasted with protective factors, which are influences that reduce the likelihood that violence will occur), *harm* (the nature and severity of the results of the violent behavior), and *risk level* (the probability that violence will occur)—by the National Research Council (1989). This separation facilitated the specific consideration of each of these areas in theory and research.

This distinction subsequently provided an important influence on the risk assessment project conducted by the MacArthur Research Network on Mental Health and Law (Steadman et al., 1998). The MacArthur Network reconceptualized the research task from dangerousness (the legal construct) to violence risk, a decision that was to greatly facilitate their subsequent research in the area of violence (Steadman et al., 1993). This reconceptualization included the following changes: (1) predicted harm should be scaled in terms of seriousness rather than treated dichotomously (e.g. harm vs no harm), (2) risk should be treated as a continuous variable (e.g. probability of harm) rather than in dichotomous fashion (e.g. risk vs no risk), and (3) risk should be assessed in ongoing fashion rather than on a single occasion, since risk levels may fluctuate over time and with interventions (Monahan and Steadman, 1994b).

The latter point, concerning risk assessment as an ongoing process, was also emphasized by Carson (1994) in his discussion of the elements of dangerousness. He noted that most of the focus in the literature on dangerousness had been in the area of individual and situational risk factors for violence. However, the components of decision-making and the multiple instances in which risk decisions are often made were also described as important considerations in the process of risk assessment. The concept of multiple assessments over time was considered as well in a discussion of the ‘prediction vs management’ distinction in risk assessment—multiple assessments across time are characteristic of risk management, while predictions made in legal contexts are typically made on a one-time-only basis (Heilbrun, 1997).

During the last five years, three books have been published that are particularly relevant to violence risk reduction in mentally disordered offenders. The first (*Treatment of Offenders with Mental Disorders*; Wettstein, 1998) offers administrative and legal perspectives on the treatment of mentally disordered offenders. It also provides chapters

on treatment offered in a variety of settings (inpatient, jail and prison, community) and to specialized populations (sexual offenders, juveniles, offenders with mental retardation). These chapters typically involve an integration of the author's experience with relevant practice literature, accompanied by some empirical studies, yielding guidelines and principles on a given topic. However, a number of contributing authors stressed the relative absence of empirical research on violence risk management that was available through the mid-1990s.

The second book (*Violence Among the Mentally Ill: Effective Treatments and Management Strategies*; Hodgins, 2000a) describes the proceedings of a NATO Conference on risk management in mentally disordered offenders. This conference brought together researchers and practitioners from Europe, Canada, and the United States to focus on what was known about treatment and rehabilitation of mentally disordered offenders, and the relationship of such interventions to violence and crime risk. Some of the empirical studies cited in this conference will be described in the next section of this chapter. Broadly, however, the results of the conference reflected significant cultural differences with important implications for risk management. Researchers describing European cohorts observed a fairly strong, stable relationship between severe mental illness and violent offending (e.g. Tiihonen and Swartz, 2000; see also Volavka and Krakowski, 1989), while Canadian and US researchers noted a much weaker relationship between these variables (e.g. Monahan and Appelbaum, 2000). It may be that different base rates of violent offending and the differential presence of other risk factors (e.g. poverty, substance abuse, weapon access) in these countries can account, in part, for this phenomenon. This does suggest, however, that risk management research findings are somewhat culture-specific; effective risk reduction strategies for Sweden or Germany might be less effective in the United States. Certainly this pattern seemed to explain differences among conference participants in their respective orientations to risk management. Western European researchers and practitioners argued that effectively treating clinical symptoms would necessarily reduce the risk of patients' future violent offending. Canadian and US participants suggested with equal vigor that effective risk reduction must encompass a host of quasi-clinical and non-clinical risk factors (e.g. housing, social support, weapon access). Interestingly, both groups may have been accurate—regarding their respective countries.

The third book (*Violence, Crime, and Mentally Disordered Offenders: Concepts and Methods for Effective Treatment and Prevention*; Hodgins and Müller-Isberner, 2000) provides a perspective somewhat similar to that offered by Wettstein, although dividing offenders by diagnosis and intervention modality rather than setting. The chapters also reflect greater cultural diversity and international perspectives, with contributors from Europe, Canada, and the United States. One of the assumptions underlying the organization of this book involves the nature of the link between clinical diagnosis/symptoms and violent behavior. With 5 of the 10 chapters devoted to describing violence treatment and prevention strategies for individuals in particular diagnostic categories, Hodgins and Müller-Isberner apparently used the 'European perspective' (described in the previous paragraph) to organize much of the material about violence risk reduction with mentally disordered offenders.

Some recent promising developments in risk management have occurred through a particular focus on dynamic (potentially changeable through planned intervention) violence risk factors. Hanson (1998) distinguished between *stable* and *acute* dynamic risk factors, with the former having more stability over time and across situations (e.g. substance dependence) and the latter inclined to shift more rapidly (e.g. intoxication). This distinction has implications for the selection of dynamic risk factors as treatment targets (Hanson and Harris, 2000), as the measurement frequency and monitoring efforts should be adjusted according to the stability of the risk factor.

A more structured approach to describing and rating dynamic risk factors has recently been adopted with the revision of the HCR-20 (cite manual, with detailed descriptions of potential treatment strategies for the C (Clinical) and R (Risk Management) factors that are elevated (Douglas and colleagues, in press). This manual offers strategies for those involved in delivering risk-reduction interventions; it also provides important clues for researchers investigating the impact of such interventions. The revision may facilitate the expanded use of the increasingly popular HCR-20 by allowing the clinician to plan interventions more systematically. It may also facilitate the validation research of the C and R sections, which is greatly needed.

EMPIRICAL ADVANCES IN RISK MANAGEMENT

This section will focus on studies describing risk-reduction interventions. Measuring the frequency of violence as an outcome is an essential part of such research. One reasonable strategy in selecting outcome measures involves focusing on dynamic risk factors; however, the most basic element of violence risk research—the *sine qua non* of outcomes—involves the measurement of violence and aggression. Of course, that the proper measurement of violence as an outcome presents enormous practical problems. Ideally, such an outcome would be measured prospectively, using information from multiple sources (including self-report, collateral observer report, and official records of arrest and hospitalization). Few studies meet this standard (see Lidz, Mulvey and Gardner, 1993; Steadman et al., 1998; Swartz et al., 1998a, 1998b, for noteworthy exceptions). More often, investigators have used outcome sources such as official records of arrest or rehospitalization for a violent act. Limiting the measurement of violence outcome by employing only official records can present very significant problems in countries such as the United States, in which violent behavior among the mentally disordered in the community may occur at six to seven times the rate reflected in official records (Steadman et al., 1998). Using records as a sole source of violence outcome is less problematic in countries where such records more accurately reflect the violence that has actually occurred. However, scholars still need to provide a description of why such records should be considered an accurate reflection of the base rate of violence in the population being studied.

Research on risk management can be conceptualized on three levels. First, there are studies that measure the impact of a *single intervention* on subsequent violence.

An example might involve problem-solving therapy, with manualized administration in an efficacy design, compared with a control group receiving standard treatment. Second, a study may consider the impact of a *programmatic intervention*, involving multiple components. An example of this level of intervention might involve a hospital unit designed following a careful investigation of patient risk-reduction treatment needs, or the impact of a community intervention with multiple components, such as intensive case management. As the nature of the intervention being investigated becomes broader, it becomes much more difficult to conduct an efficacy study; it is also very difficult in violence research to meet such efficacy criteria as random assignment of participants to condition. Consequently, most studies in this area are effectiveness studies. (Efficacy studies employ controlled designs such as clinical trials to assess outcomes under ideal conditions, and tend to have high internal validity that results from the carefully controlled conditions. Effectiveness studies focus on the outcomes of interventions made under 'usual practice' conditions; they are weaker in internal validity but stronger in external validity considerations such as generalizability (see Wells, 1999). Finally, a risk management study at the broadest level may investigate a *policy intervention*. For example, a change in the law pertaining to conditional release of insanity acquittees, or outpatient commitment, can provide an opportunity for research on the impact of such an intervention.

There have been a number of relevant and potentially important empirical studies conducted in the area of violence risk management during the last decade. These studies will be described in the remainder of this section. In the interest of conceptual clarity, they will also be considered on *individual*, *programmatic*, and *policy* levels whenever feasible. Hodgins (2000b) has addressed the etiology and development of offending by persons with mental disorders by citing her own programmatic research and that of other investigators in hypothesizing two broad groups of offenders: early start and late start. Within 'early start' offenders, she further suggested that there are subgroups consisting of those with primary conduct disorder and those with primary substance use problems. Such focus on etiology and development of offending, she noted, has two major advantages: (1) it identifies historical influences more accurately, and yields clues about the mechanisms involved in influencing the disorder and the offending, and (2) it provides some indication of the extent to which certain characteristics may be modifiable risk factors for offending. The latter advantage has implications for both individual and programmatic risk reduction interventions, as the accurate identification of such subtypes would allow either single or multiple forms of a certain intervention that could work reasonably well for one type of offender but not for another. For example, there is some evidence to suggest that interventions delivered in a therapeutic community have an offense risk-reducing effect on individuals who are not psychopaths, but no impact (or possibly even a risk *exacerbating* effect) on psychopaths (Rice, Harris and Cormier, 1992).

The impact of situational variables on violence risk has received less attention than it should (Sampson and Lauritsen, 1994). Poverty, for example, is a potent risk factor for violence among individuals with mental disorders who have been discharged from inpatient treatment into the community (Silver, Mulvey and Monahan, 1999).

A careful examination of the circumstances surrounding violent acts, including the setting and target of the acts and the use of drugs, alcohol, and/or medication by the individual who is behaving violently, can yield important clues about interventions that would reduce the risk of such violence—particularly when contrasted with occasions on which violence could have occurred, but did not (Steadman and Silver, 2000). Situational influences can be particularly important in risk-reduction interventions delivered on an individual level (e.g. treatment and monitoring for substance abuse; the administration of psychotropic medication via injection rather than orally for an individual who has been non-compliant with taking prescribed medication). Considering situational influences carefully can also help to disaggregate the impact of policy-level interventions.

Rates and risk factors for violence among individuals with mental disorder in the community, described in the MacArthur Risk Assessment study (Steadman et al., 1998), yielded several important clues for violence risk reduction (Monahan and Appelbaum, 2000). Differential diagnosis may be more important in risk reduction than risk assessment, as diagnostic categories may constitute one kind of relevant subtype of individuals who are potentially violent (Rice and Harris, 1997). Consistent with this, the following ‘MacArthur clues’ to risk reduction may be particularly useful for planning interventions: (1) substance abuse, (2) anger control, and (3) social support (Monahan and Appelbaum, 2000). Interventions that effectively reduce problems in any of these areas may have an associated impact on reducing violence risk. The impact of substance abuse, in particular, has also been cited in a number of other recent studies that include schizophrenia as well as depression among the disorders at risk for violence (e.g. Eronen, Hakola and Tiihonen, 1996; Hodgins et al., 1996; Swartz et al., 1998a, 1998b).

There is some evidence that when ‘violence’ is defined as conviction for a violent criminal offense, individuals with mental disorder generally are at greater risk than those without mental disorder. Describing a Danish birth cohort over a 43-year outcome period, Hodgins and colleagues (1996) observed that individuals with a history of psychiatric hospitalization were more likely to have been convicted of a criminal offense. In a related vein, the diagnoses of substance abuse and/or antisocial personality disorder, particularly when they co-occur with schizophrenia, may result in an elevated risk for violence among those with such disorders (Bloom, Muesser and Müller-Isberner, 2000). Bloom and colleagues (2000) also addressed the impact of several promising interventions with this population that may have violence risk-reducing impact resulting from general improvement in clinical and social functioning: (1) psychosocial treatment for severe mental illness, (2) assertive community treatment, (3) family intervention, (4) supported employment, (5) social skills training, (6) integrated dual diagnosis treatment, (7) cognitive therapy for psychosis, and (8) medication.

The intervention of medication more specifically for this population is addressed in two NATO Conference chapters (Hodgins, 2000a). In the first, the authors discussed the use of medication in preventing violence among the mentally ill with secondary

substance use disorders (Tiihonen and Swartz, 2000). After summarizing evidence suggesting that major mental disorders and substance abuse are associated with increased risk of violent offending, they noted an unfortunate gap in the empirical literature. Although some pharmacological interventions have demonstrated symptom-reducing efficacy among those with major mental disorder, and others have shown such efficacy in those with substance abuse, there are no published controlled studies on the efficacy of medication in reducing the risk of violence among those with such disorders, or among those with co-occurring disorders. There *is* evidence that poor compliance with prescribed medication, combined with substance abuse, significantly *elevates* the risk for violent behavior in patients with major mental disorder (see, e.g. Swartz et al., 1998a, 1998b). However, in the area of co-occurring major mental disorders and personality disorders, there is limited available evidence accompanied by a proposed research agenda to address this deficit (Volavka and Citrome, 2000).

The data suggesting that a certain kind of personality disorder—psychopathy—is a risk factor for violence and violent crime continues to be impressive (Douglas et al., 1999; Douglas and Webster, 1999; Hare, 1991; Hare et al., 2000; Harris, Rice and Quinsey, 1993; Monahan et al., 2001; Salekin, Rogers and Sewell, 1996; Serin, 1996; Steadman et al., 1998). However, evidence for the role of personality disorder more broadly is much less clear (Burke and Hart, 2000). This pattern has important implications for risk-reduction interventions, in the following sense. Psychopathy appears to be a strong static risk factor for violence; although violence risk diminishes with age, no planned interventions have yet been shown to be effective in reducing violence risk for psychopaths. This may be less true for other kinds of personality disorders—such disorders may be more amenable to risk-reducing interventions—but we do not have the empirical evidence to determine whether this is so. Because of the weak state of available scientific knowledge, Burke and Hart (2000) invoke the correctional rehabilitative principles of *risk* (treat and monitor high risk individuals more intensively), *need* (target interventions to criminogenic need), and *responsivity* (determine who is most likely to respond to such interventions) in offering guidance for risk reduction with individuals with personality disorders.

Particular strategies for reducing the risk of violence in the community were addressed in two articles (Heilbrun and Peters, 2000a, 2000b) and related commentary (McGuire, 2000) on this topic. The relative lack of programmatic research on either effectiveness or efficacy of single interventions, programs, or policies was observed (although programs typically do not offer violence risk reduction as a first priority; see Høyer, 2000). However, Heilbrun and Peters (2000a, 2000b) did cite some empirical support for certain community interventions to reduce violence and criminality:

- (1) identification and prioritization of violence risk reduction among program goals (allowing the program to be evaluated on its performance in this area),
- (2) conditional release,
- (3) intensive case management,

- (4) skills-based training delivered by those experienced with forensic populations,
- (5) a range of services including housing support, vocational assistance, and clinical treatment, and
- (6) a particular focus on rehabilitating and preventing substance abuse.

The design of community treatment programs and policies should consider the range of risk factors identified through meta-analysis with mentally disordered offenders (Bonta, Law and Hanson, 1998) and target dynamic risk factors among those identified in this study; this conceptually links risk-reduction strategies in correctional and community forensic settings (McGuire, 2000).

Two particular policy-level aspects of risk-reduction intervention in England and Wales are the restriction order and the community treatment order (Ferris, 2000). The former involves a judge's order for an individual to be hospitalized rather than imprisoned following conviction for a serious criminal offense; conditional discharge (comparable to 'conditional release' in North America; see previous paragraph) is made when the patient is ready to leave the hospital, but the discharged patient must usually accept psychiatric and social supervision. The latter is comparable to the North American policy of outpatient commitment, which has received recent support as a mechanism for reducing arrests in a one-year randomized trial of outpatient commitment of 262 participants with severe mental illness (Swanson et al., 2001). Outpatient commitment is a controversial and much-debated policy in the United States, currently also in use in Australia and New Zealand, and debated but not presently operative in the United Kingdom. Evidence from recent studies suggests that despite its potential impingement upon autonomy and civil liberties, however, outpatient commitment has the potential to significantly reduce violent and criminal behavior among the severely mentally ill in the community.

ADVANCES IN THE PRACTICE OF RISK MANAGEMENT

The advances in risk-reduction planning and implementation have not kept pace with the significant improvements in the prediction of violent behavior and classification of risk. It is worth noting, however, that the area of risk management is approximately at the stage of risk assessment 10–15 years ago. There is growing awareness of the importance of conducting programmatic research to identify interventions—single, programmatic, and policy-level—that have demonstrated efficacy and effectiveness in reducing the likelihood of future violent behavior. It is possible to identify research that is fragmented, conducted with small samples, or performed at single sites that yields promising possibilities. This will be addressed in this section. What has not occurred, however, is the identification of risk management in the severely mentally ill as a research priority by a group such as the MacArthur Research Network on Mental Health and Law—followed by conceptual reconsideration and a multi-site,

large-scale empirical study. Such an occurrence would provide a tremendous boost to the area of risk management, as it has previously for risk assessment.

Nonetheless, it is possible to identify important advances in the practice of risk management. Developments in four areas will be discussed:

- (1) the use of the individualized principles of risk, need, and responsiveness, and the use of anamnestic assessment (deriving individualized risk factors from the individual's history of violent behavior) to designate specific interventions for individuals with severe mental illness,
- (2) the use of structured tools with risk management components, such as the HCR-20 (Webster et al., 1997) and the LSI-R (Andrews and Bonta, 1995), to guide the selection of risk-reducing interventions,
- (3) the empirical identification of prominent, risk-relevant treatment needs, perhaps accompanied by empirically defined 'clusters' of patients who have different patterns of needs, to develop specialized programs, and
- (4) the application of emerging standards of practice, influenced by research, in designing programs and policies with risk reduction among their highest priorities.

Using the principles of risk, need, and responsiveness can make the linkage between risk level classification and risk reduction more meaningful. When tools such as the HCR-20 (Webster et al., 1997) or the VRAG (Harris, Rice and Quinsey, 1993) are used to assign an actuarial risk level to an individual, this level gives no direct guidance on what should be done to manage or reduce this risk (particularly since actuarial scales tend to be composed primarily of demographic and historical variables that are static risk factors). 'High risk' individuals may be high risk because of intensive treatment needs, which would suggest the need for a longer period of rehabilitation and more conservative release decision-making, and requiring the demonstration of non-aggressive, responsible behavior at each of a series of graduated levels. Alternatively, such individuals may be high risk for reasons (e.g. psychopathy) that apparently cannot be altered through planned interventions, at least presently. Making this distinction for a given individual can be difficult. The anamnestic approach (Melton et al., 1997) involves using an individual's history to identify patterns of behavior to yield a number of dynamic risk factors, *associated with that individual's previous violent acts* that may be described as applicable risk factors that can then guide the selection of intervention strategies.

With the development of tools such as the HCR-20 and the LSI-R, it has become possible to assess risk-relevant needs in a systematic, semi-structured fashion. Both tools have a number of items that represent common risk factors for the mentally ill and correctional populations, respectively, to which they primarily apply. When deficits on these items are endorsed, it allows the treatment team or rehabilitative staff to develop an intervention plan that explicitly includes these particular risk-relevant deficits.

The HCR-20 has recently been expanded to provide more guidance for interventions that are targeted toward each of the C (Clinical) and R (Risk Management) items that are problematic (Douglas et al., in press), making it easier to apply toward risk management.

Rather than identifying risk factors through individualized history or structured tools, Quinsey and colleagues (1998) have proposed a different approach to planning and delivering risk-reduction services. They describe a project that began with a series of studies assessing the interpersonal, psychiatric, and criminal problems in a cross-section of mentally disordered offenders in Canada (Quinsey, Cyr and Lavalee, 1988; Rice and Harris, 1988; Rice et al., 1990) by surveying staff familiar with the offenders. Individual problems were factor analyzed to yield Clinical Problem Scales (Life Skills Deficits, Aggression, Health Problems, Management Problems, Family Problems, Social Withdrawal, Active Psychotic Symptoms, and Depression). These scales were then cluster analyzed to identify relatively homogeneous subgroups of mentally disordered offenders with comparable patterns of scores. Paired with risk levels obtained from the VRAG, a total of eight clusters could be identified:

- (1) *'low risk, low need'* individuals (30%),
- (2) *'low risk, moderate need'* individuals with needs often associated with chronic psychiatric problems, such as social withdrawal, life skills deficits, depression, family problems, and active psychotic symptoms (17%),
- (3) *'high risk, low need'* individuals, described as *'model patients but dangerous'* (16%),
- (4) *'high risk, moderate need'* individuals with needs in the areas of management and aggression (11%),
- (5) *'low risk, high need'* individuals with clinical problems in the areas of Aggression, Management, and Active Psychotic Symptoms (6%),
- (6) *'low-moderate risk, high need'* individuals with problems in the areas of Life Skills Deficits, Active Psychotic Symptoms, and Social Withdrawal (9%),
- (7) *'high risk, high need'* individuals with problems in Aggression and Management (4%), and
- (8) *'moderate risk, high need'* individuals with significant problems in every area (Quinsey et al., 1998).

A treatment facility could use this approach to identify clusters specific to its jurisdictions, then consider each cluster in assigning ward or planning programming. This approach has considerable promise in the effective delivery of risk-reducing interventions, although it apparently has not been empirically studied to date.

All three of the advances reviewed thus far in this section are concerned with the planning and allocation of risk-reducing interventions. We will suggest 10 kinds of interventions that have received some combination of empirical and conceptual support as risk factors for violent behavior among mentally disordered offenders, as described earlier in this chapter. While each of these appears ‘promising’, a clearer verdict on the risk-reducing potential of each will await the results of programmatic research on the delivery of such interventions, under somewhat controlled conditions, to different groups of mentally disordered offenders, in different contexts and sometimes in different combinations, with results gauged by using sensitive outcome measures of violence that include self- and collateral report in addition to official records. These interventions will be described at the individual, program, and policy levels. First, there are seven individual-level interventions that appear promising: (1) substance abuse treatment, particularly when designed for individuals with co-occurring disorders, (2) anger control training, (3) family interventions and social support, (4) employment assistance and vocational training, (5) psychotropic medication, (6) housing support, and (7) other clinical services to address symptoms such as violent fantasies. Second, two interventions could be described at the programmatic level. They are psychosocial rehabilitation/skills-based training in a broad range of skills important in vocational and interpersonal functioning, and specialized case management (Assertive Community Treatment and intensive case management are two of the best examples). Finally, at the broadest policy level, the supervised treatment and management that occurs in the community under policies such as conditional release and outpatient commitment have demonstrated value in reducing violence risk.

DISCUSSION

One of the challenging aspects of writing a review chapter on the current status of violence risk reduction for individuals with mental illness is to be appropriately critical of what has been accomplished—but to acknowledge that risk reduction is an enormously important endeavor that is being practiced (and must be practiced) whatever the state of the science. There is no question that the field of risk assessment has made tremendous progress during the last decade (Borum, 1996; Otto, 2000). Likewise, it seems clear that the field has increasingly acknowledged the importance of risk management (Carson, 1994; Heilbrun, 1997; Hodgins, 2000●; Monahan and Steadman, 1994●), and perhaps is ready to embark upon its systematic study during the next decade.

It will not be easy. Even promising interventions, in order to be studied appropriately, must be considered using designs that control the nature and level of intervention, and the assignment of recipient, in ways that are difficult or impossible in criminal justice or civilly committed populations. Persuading a human subjects committee, hospital administrator, or chief judge to approve a study in which ‘experimental’ and ‘violence’ both appear in the title can be a task of Herculean proportion. Yet it can be done (see, e.g. the programmatic work of North Carolina researchers on outpatient

Table 2.2.1 Studies that would assess the impact of violence risk-reduction interventions

Study	Control/ comparison group	Experimental group	Outcome 1	Outcome 2
Impact of intensive, specialized substance abuse treatment	Usual practice	Practice + intensive Substance abuse treatment for dually diagnosed	Substance abuse variables	Violent behavior measured by self-report, collateral report, and official records
Impact of manualized anger control training	Usual practice	Practice + manualized anger control training	Anger experience and control variables	Same
Impact of programmatic interventions to 'risk/need' clusters	Usual practice	Clusters receiving interventions designed to address needs and consider risk	Specific needs targeted by interventions	Same
Impact of intensive release planning/intensive case management	Usual practice	Practice + intensive release planning/intensive case management	Adjustment perceived support access to services compliance with plan	Same
Impact of outpatient commitment	Usual practice	Practice + release on outpatient commitment	Adjustment compliance	Same

commitment—Swanson et al., 2001; Swartz et al., 1998a, 1998b). Table 2.2.1 provides a brief description of five studies that could be performed to address the impact of various kinds (and levels) of risk-reducing interventions. One of the practical aspects of implementing any of these studies involves assuring those who approve such research that there already exists a fairly significant body of evidence suggesting that this kind of intervention will enhance the risk-reducing effectiveness of the standard practice intervention already received. Violence levels of participants should decrease, but they will not (given that participants are receiving everything they would usually receive without the research project) increase.

It is likely that hospitals, agencies, or systems that adopt the systematic use of one of the three kinds of risk-reduction intervention planning described in this chapter—anamnestic, tool-based, or cluster-based—will receive some immediate benefits (e.g. comprehensiveness, consistency) resulting from the systematic application of this approach. To effectively assess the impact of these different approaches to risk management planning, however, will require the collection of process and outcome data like those described in Table 2.2.1. Partnerships between practitioners and researchers will be crucial in determining how well this can be accomplished in the next decade.

One of the least discussed aspects of risk reduction involves the role of protective factors. In a public health sense, an outcome such as violent behavior is affected both by risk factors and protective factors, yet there is apparently no research and relatively little discussion (see Rogers, 2000, for a noteworthy exception) of the role of protective factors in preventing or minimizing violence, and the possibility of reducing violence risk through interventions that identify and strengthen protective factors. This is an area that needs both theoretical and empirical attention.

In the largest sense, risk assessment should be linked with risk management; both should inform decision-making, and be communicated in a way that is understandable and minimizes distortion (Edens and Otto, 2001; Heilbrun et al., 1999). When decision-makers can consider an individual's risk of future violence, the extent to which such risk has been reduced through intervention, and the degree to which it can be managed following release, then the goal of legally informed decision-making is achieved—and assessment and intervention can work as complementary pieces of a larger puzzle (Dvoskin and Heilbrun, 2001). If this is to occur, however, the advances in risk management described in this chapter must be expanded significantly over the next decade.

REFERENCES

- Andrews, D. and Bonta, J. (1995). *The level of service inventory—Revised: User's manual*. Toronto, Ontario: Multi-Health Systems, Inc.
- Bloom, J.D., Muesser, K.T. and Müller-Isberner, R. (2000). Treatment implications of the antecedents of criminality and violence in schizophrenia and major affective disorders. In S. Hodgins (ed.), *Violence among the mentally ill: Effective treatments and management strategies* (pp. 145–169). Boston: Kluwer Academic Publishers.
- Bonta, J., Law, M. and Hanson, K. (1998). The prediction of criminal and violent recidivism among mentally disordered offenders: A meta-analysis. *Psychological Bulletin*, 123, 123–142.
- Borum, R. (1996). Improving the clinical practice of violence risk assessment: Technology, guidelines, and training. *American Psychologist*, 51, 945–956.
- Burke, H. and Hart, S.D. (2000). Personality disordered offenders: Conceptualization, assessment and diagnosis of personality disorder. In S. Hodgins and R. Müller-Isberner (eds), *Violence, crime, and mentally disordered offenders: Concepts and methods for effective treatment and prevention* (pp. 63–85). New York: John Wiley & Sons.
- Carson, D. (1994). Dangerous people: Through a broader conception of risk and danger to better decisions. *Expert Evidence*, 3, 51–69.
- Douglas, K., Ogloff, J., Nicholls, T. and 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. and Webster, C. (1999). The HCR-20 violence risk assessment scheme: Concurrent validity in a sample of incarcerated offenders. *Criminal Justice and Behavior*, 26, 3–19.
- Douglas, K., Webster, C., Hart, S., Eaves, D. and Ogloff, J. (in press). *HCR-20 violence risk management companion guide*. Burnaby, British Columbia: Mental Health, Law, and Policy Institute, Simon Fraser University.
- Dvoskin, J. and 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.

- Edens, J.F. and Otto, R.K. (2001). Release decision making and planning. In J.B. Ashford, B.D. Sales and W.H. Reid (eds), *Treating adult and juvenile offenders with special needs* (pp. 335–371). Washington, DC: American Psychological Association.
- Eronen, M., Hakola, P. and Tiihonen, J. (1996). Factors associated with homicide recidivism in a 13-year sample of homicide offenders in Finland. *Psychiatric Services*, 47, 403–406.
- Ferris, R. (2000). Community treatment programmes in Europe and the United Kingdom that have proven effective in preventing violence by the mentally ill in the community: Administrative, organizational, legal, and clinical aspects. In S. Hodgins (ed.), *Violence among the mentally ill: Effective treatments and management strategies* (pp. 389–408). Boston: Kluwer Academic Publishers.
- Hanson, R.K. (1998). What do we know about sex offender risk assessment? *Psychology, Public Policy, and Law*, 4, 50–72.
- Hanson, R.K. and Harris, A.J.R. (2000). Where should we intervene? Dynamic predictors of sexual offense recidivism. *Criminal Justice and Behavior*, 27, 6–35.
- Hare, R. (1991). *The Hare psychopathy checklist—Revised*. Toronto, Ontario, Canada: Multi-Health Systems.
- Hare, R., Clark, D., Grann, M. and Thornton, D. (2000). Psychopathy and the predictive validity of the PCL-R: An international perspective. *Behavioral Sciences and the Law*, 18, 623–645.
- Harris, G.T., Rice, M.E. and Quinsey, V.L. (1993). Violent recidivism of mentally disordered offenders: The development of a statistical prediction instrument. *Criminal Justice and Behavior*, 20, 315–335.
- Heilbrun, K. (1997). Prediction vs management models relevant to risk assessment: The importance of legal decision-making context. *Law and Human Behavior*, 21, 347–359.
- Heilbrun, K., Dvoskin, J., Hart, S. and McNeil, D. (1999). Violence risk communication: Implications for research, policy, and practice. *Health, Risk and Society*, 1, 91–106.
- Heilbrun, K. and Peters, L. (2000a). The efficacy and effectiveness of community treatment programmes in preventing crime and violence among those with severe mental illness in the community. In S. Hodgins (ed.), *Violence among the mentally ill: Effective treatments and management strategies* (pp. 341–357). Boston: Kluwer Academic Publishers.
- Heilbrun, K. and Peters, L. (2000b). Community-based treatment programmes. In S. Hodgins and R. Müller-Isberner (eds), *Violence, crime, and mentally disordered offenders: Concepts and methods for effective treatment and prevention* (pp. 193–215). New York: John Wiley & Sons.
- Hodgins, S. (ed.) (2000a). *Violence among the mentally ill: Effective treatments and management strategies*. Boston: Kluwer Academic Publishers.
- Hodgins, S. (2000b). The etiology and development of offending among persons with major mental disorders: Conceptual and methodological issues and some preliminary findings. In S. Hodgins (ed.), *Violence among the mentally ill: Effective treatments and management strategies* (pp. 89–116). Boston: Kluwer Academic Publishers.
- Hodgins, S., Mednick, S.A., Brennan, P.A., Schulsinger, F. and Engberg, M. (1996). Mental disorder and crime: Evidence from a Danish birth cohort. *Archives of General Psychiatry*, 53, 489–496.
- Hodgins, S. and Müller-Isberner, R. (eds) (2000). *Violence, crime and mentally disordered offenders: Concepts and methods for effective treatment and prevention*. New York: John Wiley & Sons.
- Høyer, G. (2000). Social services necessary for community treatment programmes designed to prevent crime and violence among persons with major mental disorders. In S. Hodgins (ed.), *Violence among the mentally ill: Effective treatments and management strategies* (pp. 267–382). Boston: Kluwer Academic Publishers.
- Lidz, C.W., Mulvey, E.P. and Gardner, W. (1993). The accuracy of predictions of violence to others. *Journal of the American Medical Association*, 269, 1007–1011.
- McGuire, J. (2000). Commentary: Heilbrun and Peters, ‘The efficacy and effectiveness of community treatment programmes in preventing crime and violence among those with severe mental illness in the community’. In S. Hodgins (ed.), *Violence among the mentally ill:*

- Effective treatments and management strategies* (pp. 359–366). Boston: Kluwer Academic Publishers.
- Melton, G.B., Petrila, J., Poythress, N.G. and Slobogin, C. (1997). *Psychological evaluations for the courts: A handbook for mental health professionals and lawyers* (2nd edn). New York: The Guilford Press.
- Monahan, J. and Appelbaum, P.S. (2000). Reducing violence risk: Diagnostically based clues from the MacArthur violence risk assessment study. In S. Hodgins (ed.), *Violence among the mentally ill: Effective treatments and management strategies* (pp. 19–34). Boston: Kluwer Academic Publishers.
- Monahan, J. and Steadman, H.J. (eds) (1994a). *Violence and mental disorder: Developments in risk assessment*. Chicago: University of Chicago Press.
- Monahan, J. and Steadman, H.J. (1994b). Toward a rejuvenation of risk assessment research. In Monahan, J. and Steadman, H.J. (eds), *Violence and mental disorder: Developments in risk assessment* (pp. 1–17). Chicago: University of Chicago Press.
- Monahan, J., Steadman, H., Silver, E., Appelbaum, P., Robbins, P.C., Mulvey, E., Roth, L., Grisso, T. and Banks, S. (2001). *Rethinking risk assessment: The MacArthur study of mental disorder and violence*. New York: Oxford University Press.
- National Research Council (1989). *Improving risk communication*. Washington, DC: National Academy Press.
- Otto, R. (2000). Assessing and managing violence risk in outpatient settings. *Journal of Clinical Psychology*, 56, 1239–1262.
- Quinsey, V., Cyr, M. and Lavalee, Y. (1988). Treatment opportunities in a maximum security psychiatric hospital: A problem survey. *International Journal of Law and Psychiatry*, 11, 179–194.
- Quinsey, V., Harris, G., Rice, M. and Cormier, C. (1998). *Violent offenders: Appraising and managing risk*. Washington, DC: American Psychological Association.
- Rice, M. and Harris, G. (1988). An empirical approach to the classification and treatment of maximum security psychiatric patients. *Behavioral Sciences and the Law*, 6, 497–514.
- Rice, M. and Harris, G. (1997). Cross-validation and extension of the *Violence Risk Appraisal Guide* for child molesters and rapists. *Law and Human Behavior*, 21, 231–241.
- Rice, M., Harris, G. and Cormier, C. (1992). Evaluation of a maximum security therapeutic community for psychopaths and other mentally disordered offenders. *Law and Human Behavior*, 16, 399–412.
- Rice, M., Harris, G., Quinsey, V. and Cyr, M. (1990). Planning treatment programs in secure psychiatric facilities. In D.N. Weisstub (ed.), *Law and mental health: International perspectives* (Vol. 5; pp. 162–230). New York: Pergamon Press.
- Rogers, R. (2000). The uncritical acceptance of risk assessment in forensic practice. *Law and Human Behavior*, 24, 595–605.
- Salekin, R.T., Rogers, R. and Sewell, K.W. (1996). A review and meta-analysis of the Psychopathy Checklist and Psychopathy Checklist-Revised: Predictive validity of dangerousness. *Clinical Psychology: Science and Practice*, 3, 203–215.
- Sampson, ●. and Lauritsen, ●. (1994). ●●● See folio 13 ●●●
- Serin, R.C. (1996). Violent recidivism in criminal psychopaths. *Law and Human Behavior*, 20, 207–217.
- Silver, E., Mulvey, E. and Monahan, J. (1999). Assessing violence risk among discharged psychiatric patients: Toward an ecological approach. *Law and Human Behavior*, 23, 235–253.
- Steadman, H.J., Monahan, J., Appelbaum, P.S., Grisso, T., Mulvey, E.P., Roth, L.H., Robbins, P.C. and Klassen, D. (1994). Designing a new generation of risk assessment research. In J. Monahan and H. Steadman (eds), *Violence and mental disorder: Developments in risk assessment* (pp. 297–318). Chicago: University of Chicago Press.
- Steadman, H.J., Monahan, J., Robbins, P.C., Appelbaum, P.S., Grisso, T., Klassen, D., Mulvey, E.P. and Roth, L.H. (1993). From dangerousness to risk assessment: Implications for

- appropriate risk strategies. In S. Hodgins (ed.), *Crime and mental disorder* (pp. 39–62). Newbury Park, California: Sage Publications.
- Steadman, H.J., Mulvey, E., Monahan, J., Robbins, P., Appelbaum, P., Grisso, T., Roth, L. and Silver, E. (1998). Violence by people discharged from acute psychiatric inpatient facilities and by others in the same neighborhoods. *Archives of General Psychiatry*, 55, 1–9.
- Steadman, H.J. and Silver, E. (2000). Immediate precursors of violence among persons with mental illness: A return to a situational perspective. In S. Hodgins (ed.), *Violence among the mentally ill: Effective treatments and management strategies* (pp. 35–48). Boston: Kluwer Academic Publishers.
- Swanson, J., Borum, R., Swartz, M., Hiday, V., Wagner, H. and Burns, B. (2001). Can involuntary outpatient commitment reduce arrests among persons with severe mental illness? *Criminal Justice and Behavior*, 28, 156–189.
- Swartz, M., Swanson, J., Hiday, V., Borum, R., Wagner, H. and Burns, B. (1998a). Taking the wrong drugs: Substance abuse, medication nonadherence, and violence in severely mentally ill individuals. *Social Psychiatry and Psychiatric Epidemiology*, 33, 75–80.
- Swartz, M., Swanson, J., Hiday, V., Borum, R., Wagner, H. and Burns, B. (1998b). Violence and severe mental illness: The effects of substance abuse and nonadherence to medication. *American Journal of Psychiatry*, 155, 226–231.
- Tiihonen, J. and Swartz, M. (2000). Pharmacological intervention for preventing violence among the mentally ill with secondary alcohol- and drug-use disorders. In S. Hodgins (ed.), *Violence among the mentally ill: Effective treatments and management strategies* (pp. 171–191). Boston: Kluwer Academic Publishers.
- Volavka, J. and Citrome, L. (2000). Pharmacological interventions for preventing violence among the mentally ill with co-occurring personality disorders. In S. Hodgins (ed.), *Violence among the mentally ill: Effective treatments and management strategies* (pp. 193–209). Boston: Kluwer Academic Publishers.
- Volavka, J. and Krakowski, M. (1989). Schizophrenia and violence. *Psychological Medicine*, 19, 559–562.
- Webster, C., Douglas, K., Eaves, D. and Hart, S. (1997). *HCR-20: Assessing risk for violence* (Version 2). Burnaby, British Columbia: Mental Health, Law, and Policy Institute, Simon Fraser University.
- Wells, K. (1999). Treatment research at the crossroads: The scientific interface of clinical trials and effectiveness research. *American Journal of Psychiatry*, 156, 5–10.
- Wettstein, R. (ed.) (1998). *Treatment of offenders with mental disorders*. New York: Guilford Press.

Q1: Sampson & Lauritsen (1994). Cited on p. 131. Please supply a full reference for References list. p. 141