The role of protective factors in risk assessment

The SAPROF

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Van der Hoeven Kliniek, The Netherlands

Fatores de Risco e de Proteção na Avaliação e Gestão do Comportamento Criminal, 19 de Junho 2012
Risk & Protection

Risk factors

Protective factors

VIOLENCE
Violence risk assessment

Advances

- Increased knowledge on risk factors for (sexual) violence
- Major advances in structured risk assessment procedures for clinical practice

Shortcomings

- Not much known about factors that compensate for effects of risk factors
- Most structured risk assessment instruments do not include protective factors
Importance of considering protective factors

Rogers (2000): ‘Risk-only evaluations are inherently inaccurate’.

- More balance in risk assessment: complete view of the offender
- Positive approach motivating for both offenders and treatment staff
- Suggestions for improved risk management
Why SAPROF?

• Desire by clinicians protective factors
• Little empirical research
• No available tools
• Preconditions development SAPROF:
  – Scientific basis
  – Clinical utility
  – In line with existing risk tools (SPJ)
What are protective factors?
Protective factors definition

SAPROF

Any characteristic of a person, his / her environment or situation, which reduces risk of future (sexual) violence

De Vogel, De Ruiter, Bouman, & De Vries Robbé (2009)
Protective factors background

• **Are protective factors the opposite of risk factors?**
  – The approach is very different
  – Some protective factors can be risk factors when not present (e.g. Self-control; Coping)
  – Some protective factors are not risk factors when not present (e.g. Leisure activities; Intimate relationship)

• **How do protective factors influence future violence?**
  – Remains largely unknown, likely:
    • Promotive effect (work for everybody)
    • Protective effect (only moderating when risk present)
We all need protective factors

The more it rains (risk factors)
the more protection we need
Development of the SPROF
Structured Assessment of PROtective Factors for violence risk
De Vogel, De Ruiter, Bouman, & De Vries Robbé (2007)
Van der Hoeven Kliniek
Utrecht, The Netherlands
Risk assessment practice

- Tbs: patients stay in hospital for 7 years
- Risk assessment yearly
- Carried out in teams
- Tools used are SPJ:
  - HCR-20 violence risk (incl PCL-R)
  - SVR-20 sexual violence risk (if sexual offense)
  - FAM female violence risk (if female)
  - SAPROF protective factors
1. Literature reviews
2. Expertise and ideas from treatment staff and researchers Van der Hoeven Kliniek
3. Pilot study several inpatient and outpatient settings
4. Update manual & research

SAPROF Development

<table>
<thead>
<tr>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
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Ana Cristina Neves & Cristina Soeiro
Coding the SAPROF
The SAPROF

- 17 protective factors (15 dynamic)
  three scales: Internal, Motivational, External
- Always in combination with SPJ risk tool

1. **Code** the items (0, 1, 2)
2. **Mark** most important items: Keys & Goals
3. **Final Judgment Protection** (low, moderate, high)
4. **Integrated Final Judgment Risk** with risk tools (low, moderate, high)
# Coding sheet SAPROF

**Protective factors for violence risk**

To be used only in combination with the HCR-20 or related structured risk assessment instruments

<table>
<thead>
<tr>
<th>Name:</th>
<th>Number:</th>
<th>Date:</th>
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### Internal factors

<table>
<thead>
<tr>
<th>Score</th>
<th>Key</th>
<th>Goal</th>
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<tbody>
<tr>
<td>1. Intelligence</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Secure attachment in childhood</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. Empathy</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. Coping</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. Self-control</td>
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### Motivational factors

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<tr>
<td>6. Work</td>
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<td>☐</td>
</tr>
<tr>
<td>7. Leisure activities</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8. Financial management</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9. Motivation for treatment</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10. Attitudes towards authority</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>11. Life goals</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>12. Medication</td>
<td>☐</td>
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</table>

### External factors

<table>
<thead>
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<th>Goal</th>
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<td>13. Social network</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>14. Intimate relationship</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>15. Professional care</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>16. Living circumstances</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>17. External control</td>
<td>☐</td>
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</tbody>
</table>

### Other considerations:

### Final Protection Judgment and Integrative Final Risk Judgment

<table>
<thead>
<tr>
<th>SAPROF + HCR-20</th>
<th>Protection</th>
<th>Risk</th>
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<tbody>
<tr>
<td>☐ Low</td>
<td>☐ Low</td>
<td></td>
</tr>
<tr>
<td>☐ Moderate</td>
<td>☐ Moderate</td>
<td></td>
</tr>
<tr>
<td>☐ High</td>
<td>☐ High</td>
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<table>
<thead>
<tr>
<th>Name(s) assessor(s):</th>
<th>Position:</th>
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</tbody>
</table>

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Vivienne de Vogel, Corine de Rutter, Yvonne Bouman and Michiel de Vries Robbig
The umbrella of protection

- Control Intelligence
- Attachment
- Empathy
- Coping
- Self-control
- Work
- Leisuretime
- MotivationFinances
- Attitudes
- Life goals
- Network
- Relationship
- Care
### HCR-20 & Saprof

#### Risk factors

**Historical factors**
- H1 Previous violence
- H2 Young age at first violence
- H3 Relationship instability
- H4 Employment problems
- H5 Substance use problems
- H6 Major mental illness
- H7 Psychopathy (PCL-R)
- H8 Early maladjustment
- H9 Personality disorder
- H10 Prior supervision failure

**Clinical factors**
- C1 Lack of insight
- C2 Negative attitudes
- C3 Active symptoms of major mental illness
- C4 Impulsivity
- C5 Unresponsive to treatment

**Risk Management factors**
- R1 Plans lacks feasibility
- R2 Exposure to destabilizers
- R3 Lack of personal support
- R4 Noncompliance with remediation attempts
- R5 Stress

#### Protective factors

**Internal factors**
- 1 Intelligence
- 2 Secure attachment in childhood
- 3 Empathy
- 4 Coping
- 5 Self-control

**Motivational factors**
- 6 Work
- 7 Leisure activities
- 8 Financial management
- 9 Motivation for treatment
- 10 Attitudes towards authority
- 11 Life goals
- 12 Medication

**External factors**
- 13 Social network
- 14 Intimate relationship
- 15 Professional care
- 16 Living circumstances
- 17 Supervision
Results: Case formulation

Producing a narrative that explains the underlying mechanism of violence and proposes hypotheses regarding action to facilitate change

- **Nature:** What kind of risk?
- **Severity:** Likely physical / psychological harm?
- **Victim:** Who could be victim?
- **Likelihood:** What is the probability?
- **Imminence:** How soon?
- **Risk-Enhancing Factors:** What factors increase risk?
- **Risk-Reducing Factors:** What factors prevent risk?
Clinical experiences with the SAPROF
Clinical experiences Saprof

General experience

- Welcome addition to ‘usual’ risk assessment
- Suitable for clinical practice
- Focus on risk and protection
- Structured and evidence-based
- Different factors important different different people
- Motivational staff and patients

Van den Broek & De Vries Robbé (2008)
Clinical experiences SAPROF
General experience

SAPROF important positive addition to risk assessment:
- Justifying stages of treatment (leave/privileges, risk management)
- Formulating treatment goals (from external to motivational and internal)
- Phasing treatment: what to do first?
Theory of changing protection

**Static protective factors**
1. Intelligence
2. Secure attachment in childhood

**Dynamic improving factors**
3. Empathy
4. Coping
5. Self-control
6. Work
7. Leisure activities
8. Financial management
9. Motivation for treatment
10. Attitudes towards authority
11. Life goals
12. Medication
13. Social network
14. Intimate relationship

**Dynamic decreasing factors**
15. Professional care
16. Living circumstances
17. External control

Changes in protective factors

![Chart showing changes in protective factors from start to end treatment.](chart.png)
Additional value of protective factors

SAPROF

• Risk assessment
  - Dynamic positive addition
  - Balance risks and strengths
  - Increased predictive validity violence

• Clinical practice
  - Positive approach ➔ motivation
  - Dynamic ➔ treatment goals
  - Improved risk management focus
Research with the SAPROF
Research SAPROF Netherlands

1. **Retrospective file study**
   - N=188 assessments of discharged patients
   - 105 violent / 83 sexual male
   - Follow-up average 11 years
   - Official reconvictions after discharge
   - N=120 pre- and post-treatment
   - ICC = .85/.88 (2 research raters)

2. **Prospective clinical study**
   - N=315 clinical assessments
   - Different treatment stages
   - Violent / sexual / male / female
   - Follow-up 12 months
   - Violence during treatment
   - ICC = .70 (3 clinical raters)
Retrospective files studies
### Predictive validity violent recidivism

**Retrospective file study Violent+Sexual (N=188)**

De Vries Robbé, De Vogel & Douglas, in preparation

<table>
<thead>
<tr>
<th></th>
<th>AUC 1 year follow-up</th>
<th>AUC 3 years follow-up</th>
<th>AUC 11 years follow-up (M)</th>
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<tbody>
<tr>
<td></td>
<td>14 recidivist</td>
<td>34 recidivists</td>
<td>68 recidivists</td>
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<tr>
<td>SAPROF (total)</td>
<td>.85*</td>
<td>.75*</td>
<td>.73*</td>
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<tr>
<td>HCR-20 (total)</td>
<td>.84*</td>
<td>.73*</td>
<td>.64*</td>
</tr>
<tr>
<td>HCR-SAPROF (total)</td>
<td>.87*</td>
<td>.76*</td>
<td>.70*</td>
</tr>
<tr>
<td>FPJ no violence 5-pt</td>
<td>.83*</td>
<td>.71*</td>
<td>.67*</td>
</tr>
<tr>
<td>FRJ all violence 5-pt</td>
<td>.84*</td>
<td>.72*</td>
<td>.68*</td>
</tr>
</tbody>
</table>

HCR-SAPROF > HCR-20: $\chi^2 (1, N = 188) = 13.4, p < .001$ (11 year)

Logistic regression: sign. incremental predictive validity SAPROF over HCR-20
Differentiation of risk groups

Moderate risk

High risk

Logistic regression at all f-u: sign. incremental predictive validity FPJ over FRJ
Changes during treatment
Retrospective study (n = 108)

Changes in HCR-20 & SPROF scores during treatment (= treatment progress) proved predictive of recidivism
The more progress on protective factors during treatment...

..the less likely violent recidivism
Prospective clinical studies
Changes in scores over time
N=315 Clinical risk assessments

Violent incident rate

Violence risk

Total score

Intramural  Supervised leaves  Unsupervised leaves  Transmural

Treatment progress

HCR-20  SAPROF  HCR-SAPROF
# Predictive validity violent incidents during treatment

**Prospective study (N=315)**

De Vries Robbé, De Vogel & Douglas, in preparation

<table>
<thead>
<tr>
<th></th>
<th>Violent offenders ♂ (17/148)</th>
<th>Sexual offenders ♂ (9/97)</th>
<th>Total sample ♂ (26/245)</th>
<th>Total sample ♀ (8/70)</th>
<th>Total sample (34/315)</th>
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<tbody>
<tr>
<td>SAPROF (total)</td>
<td>.77**</td>
<td>.81**</td>
<td>.78**</td>
<td>.70</td>
<td>.77**</td>
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<tr>
<td>HCR-20 (total)</td>
<td>.74**</td>
<td>.85**</td>
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<tr>
<td>HCR-SAPROF (total)</td>
<td>.81**</td>
<td>.84**</td>
<td>.82**</td>
<td>.76*</td>
<td>.81**</td>
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<tr>
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<td>.75**</td>
<td>.81**</td>
<td>.77**</td>
<td>.72*</td>
<td>.76**</td>
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</tbody>
</table>

* * p < .05, ** p < .01
The value of consensus
SAPROF total scores N=47

Consensus most accurate predictions
Strongest predicting SAPROF factors

Retrospective
- Violent ♂: Self-control, Work, Financial management
- Sexual ♂: Coping, Self-control, Motivation, Attitudes
- Total ♂: Self-control, Attitudes

Prospective
- Violent ♂: Self-control, Attitudes, Work, Motivation, Medication
- Sexual ♂: Coping, Leisure activities, Attitudes, Network
- Total ♂: Self-control, Attitudes, Work
- Total ♀: Intelligence, Coping, Work, Financial management

All $p < .05$
Summary research results

- Good reliability & predictive validity
- Combined use risk & protective factors works
- Violent as well as sexual offenders
- More protective factors $\rightarrow$ less violence
- Changes during treatment $\rightarrow$ less violence
Overview SAPROF

- Structured assessment of **protective factors**
- **Dynamic** and **positive** addition
- Good results **research**
- Especially valuable for **clinical practice**
  - Personalized motivating risk assessment
  - Positive treatment goals
  - Strengths based guidelines risk management
Thank you!

Michiel de Vries Robbé
mdevriesrobbe@hoevenkliniek.nl

To order SAPROF Guidelines in English or download coding sheets see www.forumeducatief.nl
or contact saprof@hoevenkliniek.nl

To order SAPROF Guidelines in Portuguese see www.egasmoniz.com.pt
or contact gpforense@egasmoniz.edu.pt
SAPROF Translations


References


Links

www.forumeducatief.nl
www.cognitivecentre.com
www.violence-risk.com
www.forensicpsychiatry.ca
www.sgc.gc.ca

http://www.sfu.ca/psyc/faculty/hart/
(bibliography Douglas HCR-20 studies)

http://dare.uva.nl/document/13725
(thesis Structured Risk Assessment De Vogel)