**Developments in Risk Assessment and Risk Reduction: Classification, Intervention Planning, Intervention, and Communication**

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I. INTRODUCTION

 A. Uses of Risk Assessment

 1. Civil commitment: hospitalization, treatment, and management

 2. Bail determination

 3. Sentencing

 a. adult

 b. juvenile

 4. Juvenile transfer and decertification

 5. Criminal commitment: hospitalization, treatment, and management

 a. Incompetent to stand trial

 b. Not guilty by reason of insanity

 6. Correctional transfers

 a. jail to hospital (and return)

 b. prison to hospital (and return)

 7. Release decision‑making (hospital, prison)

 8. Treatment needs/treatment progress

 a. domestic violence

 b. parole, probation

 c. NGRI

 d. sexual offenders

 e. civilly committed

 f. voluntarily hospitalized

 9. Sexual offender commitment, post-sentence

 10. Sexual offender community release notification

 11. Workplace violence assessment/consultation

 12. Child custody/parental fitness

 13. Psychotherapy

 a. *Tarasoff* and progeny

 14. Witness Security Program evaluations

 C. Learning Objectives

1. Describe conceptual advances in risk assessment, including the relation between risk assessment, prediction, and management
2. Describe relevant and supporting research.
3. Describe the relevant legal and ethical contours of risk assessment
4. Describe the clinical-forensic procedures and relevant safety considerations applicable to risk assessment
5. Describe the necessary steps for conducting risk assessment with different populations, and the available risk assessment models, facilitating the selection of the best indicated approach to risk assessment in a given case.
6. Describe risk assessment tools appropriate for designated populations (e.g., civil commitment, NGRI acquittee, juvenile, domestic, sexual offender, and workplace) and relevant and supporting research.
7. Describe the scientifically supported, scientifically unsupported, and controversial or largely untested uses of risk assessment
8. Describe approaches to risk communication in report writing and testimony, including recent empirical research on risk communication.

II. NATURE OF RISK ASSESSMENT

 A. Advances Since 1980

 1. Conceptual

 a. statistical vs. clinical prediction (Monahan, 1981)

 b. algebra of aggression (Megargee, 1982)

 c. short‑ vs. long‑term prediction

 d. risk assessment rather than violence prediction or dangerousness

 prediction/assessment. "Dangerousness” considered in component

 parts:

* *risk factors* ‑ variables used to predict aggression
* *harm* ‑ amount and type of aggression being predicted
* *risk level* ‑ probability that harm will occur (National Research Council, 1989)

 e. additional theoretical influences

1. public health ‑ analogizes violent behavior to other health problems (e.g., cancer, heart disease) rather than to crime, with goal of prevention rather than treatment of harm

2. decision theory ‑ greater incorporation of true positives, true negatives, false positives, false negatives, sensitivity (number of true positives divided by sum of true positives & false negatives) and specificity (number of true negatives divided by sum of true negatives and false positives) into overall consideration of accuracy

3. Risk-Need-Responsivity (Andrews, Bonta, & Hoge, 1990)

 *Risk* – principle indicating that those most likely to reoffend should receive most intensive intervention and management services

 *Need* – principle stressing the importance of identifying deficits associated with offending risk, called criminogenic deficits (or risk factors)

*Responsivity* – individuals likelihood of responding to interventions designed to reduce the risk of reoffending, based both on the nature of the intervention and its fit with that persons’s needs

 3. receiver operating characteristics (ROC) ‑ the curve depicting true positive rate as a function of false positive rate for a given clinician; allows measurement of overall accuracy of a judgment or a technique in differentiating violent from nonviolent subjects without being affected by base rates or clinicians' preferences for certain outcomes (e.g., false positive preferred to false negative) (Mossman, 1994)

 f. expanded range of predictor variables

 1. psychopathy

 2. anger

 3. impulsiveness

 4. substance abuse

 5. threat/control override symptoms

 6. delusions

 7. hallucinations

 8. personality disorders

 a. borderline

 b. antisocial

 c. sadistic

 9. demographic variables

 a. age

 b. SES

 10. social support (see Monahan & Steadman,

 1994, for 1-10 on mentally disordered individuals)

 11. medication compliance

 12. performance on conditional release (see Heilbrun &

 Griffin, 1993, for 11-12 on NGRI acquittees)

 13. psychosocial adjustment

 14. history of specific kind of violence (see Kropp, Hart,

 Webster, & Eaves, 1994, for 13-14 on domestic

 violence)

 15. exposure to violence

 16. violence victimization

 17. psychological “hardiness”

 18. social skills (see APA, 1996, for 15-16 on domestic violence) 19. family stability

 20. peer relations

 21. school attendance and behavior (see OJJDP, 1995, for 19-21

 on juvenile offending)

 22. workplace situational variables

 23. sexual arousal patterns

 g. expanded classes of predictor variables

 1. individual (demographic, personality, neurological)

 2. historical (family, work, psychiatric, criminal, aggression)

 3. contextual (social support, physical aspects of environment)

 4. clinical (mental disorder, substance abuse, global level of functioning) (see Steadman et al., 1994)

 B. Prediction vs. Management Models

 1. Classification of risk factors for intervention and decision‑making

 a. ***dynamic*** ‑ can change via intervention with individual (treatment, monitoring) or control of situation (living setting, access to weapons)

 ***static*** ‑ not subject to change via such intervention; may include personal characteristics (age, gender) and certain kinds of disorders or deficits (psychopathy, mental retardation)

(SEE Table 1)

 1. Risk Assessment --> *Prediction*

 a. specification of outcome (guided by laws of jurisdiction)

 b. identification of base rates and risk factors

 c. divorce from value judgments

d. relative probability statement rather than dichotomous outcome prediction

 2. Risk Assessment --> *Management*

 a. specification of outcome (guided by laws of jurisdiction)

 b. identification of base rates and risk factors

 c. divorce from value judgments

 d. emphasis on dynamic rather than static risk factors

 e. administered on multiple occasions, sensitive to changes in risk status

1. yielding contingent conclusion regarding risk, depending on status of

 risk factors

 3. Distinction between *risk status* and *risk state* (Mulvey, 2001)

 a. risk status - relatively unchanging

 b. risk state - changeable, fluctuating, varies daily

 C. Risk Assessment and Risk Containment (Implications and Principles)

 1. Principles of Risk Assessment

 a. Specification of outcome

 b. Identification of population

c. Determination of base rate for given outcome with specific (or approximate) population

d. Determination of risk factors for specific (or approximate) population

e. Individualize assessment

Principle: directly question the individual and relevant others about violent acts and thought/feelings (see Monahan, 1993, on *Tarasoff*  liability)

1. *excitation* ‑ totality of internal influences inclining individual toward aggression (self‑statements, anger, frustration, need, arousal, impulsivity, fantasy, delusions, perceptual disturbances, alcohol or drug use, etc.)

2. *inhibition* ‑ totality of internal influences inclining individual against aggression (fear, empathy, conscience, self‑control, medication, etc.)

3. *habit strength* ‑ frequency and circumstances of prior aggression

4. *situation* ‑ characteristics of life circumstances relevant to aggression (living situation, job, access to weapons, access to potential victim(s), typical location of aggression and likelihood of encountering it, etc.) (Megargee’s “algebra of aggression,” see Megargee, 1982)

f. Describe assessment outcome in relative probability terms, if prediction is indicated

 g. Values should be made explicit

 D. Implications for Mental Health Professionals

 1. Different conceptual frameworks

 2. Incorporation of recent empirical findings

 3. Identification of base rates

 4. Translation into risk factors

 5. Specification of population

 6. Contextualize by individual case

 7. Relevance of nature of legal decision to be made

 8. Related issues

 a. communication

 b. documentation

 c. policy

 d. damage control

E. Threat Assessment: Evaluating the Risk of Targeted Violence (Borum, Fein, Vossekuil, & Berglund, 1999)

*Key Questions*

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

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

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

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

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?

6. How organized is the subject? Is he/she capable of developing and carrying out a plan?

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

8. Corroboration – What is the subject saying and is it consistent with his/her actions?

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

10. What factors in the subject’s life and/or environment might increase/decrease the likelihood of the subject attempted to attack a target?

III. LEGAL CONTOURS

 A. Relevant Legal Authority

 1. Forensic assessment

 a. tailor evaluation to referral question(s);

 do not address questions or issues not relevant

 to these question(s) (Melton, Petrila, Poythress, &

 Slobogin, 2007)

 b. disclosing information concerning defendant’s mental condition that was not the subject of the evaluation:

If in the course of any evaluation, the mental health or mental retardation professional concludes that defendant may be mentally incompetent to stand trial, presents an imminent risk of serious danger to another person, is imminently suicidal, or otherwise needs emergency intervention, the evaluator should notify the defendant’s attorney. If the evaluation was initiated by the court or prosecution, the evaluator should also notify the court (ABA *Criminal Justice Mental Health Standards*, 1989, p. 73).

 2. Therapeutic assessment/treatment

a. *Tarasoff* I (1974) - a mental health professional has a duty to *warn* third parties about potential violence by a client if victim is identifiable and mental health professional “knows or should have known” that violence would occur

b. *Tarasoff* II (1976) - when mental health professional determines that client presents a serious risk of violence to a third party, or should have determined that pursuant to standards of profession, there is a duty to use reasonable care to *protect* the potential victim

c. “Duty to protect” present in some jurisdictions beyond California

1. *McIntosh v. Milano* (1979) [New Jersey]

2. *Peterson v. Washington* (1983) [Washington]

3. *Lipari v. Sears, Roebuck* (1983) [Nebraska] - identifiable “class” of victims rather than specific victim

4. *Emerich v. Philadelphia Center for Human Development, Inc*. (1998) [Pennsylvania] - “duty to protect” construed narrowly, in context of “duty to warn” the intended victim of a patient’s serious danger of violence, when such threat is an “immediate threat of serious bodily injury that has been communicated” to the therapist, when such a threat is “made against a specifically identified or readily identifiable victim.” Court did not address question of whether there is a broader duty to protect, or whether the duty to warn can be discharged by warning other third parties (e.g., family, police) who might then communicate to the potential victim.

d. No specific duty in some jurisdictions when victim is not foreseeable or otherwise identifiable

1. *Perriera v. State* (1986) [Colorado]

2. *Novak v. Rathan* (1987) [Illinois]

3. *Jackson v. New Center Community Mental Health Services* (1987) [Michigan]

4. *Cairl v. State* (1982) [Minnesota]

5. *Williams v. Sun Valley Hospital* (1987) [Texas]

e. *Tarasoff* duty/reasoning rejected in some jurisdictions

1. *Shaw v. Glickman* (1980) [Maryland]

2. *Sharpe v. South Carolina Department of Mental Health* (1987) [South Carolina]

f. Duty to protect not addressed in some jurisdictions

g. Implications

1. importance of determining whether *Tarasoff* reasoning and duties apply in own jurisdiction

1. if duty is established, nature of parameters and obligations, and for whom (different mental health professionals may have differing duties)
2. if duty has not been considered in litigation, it is prudent to assume it *would* apply
3. if duty has been rejected, implications for practice
4. consultation with knowledgeable attorney familiar with applicable law of jurisdiction

 2. relevant sources of information

1. *Law & Mental Health Professionals* book series, American Psychological Association, with different volume for each state
2. local and state mental health associations
3. malpractice insurance plans
4. local attorney

 B. Avoiding *Tarasoff* Liability (Monahan, 1993b)

 1. Risk management

1. for cases that raise particular concerns about violence, consider intensified treatment, incapacitation, or target‑hardening
2. for especially difficult cases, seek consultation from an experienced colleague
3. follow‑up on lack of compliance with treatment

 2. Documentation

 record the source, content, and date of significant information on risk, and the content, rationale, and date of all actions to prevent violence

 3. Policy

a. develop feasible guidelines for handling risk, and subject these guidelines to clinical and legal review

b. educate staff in the use of the guidelines, and audit compliance

c. revise forms to prompt and document the information and activities contemplated in the guidelines

 4. Damage Control

 discourage tampering with the record and public statements of responsibility

IV. ETHICAL CONTOURS

 A. Is it Ethical to Offer Predictions of Future Violence?

 A qualified "yes;" see Grisso & Appelbaum (1993).

 1. procedures are consistent with the risk assessment approach described here,

 2. conclusions are buttressed by empirical data when available, and

 3. commonsense reasoning is not confused with scientific expertise

 B. Forensic Assessment

 1. Specificity of referral question(s)

 a. *APA Ethical Principles of Psychologists and Code of Conduct* (APA, 2002)

 1. 4.02 Discussing the Limits of Confidentiality

(a) Psychologists discuss with persons (including, to the extent feasible, persons who are legally incapable of giving informed consent and their legal representatives) and organizations with whom they establish a scientific or professional relationship (1) the relevant limits of confidentiality and (2) the foreseeable uses of the information generated through their psychological activities. (See also Standard [3.10, Informed Consent](http://www.apa.org/ethics/code2002.html#3_10#3_10).)

(b) Unless it is not feasible or is contraindicated, the discussion of confidentiality occurs at the outset of the relationship and thereafter as new circumstances may warrant.

(c) Psychologists who offer services, products, or information via electronic transmission inform clients/patients of the risks to privacy and limits of confidentiality.

 b. *Specialty Guidelines for Forensic Psychology* (APA, 2013)

1. 6.03 Communication with Forensic Examinees Forensic practitioners inform examinees about the nature and purpose of the examination (EPPCC Standard 9.03; American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999).  Such information may include the purpose, nature, and anticipated use of the examination; who will have access to the information; associated limitations on privacy, confidentiality, and privilege including who is authorized to release or access the information contained in the forensic practitioner’s records; the voluntary or involuntary nature of participation, including potential consequences of participation or non-participation, if known; and, if the cost of the service is the responsibility of the examinee, the anticipated cost.

 2. Disclosing information not relevant to referral question(s)

 a. *APA Ethical Principles* *of Psychologists and Code of Conduct* (APA, 2002), Standard 4.05 (b)

Psychologists disclose confidential information without the consent of the individual only as mandated by law, or where permitted by law for a valid purpose such as to (1) provide needed professional services; (2) obtain appropriate professional consultations; (3) protect the client/patient, psychologist, or others from harm; or (4) obtain payment for services from a client/patient, in which instance disclosure is limited to the minimum that is necessary to achieve the purpose.

C. Therapeutic Assessment/Treatment

 1. Confidentiality

1. *APA Ethical Principles* of Psychologists and Code of Conduct (APA, 1992), Standard 4.01

1. Psychologists have a primary obligation and take reasonable precautions to protect confidential information obtained through or stored in any medium, recognizing that the extent and limits of confidentiality may be regulated by law or established by institutional rules or professional or scientific relationship.

 2. Duty to protect others from client violence

1. *APA Ethical Principles* of Psychologists and Code of Conduct (APA, 2002), Standard 4.05 (b)

1. Psychologists disclose confidential information without the consent of the individual only as mandated by law, or where permitted by law for a valid purpose such as to (1) provide needed professional services; (2) obtain appropriate professional consultations; (3) protect the client/patient, psychologist, or others from harm; or (4) obtain payment for services from a client/patient, in which instance disclosure is limited to the minimum that is necessary to achieve the purpose.

2. Psychologists include in written and oral reports and consultations, only information germane to the purpose for which the communication is made (APA, 2002, Standard 4.04(a)).

V. FORENSIC CONTOURS (Heilbrun, 2009)

1. What is the legal question?
	1. Criminal responsibility
	2. Sexually violent predator
	3. Capital sentencing
	4. Civil commitment
	5. Correctional transfer
	6. Workplace disabililty
	7. Child custody
	8. Child protection
	9. Juvenile disposition and transfer
	10. Tarasoff
2. Legal standards: risk assessment components
	1. Nature of risk factors
	2. Level of risk
	3. Severity of harm
	4. Length of outcome period
	5. Context in which harm may occur
3. Steps in FMHA Risk Assessment
	1. Is violence risk part of the evaluation?
	2. Selection of data sources
	3. Conducting interviews, administering measures, and reviewing records
	4. Interpretation of results
	5. Communication of findings
	6. Judicial decision
4. Forensic Mental Health Concepts
	1. Context
	2. Purpose
		1. Prediction/classification
		2. Management/intervention planning
		3. Both
	3. Population
		1. Age
		2. Gender
		3. Mental health status
		4. Location
		5. Racial/ethnic group
	4. Parameters
		1. Target behavior
		2. Frequency
		3. Probability/risk category
		4. Settings
		5. Outcome period
		6. Risk and protective factors
	5. Approach
		1. Actuarial (predictive; risk-needs)
		2. Structured professional judgment (risk-needs)
		3. Anamnestic (needs)
		4. Unstructured clinical judgment

V. CONDUCTING A RISK ASSESSMENT: GENERAL CONSIDERATIONS

 A. Interviewing

 1. Need to ask direct questions regarding

 a. current thoughts, feelings, fantasies re violence

 b. history of violent behavior, including details of circumstances

 c. history of thoughts, feelings, fantasies re violence

 2. Ask about experience as both victim and perpetrator

 3. Use language that is understandable and less likely to increase defensiveness

 4. “Push and back off” on questions regarding violence potential

5. Ask most problematic questions at end of overall evaluation, including

 confrontation regarding inconsistencies

 B. Psychological Testing

1. Most conventional psychological tests have little direct relationship to violence potential or pattern of behavior, but may provide helpful information about status of certain risk factors for some populations (e.g., some kinds of delusions for individuals with severe mental disorder) (Heilbrun, 1997; Heilbrun & Heilbrun, 1995)

2. Specific tools for assessment of violence potential (discussed in workshop) are more directly applicable (Borum, 1996)

3. Psychopathy Checklist-Revised edition (Hare, 1991) is exception

4. Behavior checklists can be useful, particularly when specifically

 tailored to violent behavior

 C. Third Party Information

 1. Interviews with collateral observers familiar with evaluee

 a. family, friends

 b. professionals

 1. mental health professionals

 2. parole and probation officers

 3. hospital and jail staff

 c. victims/witnesses

 2. Documents relevant to violence history

 a. mental health treatment records

 b. medical records

 c. jail, prison, secure hospital records

 d. arrest history

 e. arrest report; victim/witness statements

 f. school records

 g. employment history

 D. Safety Guidelines (Otto & Borum, 1997)

 1. Clinician should be familiar with safety policies applicable to practice site

 2. In emergency settings, clients should be screened for weapons

3. An adequate number of staff should be available to assist in the event a client becomes agitated or aggressive

4. The room should be large enough to permit a comfortable distance between clinician and client

5. Two exits to the room are desirable; if there is only one, the clinician should not sit between the client and the door

6. Multiple interviewers, or additional staff to observe, should be used when indicated

7. Establish a prearranged signal to staff to communicate an emergency in a non-obvious way (e.g., “Please call Elliott Ness and tell him I won’t be able to meet him as planned”)

8. Be direct about the importance of safety (e.g., “It is important that we both feel safe. If you ever feel you want to hurt me, please let me know and we can stop.”)

9. The initial notification of purpose or request for informed consent should include an explanation of what will be done in the evaluation

 E. Other Relevant Safety Guidelines

1. Clinician and staff should receive training in non-injurious restraint techniques and other aggression management approaches

2. The interview room should be carefully inspected for items which could serve as a weapon (e.g., scissors, letter openers, pencils, pens, desk lamps with heavy bases, telephone cords, pictures with heavy frames, ceramic figures, heavy bookends, etc.); these should be removed or made less accessible (out of view)

3. Use of a cellular phone rather than a desk phone may facilitate communication without providing a potential weapon

4. Clinician should be polite and respectful at all times, even when confronting a client with sensitive material or inconsistencies

5. Breaks for rest room or refreshment should be used as needed, and the clinician should ask with some frequency whether the client needs anything

6. If the client becomes agitated, the clinician should respond in a softer voice and directly address possible solutions to an emerging problem (e.g., “Some of these questions are pretty hard. Would you like to stop for a while/work on something else/have me come back another time?”)

7. Some confrontation is an important part of many risk assessments. However, the emotional tone of such confrontation should be non-hostile. Instead, it is useful for the clinician to ask for help in understanding (the mildly perplexed “Inspector Columbo” approach).

VI. MAKING THE TRANSITION: RISK ASSESSMENT WITH DIFFERENT POPULATIONS

 A. Use “Applied Behavior Analysis” as a Conceptual Framework

 B. Define the Target Behavior of Interest

 C. Survey the Literature to Obtain Base Rates and Risk Factors for Target Behavior

D. (Optional) Identify Screening Approaches That Allow *A Priori* Distinguishing of Higher from Lower Risk Cases

E. Develop an Assessment Procedure Focusing on “High Risk” Individuals Identified by Different Measures (e.g., self-report, formal risk assessment)

F. Develop or Refine Procedure for Placement and Intervention with High Risk Individuals

G. Develop or Refine Procedure for Rating Current Level of Risk-Relevant Deficits and Factors, and Overall Risk

H. Ensure that Policy is Written, Staff Are Trained, and Compliance is Monitored

VII. BASE RATES AND RISK FACTORS FOR VIOLENT BEHAVIOR

Ignoring (or not knowing) information regarding the base rate of violent behavior is the most significant predictive error made by mental health professionals (Monahan, 1981).

 A. Individuals with Mental Disorder

Characteristics of 331 Involuntarily Admitted Inpatients with Severe Mental Illness and Relation to Prevalence of Serious Violence in the 4 Months Before Admission (Swartz et al., 1998, p. 228)

Characteristic % Who Committed Violent

 Act In Previous 4 Months

*Age*

 18-29 25.0

 30-44 17.3

 45+ 14.6

*Gender*

 Female 13.1

 Male 21.9

*Education*

 Less than high school 20.2

 High school 17.7

 College 10.3

*Marital*

 Married/cohabiting 22.4

 Not married/cohabiting 16.7

*Place of residence*

 Rural 20.2 **Adjusted *X* 2 p < .05**

 Urban 16.4

*Race*

 White 11.6

 African American 21.0

***Victimization History***

 Crime victim, past 4 months 25.6

 Not crime victim 14.9

*Discharge diagnosis*

 Schizophrenia/Schizoaffective 17.7

 Other psychotic 22.2

 Affective 17.0

***Alcohol or Drug Problem***

 No 13.2

 Yes 26.8

*Score for Insight into Illness*

 Below median 20.1

 Above median 15.6

*Medication noncompliance*

 No 14.6

 Yes 19.2

 1. following hospital discharge

1. **25‑30%** of individuals considered "potentially violent" and released from short‑term hospitalization are rearrested for violent crime or rehospitalized for a violent act during 1‑year follow‑up period (Klassen & O'Connor, 1987; 1988a; 1988b; 1990)
2. 6‑month follow‑up using self‑report and collateral report on 357 patients treated in psychiatric emergency room and assessed by clinicians to be violent, and 357 controls (assessed by clinicians not to be violent) matched for age, race, and sex found violence (touching other w/aggressive intent, or threat w/weapon) in **36% of controls** and **53% of "violence‑concern"** group. Found clinical judgment to contribute to accuracy of assessment beyond demographic variables or history in a modest way for male patients, but not female, due to underassessment of violence potential of females (overall level of violence among **women, 49%**, was higher than among **men, 42%**) (Lidz, Mulvey, & Gardner, 1993).
3. further analyses on patients in this study, with some additions, for a total of 812 patients evaluated in psychiatric emergency service (495 male, 317 female) and returned to community, followed for 6 months with three interviews and three collateral interviews attempted. Males and females did not differ significantly in frequency or seriousness of subsequent violence, but **did differ on the other person involved in the violent incident** (family member: males 38%, females 53%; acquaintance: males 49%, females 45%; stranger: males 13%, females 2%) **and the location of the incident** (home: males 57%, females 75%; public place: males 43%, females 25%) (Newhill, Mulvey, & Lidz, 1995).
4. **MacArthur Risk Study** (Steadman et al., 1998) **- 1136 male and female patients** with mental disorders between the ages of 18-40 were monitored for violence toward others **every 10 weeks** during the first year **following discharge** from psychiatric hospitalization, and these results were compared with violence toward others by a **comparison group (N=519**) randomly sampled from the same census tracts as the discharged patient group. Outcome behavior was divided into two categories of seriousness: **violence** (battery resulting in physical injury, sexual assaults, and threats with a weapon) and **other aggressive acts** (battery that did not result in a physical injury). Information sources included **self-report** (every 10 weeks), **collateral report** (every 10 weeks), and **agency records** (arrest, hospitalization). Major findings included (1) **co-occurrence of substance abuse dx with major mental disorders at rate of 40-50% of cases**, (2) **significant addition of self-report and collateral report to identified frequency of violence and other aggressive acts beyond frequency reflected in official records** *(raised from 4.5% to 27.5% for violence and from 8.8% to 56.1% for other aggressive acts during index period*), (3) **substance abuse increases the frequency of both serious violence and other aggressive acts, (4) patient group without substance abuse did not differ from community control group without substance abuse in the frequency of either violence or other aggressive acts, and (5) patients had symptoms of substance abuse more often than community controls** (TABLE 10), (6) **patient group showed greater risk of violence and other aggressive acts than community controls when both did experience symptoms of substance abuse, particularly during period immediately following hospital discharge.**

1. impact of neighborhood on violence risk in those with mental disorders was assessed in more detail through further analysis of “neighborhood” variable in Pittsburgh MacArthur site. **Concentrated poverty**, with associated high unemployment, racial segregation, rapid population turnover, low income levels, single-parent families with children, and an overall lack of economic opportunities, **contributed to increased violence risk over and above the effects of individual characteristics in contributing to violence risk**. Findings **underscore the importance of considering neighborhood context** in assessment and management of violence risk among discharged psychiatric patients (Silver, Mulvey, & Monahan, 1999).

 6. Conclusions

1. base rates of violence following discharge, particularly when defined broadly to include threats, are not so low as to make "false positive" rate prohibitively high. Should threats be included? (Steadman comment, public safety model, consult own civil commitment statutes).
2. need to determine what population by (among other things) obtaining and reviewing available records of recent and current treatment (this is also a principle of risk assessment; see Monahan, 1993, on *Tarasoff*  liability)
3. substance abuse is very important in determining the risk of violence or other aggressive acts in patients following discharge from hospitalization

B. Not Guilty by Reason of Insanity Acquittees/Relevant Psychiatric Correctional Populations

 1. Not Guilty by Reason of Insanity

a. Summary article: most common outcome measures of NGRI recidivism are rehospitalization and rearrest. Rehospitalization more frequent than rearrest. Violent crime rearrest very rare, except when outcome period is long (e.g., 15 years). When monitored on conditional release, NGRI acquittees have higher rates of rehospitalization and lower rates of rearrest. Some cited risk factors for rearrest include **level of supervision** (higher supervision ‑‑> lower rearrest), **no heroin addiction**, **better hospital adjustment**, **clinical improvement noted**, **GAS 50+ at time of discharge**, **better pre‑arrest functioning** (Heilbrun & Griffin, 1993).

 2. Relevant Psychiatric Correctional Populations

a. Harris, Rice, & Quinsey (1993) ‑ follow‑up of 371 men admitted to maximum security psychiatric hospital in Ontario for treatment between 1965 and 1980, and 324 men admitted only for brief pretrial assessment; groups matched for charge, frequency/severity of violent and nonviolent criminal activity, age, and date of index offense. Average time at risk: 81.5 months. 31% of at‑risk subjects were violent recidivists. Twelve predictors, accounting for **21% of variance**, were developed.

 See also Rice & Harris (1995), in which they

* + reference the Violence Risk Appraisal Guide (instrument developed from these data)
	+ discuss implications of ROC analysis for prediction instruments and analyzing characteristics of individual decision‑makers
		- * Rice (1997-a) - describes VRAG. Developed using sample of 618 men admitted to Pentatanguishene Mental Health Centre for assessment prior to trial for violent offense. About half were returned to Pentatanguishene following trial (most as NGRI); other half sentenced to prison following conviction and matched to first group on age, offense, and offense history. Total of 50 potential predictor variables included, in domains of demographic information, criminal history, psychiatric history, and childhood history (SEE Table 11). Outcome: violent recidivism (another offense --> rearrest or rehospitalization) over an average period of 7 years.
				+ **Overall violent recidivism rate: 31%**.
				+ Correlation between VRAG scores and violent recidivism was .44; choosing 80th percentile as cutoff, classification accuracy was 74%, with sensitivity of .40 and specificity of .88.
				+ Found VRAG worked as well for prison sample as it had for hospital sample.
			* Rice and Harris (1997-a) - extended original derivation sample by adding 150 men (increased from 618 to 868) and shortened outcome period (anyone “failing” after 3.5 years was considered a success). Found VRAG accuracy levels very comparable. In addition, considered a sample of **159 sex offenders** (whose rate of **violent recidivism over 10-year period** was **58%**). VRAG predictive accuracy (as measured by Receiver Operating Characteristics Area Under Curve, or ROC AUC) was comparable with this sample. Suggests that, with small revisions, the VRAG may work well with different populations (NGRI, convicted offenders, sexual offenders).
			* Eronen (1995) ‑ epidemiologic study of mental disorder and homicide in 127 women, 1980‑1992, in Finland. Found female homicide offenders had 10‑fold higher odds ratio than general female population for having schizophrenia or personality disorder
	+ disorders with most substantially higher odds ratios were alcohol abuse/dependence and antisocial personality disorder

  conclusion: mental disorder may have some relationship with homicide in countries with low crime rates

 Villenueve & Quinsey (1995) - tracked 120 inmates released from inpatient psychiatric unit of maximum security federal prison in Canada over an average of **92 months**. During this period, **50% of sample were arrested for a violent offense**, while **78;% were arrested for any offense**. Predictors of violent recidivism included **juvenile delinquency**, **younger age at release**, **drugs involved in offense**, **violent convictions**, **separation from parents before age 16**, **alcohol involved in offenses**, **criminal versatility**, **short periods of employment**, and **no psychotic illness**.

 Bonta, Law, & Hanson (1998) - conducted a meta-analysis among 35 predictors of general (any offense) recidivism and 27 predictors of violent recidivism, drawn from 64 unique samples. Results showed that major predictors of recidivism were the same for mentally disordered offenders as for nondisordered offenders. Criminal history variables were the strongest predictors, with clinical variables showing the smallest effect sizes. Strongest positive predictors included **objective risk assessment**, **adult criminal history**, **juvenile delinquency**, **antisocial personality**, and **nonviolent criminal history**. Strongest negative predictors included **mentally disordered**, **homicide index offense**, **age**, and **violence index**.

Tengstrom, Grann, Langstrom, & Kullgren (2000) - used retrospective design to study all male individuals referred for the first time to court-ordered forensic psychiatric evaluation **in Sweden** between 1988-1993 and convicted of a violent crime (N=202). **All defendants were diagnosed as having schizophrenia (81%), schizoaffective disorder (7%), or other psychoses (12%)**. Follow-up in community ranged from 0.7 to 106 months, with an average of 51 months; data were available on 141 individuals. The PCL-R was administered on “file only” basis. “Violent recidivism” was defined as a reconviction for attempted or completed homicide, assault, rape, or armed robbery. **High psychopathy (PCL-R > 26) was strongly associated with violent recidivism**; other potential risk factors could not equally well or better explain violent recidivism in this group.

Quinsey, Harris, Rice, & Cormier (2006)

Summary of empirical evidence from their research program on three populations

1. mentally disordered offenders
2. fire setters
3. sex offenders

Summary of empirical evidence on two risk assessment tools

1. Violence Risk Appraisal Guide
2. Sex Offender Risk Appraisal Guide
3. Includes manual for both tools

Altering the risk of violence

1. Planning institutional treatment programs
2. Recidivism and relapse prevention

C. Juveniles

 1. Base rates for adolescent aggression

United States, 1983-1995. During the last 12 months, how often have randomly selected high school seniors (N=38,810) reported:

(1) ***arguing or having a fight with either of your parents*** (not at all=10.4%, once=9.2%, twice or more=80.4%)

(2) ***hit an instructor or supervisor*** (not at all=96.9%, once=1.8%, twice or more=1.3%)

(3) ***gotten into a serious fight in school or at work***(not at all=82.3%, once=10.5%, twice or more=7.2%)

(4) ***taken part in a fight where a group of your friends were against another group***(not at all=80.1%, once=11%, twice or more=8.9%)

(5)***hurt someone badly enough to need bandages or a doctor***(not at all=88%, once=7.2%, twice or more=4.8%)

(6) ***used a knife or gun or some other thing (like a club) to get something from a person*** (not at all=96.4%, once=1.8%, twice or more=1.8%).

(From Johnston, L., Bachman, J., & O’Malley, P. (1983-1995)

U.S. students (N=231,433) reported problem behaviors, by grade, 1994-1995

(Source: PRIDE Survey, 1994-95, adapted in Bureau of Justice Statistics, 1995)

***Do you take part in gang activities?***

Grade Never Seldom Sometimes Often A Lot

6 88.1 4.9 3.3 1.4 2.3

7 86.0 6.3 3.7 1.7 2.4

8 83.4 7.0 4.7 2.0 2.9

9 84.7 6.5 4.1 1.7 2.9

10 85.8 5.8 3.9 1.6 2.8

11 88.1 4.9 3.1 1.4 2.5

12 89.9 3.7 2.9 1.1 2.5

**TOTAL 86.2 5.8 3.8 1.6 2.6**

***Have you carried a gun to school?***

Grade Never Seldom Sometimes Often A Lot

6 97.6 0.7 0.5 0.3 0.9

7 96.8 1.2 0.7 0.4 0.9

8 95.2 1.9 1.1 0.5 1.3

9 94.4 2.0 1.2 0.6 1.7

10 93.7 2.2 1.5 0.8 1.8

11 93.7 2.1 1.5 0.7 2.1

12 93.7 1.9 1.6 0.7 2.1

**TOTAL 95.1 1.7 1.1 0.6 1.5**

***Have you threatened to harm a student or teacher?***

Grade Never Seldom Sometimes Often A Lot

6 77.5 12.4 6.1 1.8 2.2

7 70.9 15.9 8.5 2.3 2.4

8 64.5 1.0 10.5 3.1 2.8

9 65.7 18.6 10.1 2.8 2.7

10 65.1 18.9 10.7 2.9 2.5

11 67.7 18.7 9.0 2.2 2.4

12 89.9 3.7 2.9 1.1 2.5

**TOTAL 86.2 5.8 3.8 1.6 2.6**

2. Base rates for juvenile offending

Offenses Charged by Age in U.S. 1984 and 1995, for Individuals Under 18 Years Old

(Source: U.S. Department of Justice, Federal Bureau of Investigation, Crime in the United States, 1994, reproduced in Bureau of Justice Statistics, 1995)

Note: Estimated U.S. population in 1985: 173,352,000; in 1994: 190,094,000.

 1985 1994

Offense N Arrests % of Total N Arrests % of Total Arrests Arrests

Murder & Non-

 Negligent Manslaughter 1,193 0.2 2,982 0.4

Forcible Rape 4,286 0.7 4,524 0.7

Robbery 28,688 4.9 45,046 6.6 Aggravated Assault 32,809 5.7 64,648 9.4 VIOLENT CRIME\* 66,976 11.5 117,200 17.1 PROPERTY CRIME 513,222 88.4 568,841 82.9 TOTAL CRIME INDEX 580,498 100.0 686,041 100.0

\*The Violent Crime Index is the sum of arrests for Murder & Non-Negligent Manslaughter, Forcible Rape, Robbery, and Aggravated Assault.

 3. Risk factors for juvenile offending (violent or property)

  age at first referral or adjudication

  number of prior arrests

  number of out of home placements or institutional commitments

  academic achievement

  school behavior and attendance

  substance abuse

  anger problems

  family stability

  parental control

  peer relationships

(Farrington & Hawkins, 1991; Hawkins & Catalano, 1992; OJJDP, 1995; Cornell, Peterson, & Richards, 1999)

D. Sexual Offenders

 1. Methodological issues in sexual offender research

 a. outcome measure for recidivism and method of measurement

1. rearrest or reconviction for a sexual offense – most frequent outcome employed by investigators (rearrest rather than reconviction is used more frequently because of the presumed greater insensitivity of convictions in detecting sexual reoffending that is negotiated down into a non-sexual charge)

2. rearrest or reconviction for a non-sexual offense

3. sexual reoffending detected by self-report and collateral report in a prospective design

4. non-sexual reoffending detected by self-report and collateral report in a prospective design

5. violent behavior that does not result in an arrest and is detected by self-report and collateral report in a prospective design

The majority of available studies have employed conviction of a new sexual offense as the recidivism measure (Romero & Williams, 1985), raising the question of whether reoffending rates are being underestimated in these studies.

Others have included conviction for a subsequent non-sexual offense in their definition of recidivism, while yet others include rearrest for any crime, whether or not there was a conviction (Furby et al., 1989). Violation of parole and other technical violations, either alone or in conjunction with reconviction, have also been employed as measures of recidivism. It is not surprising that such differing outcomes should yield varying rates of recidivism in sex offenders.

 b. duration of outcome period

1. mean treatment effect sizes have been found to be significantly greater in those studies with follow-up periods longer than five years compared with the effect sizes in those studies that had follow-up periods shorter than five years (Hall, 1995)

2. most studies only report on six months to one year post treatment (Dwyer & Myers, 1990)

 2. Base rates of sexual offending

a. **0-50% reoffense range** reported by studies reviewed in meta-analysis of 42 outcome studies involving the treatment of sexual offenders, (Furby et al.,1989) concluded that “there is no evidence that treatment effectively reduces sex offense recidivism” (p. 25). They found no differences for reoffense rates across types of sexual offense, although they also noted that the methodological variability across studies often made it difficult to combine or compare results across these studies.

b. **15-35% range** as measured by sexual offense rearrest is more typical (Meyer, Cole, & Emory, 1992)

c. number of prior convictions for sexual offenses makes a difference: recidivism rates estimated **between 33-71% for repeat offenders**, while for **first offenders the rates were 10-21%** (Marshall et al., 1991)

d. self-report ---> underreporting; in a study in which the investigators administered a five item, confidential questionnaire to assess undetected recidivism among rapists and child molesters, the subjects reported from 0 to 250 undetected sexual assaults, with an **average of 5.2 undetected rapes and 4.7 undetected sexual assaults against children**. Once the outliers were removed from the analysis, the results demonstrated that sexual offenders avoid detection approximately twice as often as they are apprehended for their crimes (Groth et al., 1982)

e. Follow-up study of multiple criminal outcomes of sexual offenders admitted to a maximum security psychiatric facility, who were subsequently released (Quinsey et al., 1993). The outcome variables included conviction of a sexual offense following release and rehospitalization for any violent offense. Of those men who had the opportunity to reoffend, **27.5%** (N = 49) **were subsequently convicted of a new sexual offense** and **40.4%** (N = 72) **were either arrested, convicted or returned to the facility for a violent offense against persons**.

f. An earlier study investigated subjects who had been admitted to a maximum security psychiatric institution for sexual offending and were subsequently released (Rice et al., 1991). All the subjects in the study were **extrafamilial child molesters**. Of those subjects who had the opportunity to reoffend, **31%** (N = 42) **were convicted for a sexual offense**, **43%** (N = 58) **were subsequently convicted of a violent offense**, and **56%** (N = 77) **were either arrested for any offense or were returned to the maximum security institution for any reason**

g. Some investigators have researched the differential recidivism rates between heterosexual and homosexual child molesters, combining the results of numerous studies (Quinsey et al., 1993). They found that the **heterosexual child molesters with female victims** (N = 1,167) had a weighted average of **18.3%** sexual reconviction, while **homosexual child molesters** with male victims (N = 561) had a weighted average of **35.2%** sexual reconviction

h. Other investigators have also used the results of previous research, analyzed by meta-analysis, to construct a small set of social, demographic, and criminal history variables that differentiated across studies between recidivistic and non-recidivistic sex offenders (Hanson, 1997; Hanson & Bussiere, 1998). This included a reanalysis of data from 8 samples to derive an optimal method for coding and combining variables. Tool is called the **Rapid Risk Assessment for Sexual Offense Recidivism**, or **RRASOR**. Four variables that independently predicted recidivism were used in this scale: **prior sexual arrests** (0=none, 1=one prior conviction or one to two prior arrests, 2=two or three prior convictions or three to five prior arrests, 3=four or more prior convictions or six or more prior arrests), **age** (0=25 or older at time of release, 1=under 25 at time of release), **ever targeted male victims** (0=no, 1=yes), and **whether any victims were unrelated to offender** (0=no, 1=yes). When the **RRASOR** is combined with another actuarial tool (European, the **SACJ-min**) to form a 10-item actuarial tool called the **STATIC-99** that is more accurate than either, the items on the merged STATIC-99 are **male victims**, **never married**, **noncontact sex offenses**, **unrelated victims**, **stranger victims**, **prior sex offenses**, **current nonsexual violence**, **prior nonsexual violence**, **4+ sentencing dates**, and **between the ages of 18-24.9 years old**.

**Note**: As predictive instruments, both **VRAG/SORAG** and **RRASOR** have only modest correlations with sexual offender recidivism: .**20** and **.27**, respectively. The **STATIC-99** correlates with sexual recidivism at **r = .33.**

2. Comparison of outcome performance of sexual offenders with other offenders

 a. A review of the *Sourcebook of Criminal Justice Statistics* (Bureau of Justice Statistics, 1992; 1993; 1995) provided information on parole performance for individuals originally convicted of a number of violent offenses, property offenses, drug offenses, and public-order offenses. This allowed a comparison of the proportion of individuals originally convicted of rape or “other sexual assault” who successfully completed parole, with those convicted of other offenses.

1. In 1990, data from parole outcome in 27 U.S. states (N=157,815 parolees) indicate that **36%** of all individuals **successfully completed parole**, with 62% returning to prison (13% with a new sentence, 27% with parole revocation, and 22% with revocation pending). **Individuals convicted of violent offenses successfully completed parole** at a higher rate (**41%**), with **homicide** (**51%** successful completion), **kidnapping** (**38%**), **robbery** (**34%**), and **assault** (**43%**) relevant comparisons to sexual offenders. Some **48% of those convicted of** **rape successfully completed parole**, while **57% of those convicted of “other sexual assault” were successful** on parole (Bureau of Justice Statistics, 1992).

2. In 1991, for 27 states reporting parole outcome in the U.S. (N=171,934), a similar pattern may be observed. A total of **43% of all parolees successfully completed** **parole**. Among those convicted of **violent offenses**, the rate of successful completion was slightly higher **(46%**); this included homicide (46%), kidnaping (47%), robbery (40%), and assault (48%). Again, the rates of successful parole completion for **rape (51%)** and **“other sexual assault” (61%)** were comparable or higher than for other violent offenses, or when compared with all other offenses (Bureau of Justice Statistics, 1993).

3. This was observed again in 1992. Among 29 U.S. states reporting parole outcome (N=209,995), a total of **51% successfully completed parole**, comparable to the **52% of violent offenders successfully completing**. Among violent offenders, the successful completion rates of offenders convicted of homicide (63%), kidnaping (53%), robbery (44%), and assault (56%) are comparable to the rates of those convicted of **rape (54%)** or **“other sexual offenses” (66%)** (Bureau of Justice Statistics, 1995).

Clearly such comparisons must be considered cautiously. They apply only to the periods in which offenders were on parole, use less than optimally sensitive outcome measures (reconviction or parole violation, rather than specific acts confirmed by multiple sources), reflect outcome periods of various durations, and do not incorporate rates from the 21-23 states not reporting. Nonetheless, they do provide some empirical basis for the observation that sexual offenders as a class do not present an elevated risk for future criminal or other antisocial behavior, when compared with other criminal offenders or with other violent criminal offenders.

 b. A total of **256 juvenile offenders** (**N=124 nonviolent sexual offenders**, specifically lewd conduct with a child, and **N=132, both violent and nonviolent nonsexual offenders**) from Idaho, tracked between 1978-1993 (Sipe, Jensen, & Everett, 1998). Estimated **mean follow-up period was 6 years**. Juvenile Sexual Offenders consisted of 115 white, 6 Native American, and 3 Hispanic; Juvenile Nonsexual Offenders composed of 124 white, 5 Hispanic, 3 Native American. Rearrest rates for various adult offense categories, obtained from the Idaho Department of Law Enforcement: **any sex offense** (**JSO: 9.7%**, **JNSO: 3.0%**), **nonsexual violent offense** (**JSO: 5.6%**, **JNSO: 12.1%**), **property offense** (**JSO: 16.1%**, **JNSO: 32.6%**), other offense (JSO: 15.3%, JNSO: 22.7%), **any rearrest** (**JSO: 32.3%**, **JNSO: 43.9%**).

 3. Risk factors for sexual offending

a. Rice and Harris (1997-a) - considered a sample of **159 sex offenders** (whose rate of **violent recidivism over 10-year period** was **58%**). VRAG predictive accuracy (as measured by Receiver Operating Characteristics Area Under Curve, or ROC AUC) was comparable between this sample and other offenders measured by VRAG, suggesting that . Suggests that, with small revisions, the VRAG may work well with different populations (NGRI, convicted offenders, sexual offenders). Called SORAG (Sexual Offender Risk Appraisal Guide). Includes risk factors of **psychopathy** (measured by PCL-R), **separation from parents under age 16**, **nature of victim injury** (negative direction), **schizophrenia** (negative), **marital status**, **elementary school maladjustment**, **female victim** (negative), **failure on prior conditional release**, **property offense history**, **age at offense**, **alcohol abuse hx**, and **personality disorder**

b. Marshall et al. (1991) and Marshall and Barbaree (1990) reviewed five institutionally-based and four outpatient sex offender treatment programs, concluding that cognitive-behavioral programs and combined psychological and hormonal treatments, including medroxyprogesterone acetate (MPA) and cyproterone acetate (CPA), are effective in reducing the recidivism of **child molesters and exhibitionists**. These treatments, however, were not found by Marshall et al. (1991) to be effective in reducing the recidivism of rapists.

c. A recent meta-analysis indicated that programs implementing cognitive-behavioral or hormonal treatments yielded significantly larger effect sizes than studies employing behavioral treatments (Hall, 1995). Of the 92 published studies the author found since the Furby et al. (1989) review, only 12 were suitable for inclusion in the meta-analysis. Studies with fewer than 10 participants, those with no comparison or control group, and those that did not report recidivism data were eliminated. The meta-analysis revealed that **of the sexual offenders who completed treatment (N=683), 19% committed additional sexual offenses**, while **27% of the sexual offenders in comparison groups committed additional sexual offenses**. The mean treatment effect size for studies with follow-up periods of longer than 5 years was significantly greater than the mean effect size for studies with shorter follow-up periods.

d. Offender characteristics among child molesters such as **marital status** (i.e., being single or divorced) and being less likely to endorse certain goals of the behavioral program have distinguished non-recidivists from recidivists one year following treatment (Abel et al., 1988). Similarly, Hanson, Steffy, and Gauthier (1993) found that during an average follow-up period of 19 years for 106 child molesters, a better outcome was predicted by being **married**, having **fewer prior sexual convictions**, and **fewer admissions of previous sexual offenses**. **Age (over 40)** has also been associated with treatment success in nonfamilial child molesters (Barbaree & Marshall, 1988). Finally, **dropping out of treatment** has predicted a greater number of rearrests leading to convictions for a sex offense.

e. Offenders who have engaged in incest have been found to reoffend less frequently than those who have engaged in extrafamilial child molestation (see, e.g., Lang, Pugh, & Langevin, 1988). Furthermore, recidivists have shown a greater likelihood for engaging in **more varied pedophilic behavior** (both hands-on and hands-off) and victims (both female and male children as well as adolescents) than nonrecidivists (Abel, et al., 1988). Abel and his colleagues interpreted having **multiple victims and targets** as a reflection of more serious problems in the offender

1. When the **RRASOR** is combined with the **SACJ-min** to form the **STATIC-99**, the items are **male victims**, **never married**, **noncontact sex offenses**, **unrelated victims**, **stranger victims**, **prior sex offenses**, **current nonsexual violence**, **prior nonsexual violence**, **4+ sentencing dates**, and **between the ages of 18-24.9 years old**.

VIII. RISK ASSESSMENT TOOLS

Comparisons Across Tools

Fazel, Singh, Doll, & Grann (2012) (Predictive validities of commonly used risk assessment tools)

Objective: To investigate the predictive validity of tools commonly used to assess the risk of violence, sexual, and criminal behaviour.
Design:  Systematic review and tabular meta-analysis of replication studies following PRISMA guidelines.
Data sources:  PsycINFO, Embase, Medline, and United States Criminal Justice Reference Service Abstracts.
Review methods:  We included replication studies from 1 January 1995 to 1 January 2011 if they provided contingency data for the offending outcome that the tools were designed to predict. We calculated the diagnostic odds ratio, sensitivity, specificity, area under the curve, positive predictive value, negative predictive value, the number needed to detain to prevent one offence, as well as a novel performance indicator—the number safely discharged. We investigated potential sources of heterogeneity using metaregression and subgroup analyses.
Results:  Risk assessments were conducted on 73 samples comprising 24,847 participants from 13 countries, of whom 5879 (23.7%) offended over an average of 49.6 months. When used to predict violent offending, risk assessment tools produced low to moderate positive predictive values (median 41%, interquartile range 27-60%) and higher negative predictive values (91%, 81-95%), and a corresponding median number needed to detain of 2 (2-4) and number safely discharged of 10 (4-18). Instruments designed to predict violent offending performed better than those aimed at predicting sexual or general crime.
Conclusions:  Although risk assessment tools are widely used in clinical and criminal justice settings, their predictive accuracy varies depending on how they are used. They seem to identify low risk individuals with high levels of accuracy, but their use as sole determinants of detention, sentencing, and release is not supported by the current evidence. Further research is needed to examine their contribution to treatment and management.

Singh, Fazel, Gueorguieva, & Buchanan (2014) (Caution about predetermined probabilities)

Background: Rates of violence in persons identified as high risk by structured risk assessment instruments (SRAIs) are uncertain and frequently unreported by validation studies.

Aims: To analyse the variation in rates of violence in individuals identified as high risk by SRAIs.

Method: A systematic search of databases (1995-2011) was conducted for studies on nine widely used assessment tools. Where violence rates in high-risk groups were not published, these were requested from study authors. Rate information was extracted, and binomial logistic regression was used to study heterogeneity.

Results: Information was collected on 13,045 participants in 57 samples from 47 independent studies. Annualised rates of violence in individuals classified as high risk varied both across and within instruments. Rates were elevated when population rates of violence were higher, when a structured professional judgment instrument was used, and when there was a lower proportion of men in a study.

Conclusions: After controlling for time at risk, the rate of violence in individuals classified as high risk by SRAIs shows substantial variation. In the absence of information on local base rates, assigning predetermined probabilities to future violence risk on the basis of a structured risk assessment is not supported by the current evidence base. This underscores the need for caution when such risk estimates are used to influence decisions related to individual liberty and public safety.

Singh, J., Serper, M., Reinharth, J., & Fazel, S. (2011). Structured assessment of violence risk in schizophrenia and other psychiatric disorders: A systematic review of the validity, reliability, and item content of 10 available instruments. *Schizophrenia Bulletin, 37*, 899-912.

[https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3160213/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3160213/%20)

Objectives: To undertake a systematic review on structured violence risk assessment tools in individuals with schizophrenia. Methods: A systematic search was conducted from 1990 to 2011 to identify violence risk assessment tools and studies examining their predictive validity. Item content of the identified instruments was analyzed, and areas under the curve (AUC) from the studies were extracted. In addition, an 11-item checklist was developed to assess the utility and psychometric properties of these tools. Results: Ten risk assessment tools designed to predict community violence in psychiatric patients were identified, but only 2 studies reporting predictive validity estimates in patients with schizophrenia were found (median AUC = 0.69; interquartile range = 0.60–0.77). When inclusion criteria was broadened to include studies measuring accuracy for any diagnostic group, mixed evidence of predictive validity was found, with median AUCs ranging from 0.62 to 0.85 depending on the population. Item content included mostly clinical, sociodemographic, and criminal history factors. As only 1 tool included a neurobiological item, a structured review of brain-based and cognitive risk factors for violence was included, and 3 clusters (neurocognitive ability, neurocognitive awareness, and attitudinal cognition) were identified. Conclusions: While a number of violence risk assessment tools exist that can be used to predict the likelihood of community violence in psychiatric patients, there is currently little direct evidence for their utility in individuals with schizophrenia. In addition, there is large variation in item content between instruments, and further research is necessary to determine whether the inclusion of alternative factors could improve risk assessment.

Geraghty & Woodhams, J. (2015) (Tools for assessing risk in females)

Assessing an offender‘s risk level is important given the impact of criminal behavior on victims,

the consequences for the offender, and for society more generally. A wide range of assessment

tools have been developed to assess risk in offenders. However, the validity of such tools for

female offenders has been questioned. We present a systematic literature review of studies

examining the accuracy with which risk assessment tools can predict violence and recidivism in

female offenders. Five databases were searched, reference lists of relevant publications were hand searched, and an online search engine was used to identify studies. Fifteen studies were subject to review which evaluated nine risk assessment instruments (COMPAS, CAT-SR, HCR-20, LSI, PLC-R, OGRS, RISc, RM2000V, VRAG). The quality of these studies was systematically examined using a detailed quality assessment. The review findings indicate that the most effective tool for assessing both violence and recidivism in women was the LSI. There was variability in the quality scores obtained, with studies limited by measurement issues and standards of reporting results. Future research should aim to improve the quality of studies in this area, assess predictive accuracy across subtypes of female offenders, and compare correctional and psychiatric samples independently.

 A. Juveniles

 1. Prediction/Classification oriented

1. SAVRY
2. WAJA
3. YLS/CMI

 Compare risk predictors in eight jurisdictions (OJJDP, 1995)

 2. Management oriented

 a. Importance of *risk-relevant* needs assessment (see AAB,

 later in workshop)

1. Compare needs assessment in eight jurisdictions (OJJDP, 1995)
2. SAVRY, WAJA, AND YLS/CMI each also has a risk management component

B. Level of Service/Case Management Inventory -- prediction and management oriented; composed of 58 items in the following areas: Criminal History, Education/Employment, Family/Marital, Leisure/Recreation, Companions, Alcohol/Drug Problem, Procriminal Attitude/Orientation, Antisocial Pattern (Andrews, Bonta, & Wormith, 2004)

1. normative groups consist of both males and females

 a. 956 males from Ottawa-Carleton Detention Centre, Hamilton-Wentworth Detention Centre, and Toronto Jail, with mean age 26.9, mean sentence length 325.6 days, and mean number of convictions 3.7. Offenses were 26.4 % crimes vs. persons, 50.9 % crimes against property, 9.8 % drug offenses, alcohol/traffic 8.2 %, remainder miscellaneous.

 b. 1414 females from medium security institution for adult women operated by Ontario Ministry of Correctional Services, with mean age 30.2, mean sentence 322 days.

2. reliability - generally high agreement ( r = .80 to .94) between trained raters, sometimes correctional officers. Test-retest reliability decreased some over time, as would be expected with change in risk factors (Andrews & Bonta, 1995).

 3. validity - properties of LSI-R described in manual

a. total score related to other measures of propensity for rules violations and to assigned levels of supervision

b. sub-components measure constructs they were designed to measure

c. in probation settings, LSI-R associated with outcomes such as program outcome status, recidivism, and self-reported criminal activity

d. LSI-R associated with parole outcome

e. low-risk offenders as measured by LSI-R likely to have successful halfway house placements

f. LSI-R scores associated with institutional maladjustment (Andrews & Bonta, 1995)

C. Violence Risk Appraisal Guide - prediction oriented; derived from intake, treatment, and post-hospitalization data on Canadian mentally disordered offenders (Harris, Rice, & Quinsey, 1993) (SEE Quinsey et al., 2006, for manual)

* *Lived with both biological parents to age 12*
* *Elementary school maladjustment*
* *History of alcohol problems*
* *Marital status at time of index offense* (unmarried = lower)
* *Criminal history score for convictions and charges for nonviolent offenses prior to index offense*
* *Failure on prior conditional release* (parole violation or revocation, violation of probation or bail conditions)
* *Age at index offense* (younger = higher)
* *Victim injury* (index offense; more severe injury = higher)
* *Any female victim* (no = higher)
* *DSM-III criteria for any personality disorder* (yes = higher)
* *DSM-III criteria for schizophrenia* (no = higher)
* *PCL-R score*
1. Sex Offender Risk Appraisal Guide - prediction oriented; derived from intake, treatment, and post-hospitalization data on Canadian mentally disordered offenders (SEE Quinsey et al., 2006, for manual)
* *Lived with both biological parents to age 12*
* *Elementary school maladjustment*
* *History of alcohol problems*
* *Marital status at time of index offense* (unmarried = lower)
* *Criminal history score for convictions and charges for nonviolent offenses prior to index offense*
* *Criminal history score for convictions and charges for violent offenses prior to index offense*
* *Number of convictions for previous sexual offenses*
* *History of sex offenses against girls under age 14 (*yes = higher*)*
* *Failure on prior conditional release* (parole violation or revocation, violation of probation or bail conditions)
* *Age at index offense* (younger = higher)
* *~~Victim injury~~* (index offense; more severe injury = higher)
* *~~Any female victim~~* (no = higher)
* *DSM-III criteria for any personality disorder* (yes = higher)
* *DSM-III criteria for schizophrenia* (no = higher)
* *Phallometric test results* (any deviant preference = higher)
* *PCL-R score*

Appears on SORAG but not on VRAG ~~Appears on VRAG but not on SORAG~~

 E. HCR-20 (*historic, clinical, risk*) (Webster et al. 1997)

 1. Historic

 a. previous violence

 b. young age at first violent incident

 c. relationship instability

 d. employment problems

 e. substance use problems

 f. major mental illness

 g. psychopathy

 h. early maladjustment

 I. personality disorder

 j. prior supervision failure

 2. Clinical

 a. lack of insight

 b. negative attitudes

 c. active symptoms of major mental illness

 d. impulsivity

 e. unresponsive to treatment

 3. Risk

 a. plans lack feasibility

 b. exposure to destabilizers

 c. lack of personal support

 d. noncompliance with remediation attempts

 e. stress

 4. Validation research using the HCR-20

a. files of **193 civilly committed patients** in Canada were coded retrospectively using the HCR-20 and the PCL-Screening Version. Follow-up data obtained in community over an average of 626 days using official records (provincial correctional files, which include court and correctional contacts, and hospital readmission records as well as admission to any of 16 general hospitals throughout province, and coroner’s death records). **Persons scoring above HCR-20 median** (19, of a possible total of 40) **were 6-13 times more likely to be violent** during outcome period. HCR-20 added incremental validity to PCL-SV (Douglas et al., 1999).

1. files of **75 male, Canadian, federally sentenced maximum security inmates** were coded using HCR-20, PCL-R, and VRAG. HCR-20 was as strongly related to past violence as either PCL-R or VRAG. **Scores above the median (19) of the HCR-20 increased the odds of past violent and antisocial behavior** by an average of **4 times** (Douglas & Webster, 1999).

G. Violence Risk Scale Tool (Wong & Gordon, 2006; Wong & Gordon, 1998-2003)

1. Wong & Gordon (2006) is first in 2-step process to validate the Violence Risk Scale
2. VRS integrates prediction and treatment through rating 6 static and 20 dynamic variables
3. Identifies treatment targets linked to violence and ratings of stages of change of treatment targets
4. VRS scores of 918 male offenders showed good interrater reliability and internal consistency and could predict violent and nonviolent recidivism (criminal conviction after leaving institution) over both short- and longer-term (4.4 year) follow-up
5. is designed based on the risk, need and responsivity principles. It is intended for use by scientists/practitioners to assess and predict the risk of violence, to measure changes in risk after treatment, and to make treatment decisions. The VRS allows the practitioner to exercise reasonable clinical discretion while maintaining structure and scientific rigor.
6. provides a quantitative measure of the risk of violent recidivism of forensic clients, in particular, those who are to be released from an institution to the community;
7. uses both static and dynamic variables that are empirically or theoretically linked to violence to assess and predict violence;
8. identifies treatment targets linked to violence; dynamic variables that receive high ratings (rated 2 or 3) are considered relevant treatment targets;
9. uses the well established Transtheoretical Model of Change to assess change as a function of treatment linking changes in treatment to changes in risk;
10. identifies the client’s stages of change (treatment readiness) which tells the service deliverer what therapeutic approach to take that would maximize treatment efficacy;
11. allows service deliverers to assess pre- and post-treatment risk levels;
12. is informative to those involved in risk management in the community;
13. is gender and race neutral in its application.
14. Static and dynamic variables performed comparably well
	1. Static:
		1. Current Age
		2. Age of First Violent Conviction
		3. Number of Juvenile Convictions
		4. Violence throughout Lifespan
		5. Prior Release Failures/Escapes
		6. Stability of Family Upbringing
	2. Dynamic
		1. Violent Lifestyle
		2. Criminal Personality
		3. Criminal Attitudes
		4. Work Ethic
		5. Criminal Peers
		6. Interpersonal Aggression
		7. Emotional Regulation/Control
		8. Violence During Institutionalization
		9. Weapon Use
		10. Insight into Violence
		11. Mental Illness
		12. Substance Abuse
		13. Stability of Relationships
		14. Community Support
		15. Released to High Risk Situations
		16. Violence Cycle
		17. Impulsivity
		18. Cognitive Distortion
		19. Compliance with Supervision
		20. Security Level of Release Institution

H. Iterative Classification Tree (preceding COVR; Monahan et al., 2000; 2001; Steadman et al., 2000)

 1. Uses MacArthur risk data (Steadman et al., 1998)

 2. Employs “classification tree” approach

 3. Scanned database to identify variables most strongly associated with

 serious acts of violence in year following hospital discharge

 4. Software commercially available (COVR)

 5. Uses variables that are relatively easy to obtain:

 a. seriousness of prior arrests (more serious = higher risk)

 b. motor impulsiveness (yes = higher)

 c. father used drugs (yes = higher)

 d. recent violent fantasies (yes = higher)

 e. substance abuse (yes = higher)

 f. legal status (voluntary or involuntary)(involuntary = higher)

 g. schizophrenia (no = higher)

 h. anger reaction (high = higher)

 i. employed (no = higher)

 j. recent violence (yes = higher)

 k. hx of loss of consciousness (yes = higher)

 l. parents fought physically (yes = higher)

 6. Yields classification in one of three categories

 a. high risk (twice or higher that of overall sample base rate)

b. moderate risk (between half sample base rate and twice sample base

 rate)

I. Classification of Violence Risk (COVR; Monahan, Steadman, Appelbaum et al., 2005;

 Monahan, Steadman, Robbins et al., 2005)

* Developed by John Monahan and colleagues
* Uses data from MacArthur Research Network on Mental Health and Law’s Risk Assessment Study
* Data described at length in *Rethinking Risk Assessment: The MacArthur Study of Mental Disorder and Violence* (Oxford, 2001)
* Published by PAR (<www.parinc.com>)
* Brief chart review (e.g., diagnosis, hospitalizations)
* <10 minutes to administer COVR software
* Total of 40 risk factors in the program
* Only as many risk factors as necessary are assessed
* Administered by any type of MH professional
* Output: a risk estimate of 1, 8, 26, 56, or 76% (plus 95% C.I.) and a list of the risk factors assessed
* Independent samples of patients at high or low risk of violence on COVR (n=157)
* Broader than MacArthur Study: 18-60 years old; any ethnicity; any psychiatric diagnosis
* 20 week follow-up
* Slightly expanded definition of violence
* Two sites: Worcester and Philadelphia

J. SVR-20 (*Sexual Violence Risk*) (Boer et al., 1997)

 1. Psychosocial Adjustment

 a. sexual deviation

 b. victim of child abuse

 c. psychopathy

 d. major mental illness

 e. substance use problems

 f. suicidal/homicidal ideation

 g. relationship problems

 h. employment problems

 I. past nonsexual violent offenses

 j. past nonviolent offenses

 k. past supervision failure

 2. Sexual Offenses

 a. high density sexual offenses

 b. multiple sex offense types

 c. physical harm to victim(s) in sex offenses

 d. uses weapons or threats of death in sex offenses

 e. escalation in frequency or severity of sex offenses

 f. extreme minimization or denial of sex offenses

 g. attitudes that support or condone sex offenses

 3. Future Plans

 a. lacks realistic plans

 b. negative attitude toward intervention

K. Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR) (Hanson, 1997)

1. **prior sexual arrests** (0 = none, 1 = one prior conviction or one to two prior arrests, 2 = two or three prior convictions or three to five prior arrests, 3 = four or more prior convictions or six or more prior arrests)2. **age** (0 = 25 or older at time of release, 1 = under 25 at time of release)

3. **ever targeted male victims** (0 = no, 1 = yes)

4. **whether any victims were unrelated to offender** (0 = no, 1 = yes)

L.. Structured Anchored Clinical Judgment (SACJ-min; Grubin, 1998)

1. male victims

2. never married

3. noncontact sex offenses

4. stranger victims

5. current sex offense

6. prior sex offense

7. current nonsexual violence

8. prior nonsexual violence

9. 4+ sentencing dates

M. Static-99 (Hanson & Thornton, 2000)

1. **any male victims** (0 = no, 1 = yes)

2. **never married/cohabitated** (ever lived with partner for at least 2 years? 0 = yes, 1 = no)

3. **noncontact sex offenses** (0 = no, 1 = yes)

4. **unrelated victims** (0 = no, 1 = yes)

5. **stranger victims** (0 = no, 1 = yes)

6. **prior sex offenses** (0 = no, 1 = 1-2 charges or 1 conviction, 2 = 3-5 charges or 2-3 convictions, 3 = 6+ charges or 4+ convictions)

7. **current nonsexual violence** (0 = no, 1 = yes)

8. **prior nonsexual violence** (0 = no, 1 = yes)

9. **4+ sentencing dates** (0 = no, 1 = yes)

10. **18-24.99 years old** (0 = no, older; 1 = yes)

Hanson & Thornton (2000) created the Static-99 by merging the items on the RRASOR and the SACJ-min. Predictive accuracy was tested using four data sets drawn from Canada and the United Kingdom (N = 1,301). The RRASOR and the SACJ-min originally showed roughly comparable accuracy, and the Static-99 was more accurate than either. The Static-99 showed moderate predictive accuracy for both sexual recidivism (R = .32) and violent (including sexual) recidivism (R = .32).

Helmus, L., Hanson, R. K., Thornton, D., Babchishin, K. M., & Harris, A. J. (2012). Absolute recidivism rates predicted by Static-99R and Static-2002R sex offender risk assessment tools vary across samples: A meta-analysis. *Criminal Justice and Behavior, 39*, 1148-1171. DOI: 10.1177/0093854812443648

There has been considerable research on relative predictive accuracy (i.e., discrimination) in offender risk assessment (e.g., Are high-risk offenders more likely to reoffend than low-risk offenders?), but virtually no research on the accuracy or stability of absolute recidivism estimates (i.e., calibration). The current study aimed to fill this gap by examining absolute and relative risk estimates for certain Static sex offender assessment tools. Logistic regression coefficients for Static-99R and Static-2002R were combined through meta-analysis (8,106 sex offenders; 23 samples). The sexual recidivism rates for typical sex offenders are lower than the public generally believes. Static-99R and Static-2002R both demonstrated remarkably consistent relative predictive accuracy across studies. For both scales, however, the predicted recidivism rates within each risk score demonstrated large and significant variability across studies. The authors discuss how the variability in recidivism rates complicates the estimation of recidivism probability in applied assessments.

N. Static-2002 (Hanson & Thornton, 2003)

* Updated version of Static-99
* Limited available research suggests comparable reliability and validity to Static-99
* For use with adult males charged with or convicted of offense with sexual motive
* Official records needed

O. Stable 2000, Stable 2007 (Anderson & Hanson, 2009)

* Dynamic risk factors account for variance beyond static predictors
* Measures stable dynamic needs, as contrasted with acute dynamic needs, for sexual offenders
* From Sex Offender Needs Assessment Rating (SONAR)
* Can be combined with Static-99 or Static-2002

P. Acute 2000, Acute 2007 (Anderson & Hanson, 2009)

* Aggregated “acute” measures predicted better than recent acute measures
* AUC = .77 for Static-99
* AUC = .81 for Static-99 + Stable 2007 (Hanson et al., 2007)
* Suggests preference for stable factors and aggregated acute measures in FMHA

Q. Risk for Sexual Violence Protocol (Hart & Boer, 2009)

* SPJ tool
* SVR-20 and RSVP conceptualize risk to include nature, severity, imminence, frequency, and likelihood of sexual offending
* For males 18+
* Civil and criminal applications
* Reliability is good to excellent
* Five domains (sexual violence history, psychosocial adjustment, mental disorder, social adjustment, manageability)
* 22 items total
* Limited validity data to date

R. Violence Risk Scale-Sexual Offender version

* Adapted from VRS
* 7 static and 17 dynamic items
* Good reliability (ICCC = .74 to .95) (Beyko & Wong, 2005)
* Good predictive validity (static AUC = .74, dynamic AUC = .67, total AUC = .72) (Wong & Olver, 2009)

S. Analysis of Aggressive Behavior

* Anamnestic approach (idiographic, not nomothetic)
* Technique, not a tool
* Does not have reliability and validity data
* Uses individuals own history to identify risk factors and intervention needs

 (See Appendix A)

IX. Implications for Intervention and Decision-Making

 A. Classification of Risk Factors for Intervention and Decision‑Making

 ***dynamic*** ‑ can change via intervention with individual (treatment, monitoring) or

 control of situation (living setting, access to weapons)

 ***static*** ‑ not subject to change via such intervention; may include personal characteristics (age, gender) and certain kinds of disorders or deficits (psychopathy, mental retardation)

 B. Nature of "Professional Judgment" (Stefan, 1993)

U.S. Supreme Court, in *Youngberg v. Romeo* (1982), described standard for determining whether right to treatment (or other rights of institutionalized people) had been violated: a substantial departure from accepted professional judgment, practice, or standards. To be more explicit, Stefan describes how courts have operationalized the "professional judgment departure" standard:

 1. no judgment was exercised at all

 2. unqualified individual made judgment

 a. non‑professional (education, training, experience)

 b. unqualified professional

 3. professional made judgment on impermissible basis

 a. punishment

 b. administrative or staff convenience

 c. departure from institutional or state regulations

 d. not individualized

 C. AAB Example

 D. Use Risk Assessment in Risk Containment (Monahan, 1993b, *Tarasoff* liability)

 1. Risk management

a. for cases that raise particular concerns about violence, consider intensified treatment, incapacitation, or target‑hardening

b. for especially difficult cases, seek consultation from an experienced colleague

c. follow‑up on lack of compliance with treatment

 2. Documentation

 record the source, content, and date of significant information on risk, and the content, rationale, and date of all actions to prevent violence

 3. Policy

a. develop feasible guidelines for handling risk, and subject these guidelines to clinical and legal review

b. educate staff in the use of the guidelines, and audit compliance

c. revise forms to prompt and document the information and activities contemplated in the guidelines

 4. Damage Control

 discourage tampering with the record and public statements of responsibility

 E. Should practice guidelines in risk assessment, management, intervention,

 and communication be implemented?

1. Providers who become or anticipate becoming responsible for the care of individuals who may be at risk for civil commitment or who may present a risk to self or others should consider adopting formal risk-assessment protocols so that the risk-assessment process is standard and consistent for all patients and clinicians...Standardized protocols may provide some protection from malpractice claims alleging that a practitioner negligently discharged a patient committed as dangerous by enabling the practitioner to argue that the risk assessment decision was made in accordance with the best available professional knowledge...Such a protocol may be useful in treatment as well; the best available research on risk assessment suggests that situational and environmental factors are as relevant to dangerous behaviors as they are to treatment (Petrila, 1995, pp. 1047-1048).

2. Such guidelines should reflect minimal standards necessary for competent professional practice and not ideals stemming from unlimited resources, if liability is to be diminished rather than increased (Monahan, 1993)

3. Calls for such guidelines are heard with some frequency in recent years (Poythress, 1990; Monahan, 1993; Borum, 1996)

 F. Directions for Intervention

 Dvoskin and Steadman (1994) ‑ using intensive case management to reduce violence by mentally ill persons in the community

 a. Substance abuse treatment

 b. Cultural issues

 c. Human resources

 Different researchers (Quinsey et al., 2006; Rice & Harris, 1997-b; Webster et al., 1994) have discussed how use of actuarial prediction instrument, such as the VRAG, might be used in conjunction with dynamic risk factors to make recommendations regarding placement and treatment.

 Heilbrun (1997) has described how a risk management model of risk assessment can be used to plan interventions, monitor progress, update risk status judgments, and make decisions concerning privileges, conditional release or release on parole, and revocation of release.

X. SCIENTIFICALLY SUPPORTED, UNSUPPORTED, AND CONTROVERSIAL USES OF RISK ASSESSMENT (from Heilbrun, Douglas, & Yasuhara, 2009)

1. Scientifically Supported Uses
	1. Conclusions that persons scoring higher on validated actuarial risk assessment instruments or rated as higher risk on validated SPJ instruments are at greater risk for violence than those scoring lower on these instruments
	2. Actuarial prediction strategies for group-based predictions, with large derivation and validation samples, using mean probability and including margin of error
	3. Use of extreme risk categories as more informative and less subject to limits of overlapping confidence intervals
	4. Indication that application of group-based data to an individual case or small number of cases will result in wider confidence intervals than application to a large number of cases
2. Scientifically Unsupported Uses
	1. Actuarial prediction strategies without large derivation and validation samples
	2. Actuarial prediction strategies applied to populations that are not part of the derivation and validation samples
	3. Conclusions that a given “individual” has an X probability of violence in the future, without the context of confidence intervals and the caution about less certainty in the individual case
3. Scientifically Controversial and/or Largely Untested Uses
	1. Actuarial prediction strategies with large derivation and validation samples using mean probability but not citing margin of error and its increased uncertainty when applied to single cases
	2. The assumption that there are reliable, known probability estimates that are robust across samples, even at the group level

XI. RISK COMMUNICATION: Report Writing and Testimony on Risk Assessment

A. Importance of Adapting Risk Assessment Model to Nature of Legal Decision

 (Heilbrun, 1997)

 1. Prediction-oriented forms of risk communication cited by practitioners

a. The probability that Mr. X will commit a violent act toward others over the next \_\_ months is \_\_%.

b. Mr. X is (*dangerous*) (*not dangerous*).

c. Mr. X’s risk of committing a violent act toward others is (*high*) (*moderate*) (*low*).

d. Mr. X is \_\_% likely to commit a violent act toward others.

 2. Management-oriented forms of risk communication cited by practitioners

a. Mr. X’s risk of committing a violent act toward others is dependent upon (*identified risk factors*); to reduce this risk, (*specify interventions to address each risk factor*) (Heilbrun, Philipson, Berman & Warren, 1999; Heilbrun, O’Neill, Strohman, Bowman, & Philipson, 2000)

 B. Categorical Communication Possibilities

Monahan and Steadman (1996), in an intriguing analogy between weather prediction and violence prediction, suggest the possibility of risk communication incorporating three levels:

(1) ***No Risk Message*** ‑ risk factors indicate negligible likelihood for violence within the forecast period. No further inquiry into violence risk is indicated (e.g., a 60‑year‑old depressed man with no violence history),

(2) ***"Violence Watch"*** ‑ several risk factors for violence are present. Gather more information, and monitor the individual more closely than usual (e.g., a 25‑year‑old woman who is using drugs, with a history of assault, but without a recent violent act or threat),

(3) ***"Violence Warning"*** ‑ many risk factors for violence are present. Take preventive action (such as intensive case management and/or treatment, voluntary or involuntary hospitalization, warning the potential victim) now (e.g., a 25‑year‑old male who is using drugs, with a history of recent serious violence, who is threatening his wife and has just bought a gun).

May be particularly appealing in light of difficulties in using probabilities meaningfully in the absence of an actuarial tool. Consider findings of Slovic & Monahan (1995) with both undergraduates and forensic clinicians:

 a. nature of the response scale affected judgments of risk

 b. scale that finely differentiated among small probabilities led to lower risk value being assigned, with

 c. probability scales used with no meaning other than rank

 C. Suggested Written Preface to Risk Assessment Information in a Report (Prediction

 Model)

I have been asked to assist in determining whether Mr. A is likely to be violent in the future. Historically, there have been several problems with mental health professionals offering such opinions. I would like to describe these problems, and how they are being handled as part of the present evaluation. The first problem is the failure to specify what "violent" (or "dangerous") means. For the purposes of the present evaluation, I am defining it as follows: (violent behavior only/threats plus violent behavior/specific kinds of violent behavior, such as rape).

The second difficulty has to do with accuracy. Research has indicated that mental health professionals tend to overpredict violence, to the extent that long‑term predictions of violence are frequently in error. More recent research has suggested some improvement in this area, as a result of a better awareness of base rates of violence, a tendency to make shorter‑term predictions, and better use of the factors that are empirically related to future violent behavior. I am handling this problem by identifying the base rate of future (specify target behavior) for (Mr. A's population). The time period for which I am assessing the likelihood of Mr. A engaging in (target behavior) is (specify time period). Finally, I have identified the following factors as empirically related to (target behavior): (include general and specific predictors). These factors have been incorporated into my assessment of Mr. A's risk.

The third difficulty is that the words used to describe human aggression may have implications beyond the immediate behavior. The word "dangerous" requires not only a description of the act, but a determination of the relative risk to others and (possibly) a conclusion about whether such risk is sufficient to justify a decision such as (civil commitment, probation denial, etc.). I am an expert in the scientific and mental health aspects of aggression risk (which are largely value‑neutral and concerned only with the act itself), but not the larger legal or moral issues such as "how much is enough?" For that reason, I am performing a risk assessment rather than a dangerousness assessment. I will specify how great the risk, for what, and within what time period, but will leave the determination of "how much is enough?" to (decision‑maker).

 D. Suggested Preface to Risk Assessment (Management Model)

I have been asked to assist in determining what interventions are needed by Mr. X to reduce the likelihood that he will (*specify target behavior*) over the next (*specify time period*).

(Optional Insert):

(Based on (*risk factors, score on risk assessment tool,* etc.), it would appear that Mr. X’s risk relative to (*comparison group*) appears to be (*high, moderate, or low*-**-support with probability level, odds ratios, etc. if available; include confidence intervals**). (**Incorporate material under D, above**).)

(Resume Main Text):

There are several risk factors which, if successfully managed, should reduce Mr. X’s risk of (*target behavior*). These include (*risk factor 1*), for which he needs (*intervention 1*), (*risk factor 2*), for which he needs (*intervention 2*), and (*risk factor 3*), for which he needs (*intervention 3*). It is important that these interventions, and Mr. X’s response to them, be monitored; if there is noncompliance (*specify what would constitute noncompliance*), this should be immediately communicated to (*specify who*) by (*specify the means*). If these interventions are implemented, and Mr. X’s response is favorable, then his risk of (*target behavior*) should be reduced.

 E. Suggested Response to "Will he be violent?"

1. Refer to written statement

2. "It depends." Describe factors on which it depends, including the definition of "violent," the base rate of the population, and personal and situational variables. If described in terms of "static" and "dynamic" influences, the answer can be related to risk management.

3. It would be misleading for me to answer that question "yes" or "no." My assessment relies on the use of probabilities. The likelihood that Mr. A will (target behavior) in the next (specified time frame) is neither 100% nor 0.

 F. Suggested Response to "Is she dangerous?"

 1. Refer to written statement

2. Ignore word "dangerous," describe risk of target behavior within specified time period.

 3. Ask for clarification of definition of "dangerous."

 G. Incorporation of Commonsense Reasoning

In testifying on the (in)validity of polygraph tests, I have often been asked to offer an opinion on the probable accuracy of a test result obtained under special conditions never specifically studied under scientifically controlled conditions. My response has been to simply explain the commonsense basis of my reasoning, asserting nothing of a technical nature that could not be supported scientifically, so that the jury is free to reach its own conclusions. Sometimes an expert who merely clearly outlines the relevant considerations and thus assures the jury that there is no technical barrier against their relying on their own good judgment can be useful (Lykken, 1993).

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Table 1

Prediction vs. management models of risk assessment: Relevant contrasts

|  |  |  |
| --- | --- | --- |
|   | PREDICTION |  MANAGEMENT |
|  **Goal** | Violence prediction |  Risk reduction |
|  **Nature of Risk Factors** |  Static and dynamic Strongest empirically |  Dynamic Risk-relevant; can be affected by intervention  |
|  **Post-Assessment Control** |  Variable |  High |
|  **Number of Times Administered** |  One | Multiple, at different times |
| **Sensitivity to Change in Risk Status** |  Low |  High |
|  **Implications for Intervention** |  Minimal |  Strong |
|  **Research Measures** |  TP, TN, FP, FN Sensitivity, specificity Overall accuracy (Receiver Operating Characteristics) Relative improvement over chance Future violent behavior | Association of respective  risk factors with prior violent behaviorDelivery of respective risk interventions (RIs)Compliance/progress in  RIs Future violent behavior |
|  **Validation Designs** | Effectiveness research (Regression-based)Efficacy research (controlled clinical trials; ANOVA and MANOVA)  | Random or matched  assignment to experimental and control groupsBetween-groups comparisonsRisk reducing effect of satisfactory relevant intervention |

(from Heilbrun, 1997)

Table 2

Proportion of Patients With Follow-up Violence or Other Aggressive Acts by Information

Source (N=951) (from Steadman et al., 1998)

Information Source % w/ Violence Cumulative % with Other Cumulative

 by Info Source % w/Viol Agg Acts, by % w/Other

 Info Source Agg Acts

Agency records 4.5 4.5 8.8 8.8

Subject 22.4 23.7 44.6 47.7

Collateral informants 12.7 27.5 31.8 56.1

Table 3

Prevalence of Violence and Other Aggressive Acts, in Percentage (from Steadman et al., 1998)

 Major Mental Major Mental Other Mental Total

 Disorder, Disorder, Disorder, Patient

 No Substance Substance Abuse Substance Abuse Sample

 Abuse

+-----------------+ +----------------+ +----------------+ +---------------+

Time Viol Other Viol Other Viol Other Viol Other

 Agg Acts Agg Acts Agg Acts Agg Acts

Pre-

 hosp 8.9 21.2 22.6 28.4 24.9 31.4 17.4 25.8

Post 1 6.7 22.4 17.9 24.7 22.3 34.7 13.5 25.2

Post 2 5.8 18.6 10.2 27.5 22.1 22.1 10.3 22.7

Post 3 4.0 14.3 8.4 19.4 11.1 30.3 6.9 18.8

Post 4 6.4 14.0 8.7 19.8 9.2 24.5 7.6 18.0

Post 5 4.4 10.4 6.1 18.3 11.9 12.9 6.3 14.2

Year 17.9 32.7 31.1 33.7 43.0 32.4 27.5 33.0

Aggregate

Table 4

Prevalence of Violence and Other Aggressive Acts in Patient and Community Samples by

MAST/DAST Symptoms: Pittsburgh (from Steadman et al., 1998)

 *% With Violence* *% With Other Aggressive*

 *Acts Only*

 +-------------------------------+ +-----------------------------+

 N % w/ With Without Total With Without Total

 MAST/ MAST/ MAST/ MAST MAST/

 DAST DAST DAST DAST DAST

 Symptoms Symp Symp Symp Symp

Patients

 Post 1 314 31.5\*\*\* 22.0 4.7 11.5\* 24.4 18.3 20.7

 Post 2 303 29.4\*\*\* 12.3 4.2 7.3 37.7\*\*\* 17.5 25.1\*

 Post 3 273 25.3\*\* 6.1 4.0 4.8 23.5 12.0 16.1

 Post 4 276 25.6\*\* 11.0 5.7 7.6 29.0 13.6 19.2

 Post 5 266 20.2 14.1 4.3 7.1 24.4 12.8 16.2

Community

 sample 519 17.5 11.1 3.3 4.6 22.2 13.5 15.1

\* p < .05

\*\* p < .01

\*\*\* p < .001

MAST = Michigan Alcoholism Screening Test

DAST = Drug Abuse Screening Test

Table 5

Predictors of General and Violent Recidivism Among Mentally Disordered Offenders

(Bonta et al., 1998)

 General Violent

**Positive Predictors** Recidivism N Recidivism N

 Effect Size Effect Size

Objective risk assessment .39 1,295 .30 2,186

Adult criminal history .23 4,312 .14 2,163

Juvenile delinquency .22 4,312 .20 985

Antisocial personality .18 1,736 .18 1,634

Nonviolent criminal history .18 2,910 .13 1,108

Institutional adjustment .13 627 .14 711

Hospital admissions .12 1,874 .17 948

Poor living arrangements .12 396 NR

Gender (male) .11 1,936 NR

Substance abuse (any) .11 2,345 .08 2,013

Family problems .10 730 .19 1,481

Escape history .10 646 NR

Violent history .10 2,240 .16 2,878

Drug abuse .09 1,050 NR

Marital status (single) .07 987 .13 1,068

**Negative Predictors**

Mentally disordered offender -.19 3,009 -.10 2,866

Homicide index offense -.17 1,147 NR

Age -.15 3,170 -.18 1,519

Violent index -.14 905 -.04 2,241

Violent index (broadly defined) -.10 3,240 .08 1,950

Sex offense -.08 2,371 .04 1,636

Not guilty by reason of insanity -.07 1,761 -.07 1,208

Psychosis -.05 2,733 -.04 1,208

Mood disorder -.04 1,856 .01 1,520

Treatment history -.03 3,747 NR

Offense seriousness -.01 1,368 .06 1,879

NR = Not Reported

Table 6

Summary of Treatment Outcome Studies for Sexual Offenders

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | Treatment |  | Comparison |  |  |  | Followup |
|  |  |  Group |  | Group |  |  |  | Period |  | Treatment |  | Comparison |
| **Type of Treatment** |  |  (n) |  | (n) |  | Description |  | (Months) |  | Group |  | Group |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | \_\_\_\_\_\_\_\_ |  | \_\_\_\_\_\_\_\_\_ |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | \_\_\_\_\_\_\_\_\_\_\_ |  | \_\_\_\_\_\_\_\_\_\_\_\_ |  | \_\_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Behavioral** |  |  |  |  |  |  |  |  |  |  |  |  |
|  Rice , Quinsey, & Harris (1991)d |   |  29 |   |  29 |  | Pedophiles |  | 46 / 30 |  | 38 |  | 31 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  McConaghy, Blaszczynski, Kidson (1988)b,c |  |  10 |  |  15e |  | Exhibitionists |  | 12 |  | 20 |  | 13 |
|  |  |  |  |  |  | Voyeurs |  |  |  |  |  |  |
|  |  |  |  |  |  | Pedophiles/Others |  |  |  |  |  |  |
| **Cognitive-Behavioral** |  |  |  |  |  |  |  |  |  |  |  |  |
|  Borduin, Henggeler, Blaske, & Stein (1990)a |  |  8 |  |  8 |  | Adolescent rapists  |  | 19 / 36 |  | 12 |  | 75 |
|  |  |  |  |  |  | Others |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Hanson, Steffy, & Gauthier (1993)d  |  |  106 |  |  91 |  | Pedophiles |  | > 180 |  | 44 |  | 38 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Marshall & Barbaree (1988)a,b,c |  |  68 |  |  58 |  | Child Molesters |  | unspecified |  | 13 |  | 34 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Marshall, Eccles, & Barbaree (1991)a,c  |  |  40 |  |  21 |  | Exhibitionists |  | 106 / 48 |  | 32 |  | 57 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Hormonal** |  |  |  |  |  |  |  |  |  |  |  |  |
|  Federoff, Wisner-Carlson, Dean & Berlin (1992)a,b  |  |  27 |  |  19 |  | Pedophiles |  | 84 |  | 15 |  | 68 |
|  |  |  |  |  |  | Exhibitionists |  |  |  |  |  |  |
|  |  |  |  |  |  | Others |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Maletsky (1991)a,b |  |  100 |  |  100 |  | Rapists |  | 36 |  | 10 |  | 6 |
|  |  |  |  |  |  | Child Molesters |  |  |  |  |  |  |
|  |  |  |  |  |  | Exhibitionists |  |  |  |  |  |  |
|  |  |  |  |  |  | Voyeurs/Others |  |  |  |  |  |  |
|  Meyer, Cole, Emory (1992)a,b  |  |  40 |  |  21 |  | Child Molesters |  | > 60 |  | 42 |  | 57 |
|  |  |  |  |  |  | Exhibitionists |  |  |  |  |  |  |
|  |  |  |  |  |  | Voyeurs |  |  |  |  |  |  |
|  |  |  |  |  |  | Other |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Wille & Beier (1989)a |   |  99 |  |  35 |  | Adult Offenders |  | 132 |  | 3 |  | 45 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Relapse Prevention** |  |  |  |  |  |  |  |  |  |  |  |  |
|  Marques, Day, Nelson, & West (1994)a  |  |  106 |  |  193 |  | Pedophiles |  | 60 |  | 8 |  | 13 |
|  |  |  |  |  |  | Rapists |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Hildebran & Pithers (1992)a   |  |  50 |  |  40 |  | Pedophiles |  | 84 |  | 6 |  | 33 |
|  |  |  |  |  |  | Rapists |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

Note: This table was adapted from Hall (1995). Recidivism rates refer to sexual offenses only.

a Official Records

b Self-report e Comparison group consists of hormonal treatment alone or hormonal plus behavioral treatment

Table 7

Recidivism Rates (%) for Static-99 Risk Levels (Hanson & Thornton, 2000)

 Sexual recidivism Violent recidivism

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Static-99 score Sample size 5 years 10 years 15 years 5 years 10 years 15 years

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 0 107 (10%) 5 11 13 6 12 15

 1 150 (14%) 6 7 7 11 17 18

 2 204 (19%) 9 13 16 17 25 30

 3 206 (19%) 12 14 19 22 27 34

 4 190 (18%) 26 31 36 36 44 52

 5 100 (9%) 33 38 40 42 48 52

 6+ 129 (12%) 39 45 52 44 51 59

Mean: 3.2 1086 (100%) 18 22 26 25 32 37

Table 8

Structured Assessment of Violence Risk in Youth (SAVRY) (Borum, Bartel, & Forth, 2002)

## 1. Historical Risk Factors

* History of violence
* History of non-violent offending
* Early initiation of violence
* Past supervision/intervention failures
* History of self-harm or suicide attempts
* Exposure to violence in the home
* Childhood history of maltreatment
* Parental/caregiver criminality
* Early caregiver disruption
* Poor school achievement

## 2. Social/Contextual Risk Factors

* Peer delinquency
* Peer rejection
* Stress and poor coping
* Poor parental management
* Lack of personal/social support
* Community disorganization

## 3. Individual Risk Factors

* Negative attitudes
* Risk taking/impulsivity
* Substance use difficulties
* Anger management problems
* Psychopathic traits
* Attention deficit/hyperactivity difficulties
* Poor compliance
* Low interest/commitment to school

## 4. Protective Factors

* Prosocial involvement
* Strong social support
* Strong attachments and bonds
* Positive attitude towards intervention and authority
* Strong commitment to school
* Resilient personality

Table 9

###### Washington State Juvenile Assessment (WAJA) Domains (Barnoski, 2002)

#### 1. Criminal History

* Age at first offense
* Felony referrals
* Weapon referrals
* Against person misdemeanor referrals
* Against person felony referrals
* Confinement orders to detention
* Confinement orders to state institution
* Escapes

#### Failure to appear warrants

##### 2. School

* Current school enrollment status
* Type of school in which youth is enrolled
* Special education student or has a formal diagnosis of a special education need
* Believes there is value in getting an education
* Believes school provides an encouraging environment for him or her
* Number of expulsions and suspensions since the first grade
* Age at first expulsion or suspension
* Teachers/staff/coaches the youth likes or feels comfortable talking with
* Involvement in school activities during most recent term
* Conduct in most recent term
* Attendance in most recent term
* Performance in most recent school term
* Interviewer’s assessment of the youth staying in and graduating from high school or an equivalent vocational education

###### 3. Use of Free Time

* Structured recreational activities
* Unstructured recreational activities

###### 4. Employment

* History of successful employment
* Total number of times youth has been employed
* Longest period of employment
* Positive personal relationship(s) with employer(s) or adult coworker(s)
* Youth is currently employed

###### 5. Relationships

* Existing positive adult non-family relationships
* Prosocial community ties
* Friends the youth spends his or her time with
* Role of youth among peers
* Admiration/emulation of tougher antisocial peers
* Length of association with antisocial friends/gang
* Amount of free time spent with antisocial peers
* Strength of antisocial peer influence

###### 6A. Environment in Which the Youth Was Primarily Raised

* Age when last living with biological parents
* Problems of family members living in household
* Court ordered or voluntary out-of-home and shelter care placements exceeding 30 days
* Runaways or times kicked out of home
* Petitions filed
* Love and support for youth
* Family member(s) has good relationship with
* Family provides opportunities for youth to participate in activities and decisions
* Level of conflict between parents, between youth and parents, among siblings
* Supervision
* Rule enforcement and control
* Consistent appropriate discipline
* Characterization of discipline
* Disapproval of youth’s antisocial behavior

###### 6B. Current Living Arrangements

* Currently living with family in which primarily raised; or length of time living with current family
* Current living arrangements
* Family annual income
* Health insurance and Title 19 eligibility
* Support network for family; extended family, and friends that can provide additional support

Complete only if different from family in which raised:

* Problems of family members in household
* Love and support for youth
* Family member(s) has good relationship with
* Family provides opportunities for youth to participate in decisions affecting the youth
* Level of conflict between parents, between youth and parents, among siblings
* Supervision
* Rule enforcement and control
* Consistent appropriate discipline
* Characterization of discipline
* Disapproval of youth’s antisocial behavior

###### 7. Alcohol and Drugs

* Alcohol abuse
* Drug abuse
* Alcohol contributes to criminal behavior
* Drugs contribute to criminal behavior

###### 8. Mental Health

* Victim of physical or sexual abuse
* Victim of neglect
* Mental health problems
* Violence/anger
* Sexual aggression
* Sexual vulnerability/exploitation

###### 9. Attitudes/Behaviors

* Attitude before, during, and after crime(s)
* Purpose for committing crime(s)
* Accepts responsibility for antisocial behavior
* Empathy, remorse, sympathy, or feelings for the victim(s) of criminal behavior
* Fatalistic attitude
* Loss of control over antisocial behavior
* Hostile interpretation of actions and intentions of others in a common non-confrontational setting
* Prosocial values/conventions
* Respect for authority figures
* Tolerance for frustration
* Belief in use of aggression to resolve a disagreement or conflict
* Readiness for change
* Successfully meet conditions of supervision

###### 10. Skills

* Consequential thinking skills
* Critical thinking skills
* Problem-solving skills
* Self-monitoring skills for triggers that can lead to trouble
* Self-control skills to avoid getting into trouble
* Interpersonal skills

Table 10

Relevant Domains of the YLS/CMI (Hoge & Andrews, 2002)

1. Prior and Current Offenses/Dispositions

* Three or more prior convictions
* Two or more failures to comply
* Prior probation
* Prior custody
* Three or more current convictions

2. Family Circumstances/Parenting

* Inadequate supervision
* Difficulty in controlling behavior
* Inappropriate discipline
* Inconsistent parenting
* Poor relations (father-youth)
* Poor relations (mother-youth)

3. Education/Employment

* Disruptive classroom behavior
* Disruptive behavior on school property
* Low achievement
* Problems with peers
* Problems with teachers
* Truancy
* Unemployed/not seeking employment

4. Peer Relations

* Some delinquent acquaintances
* Some delinquent friends
* No/few positive acquaintances
* No/few positive friends

5. Substance Abuse

* Occasional drug use
* Chronic drug use
* Chronic alcohol use
* Substance abuse interferes with life
* Substance use linked to offense(s)

6. Leisure/Recreation

* Limited organized activities
* Could make better use of time
* No personal interests

7. Personality/Behavior

* Inflated self-esteem
* Physically aggressive
* Tantrums
* Short attention span
* Poor frustration tolerance
* Inadequate guilt feelings
* Verbally aggressive, impudent

8. Attitudes/Orientation

* Antisocial/procriminal attitudes
* Not seeking help
* Actively rejecting help
* Defies authority
* Callous, little concern for others

Table 11

###### Comparison of SAVRY, WAJA, YLS/CMI, and Anamnestic Assessment on Relevant

Dimensions for Risk Assessment

|  |
| --- |
|  ***Adolescent Risk Assessment/Risk Management Tools*** |
|  ***Relevant Dimensions*** | SAVRY | WAJA | YLS/CMI | Anamnestic |
| Prediction | P | P | P | **A** |
| Validation for Prediction | 1 | 2 | 2 | N/A |
| Risk Reduction | 1 | 1 | 1 | 1 |
| Validation for Risk Reduction | 1 | 1 | 1 | 1 |
| Comprehensiveness | 2 | 3 | 2 | **?** |
| Efficiency | 3 | 2 | 3 | 2 |
| Ease of Administration | 3 | 2 | 3 | 1 |
| Predictive Utility | 3 | 3 | 3 | 1 |
| Intervention-Planning Utility | 2 | 3 | 2 | 3 |
| Decision-Making Utility | 3 | 3 | 3 | 2 |
| Communication Utility | 3 | 3 | 3 | 3 |

1 = limited to none P = present

2 = partial A **=** absent

3 = good to excellent

Table 12

Level of Service Inventory-Revised: Scales and Rating

I. Criminal History

II. Education/Employment

III. Financial

IV. Family/Marital

V. Accommodation

VI. Leisure/Recreation

VII. Companions

VIII. Alcohol/Drug Problems

IX. Emotional/Personal

X. Attitudes/Orientation

1. Static variables tend to be rated “no” or “yes”
2. Dynamic variables tend to be rated “0" (very unsatisfactory with very clear and strong need for improvement), “1" (relatively unsatisfactory with need for improvement), “2" (relatively satisfactory with some room for improvement), or “3" (satisfactory with no need for improvement)

Table 13

Definition of terms used to describe prediction accuracy

True positive (TP) = predicted yes; outcome yes

False positive (FP) = predicted yes; outcome no

True negative (TN) = predicted no; outcome no

False negative (FN) = predicted no; outcome yes

Base rate (BR) = (TP + FN)/(TP + FP + FN + TN)

Correct fraction (CF) = (TP + TN)/(TP + FP + FN + TN)

FP:TP ratio = FP/TP

Selection ration (SR) = (TP + FP)/(TP + FP + FN + TN)

True positive rate (TPR) = Sensitivity = TP/(TP + FN)

True negative rate (TNR) = Specificity = TN/(TN + FP)

False positive rate (FPR) = (1 ‑ Specificity) = FP/(FP + TN)

Risk ratio = TPR/FPR

Odds ratio = (TP x TN)/(FP x FN) or (TP + ½)(TN + ½)

 (FP + ½)(FN + ½)

Relative improvement over chance (RIOC) (Loeber & Dishion, 1983):

 CF ‑ [(BR)(SR) + (1 ‑ BR)(1 ‑ SR)] [1 ‑ (SR ‑ BR)] ‑ [(BR)(SR) + (1 ‑ BR)(1‑SR)]

(From Mossman, 1994, p. 792)

Appendix A

The Analysis of Aggressive Behavior

THE ANALYSIS OF AGGRESSIVE BEHAVIOR

(Adult MI Version)

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I. Expanding the Range of Risk Factors for Persons with Mental Disorders

 A. MacArthur Variables (Monahan & Steadman, 1994)

 1. Anger

 2. Impulsiveness

 3. Psychopathy

 4. Substance Abuse

 5. Threat/Control Override Symptoms

 6. Delusions

 7. Hallucinations

 8. Personality Disorders

 a. Borderline

 b. Antisocial

 c. Sadistic

 9. Demographic Variables

 a. age

 b. SES

 10. Social Support

 B. Other Relevant Variables

 1. Violence History

 a. observer

 b. victim

 c. perpetrator

 2. Medication Compliance

 3. Cognitive Functioning

 a. judgment

 b. reasoning

 c. verbal skills

 4. Co-occurring Diagnoses

 a. schizophrenia, major depression, bipolar

 disorder, obsessive-compulsive disorder,

 panic disorder, and phobia

 b. substance abuse or dependence

 5. Weapon Access

 6. Unemployment

II. Identifying a Population

 A. Civilly Committed

 B. Not Guilty by Reason of Insanity

 C. Mentally Ill and Convicted

 D. Sexual Offender

 E. Juvenile Delinquent

 F. Domestic Violence

 G. Workplace Violence

III. Individualizing the Assessment of Risk using the

 Analysis of Aggressive Behavior

 (see next page)

IV. Judging Aggression Risk Relative to Base Rate

 A. Below base rate

 B. Equal to base rate

 C. Above base rate

ANALYSIS OF AGGRESSIVE BEHAVIOR

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DOB \_\_\_\_\_\_\_\_\_ Gender \_\_\_

Marital Status \_\_\_\_ (1=single, 2=married, including common-law, 3=separated,

 4=divorced, 5=widowed)

Population \_\_\_\_ (1=civilly committed, 2=NGRI, 3=convicted, 4=sexual offender,

 5=juvenile, 6=other)

Aggression Type \_\_\_\_\_\_\_\_ (1=physical acts only, 2=threats plus acts, 3=specified acts,

 4=other)

Predicted Over Next \_\_\_\_ Months in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Setting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evaluator \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date of Evaluation \_\_\_\_\_\_

Aggression Risk Reduction Plan

|  |  |  |
| --- | --- | --- |
|  Risk Factors | Treatment/Management Strategy | Status\* |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

\* 1=no longer active 4=not currently contained 7=unknown

 2=currently contained 5=intervention refused 8=other

 3=currently partly contained 6=intervention not attempted

Summary Judgment of Aggression Risk Relative to Base Rate \_\_

 1=below base rate 2=at base rate 3=above base rate

Base Rate for Population, Aggression Type, Time Period, and Setting (expressed in % of group) \_\_\_\_\_\_

ANALYSIS OF AGGRESSIVE BEHAVIOR

Incident Description

 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Evaluator \_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| ***Characteristic*** | ***Collateral Description***Sources: |  ***Self-Report*** |
| **Who** (perpetrator, victim(s), witnesses) |  |  |
| **What**(description of act;include victim selection, weaponuse, role of self-defense) |  |  |
|  **When**(date, time) |  |  |
|  **Where**(location) |  |  |
| **Why**(motivation) |  |  |
| **Substance Use**[perpetrator and victim(s)] |  |  |
| **Medication****Compliance** |  |  |
| **Cognitive****Correlates**(before, during, andafter; includethreat/control override, delusions,hallucinations, lowIQ, poor judgment,reasoning, or verbalskills) |  |  |
| **Affective Correlates** (before, during, andafter; include angerand impulsiveness) |  |  |
| **Victim(s) Behavior**(includeprovocation,exacerbation, andreduction ofaggression) |  |  |
| **Social Support** |  |  |
| **Diagnosis**(include co-occurrence of MI and SA) |  |  |

***Summary of Procedures for Risk Assessment Using Analysis of Aggressive Behavior***

 1. Population of Which Individual is a Part: \_\_\_\_

 1=civilly committed 2=outpatient therapy 3=adult, sentencing 4=incompetent for trial 5=NGRI 6=correctional transfer 7=parole, probation 8=spouse abusers 9=sexual offender, adult, 10=domestic violence, adult, 11=workplace violence

 2. Aggression Type Being Predicted:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 3. Period of Time Over Which Aggression is Predicted:\_\_\_\_\_\_\_

 4. Setting in Which Aggression is Being Predicted: \_\_\_\_

 1=low security hospital 2=high security hospital 3=jail 4=prison 5=community, monitored 6=community, unmonitored

5. Base Rate for Population, Aggression Type, Time Period, and Setting (expressed in % of group): \_\_\_\_\_\_

6. Risk Factors, Treatment/Management Strategy, and Status

 (Aggression Risk Reduction Plan):

7. Summary Judgment of Aggression Risk Relative to Base Rate

 Without Aggression Risk Reduction Plan: \_\_\_

1=below base rate 2=at base rate 3=above base rate

8. Summary Judgment of Aggression Risk Relative to Base Rate

 With Aggression Risk Reduction Plan: \_\_\_

1=below base rate 2=at base rate 3=above base rate