Criminogenic needs of Dutch violent forensic psychiatric in- and outpatients

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• New measurement instruments
• Dynamic criminogenic needs
• Aggression Replacement Training

Part 2
• Course of prosocial behavior during the first three years of stay
• Predictors of behavior on the ward
• Consequences for treatment policy
New measurement instruments
Evaluation of existing measurement instruments

Problems

• Self-report questionnaires mostly developed using college or university students
• No investigation on the psychometric properties of these questionnaires in Dutch forensic psychiatric in- and outpatients
• Observation scales about aggression mostly developed for general psychiatric patients in crisis

Findings

• Questionnaires are reliable and valid when used for Dutch forensic psychiatric patients, but most divisions in subscales do not fit
Measurement instruments for program evaluation

Current instruments
- Aggression Questionnaire (AQ; Hornsveld, Muris, Kraaimaat, & Meesters (2009)
- Novaco Anger Scale-Provocation Inventory (NAS-PI; Hornsveld, Muris & Kraaimaat (2011)
- Bermond Vorst Alexithymia Questionnaire (BVAQ; Hornsveld & Kraaimaat, 2012)

New instruments
- Adapted version of Rosenzweig Picture-Frustration Study (PFS-AV): Hostility
- Observation Scale for Aggressive Behavior (OSAB): Behavior of forensic psychiatric inpatients on the ward
Adapted Version of Rosenzweig Picture-Frustration Study (PFS-AV): Hostility

You are not allowed to cross the street when the light is red.
Observation Scale for Aggressive Behavior (OSAB; Hornsveld et al., 2007)

Six subscales:
- Irritation/anger (5 items)
- Anxiety/Gloominess (4 items)
- Aggressive behavior (10 items)
- Prosocial behavior (12 items)
- Antecedents (6 items)
- Sanctions (3 items)

Scoring: Behavior on the ward during last week
Scores of subscales

Scoring of items: ‘no’ = 1, ‘seldom’ = 2, ‘occasionally’ = 3, and ‘frequently’ = 4

Range of subscale scores:
- Irritation/anger: 5 - 20
- Anxiety/Gloominess: 4 - 16
- Aggressive behavior: 10 - 40
- Prosocial behavior: 12 - 48
- Antecedents: 6 - 24
- Sanctions: 3 - 13
Dynamic criminogenic needs of forensic psychiatric patients
Inpatients versus norms ($N = 136$)

* $p < .001$
Inpatients versus norms ($N = 136$)

* $p < .001$
Inpatients ($N = 136$) versus detainees ($N = 100$)

* $p < .004$
Inpatients \((N = 136)\) versus detainees \((N = 100)\)
Outpatients versus norms ($N = 200$)
Outpatients versus norms (N = 200)

* p < .004
Young outpatients ($N = 123$) versus male students ($N = 160$)

* $p < .05$
Model for aggressive behavior

**Conflict of interests**

- Low score on psychopathy
- High score on psychopathy
- Cognitions:
  - high level of aspiration
  - antisocial norms
- Limited or inadequate social skills

**Lack of emotion**

- Emotion:
  - irritation, anger, rage, fury

**Proactively aggressive behavior**

- verbal
- physical (violence)

**Reactively aggressive behavior**

- verbal
- physical (violence)

**Positive short-term consequences**

- goal achieved
- satisfaction
- higher status

**Negative long-term consequences**

- escalation of conflict
- in contact with the judicial system
- being avoided by others

**Emotion**

- irritation, anger, rage, fury

**Low score on psychopathy**

**High score on psychopathy**
Aggression Replacement Training (ART)
Adaptation of Aggression Replacement Training (ART)

Framework

- Anger management (session 1-5)
- Social skills (session 6-10)
- Moral reasoning (session 11-15)
- Self-regulation skills (session 6-15)
- Follow-up, evaluation, and report

- Manual for trainers
- Portfolio for patients
Inpatients: aggressive behavior, measured with the OSAB
Outpatients: Physical aggression, measured with the AQ

Outpatients (N = 62)

Students (N = 160)
Behavior of Dutch violent forensic psychiatric inpatients on the ward

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Literature

- PCL-R scores relate only modestly with disruptive behavior during hospitalization
  - Hildebrand, De Ruiter, & Nijman (2004): PCL-R and incidents

- Stay in a forensic psychiatric hospital can result in a small improvement of dynamic criminogenic needs
  - De Jonge, Nijman, & Lammers (2009): HKT-30
  - Chakhssi, De Ruiter, & Bernstein (2010): BSI
Observation Scale for Aggressive Behavior (OSAB; Hornsveld et al., 2007)

Three of the six subscales:

• Irritation/anger (5 items)
• Aggressive behavior (10 items)
• Prosocial behavior (12 items)

Scoring: Behavior on the ward during last week
<table>
<thead>
<tr>
<th></th>
<th>Total group</th>
<th>Personality disordered</th>
<th>Chronically psychotic</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>M (SD)</td>
<td>N</td>
<td>M(SD)</td>
</tr>
<tr>
<td>1</td>
<td>253 37.49 (10.38)</td>
<td>159 38.62 (10.64)</td>
<td>94 35.56 (9.69)</td>
</tr>
<tr>
<td>2</td>
<td>248 37.40 (10.44)</td>
<td>157 38.58 (10.68)</td>
<td>91 35.37 (9.75)</td>
</tr>
<tr>
<td>3</td>
<td>236 37.17 (10.41)</td>
<td>148 38.38 (10.66)</td>
<td>88 35.15 (9.69)</td>
</tr>
<tr>
<td>4</td>
<td>213 37.20 (10.34)</td>
<td>134 38.69 (10.88)</td>
<td>79 34.67 (8.86)</td>
</tr>
<tr>
<td>5</td>
<td>178 36.97 (10.46)</td>
<td>108 38.69 (11.14)</td>
<td>70 34.30 (8.74)</td>
</tr>
<tr>
<td>6</td>
<td>146 37.03 (10.17)</td>
<td>86 38.99 (10.77)</td>
<td>60 34.22 (8.58)</td>
</tr>
<tr>
<td>7</td>
<td>115 36.97 (10.27)</td>
<td>70 38.79 (10.75)</td>
<td>45 34.13 (8.85)</td>
</tr>
</tbody>
</table>

Table 1. *Number of patients assessed on seven measurements*
Figure 1. Course of irritation/anger and aggressive behavior during the first three years of stay
Figure 2. Course of prosocial behavior during the first three years of stay
Figure 3. Course of irritation/anger and aggressive behavior during the first three years of stay.
Figure 4. Course of prosocial behavior during the first three years of stay
### Table 2. Mean scores and SD’s in personality disordered and chronically psychotic patients

<table>
<thead>
<tr>
<th>Measure</th>
<th>Factor or subscale</th>
<th>Personality disordered</th>
<th>Chronically psychotic</th>
<th>Differences between subsamples</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>M (SD)</td>
<td>N</td>
</tr>
<tr>
<td>PCL-R</td>
<td>Psychop</td>
<td>159</td>
<td>22.25 (8.06)</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>Interpers</td>
<td>159</td>
<td>3.57 (2.47)</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>Affective</td>
<td>159</td>
<td>6.13 (1.72)</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>Lifestyle</td>
<td>159</td>
<td>5.94 (2.76)</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>Antisoc</td>
<td>159</td>
<td>5.11 (2.81)</td>
<td>94</td>
</tr>
<tr>
<td>NEO-FFI</td>
<td>Neurot</td>
<td>97</td>
<td>32.24 (8.49)</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>97</td>
<td>41.59 (5.23)</td>
<td>48</td>
</tr>
<tr>
<td>STAS</td>
<td>Anger</td>
<td>92</td>
<td>17.91 (6.64)</td>
<td>47</td>
</tr>
</tbody>
</table>
Table 4. Correlations assessed shortly after admittance

<table>
<thead>
<tr>
<th>Measure</th>
<th>Factors or sub-scales</th>
<th>Personality disordered patients</th>
<th>Chronically psychotic patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Irritation/Anger</td>
<td>Irritation/anger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aggressive behavior</td>
<td>Aggressive behavior</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pro-social behavior</td>
<td>Pro-social behavior</td>
</tr>
<tr>
<td>PCL-R</td>
<td>Psychp</td>
<td>.236**</td>
<td>.169</td>
</tr>
<tr>
<td></td>
<td>Interper</td>
<td>.097</td>
<td>.057</td>
</tr>
<tr>
<td></td>
<td>Affect</td>
<td>.177*</td>
<td>.078</td>
</tr>
<tr>
<td></td>
<td>Lifest</td>
<td>.207**</td>
<td>.245*</td>
</tr>
<tr>
<td></td>
<td>Antisoc</td>
<td>.290**</td>
<td>.160</td>
</tr>
<tr>
<td>NEO-FFI</td>
<td>Neurot</td>
<td>.199*</td>
<td>.059</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>-.097</td>
<td>-.111</td>
</tr>
<tr>
<td>STAS</td>
<td>Anger</td>
<td>.140</td>
<td>.157</td>
</tr>
</tbody>
</table>
### Table 5. Change scores on the OSAB (measurement 1 vs. measurement 7)

<table>
<thead>
<tr>
<th>OSAB sub-scale</th>
<th>Personality disordered patients</th>
<th>Chronically psychotic patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Measurement 1</td>
<td>Measurement 7</td>
</tr>
<tr>
<td>Irrit./Anger</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td></td>
<td>10.57 (3.31)</td>
<td>10.46 (3.04)</td>
</tr>
<tr>
<td>Aggr. beh.</td>
<td>14.93 (5.38)</td>
<td>15.16 (4.67)</td>
</tr>
<tr>
<td>Prosoc. beh.</td>
<td>29.50 (8.39)</td>
<td>32.70 (6.94)</td>
</tr>
</tbody>
</table>
Table 6. *Outflow of patients*

<table>
<thead>
<tr>
<th>Patients</th>
<th>Percentage</th>
<th>Age</th>
<th>PCL-R</th>
<th>Aggression on the ward</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 measurements</td>
<td>56.4</td>
<td>36.97 (10.27)</td>
<td>20.49 (7.97)</td>
<td>14.97 (5.66)</td>
</tr>
<tr>
<td>3 year of stay but no 7 measurements</td>
<td>22.1</td>
<td>39.38 (11.78)</td>
<td>17.68 (7.94)</td>
<td>15.92 (4.60)</td>
</tr>
<tr>
<td>Reselection</td>
<td>9.8</td>
<td>36.95 (8.89)</td>
<td>22.63 (7.86)</td>
<td>16.16 (5.23)</td>
</tr>
<tr>
<td>Long-stay</td>
<td>2.9</td>
<td>55.00 (8.46)</td>
<td>23.40 (7.57)</td>
<td>18.40 (2.61)</td>
</tr>
<tr>
<td>Finishing TBS or leave</td>
<td>3.4</td>
<td>41.29 (11.94)</td>
<td>17.00 (8.25)</td>
<td>14.14 (2.48)</td>
</tr>
<tr>
<td>Others</td>
<td>5.4</td>
<td>35.89 (6.31)</td>
<td>25.67 (9.35)</td>
<td>15.67 (3.20)</td>
</tr>
</tbody>
</table>
Conclusions

- No relation between length of stay and mood, aggressive behavior, and sanctions.
- However, social skills are related to length of stay.
- Personality disordered patients exhibit more anger, more aggressive behavior, and more prosocial behavior than chronic psychotic patients.
- Patients with relatively high scores on the PCL-R exhibit more anger, more aggressive behavior, but also more prosocial behavior than patients with relatively low scores on the PCL-R.
- In general, base rates of negative behaviors are low.
Discussion and recommendations

- Outcome of treatment programs should not be based on negative but on positive behavior.
- Limited validity of risk assessment instruments if they are based on negative behaviors.
- Protective factors, which refer to positive behavior, can contribute considerably to a better prediction of recidivism risk (SAPROF).
- There is a group of inpatients for which a stay longer than three of four years has no incremental value.