“HCR-20 & Violence Risk Assessment”

June 28, 2012

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Webinar sponsored by NASMHPD’s Forensic Division with support from SAMHSA's National Technical Assistance Center for State Mental Health Agencies
Overview of Structured Professional Judgment and the HCR-20

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Laura S. Guy, Ph.D.
Topics for the Day

1. Overview of SPJ and HCR-20
2. Research Summary of SPJ and HCR-20
3. Revision of HCR-20 – Introduction to HCR:V3
Violence

- Actual, attempted, or threatened physical harm that is deliberate and nonconsenting
  - includes violence against victims who cannot give full, informed consent
  - includes fear-inducing behavior, where threats may be implicit or directed at third parties
  - Military, law enforcement, sports not included
Early Approaches

- Predictionist approach
- Passive, simple
- Two time points, A and B
- Constant risk

\[ P \rightarrow \text{(Life?)} \rightarrow V \]

Time A \hspace{1cm} Time B
Empirical advances

- Base rates are not negligible
- Various complex predictors of violence exist
- Risk and violence are complex and multifaceted
- “Accurate” predictions are attainable

Conceptual advances

- Shift from prediction to risk assessment and management
- Increased attention to “dynamic risk”
Contemporary Approaches

- Assessment/Management approach
- Active, complex
- Infinite time points
- Variable risk

$P \rightarrow \text{Life!} \rightarrow V$

$Time A \rightarrow Time \propto -1$
Prediction vs. Risk

- We don’t predict risk, we assess it

  - **Prediction**
    - A definitive statement about a future behavior
    - Is incorrect if the behavior does not occur

  - **Risk**
    - A state of potential
    - Need not materialize to be true
What is Risk Assessment?

- Process of estimating and attempting to limit the likelihood that an undesirable event will occur
  - which events occur?
  - how frequently?
  - under which conditions?
  - conditions present?
  - which interventions?
Purpose of Risk Assessment

- Public safety (civil rights)
- Guide to management and intervention
- Evaluatee rights (constitutional)
- Professionalism
Risk Assessment “Families”

- Unstructured Clinical Judgment
- Structured Decision Making
- Actuarial Prediction
- Structured Professional Judgment (SPJ)
Making Decisions:
Two Traditional Adversaries

- Clinical Prediction
  > “relies on an informal, ‘in the head,’ impressionistic, subjective conclusion, reached (somehow) by a human clinical judge”

- Actuarial (Statistical, Mechanical) Prediction
  > “involves a formal, algorithmic, objective procedure (e.g. equation) to reach the decision”

Source: Grove & Meehl (1996, pp. 293-4)
Traditional Clinical Prediction

- Clinical prediction *tends to*...
  > be flexible
  > be widely applicable
  > inform treatment and prevention

- Clinical prediction *also tends to*...
  > be highly subjective and inconsistent
  > be questionably related to relevant outcome
  > elude scrutiny
Actuarial Prediction

- Benefits: operationalization; testing (usually within select samples)

- Limits
  - Numeric cut-offs and probability estimates may not generalize across samples
  - Different follow-up periods
  - Different samples
  - Variables that “didn’t make the cut”

- Risk factors tend to be static

- Not optimally tied to risk management or treatment
A Third Type of “Prediction?”

- Is there a method that...
  - Achieves reliability and accuracy (validity)?
  - Permits broad-based application?
  - Fosters comprehensiveness?
  - Informs management, treatment, prevention?

- Structured Professional Judgment (SPJ)
  - Not a combination of clinical and actuarial, although...
  - SPJ attempts to (1) minimize weaknesses of unstructured clinical judgment and actuarial prediction (2) and retain the strengths of each
SPJ: A Model of Risk Assessment

- Relies on clinical expertise within a structured application
- Operational definitions of risk factors
- Allowance for idiographic risk factors
- Relevance to management and prevention
- Reflects current themes in the field
  - Risk is (1) ongoing, (2) dynamic, (3) requires reassessment
# Structure in Decision-Making

<table>
<thead>
<tr>
<th></th>
<th>Data Review</th>
<th>Data Coding</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Actuarial</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Structured</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
</tbody>
</table>
Benefits of Professional Guidelines

- Promotes consistency
- Encourages appropriate discretion
- Clarifies areas of disagreement
- Promotes quality decisions
- Risk factors selected to be:
  - predictive (empirical criterion)
  - reasonable (legal criterion)
  - useful (pragmatic criterion)
Common Aspects of SPJ Measures

- Professional guidelines
- Multi-sectioned manuals, focusing on …
  - Review / history of topic and research
  - General points for conducting risk assessments
  - Risk factors to consider
  - How to make and communicate decisions
HCR-20
(Webster, Douglas, Eaves, & Hart, 1997)

- 100 page risk assessment manual
- Translated into 18 languages
- 150+ disseminations (publications and presentations)
- Currently being revised
  - Douglas, Hart, Webster, & Belfrage (2010)
Conceptual Basis of the HCR-20

- Violence Risk
  - Historical
    - Past (Static) Documented (10 Items)
  - Clinical
    - Present (Dynamic) Observed (5 Items)
  - Risk Management
    - Future (Speculative) Projected (5 Items)
Every item is scored 0, 1, or 2

0 The item is definitely absent
1 The item possibly is present, or present to a minor/moderate degree
2 The item definitely is present
Historical Scale

H1. Previous Violence
H2. Young Age at First Violent Incident
H3. Relationship Instability
H4. Employment Problems
H5. Substance Use Problems
H6. Major Mental Illness
H7. Psychopathy
H8. Early Maladjustment
H9. Personality Disorder
H10. Prior Supervision failure
C1. Lack of Insight

C2. Negative Attitudes

C3. Active Symptoms of Major Mental Illness

C4. Impulsivity

C5. Unresponsive to Treatment
Risk Management Scale

R1. Plans Lack Feasibility
R2. Exposure to Destabilizers
R3. Lack of Personal Support
R4. Noncompliance with Remediation Attempts
R5. Stress
Assessment Procedure

- Meant to be integrated into existing regime
- Review/use multiple sources of information
  - File, interview, observation, collaterals
- Team-based approach possible
  - Case managers, mental health professionals, nurses, social workers, substance use professionals, correctional professionals
  - Some items require mental health professionals
- Dynamic items need regular updating
Decision Steps

- The purpose is to facilitate an evidence-based, structured professional case formulation about...
  - What risk factors are present?
  - How do these risk factors manifest themselves in the individual case?
  - How are they relevant to this person’s violent behavior?
  - Which risk factors are most salient, or of greatest concern?
  - What treatment, supervision, or management strategies can we apply to these risk factors?
Research on SPJ and the HCR-20

1. Meta-analytic findings
2. Populations, settings where HCR-20 research has been conducted
3. HCR-20 and change over time
Despite the disclaimer about the dangers of a purely actuarial (statistical) approach, we still need statistics to evaluate and guide SPJ instruments!
SPJ Research

**actuarial use of HCR-20

<table>
<thead>
<tr>
<th>Instrument</th>
<th>No. reports</th>
<th>No. participants</th>
<th>Raw effect size (minimum, maximum)</th>
<th>Model C1 estimates (weighted and adjusted)</th>
<th>Effect size (95% CI)</th>
<th>AUC (r_nb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCL-R</td>
<td>16</td>
<td>3,854</td>
<td>0.64 (0.08, 1.15)</td>
<td>0.55 (0.37, 0.74)</td>
<td>0.65 (0.27)</td>
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<tr>
<td>PCL:SV</td>
<td>8</td>
<td>2,506</td>
<td>0.76 (0.47, 1.11)</td>
<td>0.65 (0.40, 0.90)</td>
<td>0.68 (0.31)</td>
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<tr>
<td>PCL-R/PCL:SV Factor 1</td>
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<td>3,895</td>
<td>0.34 (−0.19, 0.65)</td>
<td>0.22 (0.00, 0.45)</td>
<td>0.56 (0.11)</td>
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<tr>
<td>PCL-R/PCL:SV Factor 2</td>
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<td>3,995</td>
<td>0.71 (0.32, 1.11)</td>
<td>0.61 (0.38, 0.84)</td>
<td>0.67 (0.30)</td>
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<tr>
<td>OGRS</td>
<td>2</td>
<td>1,955</td>
<td>0.60 (0.14, 0.83)</td>
<td>0.78 (0.45, 1.11)</td>
<td>0.71 (0.36)</td>
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<tr>
<td>RM2000V</td>
<td>3</td>
<td>1,784</td>
<td>0.75 (0.58, 0.97)</td>
<td>0.76 (0.41, 1.11)</td>
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<tr>
<td>VRAG</td>
<td>17</td>
<td>4,894</td>
<td>0.74 (0.14, 1.13)</td>
<td>0.68 (0.44, 0.92)</td>
<td>0.68 (0.32)</td>
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<tr>
<td>HCR-20</td>
<td>16</td>
<td>4,161</td>
<td>0.85 (0.28, 1.34)</td>
<td>0.79 (0.56, 1.02)</td>
<td><strong>0.71 (0.37)</strong></td>
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<tr>
<td>H10</td>
<td>18</td>
<td>4,725</td>
<td>0.66 (−0.03, 1.11)</td>
<td>0.61 (0.38, 0.84)</td>
<td>0.67 (0.29)</td>
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<tr>
<td>C5</td>
<td>14</td>
<td>4,078</td>
<td>0.64 (−0.11, 1.20)</td>
<td>0.59 (0.40, 0.78)</td>
<td>0.66 (0.29)</td>
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<td>R5</td>
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<td>3,998</td>
<td>0.63 (0.00, 1.13)</td>
<td>0.60 (0.37, 0.83)</td>
<td>0.66 (0.29)</td>
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<td>GSIR</td>
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<td>988</td>
<td>0.81 (0.68, 1.06)</td>
<td>0.67 (0.37, 0.97)</td>
<td>0.68 (0.25)</td>
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<td>LSI-R</td>
<td>3</td>
<td>355</td>
<td>0.58 (0.47, 0.69)</td>
<td>0.51 (0.20, 0.82)</td>
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<td>VRS</td>
<td>4</td>
<td>1,148</td>
<td>0.59 (−0.12, 1.10)</td>
<td>0.53 (0.22, 0.83)</td>
<td>0.65 (0.25)</td>
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<td>VRS-Static</td>
<td>3</td>
<td>1,098</td>
<td>0.46 (0.08, 0.87)</td>
<td>0.51 (0.21, 0.84)</td>
<td>0.65 (0.25)</td>
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<tr>
<td>VRS-Dynamic</td>
<td>3</td>
<td>1,098</td>
<td>0.49 (−0.15, 0.87)</td>
<td>0.57 (0.27, 0.89)</td>
<td>0.66 (0.28)</td>
<td></td>
</tr>
</tbody>
</table>

Note. PCL-R = Psychopathy Checklist—Revised; PCL:SV = Psychopathy Checklist Screening Version; OGRS = Offender Group Reconviction Scale; RM2000V = Risk Matrix 2000 for Violence; VRAG = Violence Risk Assessment Guide; HCR-20 = Historical, Clinical, and Risk Management Violence Risk Assessment Scheme; H10 = 10-item Historical subscale of the HCR-20; C5 = 5-item Clinical subscale of the HCR-20; R5 = 5-item Risk Management subscale of the HCR-20; GSIR = General Statistical Information for Recidivism; LSI-R = Level of Service Inventory—Revised; VRS = Violence Risk Scale.
Meta-analysis of 166 independent SPJ studies
  > 172 disseminations, $k = 2903$, $N = 26,903$

Evaluated...
  > SPJ numeric scores versus summary risk ratings
  > SPJ vs actuarial tools
  > Also compared SPJ decisions (non-actuarial) to actuarial decisions
## SPJ Measures: Average AUCs

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Numeric Score</th>
<th>Summary Risk Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Antisocial</td>
<td>.69 (k = 152)</td>
<td>.68 (k = 66)</td>
</tr>
<tr>
<td>Any Violence</td>
<td>.68 (k = 110)</td>
<td>.77 (k = 55)</td>
</tr>
<tr>
<td>Sexual Violence</td>
<td>.65 (k = 40)</td>
<td>.67 (k = 14)</td>
</tr>
<tr>
<td>Spousal Violence</td>
<td>.63 (k = 11)</td>
<td>.68 (k = 5)</td>
</tr>
</tbody>
</table>
### SPJ Measures: Average AUCs

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<tr>
<td>Spousal Violence</td>
<td>.63 (k = 11)</td>
<td>.68 (k = 5)</td>
</tr>
</tbody>
</table>
## Comparing Approaches

<table>
<thead>
<tr>
<th>Approach</th>
<th>AUC</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPJ Measures</td>
<td>.70</td>
</tr>
<tr>
<td>(k = 104)</td>
<td></td>
</tr>
<tr>
<td>Actuarial Measures</td>
<td>.67</td>
</tr>
<tr>
<td>(k = 45)</td>
<td></td>
</tr>
<tr>
<td>PCL Measures</td>
<td>.66</td>
</tr>
<tr>
<td>(k = 66)</td>
<td></td>
</tr>
<tr>
<td>Unstructured Judgment</td>
<td>.58</td>
</tr>
<tr>
<td>(k = 6)</td>
<td></td>
</tr>
</tbody>
</table>
### Direct Comparisons ($k = 21$)

<table>
<thead>
<tr>
<th>Approach</th>
<th>AUC</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPJ Summary Risk Rating (any recidivism)</td>
<td>0.68</td>
</tr>
<tr>
<td>Actuarial Measures (any recidivism)</td>
<td>0.68</td>
</tr>
</tbody>
</table>
HCR-20 Research
## HCR-20 Disseminations

<table>
<thead>
<tr>
<th>Category</th>
<th>Samples</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forensic Psychiatric</td>
<td>87</td>
<td>8,292</td>
</tr>
<tr>
<td>Correctional</td>
<td>31</td>
<td>4,666</td>
</tr>
<tr>
<td>Civil Psychiatric</td>
<td>12</td>
<td>724</td>
</tr>
<tr>
<td>Mixed Samples</td>
<td>18</td>
<td>1,672</td>
</tr>
<tr>
<td>Youth</td>
<td>2</td>
<td>212</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>150</strong></td>
<td><strong>15,566</strong></td>
</tr>
</tbody>
</table>
### HCR-20: Average AUCs

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Numeric Score</th>
<th>Summary Risk Ratings (L,M,H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Antisocial</td>
<td>.70 (k=96)</td>
<td>.71 (k=23)</td>
</tr>
<tr>
<td>Any Violence</td>
<td>.70 (k=71)</td>
<td>.74 (k=21)</td>
</tr>
</tbody>
</table>
HCR-20 Summary Risk Rating

- HCR-20 SRR (L, M, H) and Violence
- 20 samples (N = 2,079)

\[
\text{Md}n_{\text{AUC}} = .78
\]

(0.55, 0.56, 0.63, 0.64, 0.65, 0.69, 0.7, 0.7, 0.77, 0.78, 0.78, 0.79, 0.79, 0.8, 0.81, 0.83, 0.85, 0.86, 0.89, 0.91)
HC R-20 SRR vs. Total Score
(18 studies, 2003-2011)
HCR-20 Meta-Analysis, IRR
Nikolova, Collins, Guy, Lavoie, Reeves, Wilson, Douglas (2006)

- 60 samples / 57 disseminations
- N = 6033
- Published, unpublished, talks, raw data
- Reliability (k = 28)
  - Total .80
  - H .88
  - C .75
  - R .75
Multiple Time Point Studies

- Very few studies in forensic mental health

- **Strengths**
  - Can measure change, and whether change predicts violence
  - Can measure different patterns of change
  - Small literature on change over time in HCR-20 C and R scales
193 civil psychiatric patients (Canada)

Significant change in C and R scales observed in forensic samples as well; Belfrage & Douglas, 2002)
1. Do C and R scores change over time?
2. Does change predict future violence?
3. Do different people change differently?
4. Do differences in change result in differences in violence?
174 forensic psychiatric inpatients in Sweden
- 81% male; mostly violent index crimes
- HCR-20 (and PCL:SV) administered
  - C and R scales times, 6 months apart
- Measured violence between time points
Dynamic Status of C Scale

Statistically significant linear decrease, $p < .001$, $\eta^2 = .12$
Does Change Predict Violence?

- Repeated measures ANOVA
  - Predictors:
    - Change on C Scale between Time 1 and Time 2
    - C Scale, Time 1
    - Interaction
  - Outcome:
    - Violence after Time 2
- Model:
  - $-2\text{LL} = 125.81$; Nagelkerke $R^2 = .14$; $p = .003$
  - Each term significant
  - Evidence for dynamic predictive validity
Identified 5 clusters with meaningfully different patterns of change across the 4 time periods.
Do Differences in Change Result in Differences in Violence?
Conclusions from the Research

- Risk assessment instruments predict violence with moderate/large effect sizes
  - AUC ~ .70
  - Among 20 samples, Mdn AUC for SRR = .78
- SPJ instruments work as well as actuarial instruments, and perhaps better if used clinically
- HCR-20 has a strong empirical base across diverse settings, populations
- Beginning stage of establishing evidence for dynamic predictive validity of HCR-20
Introduction to Version 3 of the HCR-20 (HCR-V3)
Development Goals

- Themes to retain
  - Clinical judgment
  - Link to risk management and treatment
  - Dynamic risk

- Themes to enhance
  - Decisions about individuals
  - Risk formulation
  - Quality of measurement
Primary Changes

- Increased focus on formulation
- Relevance ratings
- Item indicators
- Summary risk ratings of serious and imminent violence
- Item changes
- Sub-items
- PCL-R no longer required
Revision Criteria: Guiding Principles

- **Conceptual/clinical**
  - Clarification or enhancement of
    - item definitions
    - assessment procedures

- **Empirical**
  - New items meet some minimal level of reliability and validity
  - Revised items are no worse than existing items

- **Legal**
  - Acceptability of items in terms of accountability, transparency, and fairness
Evaluation Procedures

- **Analytic**
  - Read and critique

- **Clinical**
  - Beta-testing
  - Consumer satisfaction

- **Empirical**
  - Reliability and validity
Limits, Weaknesses, and Remedies
Overbreadth of Item Content

- H8: Early Maladjustment
- C2: Negative Attitudes

Remedy?
- Split some items
  - H8: Victimization and Traumatic Experiences
    - H8a: Victimization and Trauma (across lifespan)
    - H8b: Poor Parenting/Caregiving
    - Youth antisocial behavior placed elsewhere

- Narrow others
  - C2: Violent Ideation or Intent
Redundancy of Items

- Revise others
  - Combine H7 (Psychopathy) and H9 (Personality Disorder)
  - H7(V3): Personality Disorder
- PCL instruments no longer required (but can be used if desired)
Goal: Use meta-analysis to examine the degree to which PCL ratings affect the predictive validity of the HCR-20
Three main findings

1. Across 34 studies in which the HCR-20 and PCL-R were used in the same sample, both tools had similar levels of predictive accuracy for violent outcomes
   - Weighted AUC values
     - HCR-20 = .69
     - PCL-R = .67
Three main findings (cont’d)

2. When H7 was excluded from HCR-20, predictive accuracy did not decrease significantly (weighted AUCs of ~.70)
   • Effect sizes for the HCR-20 without H7 were larger, in aggregate, than those for the PCL-R in samples in which both tools were used.
Three main findings (cont’d)

3. Multivariate analyses (k = 7)
   - HCR-20 (without H7) added incremental validity to the PCL-R, but not vice versa
   - With both tools in the regression model, only the HCR-20 (without H7) had unique predictive validity (in six of seven samples)
   - The PCL-R did not contribute significantly to the prediction of violence when the HCR-20 (without H7) was included in the predictive model in any of the seven data sets
Liberal Score Thresholds; Restricted Range

- **H1** - Previous violence
  - Too easy to score a 2
  - Doesn’t permit expression of anything beyond one past serious act, or three past minor acts

- **H1(v3)**
  - Will capture chronicity, violence across lifespan
Manual Lacks Detail

- Decision-making steps and process
- Summary risk ratings (low, mod, high)
  - “What’s the cut-off?”
  - Deriving summary risk ratings
  - Link between nomothetic and idiographic
  - Risk formulation
  - Facilitation of risk management plans
Initial V3 Evaluation Feedback

- User Feedback, Draft 1 (December 2008)
  - Manchester meeting, I
  - Dutch beta-testing
  - Swedish beta-testing
  - German beta-testing

- Draft 1 included...
  - 4-point item rating scale
  - Mandatory rating of indicators
  - Unclear directions regarding sub-items
Manchester Meeting (December 2008)  
(Organized by Mike Doyle & Jenny Shaw)

- Two day conference
- Day 1
  - Brief V3 presentation, plus several other talks
- Day 2
  - By invitation, focus on V3
  - Present V3, seek feedback
  - Participants sent written feedback
- Feedback positive – people liked the ideas
- But…they didn’t use it
Dutch Beta-Testing
(Coordinated by Vivienne de Vogel)

- Van der Hoeven Kliniek
- 10 experienced users coded 1+ case
- “valuable revision”
- “major extended and complicated version of the HCR-20”
- “takes more time”
- “too long”
- “too complicated”
- “people lose motivation”
- “indicators useful for guidance”
Swedish Beta-Testing

(Coordinated by Henrik Belfrage)

- Sundsvall Forensic Psychiatric Hospital
- 5 raters completed on 1+ case each
- Very similar to Dutch reaction
- And…
  - Don’t like the 0, 1, 2, 3 coding system
  - Redundant with relevance system
- But…
  - Gets easier as you use it more often
German Beta-Testing
(Coordinated by Sabine Eucker & Rüdiger M-I)

- 15 clinicians at Haina, 1 case each
  - Range of experience and familiarity
  - Known vs unknown cases
  - Range of diagnoses in cases
  - Range in privilege level

- Focus group

- Item-by-item and overall feedback
  - Executive summary
  - Extended feedback (we translated)
German Feedback

- Similar to others...
- Too complicated, long, confusing, not user-friendly
- “Can’t see the forest through the trees”
- Relevance of relevance?
- 0, 1, 2, 3 – unnecessary
- Indicators too cumbersome
- Bring back the PCL-R!!!
- Please don’t ruin it!
Our Response

- Drop the 4-point rating, revert to Y, P, N
- Rating of indicators optional
- Clarity around rating sub-items
- Multiple rating options
  - 1 page rating sheet
  - 2 page rating sheet
  - Expanded worksheet
- Refinement of items, indicators, instructions
Measuring Relevance
(HCR:V3, Douglas, Hart, Webster, & Belfrage, 2011)

A risk factor is relevant to an individual’s risk for violent behavior if it:

a) was a material contribution to past violence;
b) is likely to influence the person’s decision to act in a violent manner in the future;
c) is likely to impair the individual’s capacity to employ non-violent problem solving techniques;
d) is necessary to manage this factor in order to mitigate risk.

Item manifestation
Manifestation: Item Indicators

- Specific possible manifestations of the risk factor
- Facilitate description of individual manifestation of risk factor
Example: Problems with Noncompliance (H10)

This risk factor reflects serious problems complying with treatment, rehabilitation, or supervision plans designed to improve the person’s psychosocial adjustment and reduce the chances of violence. The problems may include such things as poor motivation, unwillingness, or refusal to attend treatment or supervision.
Failure to establish positive working relationships with professionals
Negative (hostile, pessimistic, uncooperative) attitude toward treatment
Superficial or insincere participation in treatment or supervision
Failure to attend treatment or supervision as directed (e.g., premature termination)
Fails to abide by others’ conditions of treatment or supervision
Noncompliance has clearly escalated over time
Noncompliance has been evident in the past 12 months
Administration

1. Gather relevant information
2. Determine presence of risk factors
3. Determine relevance of risk factors
4. Develop formulation of violence risk
5. Develop primary scenarios of violence
6. Develop case management plans
7. Develop final opinions
Formulation

- Integration of case information
- Understanding *why* a person might be violent
  - Idiographic relevance
  - Individual theories of violence
- Future risk scenarios
- Specification of risk management
Rating Historical Items

- Presence at any point in a person’s life
- Does not matter if it is not currently active
- In describing, also consider course, changes
Rating Clinical Items

- Establish rating and re-evaluation windows
- Re-evaluate
  - According to plan
  - Prior to any transfer or release
  - If there are notable changes in functioning
  - If violence has occurred
C1. Problems with Insight
  C1a. Problems with Insight into Mental Disorder
  C1b. Problems with Insight into Violence Proneness and Risk Factors
  C1c. Problems with Insight into Need for Treatment

C2. Violent Attitudes and Ideation

C3. Current Symptoms of Major Mental Illness
  C3a. Current Symptoms of Psychotic Disorders
  C3b. Current Symptoms of Major Mood Disorders
  C3c. Current Symptoms of Cognitive/Intellect/PDD

C4. Instability

C5. Problems with Compliance or Responsiveness
  C5a. Problems with Compliance
  C5b. Problems with Responsiveness
Rating Risk Management Items

- Determine forecast timeframe and re-evaluation interval
- Re-evaluate
  - According to plan
  - Prior to any transfer or release
  - If there are notable changes in functioning
  - If violence has occurred
R1. Inadequate Plans regarding Professional Services

R2. Inadequate Plan regarding Living Situation

R3. Inadequate Plan regarding Personal Support

R4. Potential Problems with Compliance or Responsiveness
   R4a. Potential Problems with Compliance
   R4b. Potential Problems with Responsiveness

R5. Potential Problems with Stress and Coping
Empirical Evaluation
De Vries Robbe & de de Vogel (2010)

- $N = 86$ forensic patients
- Retrospective follow-up, 3 years
- HCR-20, HCR:V3, SPROF
- Questions:
  - Interrater reliability?
  - Relationship between V2 and V3?
  - Predictive validity?
Results

Interrater reliability

ICC (single measure):

- HCR-20 total score = .83
- HCR:V3 total score = .84
- Final risk judgment 3 pt = .72
- Final risk judgment 5 pt = .72
### Results

#### Correlations

<table>
<thead>
<tr>
<th></th>
<th>HCR:V3 total</th>
<th>HCR:V3 average</th>
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</thead>
<tbody>
<tr>
<td>HCR-20</td>
<td>.93</td>
<td>.94</td>
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<tr>
<td>HCR:V3 total</td>
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## Results

### Predictive validity (AUC)

<table>
<thead>
<tr>
<th></th>
<th>1 year (7 recidivists)</th>
<th>2 years (11 recidivists)</th>
<th>3 years (16 recidivists)</th>
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</thead>
<tbody>
<tr>
<td>HCR-20</td>
<td>.80**</td>
<td>.74**</td>
<td>.67*</td>
</tr>
<tr>
<td>HCR:V3 total</td>
<td>.77*</td>
<td>.75**</td>
<td>.67*</td>
</tr>
<tr>
<td>HCR:V3 average</td>
<td>.75*</td>
<td>.74*</td>
<td>.66*</td>
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<tr>
<td>FRJ 3-pt</td>
<td>.72</td>
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<td>.64</td>
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<tr>
<td>FRJ 5-pt</td>
<td>.82**</td>
<td>.74*</td>
<td>.71**</td>
</tr>
</tbody>
</table>

* = p ≤ .05; ** = p < .01
Belfrage & Douglas (2012)

- N = 35 forensic patients
- Three raters of each patient
- Interview + file review
- HCR:V3 + HCR-20

Questions:
- Interrater reliability?
- Relationship between V2 and V3?
## Results

Interrater reliability of HCR:V3

<table>
<thead>
<tr>
<th>Scale/Judgment</th>
<th>ICC₁</th>
<th>ICC₂</th>
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<tbody>
<tr>
<td>H</td>
<td>.94</td>
<td>.98</td>
</tr>
<tr>
<td>C</td>
<td>.86</td>
<td>.95</td>
</tr>
<tr>
<td>R (In)</td>
<td>.69</td>
<td>.87</td>
</tr>
<tr>
<td>R (Out)</td>
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<td>.90</td>
</tr>
<tr>
<td>HCR Total (In)</td>
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<td>.98</td>
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<tr>
<td>HCR Total (Out)</td>
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<td>.98</td>
</tr>
<tr>
<td>Final Judgment (In)</td>
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<td>.93</td>
</tr>
<tr>
<td>Final Judgment (Out)</td>
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<td>.90</td>
</tr>
</tbody>
</table>
Testing Relevance
(Blanchard, 2010)

- N = 43 patients and offenders
- Compared presence vs individual relevance ratings of HCR:V3 risk factors
- Correlations between measures
  - Presence ratings .86
  - Final risk judgments .94
Presence vs Relevance
(AUC Values)
Data to Date

- Strong association between V2 and V3
- Reliability primarily strong
- Initial evidence of associations with violence
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