7-1999

Threat Assessment: Defining an Approach to Assessing Risk for Targeted Violence

Randy Borum
Duke University Medical Center, wborum@usf.edu

Robert Fein
National Threat Assessment Center

Bryan Vossekuil
National Threat Assessment Center

John Berglund
National Threat Assessment Center

Threat Assessment: Defining an Approach for Evaluating Risk of Targeted Violence‡

Randy Borum,* Robert Fein,†
Bryan Vossekuil† and John Berglund†

Although the field of risk assessment has made tremendous advances in the past 20 years, assessments of targeted violence continue to pose a significant challenge to law enforcement, mental health, and other professionals. These specific and critical assessments require an innovative approach. The threat assessment model, developed and refined by the U.S. Secret Service, provides a useful framework for thinking about assessments of potential for targeted violence. In this paper, we attempt to define this approach as it has been developed by the Secret Service, and apply it within the existing professional/scientific literature on risk assessment. We begin with a brief review of existing models and approaches in risk assessment, and identification of some gaps in our existing knowledge as it relates to assessments of targeted violence. We then proceed with an outline of the threat assessment approach, including a review of principles and guiding operational questions, and discussion of its use in assessment of targeted violence.

The effective assessment and management of people identified as being at risk for violence continues to be a significant concern in the mental health and criminal justice communities. Traditionally, mental health professionals have been involved in decisions about the risk that their clients may pose to third parties, and patients' readiness for discharge, need for secure treatment, or likelihood of violent recidivism (Borum, 1996; Borum, Swartz, & Swanson, 1996). Court and correctional systems have similarly been required to make risk-related decisions about pre-trial release, parole, and appropriateness of community sanctions (Melton, Petrila, Poythress, & Slobogin, 1997; Quinsey, Harris, Rice, & Cormier, 1998; Rice, 1997). These recommendations and decisions have usually been aimed at preventing violent behavior.

In contrast, the primary role of law enforcement professionals in violent crime has historically been reactive, rather than preventive. Most investigators are called upon to investigate violent crimes *after* they have occurred, and to aid in bringing the perpetrators to justice.

Recent changes in the law, in protective responsibilities, and in contexts for violence, however, have changed the nature of some risk assessments tasks that professionals are required to perform (Bureau of Justice Assistance, 1996; de Becker, 1997; Fein & Vossekuil, 1998; Fein, Vossekuil, & Holden, 1995; Meloy, 1998; VandenBos & Bulatao, 1996; Wheeler & Baron, 1994). Specifically, mental health and law enforcement professionals are now being called upon, not just to assess risk for general violent recidivism, but to assess risk for specific types of violence. Others, such as corporate security managers, human resource of professionals, and school principals and counselors, also may be faced with situations of potential targeted violence. The task in such a situation is to determine the nature and degree of risk a given individual may pose to an identified or identifiable target(s). Although technologies and models have been developed for assessing risk of general recidivism and violence, assessing risk for targeted violence may require a very different approach.

We believe that a threat assessment model is most appropriate for use in assessing risk for targeted violence. In this paper, we attempt to define this approach as it has been developed by the United States Secret Service, and apply it within the existing professional/scientific literature on risk assessment.

This paper begins with a brief review of traditional risk assessment models and approaches in risk assessment, and identification of some gaps in our existing knowledge as it relates to assessments of targeted violence. It then proceeds with an outline of the threat assessment approach, including a review of principles and guiding operational questions, and discussion of its use in assessment of targeted violence.

Approaches to Risk Assessment

Over the past 20 years, there has been an evolution in the way mental health professionals have thought about and conducted assessments of violence potential (Borum *et al.*, 1996; Heilbrun, 1997; Litwack, Kirschner, & Wack, 1993; Melton *et al.*, 1997; Monahan, 1996; Webster, Douglas, Eaves, & Hart, 1997). Conceptually, there has been a shift from the violence prediction model, where dangerousness was viewed as dispositional (residing within the individual), static (not subject to change) and dichotomous (either present or not present) to the current risk assessment model where dangerousness or "risk" as a construct is now predominantly viewed as contextual (highly dependent on situations and circumstances), dynamic (subject to change) and continuous (varying along a continuum of probability).

The evolution has not only changed the way that professionals think about assessments, but also the way that they conduct them. Many behavioral scientists are aware of the classic "clinical versus actuarial" debate, the thrust of which is a polemic about whether clinical decisions, including decisions about violence risk, should be made by clinical judgement ("using our heads") or by using statistical formulas (Dawes, Faust, & Meehl, 1989; Melton *et al.*, 1997; Miller & Morris, 1988; Quinsey *et al.*, 1998).

Fairly read, the existing literature on the comparison of these two methods, across a number of decisional tasks, suggests that statistical formulas consistently perform as well or better than clinical judgements (Borum, Otto, & Golding, 1993; Dawes *et al.*, 1989; Garb, 1994; Grove & Meehl, 1996; Meehl, 1970; Melton *et al.*, 1997; Quinsey *et al.*, 1998). This is a logical conclusion since it is well known that reliability sets the lower threshold for validity, and statistical equations, when properly applied, will always predict with perfect reliability, whereas clinical judgements may not (Borum, 1996).

The potential for improved accuracy has led some scholars to suggest that actuarial methods (statistical equations) are the preferred method for making decisions about likelihood of future violence (Dawes *et al.*, 1989; Faust & Ziskin, 1988; Grove & Meehl, 1996; Quinsey *et al.*, 1998). This position has been supported, in part, by pessimistic results from the first generation studies on predictive accuracy of clinical judgements by mental health professionals (Monahan, 1981). However, as Monahan (1988) has noted, those studies were plagued by weak criterion measures of violence (resulting in specious false positives) and restricted validation samples (because those who are at greatest risk for violence, and about whom there is likely to be the greatest professional consensus, cannot and will not be released into the community for follow-up).

A second generation of research, within the past 15 years, has resulted in conclusions which are much more optimistic and suggest that mental health professionals' assessments of risk do have some predictive validity (Borum, 1996; Lidz, Mulvey, & Gardner, 1993; Monahan & Steadman, 1994; Monahan, 1997; Mossman, 1994; Otto, 1992). Indeed, in a recent review of 58 existing data sets on violence prediction, Mossman (1994) found that although actuarial equations performed better than human judgements for long-term follow up (one year or more), the average accuracy of the formulas for shorter time periods (less than one year) were comparable to the average for clinical predictions (p. 789).

Even if actuarial methods were consistently superior, however, these methods can only be applied when appropriate equations exist, have been adequately validated, and are applicable to the question and population at issue (Melton *et al.*, 1997; Monahan, 1997). Although some positive efforts have been made in this regard, actuarial technology is still not well developed for many clinical populations or risk assessment tasks. Accordingly, the prevailing method for risk assessments is to conduct evaluations which are empirically based and informed by research, but where the ultimate decision relies on clinical judgement (Melton *et al.*, 1997).

This is similar to the model proposed by Monahan (1981) almost 20 years ago in which he recommended that clinicians identify the actuarial risk factors in a given case and establish a relevant base rate to anchor judgements about the probability of violence. This approach may be useful for making global assessments of risk for among criminal offenders or people with mental disorder. But the model is more difficult to apply to assessments of targeted violence because the base rates are extremely low and the research base is so far lacking. Most research studies have examined either convicted criminal offenders or people with mental disorders, and the criterion focus has been on general criminal and/or violent recidivism (Bonta, Law, & Hanson, 1998; Steadman, Mulvey, Monahan, *et al.*, 1998). Research regarding risk factors and patterns of behavior in these groups may not generalize well to other groups and other types of assessment such as workplace violence,

relationship violence, stalking, school violence, or assassination of public figures. Similarly, little information is available about predictors for specific types of violence, although it is known that different types of violence may have different predictors (Campbell, 1995; Furby *et al.*, 1989; Hall, 1996; Hanson & Bussiere, 1996; Quinsey, Lalumiere, Rice, & Harris, 1995). Thus, although the risk assessment literature generally is quite substantial, it is unclear how, whether or to what extent, the aggregate data from this research will generalize to assessments of risk for targeted violence (Fein & Vossekuil, 1998).

Despite the lack of empirical guidance, mental health, criminal justice, and other professionals are regularly and increasingly required to assess the nature and degree of threat for a specific type of violence posed by individuals who have come to official attention. Police officials, workplace supervisors, school principals, and others who are approached with information about an instance of potential targeted violence must increasingly take action to gather information about the risk of violence and then attempt to resolve any problematic situation.

While the base rates for these specific violent events are often quite low, this does not absolve investigators and evaluators from responsibility to assess risk in the instant case. For example, if a worker makes a threat against the life of his supervisor, that case cannot be dismissed based solely on the fact that the base rate for workplace homicides commited by co-workers is miniscule. The rarity of this event, however, limits the utility of an approach that is driven by base rates or is purely actuarial. Statistical formulas are likely never to be useful for predicting infrequent instances of targeted violence such as school or workplace homicides, because the base rate is so low that, mathematically, high rates of accuracy are nearly impossible. Similarly, a strictly clinical approach to assessment of targeted violence may also be limited. An alleged potential assailant may not be seriously mentally disordered. If the potential perpetrator does suffer from a mental disorder, the relationship of the disorder to potential targeted violence may be unknown. And exclusive reliance on clinical techniques, such as interviews and psychological tests—common features in clinical assessments—may provide only partial, inaccurate, or irrelevant information to the task of predicting an act of targeted violence. Thus, an alternate approach is required.

THREAT ASSESSMENT

Until recently, most law enforcement investigations of violent crime have been conducted *after* the offense has occurred. However, with new stalking laws, restraining orders, and increased concern about violence in schools and in the workplace, there is a growing impetus to develop responses to prevent violent behavior by responding to the threats and behavior of individuals that place other identifiable persons at increased risk of harm (Buzawa & Buzawa, 1996; Heide, 1998; Kelleher, 1996; Meloy, 1998).

Thus far, the United States Secret Service has been the main law enforcement agency with long-standing responsibilities to prevent targeted violence crimes: namely, assassination of national leaders. Since the early 1990s the Secret Service has been responsible for preventing attacks against the President and other national leaders. Secret Service agents routinely conduct investigations and "threat assess-

ments'' of individuals whose behavior causes concern about the safety of persons under Secret Service protection. While some military and other governmental agencies have responsibilities for assessing threats by groups or individuals in the context of counter-terrorism, the trend emerging from stalking laws and related concerns about threats and high risk persons is bringing, for the first time, threat assessment duties to almost every law enforcement department in the country.

Expectations for how to handle these cases are likely to be unclear and unfamiliar to most law enforcement personnel, even to those who are very skilled and experienced investigators. The skills and background required to conduct competent threat assessments are in some ways different from those needed for other types of investigations (Fein *et al.*, 1995).

Traditionally, investigators have been asked to gather, document, and evaluate facts about an incident in order to establish that a crime was committed, to identify and apprehend the suspect, to recover any stolen property, and to assist the state in prosecuting the suspect (Swanson, Chemalin, & Territo, 1984). Threat assessment, in contrast, is a set of investigative and operational activities designed to identify, assess, and manage persons who may pose a threat of violence to identifiable targets (Fein *et al.*, 1995).

Threat assessments require a new way of thinking and a new set of skills for criminal justice professionals. These investigations involve analysis of a subject's behavior and examination of patterns of conduct that may result in an attack on a particular target(s). The level of threat posed by a given subject at a given time becomes a central concern in the investigation and management of the case.

Mental health professionals are sometimes called upon in these circumstances either to assist law enforcement or to conduct independent evaluations to assess risk and recommend strategies to prevent future violence. Mental health professionals faced with threat assessment responsibilities cannot rely on conventional models and data. The persons to be examined and the outcomes of concern may be different from those traditionally encountered in clinical and forensic evaluations. Adequate actuarial approaches have not been (and are not likely to be) developed. The extant research base may have limited generalizability. Therefore, mental health examiners will also have to develop new skills and new ways of thinking about these assessments.

Conceptual Approach

The threat assessment approach is a fact-based method of evaluation that has been developed, refined, and used by the U.S. Secret Service in its protective intelligence activities to protect the President of the United States and other U.S. and foreign leaders. Although the approach was developed based on data about persons who attacked or attempted to attack public officials and figures in the U.S., much of the general approach can be applied with some modification to evaluating risk for other forms of targeted violence.

Conceptually, this approach is innovative in two ways: (1) it does not rely on descriptive, demographic, or psychological profiles and (2) it does not rely on verbal or written threats as a threshold for risk (Fein & Vossekuil, 1998).

First, the threat assessment approach moves away from the idea of ''profiling,'' and instead looks at pathways of ideas and behaviors that may lead to violent action.

The notion of "psychological profiles" was initially developed as an investigative technique to aid in determining the "type" of person most likely to commit a given offense based on inferences from the evidence and/or the subject's behavior at the scene (Holmes & Holmes, 1996). While this may be an effective strategy for limiting the field of suspects after a crime has occurred, it is not a useful framework for prospectively identifying persons who are at greater or lesser degrees of risk for targeted violence. Nevertheless, the idea that there are "profiles" of perpetrators of targeted violence, including assassination, workplace violence, and school violence is a popular one.

For example, in the human resource literature, there are numerous references suggesting that the "profile" of the "violent employee" is of a white male in his mid-30s, who is a loner, etc. (e.g., Kinney & Johnson, 1993, p. 40). The problem with this approach is that, since instances of targeted workplace violence are rare, profiles will neither be sufficiently sensitive nor specific. Given the relative infrequency of events such as workplace violence, assassination, or school homicide, the vast majority of people who "fit" any given profile will not engage in that behavior. Conversely, there have been (and will continue to be) people who commit these acts who do not fit any known profile.

In the literature on assassination, the classic "profile" of the "American assassin" is of a male attacker (Kirkham *et al.*, 1969). Although most persons who have attempted to assassinate presidents have been male, several assassins— including Lynette "Squeaky" Fromme and Sara Jane Moore—were female. Reliance on a profile of male presidential assassins would rule out the possibility that a woman might try to kill the President. Instead of looking at demographic and psychological characteristics, the threat assessment approach, focuses on a subject's thinking and behaviors as a means to assess his/her progress on a pathway to violent action. The question in a threat assessment is not "What does the subject 'look like'?" but "Has the subject engaged in recent behavior that suggests that he/she is moving on a path toward violence directed toward a particular target(s)?".

Second, the threat assessment approach does not rely on direct communication of threat as a threshold for an appraisal of risk or protective action. Investigators make a distinction between people who *make* threats and those who *pose* a threat. Persons who appear to pose a threat provoke the greatest level of concern. Although some people who make threats ultimately pose threats, many do not.

The U.S. Secret Service investigates thousands of cases in which threats have been made toward protected officials. Analysis of Secret Service case files suggests that very few of these threateners have ever made an attempt to harm a protectee. Conversely, there are also some people who pose threats who never communicate direct threats. In fact, *none* of the 43 people who attacked a public figure in the last 50 years in the United States ever communicated a threat directly to the intended target (Fein & Vossekuil, 1999). In a earlier line of research, Dietz and Martell (1989) reached a similar conclusion:

> "We have disproved the myth that threats and threateners are the only communications or people of concern. The most common assumption in all quarters—laymen, mental health professionals, law enforcement professionals and lawmakers—is that threats foretell more dangerous behavior, but that other odd communications do not. This is a groundless assumption and the source of more misguided policy and decision making than any other error in this field" (pp. 166–167).

Principles of Threat Assessment

There are three fundamental principles underlying the threat assessment approach (Fein & Vossekuil, 1998). The first principle is that targeted violence is the result of an understandable and often discernible process of thinking and behavior. Acts of targeted violence are neither impulsive nor spontaneous. Ideas about monitoring an attack usually develop over a considerable period of time. In targeted violence, the subject must engage in planning around a series of critical factors such as which target(s) to select, the proper time and approach, and the means for violence. A potential attacker may collect information about the target, the setting of the attack, or about similar attacks. He or she may communicate ideas to others. For some of these individuals the process of planning and thinking about the attack dominates their lives and provides a sense of purpose or an attainable goal by which they see an end to their emotional pain.

The second principle is that violence stems from an interaction among the potential attacker, past stressful events, a current situation, and the target. As noted above in the discussion of the risk assessment model, researcher and practitioners are moving away from exclusive focus on the individual and toward a more situational/contextual understanding of risk.

An assessment of the attacker may consider relevant risk factors, development and evolution of ideas concerning the attack, preparatory behaviors, and an appraisal of how the individual has dealt with *unbearable* stress in the past. When usual coping mechanisms are ineffective, people often react by becoming physically ill, psychotic, self-destructive, or violent toward others. It is useful to consider how the potential attacker has responded in the past when stressful events overwhelmed his/her coping resources. An assessment of the risk may be informed by an examination of the person's history of response to traumatic major changes or losses, such as loss of a loved one (e.g., ending of an intimate relationship or loss of a parent) or loss of status (e.g., public humiliation, failure or rejection, or loss of job or financial status). The salience of the risk may be determined by examining the *types* of event that have led the individual to experience life as unbearably stressful, the *response* to those events, and the likelihood that they may *recur*.

In addition to assessing the potential attacker and past stressful events, the evaluator must also appraise the current situation and the target. Consideration of the current situation includes both an appraisal of the likelihood that past life events that have triggered consideration of self-destructive or violent behavior will recur (or are recurring) and an assessment of how others in the subject's environment are responding to his/her perceived stress and potential risk. Since others may act to prevent violence, it is useful to know whether people around the subject support, accept, or ignore the threat of violence or whether they express disapproval and communicate that violence is an impermissible and unacceptable solution to the problem.

Finally, an evaluator must assess relevant factors about the intended target, including the subject's degree of familiarity with the target's work and lifestyle patterns, the target's vulnerability, and the target's sophistication about the need for caution.

The third principle is that a key to investigation and resolution of threat assessment cases is identification of the subject's "attack-related" behaviors. Those

who commit acts of targeted violence often engage in discrete behaviors that precede and are linked to their attacks, including thinking, planning and logistical preparations. Attack-related behaviors may move along a continuum beginning with the development of an idea about attack, and moving to communication of these ideas or an inappropriate interest in others, to following, approaching, and visiting the target or scene of the attack, even with lethal means. Learning about and analyzing these behaviors may be critical to an appraisal of risk.

Conducting the Assessment

As with any comprehensive risk appraisal, information in a threat assessment investigation should be gathered from multiple sources. More confidence can be placed in data which can be corroborated. Information sources may include personal interviews with the subject, material created or possessed by the subject, interviews with persons who know or have known the subject, and records and archival information. Information should be sought in at least five areas: facts bringing the subject to attention, the subject, attack-related behaviors, motive(s), and target selection (Fein & Vossekuil, 1998; Fein *et al.*, 1995).

As a preliminary matter, an assessor should evaluate the circumstances that first brought the individual to official attention (e.g., investigator, school principal, HR manager, etc.). If the initial concern was precipitated by the report of someone else, rather than by direct observation of the subject's behavior, then it is reasonable to consider the credibility of the informant. Sometimes, people will provide false information about another's behavior or propensity for violence as a retributive measure or as a diversionary tactic for their own violent intentions. Thus, the veracity of the facts bringing the subject to attention should be carefully investigated.

Three types of information about the subject are typically collected; identifying information, background information, and information about the subject's current situation and circumstances. Identifying information would include name, physical description, date of birth, identification numbers, etc. Background information would include residences, education, military and employment history, history of violence and criminal behavior, mental health/substance abuse history, a relationship history, as well as information on the subject's expertise and use of weapons, history of grievances, and history of harassing others. Current life information would include stability of living and employment situations, nature and quality of relationships and personal support, recent losses, pending crises or changes in circumstances, hopelessness, desperation, and any "downward" progression in social, occupation, or psychological functioning.

The third area of inquiry is attack-related behaviors. As previously noted, attacks of targeted violence may be preceded by a series of preparatory behaviors including selection and location of the target, securing a weapon, subverting security measures, etc. Behaviors of concern include: (1) an unusual interest in instances of targeted violence, (2) evidence of ideas or plans to attack a specific target (e.g., diary notes, recent acquisition of a weapon), (3) communications of inappropriate interest or plans to attack a target (although direct threats to the target may be rare, subjects may communicate information about intentions to family, friends,

co-workers, etc.), (4) following a target or visiting a possible location of an attack, and (5) approaching a target or protected setting. Any history of attack-related behaviors committed with a weapon and any illegitimate breaches of security are cause for concern. This is particularly true if a weapon was acquired proximate to the development of an inappropriate interest or plan of attack.

The fourth area of inquiry relates to the subject's motives. Motives may vary considerably depending on the nature and type of targeted violence (e.g., school homicide, relationship violence, assassination, workplace violence), but they are almost always directly related to target selection. Determining motive can give an indication of which potential target(s) might be at risk. Understanding motive might also be useful in determining the degree of risk. Attacks are not always motivated by animosity or hostility toward the target. In fact, contrary to popular belief, in the area of American assassination, political ideology or objectives have motivated very few assassination attempts on political figures. Major motives of U.S. public official and public figure attackers and near-attackers were: to achieve notoriety or fame, to bring attention to a personal or public problem, to avenge a perceived wrong or retaliate for a perceived injury, and to end personal pain/to be removed from society/to be killed (Fein & Vossekuil, 1999). Motives for violence toward public figures may be different than those for violence toward other targets. In any case, the potential motive should be investigated and not just assumed.

Finally, attention should be given to target selection. Depending upon the motive, a potential assailant may consider multiple targets choosing one. An aggrieved worker, for example, might consider violence toward a given supervisor, or a human resources manager, or the CEO of a company before selecting one or more targets that permit the attacker to accomplish his/her symbolic or instrumental objectives. Evaluators should be aware of how a potential attacker's directions of interest may have shifted over time and may shift in the future. If multiple targets have been considered, it is useful to note why the subject has discounted them, as they may provide additional information about motive, planning, attack-related behaviors, and potential intervention.

Key Questions in Threat Assessment Investigations

The U.S. Secret Service, based on experience and assassination research, has identified 10 key questions to guide a protective intelligence or threat assessment investigation (Fein & Vossekuil, 1998). These questions flow directly from the fundamental threat assessment principles outlined above and can be adapted by evaluators for use in assessing other threats of targeted violence.

Question 1: What motivated the subject to make the statements, or take the action, that caused him/her to come to attention?

This is the fundamental "why" question of any investigation. It is useful for an investigator to explore a variety of possibilities in direct and indirect ways, rather than relying exclusively on the subject's own insights or disclosure. It is worth considering whether the subject might be trying to obtain help, to cause problems

for another individual (e.g., co-worker, student, intimate partner), to avenge a perceived wrong, to consider (or commit) suicide, or to bring attention to a particular problem. It is also helpful to inquire about whether the subject is using his/her actions as a means to end a "problem," and the extent to which he/she views violence as a legitimate means to that end.

Question 2: What has the subject communicated to anyone concerning his/her intentions?

As noted above, the communication of a direct threat to the target should not be a necessary or sufficient condition for determining that a subject *poses* an actual threat—or the only basis for initiating an inquiry. Many individuals who engage in targeted violence do not direct threats to their targets, but communicate their ideas, plans, or intentions to others. Some also keep journals or diaries recording their thoughts and behaviors. Collateral informants (family, friends, caregivers, and co-workers) should be questioned about any unusual or inappropriate ideas and any signs of the subject's desperation or deterioration.

Question 3: Has the subject shown an interest in targeted violence, perpetrators of targeted violence, weapons, extremist groups, or murder?

Some perpetrators of targeted violence show an unusual interest in acts similar to the one they are planning. They may talk excessively about these events, make inquiries about the consequences of such actions, make inquiries about obtaining a weapon, or even attempt to contact prior perpetrators of these acts. Affiliation with or interest in extremist groups may not be a specifically predictive factor but some perpetrators of targeted violence give themselves "permission" for violence by believing that they are acting in accord with extremist groups or ideology (Pynchon & Borum, 1999).

Question 4: Has the subject engaged in attack-related behavior, including any menacing, harassing, and/or stalking-type behavior?

Very few attackers of U.S. public official and figures had histories of arrests for violent crime or crimes involving a weapon; however, many had histories of harassing other persons. It is not yet known whether perpetrators of other kinds of targeted violence have similar histories. Patterns of harassment or menacing behavior may be cause for concern. If a subject engaged in harassment or menacing behavior in the past, how were they stopped? How were these situations resolved?

Consideration should also be given to the individual's willingness to use violence against a given target, blaming a target for a grievance, developing an unusual interest in the target, planning and discussing plans, preparatory behaviors, following a target, approaching a site, and attempting to breach security.

Question 5: Does the subject have a history of mental illness involving command hallucinations, delusional ideas, feelings of persecution, etc. with indications that the subject has acted on those beliefs?

Mental illness appears only rarely to play a key role in assassination behaviors (Fein & Vossekuil, 1999). The extent to which this applies to other forms of targeted violence is currently unknown. What is known, generally, however, is that mental illness *per se* does not have a strong association with violent behavior. Rather, any association between mental illness and violence appears primarily to be related to substance abuse and/or specific psychotic symptoms.

Evidence related to compliance with command hallucinations is mixed. (See Hersh & Borum, 1998.) Early studies suggested that rates at which people followed commands was low, yet more recent studies with larger samples show compliance rates ranging from 40% to 89%. Risk of compliance seems greatest when the voice is familiar and there is a delusional belief consistent with the command. Consideration of an individual's past history of compliance with commands is also relevant.

Similarly, delusions may not always be a basis for action, but they may increase risk, particularly if the delusion involves perceived threat of harm by others and overriding of internal controls. Persons who reported these symptoms were about twice as likely to engage in assaultive behavior as those with other psychotic symptoms, and six times more likely than those without mental disorder (Swanson, Borum, Swartz, & Monahan, 1996). Acting on delusions is not uncommon, but it is also not inevitable. Wessely *et al*. (1993) found that 60–77% of psychotic inpatients reported acting on a delusion at least once. Persecutory delusions were most likely to be acted on, and risk of action increased if the person was aware of evidence which supported the delusion and actively sought out such evidence. Likewise, in a study of 54 psychiatric inpatients Junginger, Parks-Levy, & McGuire (1998) examined the degree to which their past incidents of violence were motivated by concurrent delusions. Most violent incidents did *not* appear to be motivated by delusions, but 40% of subjects reported at least one violent event that was "probably" or "definitely" motivated by a concurrent delusion.

Question 6: How organized is the subject? Is he/she capable of developing and carry out a plan?

Rather than using the presence or absence of mental illness as a proxy for an individual's capacity to execute a plan of attack, it is more useful to take a "functional" approach. Many people with mental disorders are quite well organized in their ability to plan their behavior. The evaluator should determine what steps would be necessary to carry out a given plan of targeted violence and then assess whether and the extent to which the subject is capable of developing and executing a viable plan of attack, including acquiring weapons, gaining access to the target, and foiling security measures. If the subject is mentally ill, however, it is useful to determine whether the subject is in treatment and likely to comply, and what his/her capacities might be when treated, as opposed to untreated.

Question 7: Has the subject experienced a recent loss and or loss of status, and has this led to feelings of desperation and despair?

Here, the investigator/evaluator is trying to determine whether the subject has experienced an event that has caused him/her to experience life as unbearably stressful. Significant losses may be material (treasured object), relational (death or separation of close relationship), or losses of status (narcissistic injury). Potential losses can be examined in at least four domains: family relations, intimate/peer relations, occupational, and self-image/status. It is relevant here also to assess the degree of hopelessness/desperation and the subject's potential for suicide. Inquiry into past stressful events may help the evaluator to determine the type of negative event that may occur in the future and to gauge the subject's likely response to them.

Question 8: Corroboration—What is the subject saying and is it consistent with his/her actions?

In any threat assessment investigation, an attempt should be made to corroborate as much information as possible from collateral sources. This information can then be used to assess the credibility and plausibility of the subject's statements and explanations. The evaluator should compare the subject's own account of ideas, motives, and behavior to those of others who know the subject. Similarly, such corroboration can aid in the assessment of an individual's capacity for attack.

Question 9: Is there concern among those that know the subject that he/she might take action based on inappropriate ideas?

It is valuable to investigate whether others who know the subject are afraid of him/her or are concerned that he/she may act violently. Such concern may be based on threats or "rantings." Others may have only noticed unexplainable changes in the subject's behavior or new and unusual ideas or interests. In any case, this concern and the specific bases for it should be carefully and thoroughly inquired.

Question 10: What factors in the subject's life and/or environment might increase/decrease the likelihood of the subject attempting to attack a target?

In addition to assessing the subject's current life circumstances, it is also necessary to evaluate foreseeable changes in circumstances that could serve either to stabilize or destabilize the individual. Destabilizers and "risky conditions" may be useful opportunities for intervention. Alternatively, they may be markers for periods in which additional investigative scrutiny is warranted, as in the case of a terminally ill family member who is expected to die within the next month, or in the situation of a volatile employee whose final appeal hearing of a termination decision is approaching. Conversely, the existence of a comprehensive system of support, and strong therapeutic alliances addressing the individual's social and security needs, may serve as a protective factor. Competent and adequate professional supervision

and control will also influence the degree of risk for exposure to destabilizing factors. For people with psychological problems, involvement with treatment may also have a protective effect in reducing risk (Estroff & Zimmer, 1994; Estroff, Zimmer, Lachicotte, & Benoit, 1994; Swanson *et al.*, 1997).

CONCLUSION

Assessments of targeted violence pose a significant challenge to law enforcement, mental health, and other professionals. In the past 20 years, the field of risk assessment has made tremendous advances, particularly in actuarial methods for assessing risk in certain populations. However, extremely rare events such as school homicide, workplace violence, or assassination do not lend themselves well to predictability with statistical equations. Additionally, the extent to which existing knowledge about criminal offenders and people with severe mental illness will generalize to other populations (e.g., those in school or general employment settings) has yet to be determined. Nevertheless, those who engage in behavior or communication of concern must be assessed.

The threat assessment approach, developed and refined by the U.S. Secret Service, provides a useful framework for thinking about assessments of potential for targeted violence. This is a fact-based method of assessment/investigation that does not rely on profiles, but focuses on an individual's patterns of thinking and behavior to determine whether, and to what extent, they are moving toward an attack. This approach can complement existing risk assessment technology and offer guidance for those who must assess and attempt to prevent targeted violence.

REFERENCES

Bonta, J., Law, M., & Hanson, K. (1998). The prediction of criminal and violent recidivism among mentally disordered offenders: A meta-analysis. *Psychological Bulletin*, *122*, 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., & Golding, S. (1993). Improving clinical judgement and decision making in forensic evaluation. *Journal of Psychiatry and Law*, *21*, 35–76.

Borum, R., Swartz, M., & Swanson, J. (1996). Assessing and managing violence risk in clinical practice. *Journal of Practical Psychiatry and Behavioral Health*, *2*(4), 205–215.

Bureau of Justice Assistance (1996). *Regional seminar series on developing and implementing antistalking codes*. NCJ 156836. Washington, DC: Author.

Buzawa, E., & Buzawa, C. (1996). *Do arrests and restraining orders work?*. Thousand Oaks, CA: Sage.

Campbell, J. (1995). *Assessing dangerousness: Violence by sexual offenders batterers and child abusers*. Thousand Oaks, CA: Sage.

Dawes, R., Faust, D., & Meehl, P. (1989). Clinical versus actuarial judgement. *Science*, *243*, 1668–1674.

de Becker, G. (1997). *The gift of fear: survival signals that protect us from violence*. Boston: Little Brown.

Dietz, P., & Martell, D. (1989). *Mentally disordered offenders in pursuit of celebrities and politicians*. Final Report. National Institute of Justice, Washington, DC.

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* (pp. 259–295). Chicago: University of Chicago Press.

Estroff, S. E., Zimmer, C., Lachicotte, W. S., & Benoit, J. (1994). The influence of social networks and social support on violence by persons with serious mental illness. *Hospital and Community Psychiatry*, *45*, 669–679.

Faust, D., & Ziskin, J. (1988). The expert witness in psychology and psychiatry. *Science*, *241*, 501–511.

Fein, R. A., & Vossekuil, B. (1998). *Protective intelligence and threat assessment investigations: A guide for state and local law enforcement officials*. (NIJ/OJP/DOJ Publication No. NCJ 170612). Washington, DC: U.S. Department of Justice.

Fein, R. A., & Vossekuil, B. (1999). Assassination in the United States: An operational study of recent assassins, attackers, and near-lethal approachers. *Journal of Forensic Sciences*, *50*, 321–333.

Fein, R. A., Vossekuil, B., & Holden, G. A. (1995). Threat assessment: An approach to prevent targeted violence. *National Institute of Justice: Research in Action*, pp. 1–7 1995, September.

Furby, L., Weinrott, M., & Blackshaw, L. (1989). Sex offenders' recidivism: A review. *Psychological Bulletin*, *105*, 3–30.

Garb, H. N. (1994). Toward a second generation of statistical prediction rules in psychodiagnosis and personality assessment. *Computers in Human Behavior*, *10*, 377–394.

Grove, W., & Meehl, P. (1996). Comparative efficiency of informal (subjective, impressionistic) and formal (mechanical, algorithmic) prediction procedures: The clinical–statistical controversy. *Psychology, Public Policy and Law*, *2*, 293–323.

Hall, H. (1996). *Lethal violence 2000: Fatal domestic, acquaintance, and stranger aggression*. Kameula, HI: Pacific Institute for the Study of Conflict and Aggression.

Hanson, K., & Bussiere, M. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology*, *66*, 348–362.

Heide, K. (1998). *Young killers: The challenge of juvenile homicide*. Thousand Oaks, CA: Sage.

Heilbrun, K. (1997). Prediction vs. management models relevant risk assessment: The importance of legal decision-making context. *Law and Human Behavior*, *21*, 347–359.

Hersh, K., & Borum, R. (1998). Command hallucinations, compliance and risk assessment. *Journal of the American Academy of Psychiatry and the Law*, *26*, 353–359.

Holmes, R., & Holmes, S. (1996). *Profiling violent crimes: An investigative tool*. Thousand Oaks, CA: Sage.

Junginger, J., Parks-Levy, J., & McGuire, L. (1998). Delusions and symptom-consistent violence. *Psychiatric Services*, *49*, 218–220.

Kelleher, M. (1996). *New arenas for violence: Homicide in the American workplace*. Westport, CN: Praeger.

Kinney, J., & Johnson, D. (1993). *Breaking point: The workplace violence epidemic and what to do about it*. Chicago: National Safe Workplace Institute.

Kirkham, J., Levy, S., & Crotty, W. (1969). *Assassination and political violence*. A Staff Report to the National Commission on the Causes and Prevention of Violence. Washington, DC: U.S. Government Printing Office.

Lidz, C., Mulvey, E., & Gardner, W. (1993). The accuracy of predictions of violence to others. *Journal of the American Medical Association*, *269*, 1007–1011.

Litwack, T., Kirschner, S., & Wack, R. (1993). The assessment of dangerousness and prediction of violence: Recent research and future prospects. *Psychiatric Quarterly*, *64*, 245–255.

Meehl, P. (1970). Psychology and criminal law. *University of Richmond Law Review*, *5*, 1–30.

Meloy, R. (1998). *The psychology of stalking: Clinical and forensic perspectives*. San Deigo: Academic.

Melton, G., Petrila, J., Poythress, N. G., & Slobogin, C. (1997). *Psychological evaluations for the courts: A handbook for mental health professionals and lawyers* (2nd ed.). New York: Guilford.

Miller, M., & Morris, N. (1988). Predictions of dangerousness: An argument for limited use. *Violence & Victims*, *3*, 263–270.

Monahan, J. (1981). *The clinical prediction of violent behavior*. Rockville, MD: NIMH.

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. (1996). Violence prediction: The last 20 years and the next 20 years. *Criminal Justice and Behavior*, *23*, 107–120.

Monahan, J. (1997). Clinical and actuarial predictions of violence. In D. Faigman, D. Kay, M. Saks & J. Sanders (Eds.), *Modern scientific evidence: The law and science of expert testimony* (pp. 300–318). St. Paul, MN: West.

Monahan, J., & Steadman, H. (1994). *Violence and mental disorder: Developments in risk assessment*. Chicago: The University of Chicago Press.

Mossman, D. (1994). Assessing predictions of violence: Being accurate about accuracy. *Journal of Consulting and Clinical Psychology*, *62*, 783–792.

Otto, R. (1992). The prediction of dangerous behavior: A review and analysis of "second generation" research. *Forensic Reports*, *5*, 103–133.

Pynchon, M., & Borum, R. (1999). Assessing threats of targeted group violence: Contributions from social psychology. *Behavioral Sciences & the Law*, *17*, 339–355.

Quinsey, V., Harris, G., Rice, M., & Cormier, C. (1998). *Violent offenders: Appraising and managing risk*. Washington, DC: American Psychological Association.

Quinsey, V., Lalumiere, M., Rice, M., & Harris, G. (1995). Predicting sexual offenses. In J. C. Campbell (Ed.), *Assessing dangerousness: Violence by sexual offenders, batterers and child abusers* (pp. 114–137). Thousand Oaks, CA: Sage.

Rice, M. (1997). Violent offender research and implications for the criminal justice system. *American Psychologist*, *52*, 414–423.

Steadman, H., Mulvey, E., Monahan, J., Robbins, P., Appelbaum, P., Grisso, T., Roth, L., & 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.

Swanson, C., Chamelin, N., & Territo, L. (1984). *Criminal Investigation* (3rd ed.). New York: Newbery Award Records.

Swanson, J., Borum, R., Swartz, M., & Monahan, J. (1996). Psychotic symptoms and disorders and the risk of violent behavior in the community. *Criminal Behaviour and Mental Health*, *6*, 317–338.

Swanson, J. W., Estroff, S., Swartz, M. S., Borum, R., Lachicotte, W., Zimmer, C., & Wagner, H. R. (1997). Violence and severe mental disorder in clinical and community populations: The effects of psychotic symptoms, comorbidity and lack of treatment. *Psychiatry: Interpersonal and Biological Processes*, *60*, 1–22.

VandenBos, G., & Bulatao, E. (1996). *Violence on the job: Identifying risks and developing solutions*. Washington, DC: American Psychological Association.

Webster, C. D., Douglas, K., Eaves, D., & Hart, S. (1997). *HCR-20: Assessing risk for violence*. (Version 2). Burnaby, British Columbia: Simon Fraser University and Forensic Psychiatric Services Commission of British Columbia.

Wessely, S., Buchanan, A., Reed, A., Cutting, J., Everitt, B., Garety, P., & Taylor, P. (1993). Acting on delusions: I. Prevalence. *British Journal of Psychiatry*, *163*, 69–76.

Wheeler, E., & Baron, S. (1994). *Violence in our schools, hospitals and public places: A prevention and management guide*. Ventura, CA: Pathfinder.