
Assessing and Managing Violence Risk in Outpatient Settings



Randy K. Otto

University of South Florida

Psychologists and other mental health professionals practicing in essentially all clinical settings are called on to assess and manage clients who may pose a risk of violence to third parties. Over the past 25 years much has been learned about the relationship between violence and mental disorder, and about assessing violence risk. In this article risk factors for violence among persons with mental disorder are reviewed, clinical assessment strategies are discussed, and a model for thinking about treatment and other types of interventions designed to minimize violence risk is offered. © 2000 John Wiley & Sons, Inc. *J Clin Psychol* 56: 1239–1262, 2000.

Keywords: violence; risk assessment; dangerousness; violence risk

Perhaps no issue raises as much concern among clinicians as cases in which they suspect a client may be at risk for harming others. In the past 25 years considerable research has focused on the relationship between mental disorder and violence (for recent reviews see, e.g., Monahan & Steadman, 1994, or the 1998 supplement of the journal *Social Psychiatry and Psychiatric Epidemiology*, which was devoted to articles on violence and mental disorder). Mental health professionals' ability to "predict dangerousness" or, more recently, "assess violence risk"¹ has also been the subject of intensive study (see, e.g., Monahan,

The author would like to acknowledge the helpful comments of Norman Poythress, Randy Borum, and anonymous reviewers.

Correspondence concerning this article should be addressed to Randy K. Otto, Ph.D., Department of Mental Health Law & Policy, Florida Mental Health Institute, University of South Florida, 13301 Bruce B. Downs Blvd., Tampa, FL 33612, otto@fmhi.usf.edu.

¹An important distinction, and one that is more than semantic, must be made between "predicting dangerousness" and "violence risk assessment." Until the early 1990s, the sole lexicon used in the arena was "dangerousness prediction." Similarly, the research and clinical practice through the mid 1980s was focused on identifying two distinct groups of clients—"dangerous" ones and "nondangerous" ones—with dispositions arranged accordingly. These assessments typically focused on the individual and person-centered factors (ignoring environ-

1981; Mossman, 1994; Otto, 1992). During this period of time much has been learned about risk factors for violence among persons with mental disorder.

The purpose of this article is threefold. First, risk factors for violence among persons with mental illness will be reviewed and discussed. Next, strategies for inquiring about and assessing for such factors in outpatient settings will be offered. Finally, an approach to thinking about how to respond to persons who are considered to be at increased risk for violence towards others as a function of their underlying emotional functioning or psychopathology will be reviewed. Not covered in this article are legal issues and responsibilities that may affect clinical practice (see Vandecreek & Knapp, 2000) or the literature regarding longer term risk assessment and management decision making that occurs in institutional settings (e.g., in the context of releasing individuals from psychiatric or correctional institutions, see, e.g., Edens & Otto, in press, for a discussion of this issue).

History and Background

The perception that persons with mental illness are at increased risk for violence as compared to their non-ill counterparts can be dated at least to the time of Plato (Monahan, 1992). Indeed, among the rationales offered for establishing some of the first public psychiatric hospitals in this country was the need to protect the public by confining persons with mental illness who posed such a risk to the community. Flowing logically from the belief that there was a connection between violence and mental disorder was the assumption that mental health professionals, as a function of their expertise, were uniquely able to identify and treat persons whose emotional functioning increased their risk for violence, and could thereby reduce such risk.

This line of thinking was critically challenged in the 1970s as some commentators, upon reviewing the extant literature, concluded that (1) violent or "dangerous" behavior was uncommon among persons with mental disorder, thereby making it difficult to predict; (2) there was little evidence of a causal relationship between mental disorder and violent behavior (see, e.g., Monahan & Steadman, 1983); and (3) mental health professionals were unable to identify persons at increased risk for harming others with any degree of accuracy (Ennis & Litwack, 1974; Monahan, 1981). These conclusions, in part, formed the basis for calls to abolish civil commitment, the argument being that if risk for violence to others was one of the requirements for such dispositions, then the fact that mental health professionals could not identify such persons rendered the process impractical and unjust (Ennis & Emery, 1978; Petrila, Otto, & Poythress, 1994; Otto, 1994).

In response to the above, Monahan (1984, 1988) identified limitations of the research examining the relationship between mental disorder and violence, and mental health professionals' abilities to assess violence risk, and called for a "second generation" of investigations to better address these issues. This call resulted in a series of studies (see

mental factors of relevance). Persons were classified as either dangerous or nondangerous with little consideration of the possibility for change in status or risk level over time. Additionally, decisions based on this categorization were largely dispositional as the evaluation or determination had few implications in terms of treatment, management, or intervention. Beginning in the early 1990s, however, the lexicon moved from that of "dangerousness prediction" to assessment of violence risk, which has implications in terms of clinical practice. First, violence risk assessment is thought to take some of the emphasis away from the individual and also focuses on extra-personal environmental factors that may be relevant. Second, the risk assessment approach endorses the notion that risk is not static but is dynamic and changing over time and across conditions. Finally, identification of factors associated with increased or decreased risk has implications in terms of developing interventions designed to control or minimize risk. Such interventions, of course, can be at the individual or environmental level and go well beyond traditional treatment interventions, as is described in more detail below.

Monahan & Steadman, 1994, for a summary) and review articles (Mossman, 1994; Otto, 1992, 1994), and most recently formed the basis for the Violence Risk Assessment Study organized by John Monahan under the auspices of the MacArthur Research Network on Mental Health and the Law. Findings from this "second generation" of research, which incorporated many of Monahan's (1984, 1988) recommendations, suggest that (1) violent behavior is not necessarily a low base rate behavior and occurs with some degree of frequency among persons with mental disorder (e.g., Otto, 1992; Steadman et al., 1998; Wessely & Taylor, 1991); (2) persons with certain mental disorders and symptom clusters are more likely to engage in violent behavior than persons without such (e.g., Swanson, 1994; Swanson, Holzer, Ganzu, & Jono, 1990); and (3) mental health professionals have some ability to assess violence risk among persons with mental disorder (e.g., Mossman, 1994; Mulvey & Lidz, 1998; Otto, 1992, 1994).

It is this body of developing research, along with research examining violence risk factors among criminal and nonclinical populations, that provides direction for clinicians faced with the task of assessing and managing risk with their clients. Although one might question whether findings from one population are applicable to others, a meta-analysis by Bonta, Law, & Hanson (1998) provides some support for the claim that the risk factors for violent behavior may be similar across populations. It should be no surprise to even beginning clinicians that more remains unknown than known about risk factors for violence among persons with mental disorders. As such, good practice will require clinicians to familiarize themselves with the relevant literature and use informed clinical judgment when the research literature provides no direction.

Risk Assessment Approaches

There are five different approaches to violence risk assessment: clinical assessment, anamnestic assessment, guided or structured clinical assessment, actuarial assessment, and adjusted actuarial assessment (Melton, Pettila, Poythress, & Slobogin, 1997; Boer, Hart, Kropp, & Webster, 1997; Hanson, 1998). Clinical risk assessment is the method historically utilized by mental health professionals. Test data, interview information, and history are gathered, combined, and processed by the clinician, who then offers his or her clinical impressions and judgments. It is a relatively unstructured approach by which the mental health professional gathers whatever information he or she believes to be relevant to the assessment and prediction task, and processes it in whatever way he or she considers appropriate. Given its very nature, the assessment process is considered to vary considerably among mental health professionals and this presumed lack of reliability is considered to limit the validity of this approach (Meehl, 1954; Ziskin, 1995).

Anamnestic assessment is a specific type of clinical assessment whereby the examiner attempts to identify violence risk factors through a detailed examination of the individual's history of violent and threatening behavior. Through clinical interview, review of third party information (e.g., arrest reports, hospital accounts, reports of significant others), and perhaps psychological or other types of testing, the examiner tries to identify themes or commonalities across violence episodes that can be used to articulate risk or protective factors specific to the individual. This approach is likely to suffer from the same shortcomings as standard clinical assessment. It is general clinical assessment and anamnestic assessment that form the basis for most of the decisions on which the first-generation violence research was conducted.

Similar to traditional clinical assessment, guided or structured clinical assessment also requires that the examiner gather and process information that is gained during the course of a clinical evaluation. In contrast to traditional clinical assessment, however, in

guided clinical assessment the data sought, considered, and processed by the clinician is specified "up front" and has been demonstrated to be related to violence risk (Hanson, 1998; Webster, Douglas, Eaves, & Hart, 1997). Thus, although clinical judgment is still involved, the data on which the judgments are based (1) have some predictive value and (2) should be uniform across examiners using this structured approach. Given that guided judgments based on structured assessments tend to be more accurate than those based on general clinical assessment, development and implementation of this type of assessment is significant (Borum & Otto, 2000).

Actuarial approaches to violence risk assessment exclude, or at least minimize, the role of judgment by the mental health professional. In this approach, data are gathered and entered into a pre-existing equation. The data to be gathered or equation variables are empirically derived and accuracy and error rates are typically known. This process either excludes mental health professionals altogether or, at most, minimizes their involvement to gathering, quantifying, or classifying some of the information that is to be coded and entered into the equation. All of the "information processing," however, is done via the pre-existing equation. Strengths of the actuarial approach include presumably high reliability² and known error rates. A large number of studies to date suggest that actuarial formulas perform as well as or better than clinical judgment across a number of decisional tasks (Grove & Meehl, 1996; Meehl, 1954). Yet this approach, too, has limitations. First, strict adherence to this approach prevents the examiner from considering case-specific information that may be highly relevant but is not included in the formula. In response to this criticism some have suggested use of an adjusted actuarial approach, whereby an actuarial formula is used to set the assessment stage, but expert examiners can then adjust (or not adjust) the prediction/assessment after considering important case-specific factors not considered by the actuarial formula (Hanson, 1998). Proponents of the strict actuarial approach, however, note that adjusted actuarial predictions are typically less accurate, or are no more accurate, than pure actuarial predictions (Quinsey, Harris, Rice, & Cormier, 1998).

A further criticism is that use of an actuarial formula with a population different from the one on which it was derived, although it continues to guarantee reliability, raises concerns about general validity and error rates more specifically. But perhaps most problematic about actuarial assessment is its limited availability. There are actuarial formulae available for few psychological assessment tasks, something that makes this approach to assessment a sort of unkept promise with potential. Although there are a few actuarial formulae developed for assessing violence risk, e.g., Violence Risk Appraisal Guide (Quinsey, Harris, Rice, & Cormier, 1998) and Violence Prediction Scheme (Webster, Harris, Rice, Cormier, & Quinsey, 1994), they are most appropriately used with institutional populations who have criminal histories, and their utility with nonforensic, noncorrectional mental health populations in acute care settings is unknown. McNiel and Binder (1994) developed a five-item actuarial formula (history of threats or physical attacks within two weeks of admission, absence of suicidal behavior, diagnosis of schizophrenia or mania, male sex, and married to or living with significant other), which was designed to predict violent behavior during the course of acute hospitalization. They reported moderate sensitivity (55%) and specificity (64%), where physical attacks or fear-

²Because most actuarial formulas include primarily static variables that appear relatively easy to code, it is typically assumed that inter-rater reliability for the scoring of these instruments will be high. Unfortunately, developers of some actuarial instruments (e.g., VRAG; Quinsey, Harris, Rice, & Cormier, 1997; RRASOR; Hanson, 1998) fail to present inter-rater reliability, leaving the clinician in an awkward position, particularly in those cases where item scoring is complicated or subjective.

inducing behavior were used as the criteria. The authors, however, appropriately cautioned that the formula might only be helpful in assessing likelihood of threats or physical assaults in inpatient settings, noting that factors not considered by the formula (e.g., substance use/abuse, medication compliance, family conflict) would likely be relevant in settings other than the hospital. More recently, Monahan et al. (2000) developed an actuarial tool for assessing violence risk.

The above approaches, of course, need not be mutually exclusive. Given the current state of knowledge in terms of short-term violence risk in mental health settings, I recommend that clinicians use a combined approach whereby they familiarize themselves with the empirical literature regarding risk factors for violent behavior and structure their inquiry and judgments around these factors. Use of a structured, guided clinical assessment developed in light of the extant research, e.g., HCR-20 (Webster, Douglas, Eaves, & Hart, 1997; see Table 1 and subsequent text for a description of this instrument), supplemented by an anamnestic analysis of the client's violence history should form the basis of a comprehensive evaluation that assesses factors relevant to violence risk.

Risk Factors for Violence

Broadly speaking, risk factors for violence among persons with mental disorders fall into one of two categories. Static risk factors are those that either cannot be changed (e.g., age, sex) or are not particularly amenable to change (e.g., psychopathic personality structure). Identification of these factors is important in terms of identifying the client's absolute or relative level of risk; however, these factors typically have few implications for treatment or management of risk since the factors, by definition, cannot be changed.

In contrast, dynamic risk factors are those that are amenable to change (e.g., substance abuse, psychotic symptomatology). Identification of these factors is important

Table 1
HCR 20 Items (Webster et al., 1997)

A. Historical Items
1. Previous violence
2. Young age at first violent incident
3. Relationship instability
4. Employment problems
5. Substance use problems
6. Major mental illness
7. Psychopathy
8. Early maladjustment
9. Personality disorder
10. Prior supervision failure
B. Clinical Items
1. Lack of insight (into mental disorder)
2. Negative attitudes (toward others, institutions, social agencies, the law)
3. Active symptoms of major mental illness
4. Impulsivity
5. Unresponsive to treatment
C. Risk Management Items
1. Plans lack feasibility
2. Exposure to destabilizers (e.g., weapons, substances, potential victims)
3. Lack of personal support
4. Noncompliance with remediation attempts
5. Stress

both in terms of estimating the client's absolute or relative level of risk, as well as for purposes of treatment planning. Hanson (1998) further distinguishes between stable dynamic factors and acute dynamic factors. Stable dynamic factors can change but have some enduring quality over time and across situations (e.g., deviant sexual preferences or alcoholism) whereas acute dynamic factors (e.g., sexual arousal, alcohol intoxication) are "states" which can change much more rapidly. Assessing the former category may be more important for treatment planning and intervention planning when dealing with persons about whom there are concerns for violence in the future, while the latter category may be more important in terms of assessing imminent risk and making decisions about immediate interventions.

Demographic Factors

There are a number of demographic variables that may be considered risk factors for violence. Given their very nature, however, demographic factors must be considered static insofar as interventions will do little to change them. Perhaps one of the most robust findings in the criminological and violence literature is sex as a risk factor for violence (Wilson & Herrnstein, 1985; Dobash, Dobash, Wilson, & Daly, 1992). In the general population, males are much more likely than females to engage in violent behavior, and their behavior is likely to be more severe and cause more harm. Historically, this sex effect was considered to apply to psychiatric populations as well. Recent research, however, suggests that there may be small or no sex differences in rates of violence, at least with more symptomatic populations (Steuve & Link, 1998; McNeil & Binder, 1995; Tardiff, Marzuk, Leon, Portera, & Weiner, 1997). Lidz, Mulvey, and Gardner (1993), in their study of psychiatric patients evaluated in a hospital emergency room, reported comparable or higher rates of violence for females as compared to males (33% for females versus 22% for males). Posthospitalization and pilot data from the MacArthur Violence Risk Assessment Study yielded similar results. Steadman et al. (1994) found that while fewer women than men (35% versus 39%) reported engaging in violent behavior in the two-month period preceding their psychiatric hospitalization, a greater proportion of women than men (33% versus 22%) reported engaging in violence during the two-month period after discharge.³ Although Swanson (1994) found that males with various psychiatric and substance abuse disorders exhibited higher rates of violence than females, these differences were typically small (e.g., 22% of males with comorbid psychiatric and substance abuse disorders reported engaging in violent or threatening behavior during the prior 12 months as compared to 17% of similarly disordered females). Findings reported by Hiday, Swartz, Swanson, Borum, & Wagner (1998) offer some further insight into the issue. In their sample of patients who reported engaging in violent behavior prior to hospitalization ($N = 68$), women were as likely as men to engage in any type of violence; however, men were over-represented when the analysis was limited to more serious forms of violence (i.e., those forms involving injuries or use of weapons). Tardiff, Marzuk, Leon, Portera, and Weiner (1997) reported similar findings, noting that equal numbers of male

³The reader is cautioned not to assume, based on this data, that the base rate of violent behavior among people with a psychiatric diagnosis of some sort is around 33% with very short term follow-ups, and presumably even higher with longer follow-up periods. It is important to note that the samples studied by Lidz et al. (1993) are highly select insofar as they were recently evaluated in a hospital emergency room, perhaps because of concerns about their violence. More accurate base-rate estimates for violent and threatening behavior for the universe of people with psychiatric diagnoses are provided by Swanson et al. (1990) who used Epidemiological Catchment Area data gathered from randomly selected persons (some with psychiatric diagnoses and some without) living in the community.

(13.6%) and female (14.7%) inpatients on an acute psychiatric unit reported engaging in violent behavior in the month preceding their hospitalization. Together, these findings suggest that clinicians, at least those working with more disturbed patient populations, should not consider patient sex to be a baseline risk factor for violence. Although the possibility that males engage in more severe or damaging types of violence, perhaps partly as a function of greater access to weapons, is worthy of consideration, Tardiff, Marzuk, Leon, Portera, & Weiner (1997) found no sex difference in terms of severity of injuries caused or use of weapons in violent episodes reported by their sample of male and female inpatients.

Like sex, age is another well known risk factor for violence (as well as criminal behavior more generally) in the general population. Persons in their late teens and early twenties are at highest risk for violent or threatening behavior (Bonta, Law, & Hanson, 1998; Swanson et al., 1990). In contrast to sex as a risk factor, however, age appears to be a risk factor for persons with mental illness as well as persons without. Steadman et al. (1994), in their pilot study, found that persons age 40 and above with mental illness reported rates of violence approximately one third that of persons between the ages of 25 and 40. McNiel (1997) concluded that, among persons with mental disorder, the predictive utility of age as a risk factor for violence may vary, depending on their mental state. He offered that age may be a less powerful predictor of violence potential among persons who are acutely ill as symptom risk factors will mask or overshadow age effects, whereas age may be a more powerful predictor of violence among persons with mental disorder who are not acutely ill, as is the case among nondisordered persons in the community.

Rates of violent behavior are differentially distributed by race, as measured by self-report, arrest rate, and incarceration rate, with African Americans having higher rates than Caucasians. Not surprisingly, these differential rates disappear when socioeconomic status (SES) is controlled (Swanson, 1994). These data suggest that while race is not a risk factor for violence, SES is, although its effect may be attenuated among persons with persons who are acutely mentally ill (McNiel, 1997). The connection between SES and violence, however, is complicated, with some violence presumably instrumental, some violence resulting from higher levels of stress endured by the poor, and some violence being contextually determined and occurring as a function of living in criminogenic environments (see section on Contextual/Environmental Factors below).

Historical Factors and Dispositional Factors

Not surprisingly, perhaps the single greatest risk factor for future violence is a history of violent behavior or criminal behavior more generally (Kay, Wolkenfeld, & Murrill, 1988; Mossman, 1994; Klassen & O'Connor, 1994; Bonta, Law, & Hanson, 1998). Persons who have contact with the juvenile justice system as minors are more likely to engage in violent and other criminal activities as adults, and adults with violence histories are more likely to engage in future violent behavior than persons without such histories. Similarly, McNiel, Binder, and Greenfield (1988) found that a history of violence was the best predictor of future violence in a sample of acutely ill psychiatric inpatients. Tardiff, Marzuk, Leon, and Portera (1997) reported that among psychiatric patients recently released from an acute care unit, those who reported a violent episode in the week prior to their hospital admission were nine times more likely to engage in violent behavior in the two weeks after their discharge.

The age at which the first serious offense occurred is also a significant factor. Individuals who first commit violent, serious criminal actions at an earlier age (e.g., prior to

age 12) are more likely to engage in violent and more serious criminal careers over the course of their lifespan. Borum (1996) reported that risk for violence increased with each prior episode, with the likelihood of a future violent act exceeding 50% among persons with five or more prior offenses.

Another risk factor for violence is a history of child abuse or witnessed domestic violence (Klassen & O'Connor, 1994). Predisposing factors are likely to include experiences that model, reward, or reinforce the display of violence. Violent and nonviolent teenagers, violent and nonviolent psychiatric patients, and physically abusive and non-abusive husbands can be differentiated as a function of their history of witnessed or experienced abuse as a child (Klassen & O'Connor, 1994; Strauss, Gelles, & Steinmetz, 1980; Browne, 1987; Yesavage, Becker, & Werner, 1983).

Low intelligence and neurologic impairment have been associated with increased rates of violence (Borum, 1996; Klassen & O'Connor, 1994; see Krakowski, 1997 for a review). Also offered as a potential risk factor is the presence of a hostile and aggressive attributional and interpersonal style, expectations that aggressive behavior will be rewarded or successful, and violent thoughts and fantasies (Borum, 1996).

Clinical Risk Factors

Substance Abuse Disorders and Mental Illness. There are a number of factors best described as clinical or psychopathological factors that are associated with risk for violence. With the exception of a history of violent behavior, a diagnosis of substance abuse or dependence is probably the single greatest risk factor for threatening or assaultive behavior directed towards others. Swanson et al. (1990) found that, in the community, persons with a substance abuse or dependence diagnosis are 14 times more likely to engage in threatening or assaultive behavior than persons with no diagnoses. Persons with a substance abuse disorder accompanied by a major mental disorder were 17 times more likely to report assaultive or threatening behavior in the recent past. These data are consistent with the recent findings of Swartz, Swanson, Hiday, Borum, Wagner, and Burns (1998), who reported that persons with severe and persistent mental illness who did not adhere to their psychotropic medication regimens and suffered from co-existing substance abuse disorders were at significantly higher risk for violence.

Thus, for persons with severe and persistent mental illness, a detailed inquiry into their current and past substance use is clearly indicated, along with examination of involvement in, adherence to, and success of prior treatments. Additionally, a focused inquiry into the client's violence history as it is related to substance use will also be important.

Clinical lore has long suggested that psychotic symptomatology was a risk factor for violence, presumably because of the belief that such persons were in less control of their behavior and emotions. The current empirical literature lends some credence to this belief, but with some important caveats. Swanson et al. (1990) found that people living in the community with diagnoses of schizophrenia reported higher rates of violent behavior than persons with no diagnosis or other diagnoses (e.g., affective or anxiety disorders). However, research by Link and his colleagues (Link & Steuve, 1994; Link, Steuve, & Phelan, 1998), which was later replicated by Swanson and his colleagues (Swanson, Borum, Swartz, & Monahan, 1996), suggests that it may not be the diagnosis of schizophrenia, per se, but may be a particular subset of psychotic symptoms. Specifically, it is perceptions of threat and perceptions that one's thoughts and actions are being controlled by external forces that appear to increase risk of violent behavior. These have been labeled "threat/control override" (TCO) symptoms by Link and Steuve (1994). Whereas the

former cluster of symptoms (i.e., perceptions of threat) are most typically associated with paranoid disorders, control override symptoms (e.g., perceptions that someone else is controlling one's thoughts or actions) may be associated with schizophrenia and other psychotic disorders.

Persons with mental illness who believe that they are being threatened or that they are at risk of harm by others are more likely to report threatening and assaultive behavior than psychotic persons without such symptomatology or with no mental disorder. In a large community sample, Swanson, Borum, Swartz, and Monahan (1996) reported that persons with TCO symptoms were twice as likely to engage in violent behavior than persons with other psychotic symptoms and six times more likely to report such behavior than community-dwelling persons with no diagnosis. In a sample of 68 hospitalized persons who reported engaging in violent behavior during the four months preceding their admission, 53% reported fearing harm at the time of their violent behavior. McNiel and Binder (1995) reported that acute psychiatric inpatients who were suspicious and guarded were more likely to act out aggressively than their more trusting counterparts. In her review of three studies, Taylor (1998) concluded that delusions played an important role in the precipitation of violent acts, particularly with respect to more serious violent acts.

Command hallucinations are also considered by many to be a risk factor for violence, at least insofar as individuals who comply with violent commands may be at greater risk for violence than persons not experiencing such commands. Hersh and Borum (1998) reviewed the literature examining command hallucinations and reported estimates of compliance rates ranging from 39% to 89%. Persons experiencing commands consistent with violence, however, were no more likely to comply with such commands than persons experiencing commands to engage in nonviolent behavior. The authors concluded that individuals were more likely to comply with commands if the hallucinated voice was familiar, and if their hallucinations were consistent with or related to a co-existing delusion. Accordingly, they suggested that examiners specifically inquire about command hallucinations in cases where psychosis is evident. The inquiry should focus on the nature of the commands (i.e., whether they are suggestive of violence), the voices and their familiarity, the examinee's history of complying or not complying with the commands, and the presence of delusional or other beliefs that may or may not be consistent with the commands.

Research also indicates that persons experiencing the manic phase of bipolar disorder are at increased risk for violent behavior (Binder & McNiel, 1988; Beck & Bonnar, 1988; Yesavage, 1983). Less clear, however, is the specific symptomatology or behaviors associated with mania that are related to this increased likelihood of violence.

The above analysis makes clear that assessments of violence risk cannot be made at the diagnostic level. A diagnosis of schizophrenia, in and of itself, may mean little in terms of increased violence risk, whereas the presence of Threat/Control Over-ride (TCO) symptoms, either with or without a diagnosis of schizophrenia, appears to be of more relevance in estimating risk for violent behavior. Similarly, consideration of impulsivity, irritability, and impaired judgment and decision making associated with manic episodes and other types of disorders is indicated given the increased prevalence of violence among this group of persons.

Personality Disorders. Another clear risk factor for violence is psychopathy (Cleckley, 1976; Hare, 1993) as distinguished from the diagnosis of antisocial personality disorder in the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV; American Psychiatric Association, 1994). Whereas persons who meet the diagnostic criteria for antisocial personality disorder are typically characterized by a history of impulsive, social convention-breaking, rule-breaking, and law-breaking behavior, per-

sons high in psychopathy exhibit similar behavioral histories accompanied by “a constellation of affective, interpersonal, and behavioral characteristics, including egocentricity; impulsivity; irresponsibility; shallow emotions; lack of empathy, guilt, or remorse; pathological lying; [and] manipulativeness” (Hare, 1998, p. 188). Persons meeting the psychopathy criteria (typically assessed via the Hare Psychopathy Checklist—Revised; PCL-R; Hare, 1991) are at relatively high risk for engaging in violent, threatening, and other criminal behaviors more generally (see Hare, 1998, for a review and summary). In contrast to the other clinical factors described above, however, psychopathy might best be considered as a static factor insofar as treatment programs designed to date have not shown much promise (Hare, 1998; Ogloff, Wong, & Greenwood, 1990; Rice, Harris, & Cormier, 1992).

Unfortunately, because one of the characteristics of such a style is unreliable reporting and intentional deception of others (Hare, 1991; 1998), clinicians will be hard pressed to make judgments about psychopathy without access to informed third parties or official records (e.g., criminal justice records, hospital records). Clinicians familiar with such clients over the long term, however, may have enough information about them to inform such judgments.

Relative to the research devoted to violent and other criminal behavior among persons high in psychopathy, there is a relative dearth of literature focused on other personality disorders. Although there are some research reports indicating that persons with one or more personality disorder diagnoses are at significantly increased risk for violent behavior, specific diagnoses are oftentimes not reported and their reliability remains questionable (see, e.g., Tardiff, Marzuk, Leon, & Portera, 1997; Tardiff, Marzuk, Leon, Portera, & Wiener, 1997). The relative dearth of literature regarding personality disorders and violence risk may partly reflect (1) limitations of the psychiatric nomenclature of personality disorders generally (Widiger & Trull, 1994) and (2) that assessment of the psychopathy construct (via the PCL-R) is better refined than assessment of any other personality disorder or personality style. Although Widiger and Trull (1994), in their review of the literature, concluded that there was modest support for the claim that persons with borderline personality disorder were at heightened risk for engaging in violent behavior, the findings cited are indirect, sparse, and of limited utility. That violence towards others among persons with a diagnosis of borderline personality disorder has not received more attention is surprising. That Widiger and Trull (1994) found only two studies directly on this topic may demonstrate how assessment and diagnostic limitations can impact the research literature. Clearly, the relationship between personality disorders and violence risk is an area in need of further research and analysis.

Anger and Impulsivity. Anger is a normal emotion that serves many adaptive functions (Novaco, 1994). Anger may be an enduring state for some or a fleeting feeling for others, both of which have behavioral, cognitive, affective, and physiological components. Anger is considered by lay persons and mental health professionals alike as a risk factor for violence, and the empirical evidence to date provides some support for this supposition, both in clinical and nonclinical populations (Novaco, 1994). Craig (1982) examined over 1,000 psychiatric hospital admissions occurring over the course of one year. Clinical anger and agitation ratings were the best “postdictors” of prehospitalization violence ($r = .34$ and $r = .27$, respectively), and showed even higher correlations with prehospitalization violence than clinical ratings of factors such as antisocial behavior ($r = .18$), suspiciousness ($r = .19$), and delusional thinking ($r = .20$). Similarly, Kay, Wolkenfeld, and Murrill (1988) reported anger, hostility, and excitability to be significantly associated with violence displayed by a sample of 208 psychiatric patients both

during and subsequent to hospitalization. In a series of studies with psychiatric inpatients, Novaco (1994) reported that anger (as measured by various subscales of the Novaco Anger Scale) was significantly correlated with prior criminal convictions (.34), use of seclusion and restraint while hospitalized (.34), and hospital assaults (.26). Similarly, Swanson, Borum, Swartz, and Hiday (1999) found that, in a sample of 68 hospitalized persons who reported engaging in violent behavior during the four months preceding their hospital admission, feeling "enraged, about to explode" was the most common experience of persons during the violent act (68%). Interestingly, feelings of anxiety (54%) and fear (53%) were the next most common experiences.

Discussions of poorly controlled or inappropriately displayed anger are typically accompanied by discussions of impulsive behavior or impulsivity. Separating these concepts into distinct entities is not always easy. Although impulsivity is symptomatic of some mental disorders that are associated with increased risk for violence (e.g., substance abuse disorders, psychopathy, intermittent explosive disorder), the construct of "impulsivity" is difficult to define (Webster & Jackson, 1997). Barratt (1994) considers impulsivity to be a character trait determined by genetic and experiential factors and related to the control of thoughts and behavior. He describes impulsive people as acting without thinking, having low serotonin levels, and experiencing ongoing difficulties controlling behaviors they have committed to controlling. Webster and Jackson (1997) described five categories of behavior typically displayed by impulsive persons: interpersonal dysfunction; lack of planning; disordered self-esteem; rage, anger, and hostility; and taxing irresponsibility. Although there is a paucity of clinically relevant research examining the contributions of impulsivity as differentiated from anger and interpersonal hostility, clinicians would do well to consider the examinee's history of behavioral controls and anger expression as they are related to violent and/or threatening behavior.

Perhaps because common sense dictates that persons who fantasize about, threaten, or are preoccupied with violence are at greatest risk for harming others, little research has addressed this issue, and the research that does exist indicates that there is not a perfect relationship between threatening behavior and subsequent violence (McNiel, 1997). McNiel and Binder (1989) found that acute psychiatric patients who threatened others were more likely to act out violently, although their ultimate victims were not necessarily those that they had threatened. Grisso et al. (2000) reported that patients experiencing violent thoughts during their hospitalization were more likely to engage in violent behavior subsequent to discharge. This suggests that the clinician should take quite seriously threats of violence with the understanding that individuals beyond those specifically threatened may be at risk of harm.

Environmental/Contextual Factors

All of the risk factors reviewed above have focused on the individual being assessed. Because behavior is determined both by person and situational factors, an understanding of contextual and environmental factors associated with violence among persons with mental disorder is important. The empirical literature regarding environmental contributors to violence is sparser than the literature examining person-centered factors, presumably as a result of psychology's emphasis on the person, as well as difficulties associated with assessment of environmental variables. Thus, much of the discussion presented below is based either on theory or clinical experience.

Stress and Social Support. Although there is a relative paucity of research documenting the relationship between perceived stressors and violent behavior in clinical or non-

clinical populations, there is essentially universal agreement that stress is a risk factor for violence (Borum, 1996; Monahan & Steadman, 1994). Theoretical support for this conclusion can be garnered, however, as can indirect empirical evidence. For example, the frustration-aggression hypothesis and the associated body of research suggests that individuals who are frustrated or stressed are more likely to engage in violent or threatening behavior (Baron & Richardson, 1997; Berkowitz, 1998; Geen, 1990). Additionally, higher rates of violence among populations with higher stress levels (e.g., low socioeconomic status) and associated rates of specific types of violence with stressors (e.g., in the context of domestic violence) offer support for this supposition.

Swanson et al. (1998) examined the community adjustment and violence histories of 331 persons who had severe and persistent mental illness and were enrolled in community treatment. They found an interactive relationship between severity of functional impairment and social contact, which was, in turn, associated with violence risk. For the 20% of the subjects with the greatest degree of impairment (as measured by Global Assessment of Functioning; GAF) more frequent contact with family and friends was associated with a higher likelihood of violent events. In contrast, for higher functioning respondents, frequent social contact was associated with lower violence risk and greater satisfaction in relationships.

Stressors, of course, can take many forms and can be related to financial (e.g., unemployment), interpersonal (e.g., marital or family problems), health (e.g., illness of self or significant other), environmental (e.g., housing), intrapsychic (e.g., threats to self-esteem), or other problems. With respect to stressors, however, it will be important to identify the individual's perceived source and level of stress, as this can be subjective and vary considerably across persons. Findings by Swanson et al. (1998) and Estroff, Swanson, Lachiotte, Swartz, and Bolduc (1998) suggest that what is perceived by some persons as a source of social support (e.g., a mother interested in and concerned about her adult son's adjustment as it is affected by his severe and persistent mental disorder) can be perceived by others as a stressor (e.g., a nosy and bossy mother who will not leave her son alone).

Weapon Availability/Preoccupation with Violence. Although there is no empirical evidence regarding weapon availability and risk for violence in individual cases, it intuitively makes sense that persons who have ready access to weapons (e.g., guns, knives), if they become violent, are more likely to engage in more harmful forms of violence. Indirect support for this claim, however, can be found in associated literatures. For example, the higher success rates of males who attempt suicide is attributed, in part, to their tendency to use more lethal means, such as guns and other weapons (Maris, 1992); similar effects have also been reported at the macro level, with those communities with greater access to lethal means of injury reporting higher suicide rates (Marzuk, Leon, Tardiff, Morgan, Stajic, & Mann, 1992). Additionally, higher rates of gun-related violence and injury in locales with greater access to guns (Sloan, Kellerman, Reay, & Ferris, 1988; Kaplan & Geling, 1998) also provide some support for the weapon availability hypothesis. Clinicians should inquire about access to weapons, interest in weapons, and past use of weapons. Temporary removal of weapons, although it does not insure that the client will not gain access to other weapons, reduces the probability of weapon use and the greater harm that can result.

McNiel (1997) cautioned that clinicians conducting evaluations of violence risk should take steps to insure that their examinees are free of weapons, noting that between 4% and 8% of patients bring weapons with them to psychiatric emergency rooms (McNiel & Binder, 1987; Anderson, Ghali, & Bansil, 1989). Because emergency rooms and inpatients units are the settings in which mental health professionals are most likely to be assaulted by clients,

it is important that clinicians not become lax in their perception of safety and take steps to insure a safe environment (McCulloch, McNeil, Binder, & Hatcher, 1986).

Availability of Substances. Just as substance use and abuse is a risk factor for violence (see above), placement in environments allowing ready access to substances is indirectly but logically considered to increase risk for violent behavior. This supposition has implications in terms of risk management (e.g., placement in supervised settings or environments where access to and use of substances is better monitored or controlled) that will be discussed more fully below.

Victim Availability. An important issue to consider in assessing risk for violence is victim specificity and victim availability. Does the client present a violence risk with respect to one identified person (e.g., a spouse from whom she is separated, a work supervisor) or is the target population broader (e.g., people who work for the IRS)? In cases where the risk of violence is limited to one or a few persons, target availability is a more significant issue. Tardiff, Marzuk, Leon, and Portera (1997) examined the adjustment of 763 psychiatric patients released from an acute care psychiatric unit and found that subjects who were violent prior to their hospitalization often attacked the same victims upon their release.

Interesting to note is the literature regarding victims of the violence committed by persons with mental disorders. Estroff et al. (1998) reported that mothers living with adult children who suffered from schizophrenia and co-occurring substance abuse were at significantly increased risk for violent victimization by their children. Other factors related to increased risk included being an immediate family member, spending more time with the client, and being the family member of a financially dependent client. Straznickas, McNeil, and Binder (1993) reported that, of 113 acute psychiatric inpatients who had assaulted others during the two-week period preceding their admission to an acute care unit, 63 (56%) had assaulted family members. Other investigators have also identified family members of persons with mental disorders as likely targets of violence (Steadman et al., 1998; Tardiff, Marzuk, Leon, & Portera, 1997; Tardiff, Marzuk, Leon, Portera, & Wiener, 1997).

Settings. Steadman et al. (1998) reported that persons with mental disorder were more likely to engage in violent acts in their homes, while their nondisordered counterparts were more likely to engage in violence in public settings such as a bar. Swanson and his colleagues (1999) offered interesting preliminary findings regarding interactions between sex, environment, and violence—males were more likely to fight with acquaintances and strangers in public places while women were more likely to fight with family members in the home. Whereas over half of a sample of violent male psychiatric patients reported that they engaged in violent behavior in public places, only 17% of their female counterparts reported such. The majority of violent women (65%) reported engaging in violent behavior in the home and with family members, whereas only 36% of the males reported violence occurring in the home. Anamnestic assessment of the client violence and aggression history, therefore, may reveal important information in terms of violence risk management.

Clinical Violence Risk Assessment

As suggested above, assessment of risk for violence is best characterized as a continuing process rather than an isolated event or occurrence. Certainly, some clients will require

Table 2
Violence Questions

Screening Questions
1. What kinds of things make you mad? What do you do when you get mad?
2. What is your temper like? What kinds of things can make you lose your temper?
3. What is the most violent thing you have ever done and how did it happen?
4. What is the closest you have ever come to being violent?
5. Have you ever used a weapon in a fight or to hurt someone?
6. What would have to happen in order for you to get so mad or angry that you would hurt someone?
7. Do you own weapons like guns or knives? Where are they now?
Anamnestic Violence Risk Analysis: Detailed Questions Related to Specific Incidents
1. What kind of harm occurred?
2. Who were the victims(s) and/or targets?
3. In what setting or environment did the altercation(s) take place?
4. What do you think caused the violence?
5. What were you thinking and how were you feeling before, during, and after the altercation(s)?
6. Were you using alcohol or other drugs at or around the time of the altercation(s)?
7. Was the client experiencing psychotic symptoms such as TCO symptoms at the time of the altercation?
8. Were you taking psychoactive medication at the time of the incident?
9. Can patterns or commonalities across this and other episodes be identified?

Source: Adapted from Borum, Swartz, & Swanson (1996).

more detailed and more regular assessments of risk than others. At some level, however, the clinician should consider assessment of violence risk to be ongoing for all clients.

Initial Contacts and Inquiries

Although, in most settings, the majority of clients do not pose a significant risk for violence, an inquiry into aggressive and violent behavior should be made with each new client. Borum, Swartz, & Swanson (1996) offered a clinically useful model whereby all clients are essentially "screened." In cases where a potential risk is indicated (e.g., due to a violence history and/or stated intent), a more detailed inquiry is made. The first section of Table 2 offers a list of questions that can be posed to all clients during the course of an interview. If such questions are embedded in a clinic intake form they should be followed up during the course of an interview.

The violence inquiry should be offered as neutrally as possible so as to minimize social desirability effects. Questions including terms that are not operationally defined or that do not include examples are generally not helpful (e.g., "Have you ever been violent?") and more general and open questions should be followed up with more specific questions.⁴ Although the clinician wants to avoid upsetting or agitating the potentially violent client unnecessarily, failing to subject the client to the moderate amount of stress associated with talking about difficult issues may leave the clinician with a false sense of

⁴While a psychology intern, I completed an intake interview with a male ordered to participate in a domestic violence group by a local criminal court. In response to the question, "Have you ever been violent in your relationship?" this client responded in the negative, and he adamantly maintained that he had never assaulted his girlfriend. In response to more specific and detailed questioning the client readily admitted to slapping, grabbing, and limiting the movement of his girlfriend during arguments. This client's definition of violence, however, was quite limited and the history of violent and aggressive behavior might not have otherwise been revealed and discussed without a more detailed and specific inquiry. I guess this is one of the reasons we have supervised internships.

security about the client's violence potential (Otto & Borum, 1999). A client's inability to maintain her composure or control her anger and irritability in the context of a clinical interview may say much about her ability in real life settings. Two approaches may be employed given these concerns (Heilbrun, 1998). The clinician may broach difficult issues and "back off" in response to agitation which threatens the interview process, revisiting the untouched areas later in the assessment. Alternatively, the clinician may save those potentially problematic questions for the latter part of the interview so that all other necessary information has been gathered should the evaluation have to be terminated as a result of the client's agitation or lack of cooperation.

Detailed Inquiries and Analyses

A more detailed inquiry into and analysis of a client's violent and aggressive behavior is necessary in those cases where there is a history of such behavior or the client offers current concerns or ideation. This more detailed inquiry, largely anchored in what we know about risk factors and treatment/management techniques, is conducted both for purposes of assessing relative risk level and identifying appropriate treatments and interventions. Ideally, clinicians faced with such a task will not simply have to rely on the self-report of the client, but will also have access to third party information. This information offers a different perspective on the client's violent/aggressive behavior and may provide insights about causes, treatment, and management that might otherwise go unrecognized. For example, as might be expected, Steadman et al. (1998) obtained higher rates of reported violence when collateral information was considered in addition to client self-report.

The availability of such third-party information depends on a variety of factors and, in most cases, will require the cooperation of the client. In some cases, the client will have to authorize the release of confidential information (e.g., records of prior mental health treatment), while in others the client will have to permit the clinician to contact informed third parties who, although they do not hold legally protected information about the client, may have valuable insights nonetheless (e.g., wives, parents, roommates, friends, coworkers). In those cases where a client is considered to present a significant threat to him- or herself or another person and the law allows or requires the clinician to take action, such contacts can be made over the client's objection. Of course, such requirements and conditions vary considerably across jurisdictions, highlighting the need for mental health professionals to be familiar with the law of the jurisdiction in which they practice (see Vandecreek and Knapp, 2000, for a more detailed discussion).

In cases where a more detailed violence inquiry is required, use of a guided clinical assessment technique such as the HCR-20 (Webster, Douglas, Eaves, & Hart, 1997; Douglas, Ogloff, & Nichols, 1999) might be considered, followed by an anamnestic inquiry into the client's violence episode(s). The HCR-20 is not a test, but rather, is best conceptualized as a memory aide or evaluation guide which ensures that the clinician covers areas that are of relevance to the client's potential for violence risk. As detailed in Table 1, the HCR-20 directs the clinician to cover a total of 20 areas considered to be relevant to violence risk—10 historical items, 5 clinical items, and 5 "risk management" items. Preliminary data indicate that the HCR-20 can be reliably scored (Belfrage, 1998; Ross, Hart, & Webster, 1998; Douglas & Webster, 1999) and has some predictive power when compared to other risk assessment instruments (Douglas, Hart, Webster, & Eaves, n.d.; Ross, Hart, & Webster, 1998; Strand, Belfrage, Fransson, & Levander, 1999; Douglas & Webster, 1999). Although the HCR-20 requires that a judgment regarding psychopathic personality style be made using the Psychopathy Checklist—Revised (Hare, 1991),

use of this guided assessment may still prove of some value in structuring the clinician's evaluation in those cases when the PCL-R cannot be administered.

In addition to this guided clinical approach, the clinician should consider anamnestic assessment which, as described in detail above, involves an analysis of the client's specific violence history in an attempt to identify individual risk and protective factors, along with treatment and management strategies. The bottom section of Table 2 provides a list of questions that might be covered with respect to the client's various violence episodes or threats of violence.

On the Utility of Psychological Testing

The utility of conventional diagnostic and personality tests (e.g., Minnesota Multiphasic Personality Inventory—2, Personality Assessment Inventory) for assessing violence risk is typically limited, although they may provide valuable information in some contexts. In 1970, Megargee concluded that there has never been a test or scale developed which successfully "postdicted," much less predicted, violent or aggressive behavior with an acceptable degree of accuracy, and this conclusion appears sound today. The use of traditional psychological tests in such assessments, however, can be justified to the degree that a particular test validly assesses a construct that is considered to be a risk factor for violence (e.g., substance abuse, paranoid ideation). What remains for the clinician to determine is if the proffered test provides the most valid measure of the construct to be assessed and if it is feasible from a time and cost perspective.

Violence Risk Management and Treatment

In contrast to traditional clinical decision making, clinicians should think broadly when considering interventions designed to reduce violence risk. Three different types or categories of intervention can be considered—treatment and environmental interventions, target hardening, and incapacitation.

Treatments and Interventions

Violence, violent behavior, or violence risk, per se, cannot be treated since these are not disorders or symptoms. Treatments, however, designed to affect underlying disorders, symptoms, thinking patterns, or behaviors present in the client and which increase violence risk (e.g., paranoid ideation, impulsivity/anger, labile emotions, substance abuse) can be implemented. Similarly, interventions designed to ameliorate behavioral deficits considered to increase risk for violence can also be instituted (e.g., assertiveness training, social skills). Of course, the specific interventions to be used will vary according to the particular case and a comprehensive discussion of them is beyond the scope of this paper (see Tardiff, 1992, for a review of select clinical interventions). Table 3, however, offers a sample listing of target symptoms, behaviors, and behavior deficits, and potential interventions. A general technique that may prove helpful with various types of psychiatric symptomatology is symptom monitoring, whereby the client and/or significant others familiar with the client take special care to monitor symptoms associated with prior violent or aggressive behavior. When exacerbations of such symptoms occur, special intervention can follow in response to this increased risk.

Table 3
Examples of Violence Risk Treatments & Interventions

Symptom/Behavior/Factor	Treatment & Interventions	Environmental Interventions
Paranoid ideation	Psychotropic medication	Isolation from potential targets/victims that are related to the client's paranoia
	Symptom monitoring by client and significant others	
Emotional lability & impulsivity	Dialectical behavior therapy	
	Psychotropic medication	
Alcohol abuse	Substance abuse treatment	Placement in a supervised living facility with diminished access to alcohol and which allows for close monitoring
	Antabuse	
Drug abuse	Drug abuse treatment	Random drug testing Placement in a setting with limited access to drugs and which allows for close monitoring
Anger	Anger management training	
Increased stress	Stress management training	Placement in less stressful interpersonal, housing, and/or work environments
Weapon access		Removal of weapons Placement in an environment with limited access to weapons

Because violence risk is a function of interactions between the person and the environment, the clinician must consider various interventions that can be implemented outside of the client in order to reduce violence risk. Some environmental interventions are designed to reduce the likelihood of risk potential being increased (e.g., placement in a supervised setting where access to alcohol and drugs is limited and can be monitored; removal from an environment that is stressful and has been associated with violence risk in the past; temporary reduction of stressful job responsibilities) and, as such, their focus is on client mental state and functioning. Other interventions, however, may be unrelated to the client's mental state and are focused wholly outside the client (e.g., removal of weapons or other means of violence from the client).

Target Hardening

Target hardening refers to interventions focused on the potential victims of violence and that are designed to increase their protection from or resilience to the client's potential violence. Given their very nature, these interventions typically fall far afield from traditional clinical activities in which clinicians typically are involved.

Perhaps the most obvious form of target hardening is warning or notification of identifiable, potential victims in cases in which a client is considered to present a vio-

lence risk.⁵ This approach is based on the assumption that “forewarned is forearmed.” Warned targets can take steps to better protect themselves, and clinical anecdotes offer some support for this claim.⁶ Because such warnings almost always involve a breach of confidentiality it is important that the clinician know whether such a course of action is permitted, required, or prohibited by law in the particular jurisdiction in which they practice (see Vandecreek and Knapp, 2000, for further discussion). Additionally, in those jurisdictions where such a course of action is permitted, clinicians should initially consider other means of reducing or controlling violence risk that do not require such a breach of confidence given the legal, ethical, and clinical mandates for maintaining confidentiality when possible.

Other forms of target hardening that are unlikely to be considered by the clinical practitioner include installation of alarm systems, increased security precautions, and assignment of security personnel (the latter two options are particularly expensive and typically implemented for short periods of time in employment settings in response to specific threats). Cellular phones have been provided to victims of domestic violence in order to give them better access to law enforcement protection. Such an intervention might provide some increased measure of protection in similar situations with persons with mental disorders.

Symptom monitoring and risk education with third parties who are potential victims may also be helpful in some cases. As noted above, parents, siblings, children, spouses, and close friends of persons with mental disorders are often the victims of violence (Eronen, Angermeyer, & Schulze, 1998; Estroff & Zimmer, 1994; Steadman et al., 1998). Thus, they are in the unique position of being potential targets who are intimately involved with the client on a regular basis and, therefore, may have insights into his or her functioning and adjustment. Just as clients can be instructed about symptoms or behaviors associated with increased violence risk and the need to pursue additional interventions, so too can family members and friends who have regular contact with the client. They can use this information to monitor the client’s adjustment, seek protection for themselves, and facilitate additional interventions at times of high risk or in high risk situations.

Incapacitation

Incapacitation refers to various environmental and person-centered interventions which decrease the client’s ability to act out aggressively. These interventions are either highly intrusive or highly restrictive and, as a result, should be used for short periods of time and in the most risky situations. Imposition of these interventions oftentimes is regulated by the law and sometimes requires legal review. As such, clinicians should be familiar with the laws in the jurisdictions in which they practice.

Because they do not address factors underlying the threatened violence, these approaches will only be helpful in the short run, and should be treated as stop-gap measures. Forms of client-focused incapacitation include sedating medications, physical restraint, and physical isolation. All of these interventions, of course, require that a physician be part of the staff or team working with the client. Environment-focused forms of

⁵ A closely related alternative is to warn authorities (e.g., law enforcement) who might be in a better position to protect the intended victim.

⁶ A chilling example was provided in a capital murder case, in which I was consulted, and which involved multiple homicides. The defendant, who had an extensive mental health history, went on a rampage, killing and wounding multiple parties whom he concluded had mistreated him in the past. While driving to the home of the next intended victim that person was notified by phone of the defendant’s activities and his potential fate. In response, the intended victim armed himself, eventually became involved in a gun battle, and wounded the defendant, which resulted in the defendant’s apprehension and conviction.

incapacitation include involuntary hospitalization; placement in supervised and restricted community-based living arrangements, which allow for greater monitoring of the client (e.g., halfway houses); and arrest and criminal prosecution. A form of environmental incapacitation yet to be utilized with outpatient mental health clients is electronic monitoring, which would allow for notification/warning when a client leaves a particular environment/location or enters a risky one (e.g., the neighborhood of a past and intended victim). Certainly, this approach, which has been used with some success in correctional contexts, would require legal review and consideration. Although such an approach may sound on its face overly restrictive or coercive, it may be less restrictive and coercive than other legal alternatives (e.g., involuntary hospitalization).

Thinking and Communicating about Violence Risk

Despite the fact that psychologists and other mental health professionals are able to identify violence risk factors and identify persons at greater or lesser risk, gaps in our knowledge remain. Clinicians are encouraged to think about violence risk in conditional terms (i.e., “If . . . , then”) and offer opinions in this way when they are required (e.g., in a civil commitment proceeding; Melton et al., 1997; Mulvey & Lidz, 1998). This approach highlights the conceptualization of violence risk as something that can change over time, across conditions, or in response to various interventions. As such, the risk assessment perspective, as compared to “dangerousness prediction” and its associated language and conceptualization, facilitates incorporation of information about violence risk into treatment planning.

The current state of scientific and professional knowledge precludes psychologists and other mental health professionals from offering with certainty dichotomous or categorical predictions regarding who will and will not engage in particular kinds of violent behavior—to do so will result in considerable rates of error despite all that we know. Accordingly, clinicians should formulate their judgments in terms of probable or relative risk, describing the risk for violence as low, average, or high relative to some comparison group (Melton et al., 1997). In addition to identifying the likelihood of the harm feared, the type of harm should be considered (e.g., Is it destruction of a house or assault of a coworker that is feared, or both?). Finally, the clinician is only partway done once he or she has identified risk factors and possible targets, and formulated a conclusion about relative risk and its likelihood. An important part of risk assessment in clinical settings is the formulation and implementation of an intervention or treatment plan that will facilitate reducing risk.

In the process of assessing risk, clinicians will find that they must communicate their impressions, formulations, and intervention plan to various third parties, either informally (e.g., in discussions with the client or significant others) or formally (e.g., in the context of a civil commitment proceeding). At least in more formal contexts, care should be taken that impressions of violence risk and recommended responses and interventions are communicated clearly, and that limitations of their opinions are made known (Monahan, 1981). Melton et al. (1997) provide examples of language that can be used in reports or when testifying that discuss violence risk assessment, its nature, and limitations, and that will insure that consumers (e.g., judges, parole boards) are fully informed about the abilities and limitations of mental health professionals.

Summary

Essentially all mental health professionals must make judgments about the violence risk their clients present to others. Psychological science is beginning to provide us with an

understanding of the psychological, interpersonal, and environmental factors that are related to violence risk among persons with mental disorders. Knowledge of these factors, in combination with knowledge of appropriate psychological treatments and environmental interventions will prepare the practicing clinician to make such assessments in a clinically sound and legally defensible manner. It will also assist him or her implement interventions designed to control and minimize risk. Use of a guided clinical assessment which incorporates the factors found in the empirical violence risk literature, supplemented with an anamnestic analysis of the client's violence risk history, is recommended. Clinicians should think broadly when considering interventions that may be used to control or minimize violence risk. Moreover, they should not fail to consider the important role that extra-personal, environmental factors can play in terms of increasing and controlling violence risk among persons with mental disorders.

References

- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Anderson, A.A., Ghali, A.Y., & Bansil, R.K. (1989). Weapon carrying among patients in a psychiatric emergency room. *Hospital and Community Psychiatry, 40*, 845–847.
- Baron, R.A., & Richardson, D.R. (1997). *Human aggression* (2nd ed.). New York: Plenum.
- Barratt, E.S. (1994). Impulsiveness and aggression. In J. Monahan & H. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment* (pp. 61–80). Chicago: University of Chicago Press.
- Beck, J.C., & Bonnar, J. (1988). Emergency civil commitment: Predicting hospital violence from behavior in the community. *Journal of Psychiatry and the Law, 16*, 379–388.
- Belfrage, H. (1998). Implementing the HCR-20 scheme for risk assessment in a forensic psychiatric hospital. *Journal of Forensic Psychiatry, 9*, 328–338.
- Berkowitz, L. (1998). Affective aggression. In R.G. Geen & E. Donnerstein (Eds.), *Human aggression: Theories, research, and implications for social policy*. San Diego: Academic Press.
- Binder, R., & McNeil, D. (1988). Effects of diagnosis and context of dangerousness. *American Journal of Psychiatry, 145*, 728–732.
- Boer, D., Hart, S.D., Kropp, P.R., & Webster, C.D. (1997). *Manual for the Sexual Violence Risk—20*. Burnaby, BC: Mental Health, Law & Policy Institute, Simon Fraser University.
- Bonta, J., Law, M., & Hanson, K. (1998). The prediction of criminal and violent recidivism among mentally disordered offenders. *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.
- Borum, R., & Otto, R.K. (2000). Advances in forensic assessment and treatment: Introduction to the special issue. *Law & Human Behavior, 24*, 1–8.
- Borum, R., Swartz, M., & Swanson, J. (1996). Assessing and managing violence risk in clinical practice. *Journal of Practical Psychiatry and Behavioral Health, 2*, 205–215.
- Browne, A. (1987). *When battered women kill*. New York: Free Press.
- Cleckley, H.M. (1976). *The mask of sanity* (5th ed.). St. Louis, MO: C.V. Mosby.
- Craig, T.J. (1982). An epidemiological study of problems associated with violence among psychiatric inpatients. *American Journal of Psychiatry, 139*, 1262–1266.
- Dobash, R.P., Dobash, R.E., Wilson, M., & Daly, M. (1992). The myth of sexual symmetry in marital violence. *Social Problems, 39*, 71–91.
- Douglas, K.S., Hart, S., Webster, C., & Eaves, D. (n.d.). HCR-20 violence risk assessment scheme: Psychometric properties in a forensic psychiatric sample. Manuscript under review.

- Douglas, K., Ogloff, J., & Nichols, T. (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., & 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.
- Edens, J.F., & Otto, R.K. (in press). Release decision making and planning with special needs offenders. In J. Ashford, B. Sales, & W. Reid (Eds.), *Assessment and treatment of special needs offenders*. Washington, DC: American Psychological Association.
- Ennis, B., & Emery, R.D. (1978). *The rights of mental patients*. New York: Free Press.
- Ennis, B., & Litwack, T. (1974). Flipping coins in the courtroom: Psychiatry and the presumption of expertise. *California Law Review, 62*, 693–723.
- Eronen, M., Angermeyer, M.C., & Schulze, B. (1998). The psychiatric epidemiology of violent behaviour. *Social Psychiatry and Psychiatric Epidemiology, 33*, S13–S33.
- Estroff, S.E., Swanson, J.W., Lachiotte, W.S., Swartz, M., & Bolduc, M. (1998). Risk reconsidered: Targets of violence in the social networks of people with serious psychiatric disorders. *Social Psychiatry and Psychiatric Epidemiology, 33*, S95–S101.
- Estroff, S.E., & Zimmer, C. (1994). Social networks, social support, and violence among persons with severe, persistent mental illness. In J. Monahan & H. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment* (pp. 259–295). Chicago: University of Chicago Press.
- Geen, R.G. (1990). *Human aggression*. Pacific Grove, CA: Books/Cole.
- Grisso, T., Davis, J., Vesselinov, R., Appelbaum, P., & Monahan, J. (2000). Violent thoughts and violent behavior following hospitalization for mental disorder. *Journal of Consulting and Clinical Psychology, 68*, 388–398.
- Grove, W., & Meehl, P. (1996). Comparative efficiency of informal and formal prediction procedures: The clinical-statistical controversy. *Psychology, Public Policy, & Law, 2*, 293–323.
- Hanson, R.K. (1998). What do we know about sex offender risk assessment? *Psychology, Public Policy, & Law, 4*, 50–72.
- Hare, R. (1991). *The Hare Psychopathy Checklist—Revised*. Toronto: Multi-Health Systems.
- Hare, R. (1993). *Without conscience: The disturbing world of the psychopaths among us*. New York: Pocket Books.
- Hare, R. (1998). Psychopaths and their nature: Implications for the mental health and criminal justice systems. In T. Millon, E. Simonsen, M. Birket-Smith, & R. Davis (Eds.), *Psychopathy: Antisocial, criminal, and violent behavior* (pp. 188–212). New York: Guilford.
- Heilbrun, K. (1998, April). Advanced topics in risk assessment: Approaches, populations, communication and decision making. Workshop presented at the American Academy of Forensic Psychology Meetings, San Juan, Puerto Rico.
- Hersh, K., & Borum, R. (1998). Command hallucinations, compliance, and risk assessment. *Journal of the American Academy of Psychiatry and Law, 26*, 353–359.
- Hiday, V., Swartz, M., Swanson, J.W., Borum, R., & Wagner, H.R. (1998). Male-female differences in the setting and construction of violence among people with severe mental illness. *Social Psychiatry and Psychiatric Epidemiology, 33*, 868–874.
- Kaplan, M.S., & Geling, O. (1998). Firearm suicides and homicides in the United States: Regional variations and patterns of gun ownership. *Social Science and Medicine, 46*, 1227–1233.
- Kay, S.R., Wolkenfeld, F., & Murrill, L.M. (1988). Profiles of aggression among psychiatric inpatients II: Correlates and predictors. *Journal of Nervous and Mental Disease, 176*, 547–557.
- Klassen, D., & O'Connor, W. (1994). Demographic and case history variables in risk assessment. In J. Monahan & H.J. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment* (pp. 229–258). Chicago: University of Chicago Press.
- Krakowski, M. (1997). Neurologic and neuropsychologic correlates of violence. *Psychiatric Annals, 27*, 674–678.

- Lidz, C., Mulvey, E., & Gardner, W. (1993). The accuracy of predictions of violence to others. *Journal of the American Medical Association*, 269, 1007–1011.
- Link, B.G., & Steuve, A. (1994). Psychotic symptoms and the violent/illegal behavior of mental patients compared to community controls. In J. Monahan & H. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment* (pp. 137–159). Chicago: University of Chicago Press.
- Link, B.G., Steuve, A., & Phelan, J. (1998). Psychotic symptoms and violent behaviors: Probing the components of “threat/control-override” symptoms. *Social Psychiatry and Psychiatric Epidemiology*, 33, S55–S60.
- Maris, R. (1992). Overview of the study of suicide assessment and prediction. In R.W. Maris, A.L. Berman, J.T. Maltsberger, & R.I. Yufit (Eds.), *Assessment and prediction of suicide* (pp. 3–22). New York: Guilford.
- Marzuk, P.M., Leon, A.C., Tardiff, K., Morgan, E.B., Stajic, M., & Mann, J. (1992). The effect of access to lethal methods of injury on suicide rates. *Archives of General Psychiatry*, 49, 451–458.
- McCullough, L.E., McNeil, D.E., Binder, R., & Hatcher, C. (1986). Effects of a weapon screening procedure in a psychiatric emergency room. *Hospital and Community Psychiatry*, 37, 837–838.
- McNeil, D.E. (1997). Correlates of violence in psychotic patients. *Psychiatric Annals*, 27, 683–690.
- McNeil, D.E., & Binder, R.L. (1987). Patients who bring weapons to the psychiatric emergency room. *Journal of Clinical Psychiatry*, 48, 230–233.
- McNeil, D.E., & Binder, R.L. (1989). Relationships between threats and violent behavior by acute psychiatric inpatients. *Hospital and Community Psychiatry*, 40, 605–608.
- McNeil, D.E., & Binder, R.L. (1994). Screening for risk of inpatient violence: Validation of an actuarial tool. *Law and Human Behavior*, 18, 579–586.
- McNeil, D.E., & Binder, R.L. (1995). Correlates of accuracy in the assessment of psychiatric inpatients’ risk of violence. *American Journal of Psychiatry*, 152, 901–906.
- McNeil, D., Binder, R., & Greenfield, T.K. (1988). Predictors of violence in civilly committed acute psychiatric patients. *American Journal of Psychiatry*, 145, 965–970.
- Meehl, P. (1954). *Clinical versus statistical prediction: A theoretical analysis and a review of the evidence*. Minneapolis, MN: University of Minnesota Press.
- Megargee, E.I. (1970). The prediction of violence with psychological tests. In C.D. Spielberger (Ed.), *Current topics in clinical and community psychology* (Vol. 2, pp. 97–146). New York: Academic Press.
- Melton, G.B., Petrila, J., Poythress, N., & Slobogin, C. (1997). *Psychological evaluations for the courts: A handbook for mental health professionals and lawyers*. New York: Guilford.
- Monahan, J. (1981). *The clinical prediction of violent behavior*. Washington, DC: US Government Printing Office.
- Monahan, J. (1984). The prediction of violent behavior: Toward a second generation of theory and policy. *American Journal of Psychiatry*, 141, 10–15.
- Monahan, J. (1988). Risk assessment of violence among the mentally disordered: Generating useful knowledge. *International Journal of Law and Psychiatry*, 11, 249–257.
- Monahan, J. (1992). Mental disorder and violent behavior: Perceptions and evidence. *American Psychologist*, 47, 511–521.
- Monahan, J., & Steadman, H. (1983). Crime and mental disorder: An epidemiological approach. In M. Tonry and N. Morris (Eds.), *Crime and justice: An annual review of research* (pp. 145–189). Chicago: University of Chicago Press.
- Monahan, J., & Steadman, H. (Eds.) (1994). *Violence and mental disorder: Developments in risk assessment*. Chicago: University of Chicago Press.
- Monahan, J., Steadman, H., Appelbaum, P., Robbins, P., Mulvey, E., Silver, E., Roth, L., & Grisso, T. (2000). Developing a clinically useful actuarial tool for assessing violence risk. *British Journal of Psychiatry*, 176, 312–319.

- Mossman, D. (1994). Assessing predictions of violence: Being accurate about accuracy. *Journal of Consulting and Clinical Psychology, 62*, 783–792.
- Mulvey, E.P., & Lidz, C.W. (1998). Clinical prediction of violence as a conditional judgment. *Social Psychiatry and Psychiatric Epidemiology, 33*, S107–113.
- Novaco, R.W. (1994). Anger as a risk factor for violence among the mentally disordered. In J. Monahan & H. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment* (pp. 21–60). Chicago: University of Chicago Press.
- Ogloff, J., Wong, S., & Greenwood, A. (1990). Treating criminal psychopaths in a therapeutic community program. *Behavioral Sciences & the Law, 8*, 81–90.
- Otto, R.K. (1992). Predicting dangerous behavior: A review and analysis of second generation research. *Forensic Reports, 5*, 103–133.
- Otto, R.K. (1994). On the ability of mental health professionals to “predict dangerousness”: A commentary on interpretations of the “dangerousness” literature. *Law & Psychology Review, 18*, 43–68.
- Otto, R.K., & Borum, R. (1999). *Assessing and managing violence risk*. Tampa, FL: Florida Mental Health Institute.
- Pettila, J., Otto, R.K., & Poythress, N. (1994). Violence, mental disorder, and the law. In M. Constanzo & S. Oskamp (Eds.), *Violence and the law* (pp. 161–180). Thousand Oaks, CA: Sage.
- 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., Harris, G., and Cormier, C. (1992). An evaluation of a maximum security therapeutic community for psychopaths and other mentally disordered offenders. *Law and Human Behavior, 16*, 399–412.
- Ross, D.J., Hart, S.D., & Webster, C.D. (1998). Facts and fates: Testing the HCR-20 against aggressive behavior in hospital and community. Unpublished manuscript, Simon Fraser University.
- Sloan, J.H., Kellerman, A.L., Reay, D.T., & Ferris, J.A. (1988). Handgun regulations, crime assaults, and homicide: A tale of two cities. *New England Journal of Medicine, 319*, 1256–1262.
- Steadman, H.J., Monahan, J., Appelbaum, P.S., Grisso, T., Mulvey, E.P., Roth, L.H., Robbins, P.C., Klassen, D. (1994). Designing a new generation of risk assessment research. In J. Monahan & H. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment* (pp. 297–318). Chicago: University of Chicago Press.
- Steadman, H.J., Mulvey, E., Monahan, J., Robbins, P., Appelbaum, P.S., Grisso, T., Roth, L.H., & Silver, E. (1998). Violence by people discharged from acute psychiatric inpatient facilities and by others in the same neighborhoods. *Archives of General Psychiatry, 55*, 393–401.
- Steuve, A., & Link, B.G. (1998). Gender differences in the relationships between mental illness and violence: Evidence from a community based epidemiological study in Israel. *Social Psychiatry and Psychiatric Epidemiology, 33*, S61–S67.
- Strand, S., Belfrage, H., Fransson, G., & Levander, S. (1999). Clinical and risk management factors in risk predictions of mentally disordered offenders: More important than actuarial data? *Legal and Criminological Psychology, 4*, 67–76
- Strauss, M., Gelles, R.J., & Steinmetz, S.K. (1980). *Behind closed doors: Violence in the American family*. New York: Doubleday.
- Straznickas, K.A., McNeil, D.E., & Binder, R.L. (1993). Violence toward family care givers by mentally ill relatives. *Hospital and Community Psychiatry, 44*, 385–387.
- Swanson, J.W. (1994). Mental disorder, substance abuse, and community violence: An epidemiological approach. In J. Monahan & H. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment* (pp. 101–136). Chicago: University of Chicago Press.
- Swanson, J.W., Borum, R., Swartz, M., & Hiday, V. (1999). Violent behavior preceding hospitalization among persons with severe mental illness. *Law & Human Behavior, 23*, 183–202.

- Swanson, J.W., Borum, R., Swartz, M., & Monahan, J. (1996). Psychotic symptoms and disorders and the risk of violent behavior in the community. *Criminal Behavior and Mental Health*, 6, 317–338.
- Swanson, J.W., Holzer, C.E., Ganzu, V.K., & Jono, R.T. (1990). Violence and psychiatric disorder in the community: Evidence from the epidemiological catchment area surveys. *Hospital and Community Psychiatry*, 41, 761–770.
- Swanson, J.W., Swartz, M., Estroff, S., Borum, R., Wagner, R., & Hiday, V. (1998). Psychiatric impairment, social contact, and violent behavior: Evidence from a study of outpatient-committed persons with severe mental disorder. *Social Psychiatry and Psychiatric Epidemiology*, 33, 886–894.
- Swartz, M., Swanson, J., Hiday, V., Borum, R., Wagner, H.R., & Burns, B.J. (1998). Violence and severe mental illness: The effects of substance abuse and non-adherence to medication. *American Journal of Psychiatry*, 155, 226–231.
- Tardiff, K. (1992). The current state of psychiatry in the treatment of violent patients. *Archives of General Psychiatry*, 49, 493–499.
- Tardiff, K., Marzuk, P.M., Leon, A.C., & Portera, L. (1997). A prospective study of violence by psychiatric patients after hospital discharge. *Psychiatric Services*, 48, 678–681.
- Tardiff, K., Marzuk, P.M., Leon, A.C., Portera, L., & Wiener, C. (1997). Violence by patients admitted to a private psychiatric hospital. *American Journal of Psychiatry*, 154, 88–93.
- Taylor, P.J. (1998). When symptoms of psychosis drive serious violence. *Social Psychiatry and Psychiatric Epidemiology*, 33, S47–S54.
- VandeCreek, L., & Knapp, S. (2000). Risk management and life-threatening patient behaviors. *Journal of Clinical Psychology*, 56(10), 1335–1351.
- Webster, C.D., Douglas, K.S., Eaves, D., & Hart, S.D. (1997). HCR-20: Assessing risk for violence (Version 2). Burnaby, BC: Mental Health, Law, & Policy Institute, Simon Fraser University.
- Webster, C.D., Harris, G.T., Rice, M.E., Cormier, C., & Quinsey, V.L. (1994). The violence prediction scheme. Toronto: Centre of Criminology, University of Toronto.
- Webster, C., & Jackson, M. (1997). A clinical perspective on impulsivity. In C. Webster & M. Jackson (Eds.), *Impulsivity: Theory, assessment, and treatment* (pp. 13–31). New York: Guilford.
- Wessely, S., & Taylor, P. (1991). Madness and crime: Criminology versus psychiatry. *Criminal Behavior and Mental Health*, 1, 193–228.
- Widiger, T.A., & Trull, T.J. (1994). Personality disorders and violence. In J. Monahan & H. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment* (pp. 203–226). Chicago: University of Chicago Press.
- Wilson, J., & Herrnstein, R. (1985). *Crime and human nature*. New York: Simon & Schuster.
- Yesavage, J. (1983). Bipolar illness: Correlates of dangerous inpatient behavior. *British Journal of Psychiatry*, 143, 554–557.
- Yesavage, J., Becker, J., & Werner, P. (1983). Family conflict, psychopathology, and dangerous behavior by schizophrenic inpatients. *Psychiatry Research*, 8, 271–280.
- Ziskin, J. (1995). Challenging clinical Judgment. In J. Ziskin (Ed.), *Coping with psychiatric and psychological evidence* (5th ed., pp. 195–292). Los Angeles, CA: Law & Psychology Press.