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# Treatment of Dutch (sexually) violent forensic psychiatric in- and outpatients

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# **Part 1: Treatment of Dutch violent forensic psychiatric in- and outpatients**

# Models of general aggression

# **“Risk-Need-Responsivity model” (Andrews & Bonta, 2010)**

## **Criminogenic needs (“Central Eight”):**

- **history of antisocial behavior**
- **antisocial personality pattern**
- **antisocial cognitions\***
- **antisocial associates\***
- **family/marital circumstances\***
- **school/work\***
- **leisure/recreation\***
- **substance abuse\***

**\* dynamic criminogenic needs**

# Historical/Clinical/Risk Management (HCR-20), version 2

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## Historical items

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- H1 Previous violence
- H2 Young 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

## Clinical items

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

## Risk management items

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- R1 Plans lack feasibility
  - R2 Exposure to destabilizers
  - R3 Lack of personal support
  - R4 Noncompliance with remediation attempts
  - R5 Stress
-

# **“Good Lives Model” (Ward & Marshall, 2004)**

## **Ten good live goals;**

- **healthy life**
- **knowledge**
- **excellence in play and work**
- **agency**
- **inner peace**
- **relatedness**
- **community**
- **spirituality**
- **happiness**
- **creativity**



# **Comments on Risk-Need-Responsivity model and Good Lives Model**

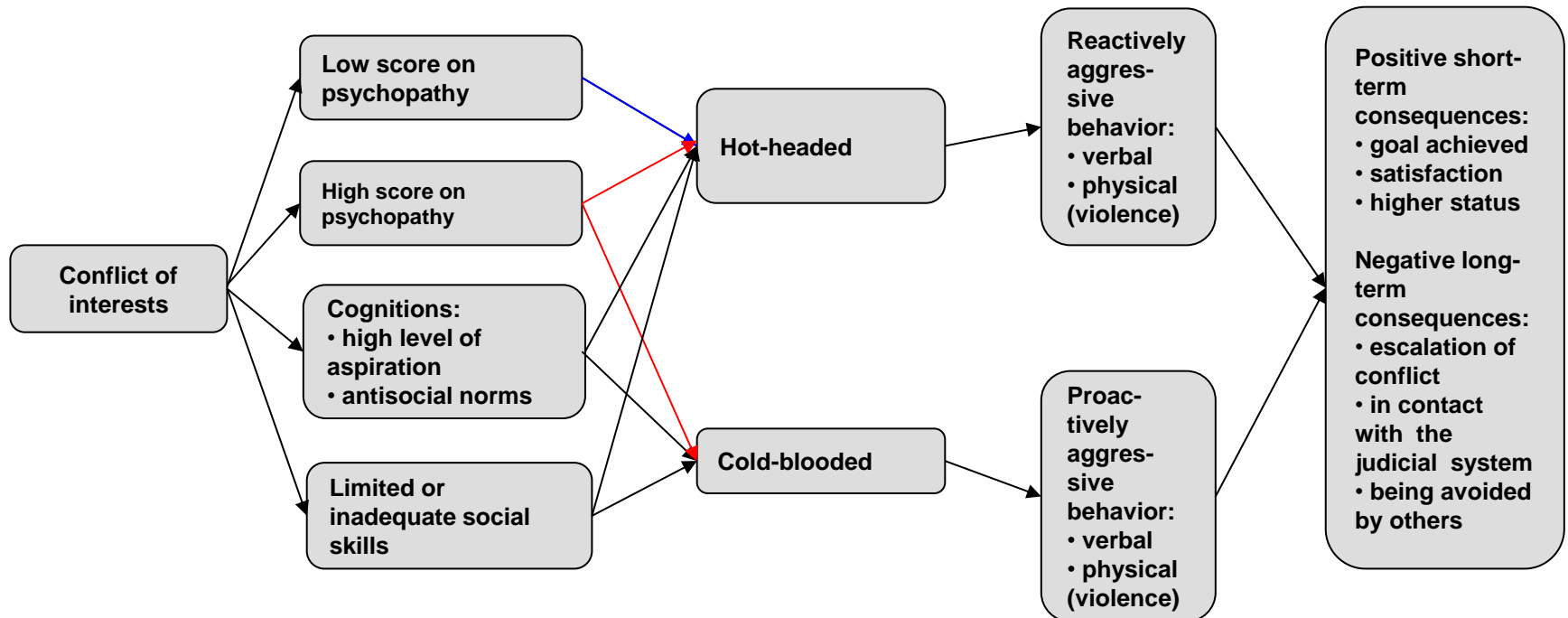
- **Items have different abstraction levels**
- **Not that so much models, but more a list of areas with problem situations**
- **For the formulation of an holistic theory, functional analyses has to be made for all problem situations**
- **A holistic theory is needed for the formulation of a treatment plan with specific treatment objectives**

# Evidence based psychological risk factors

## Self-report questionnaires

- Patients score higher than "normals" on neuroticism (NEO-FFI) and trait anger (ZAV), and lower than "normals" on Agreeableness (NEO-FFI)
- Patients score lower than "normals" on anxiety when giving criticism and higher on anxiety when giving compliments
- Patients give more often than "normals" criticism and more less than "normals" compliments
- Outpatients score higher on hostility, anger, and aggression than inpatients

# Model for general aggression



# **Aggression Replacement Training (ART)**

# Design

**Fifteen weekly sessions lasting 1½ hours each and three five-weekly follow-up meetings for six to eight patients:**

- **anger management, sessions 1 to 5**
- **social skills, sessions 6 to 10**
- **moral reasoning, sessions 11 to 15**
- **follow-up and evaluation, sessions 16 to 18**

**Participants have to complete homework assignments**

**Three measurement moments:**

- **during intake/before a waiting period**
- **after the waiting period/before the training**
- **after the training (post-training measurement)**

# Measures

- ***Psychopathy Checklist-Revised (PCL-R;***  
**Vertommen, Verheul, De Ruiter, & Hildebrand, 2002)**
- ***NEO Five-Factor Inventory (NEO-FFI; Hoekstra,***  
**Ormel, & De Fruyt, 1996)**
- **Trait Anger subscale of the Spielberger (1980)**  
***State-Trait Anger Scale (STAS; Van der Ploeg,***  
**Defares, & Spielberger, 1982)**
- ***Adapted Version of the Picture-Frustration Study***  
**(PFS-AV; Hornsveld, Nijman, Hollin, & Kraaimaat,**  
**2007)**
- ***Aggression Questionnaire (AQ; Hornsveld, Muris,***  
**Kraaimaat, & Meesters, 2009)**

## Measures (continued)

- **NAS** part of the *Novaco Anger Scale-Provocation Inventory* (NAS-PI; Hornsveld, Muris, & Kraaimaat, 2011)
- *Inventory of Interpersonal Situations* (IIS; Van Dam-Baggen & Kraaimaat, 1999)

### For inpatients was added:

- **Observation Scale for Aggressive Behavior** (OSAB; Hornsveld, Nijman, Hollin, & Kraaimaat, 2007)

# ART in outpatients



# Participants

## Data sets

- 123 outpatients (mean age = 17.35 years,  $SD = 1.82$ , range: 15-21 years)
- 73 patients were measured both during the intake interview and at the start of the training (mean age = 17.12 years,  $SD = 1.72$ , range: 15-21 years)
- 62 patients completed the questionnaires at both the start and the end of the training (mean age = 17.35 years,  $SD = 1.91$ , range: 15-21 years)
- 61 patients withdrew prematurely during the waiting period or during the training (nonstarters plus non-completers; mean age 17.35 years,  $SD = 1.82$ , range: 15-21 years)

# Results

## Dynamic criminogenic needs

- Compared with a *reference group* of 275 secondary vocational students, patients scored higher on trait anger, hostility, and aggression, and lower on social anxiety

## Nonstarters and noncompleters

- Patients who withdrew prematurely scored higher on psychopathy than the completers, in particular on the factor antisocial behavior

# Intake measurement vs. pre measurement ( $n = 73$ )

Measure	Content of scale	<i>M (SD)</i>		Effect <i>d</i>
		Intake	Pre	
PFS-AV	Hostility	33.22 (9.58)	34.16 (11.49)	-.13
AQ	Aggression	90.00 (27.88)	85.59 (21.57)	.21
	Phys. aggr.	33.01 (18.47)	29.48 (8.19)	.36
NAS-PI	Anger	87.52 (17.35)*	90.81 (19.32)*	-.29
IIS	Social anxiety	71.43 (28.73)	68.07 (25.80)	.24
	Social skills	112.42 (25.19)	112.32 (25.18)	.01

\*  $p < .05$

# Pre measurement vs. post measurement ( $n = 62$ )

Measure	Content of scale	<i>M (SD)</i>		Effect <i>d</i>
		Pre	Post	
PFS-AV	Hostility	33.34 (12.30)	30.84 (12.27)	.25
AQ	Aggression	82.56 (20.67)	78.90 (20.32)	.21
	Phys. aggr.	28.39 (8.02)*	26.45 (7.46)*	.28
NAS-PI	Anger	87.29 (18.31)	83.98 (16.74)	.21
IIS	Social anxiety	65.36 (22.75)*	57.74 (22.75)*	.31
	Social skills	115.88 (22.22)	116.93 (29.75)	-.04

\*  $p < .05$

## Results (continued)

### Behavior change

- **No change in 73 patients between intake and pre measurement, except for an increase in anger**
- **Compared with the pre training measurement, 62 patients scored lower on physical aggression and social anxiety during the post-training measurement. There was a trend in the reduction of hostility, aggression, and anger**
- **After completion of the training, patients did not differ from the *reference group* of secondary vocational students with respect to hostility and aggressive behavior**

# Discussion

## Drop-out

- **In the current study, 61 of the 123 patients did not show up at the start of the training or did not complete the training**
- **This result is in line with the results of other studies on treatment dropouts (e.g., Olver & Wong, 2009)**
- **Non-completion has been associated with a higher risk of recidivism (Wormith, Olver, Stevenson, & Girard, 2007), as well as aggression and rule-violating behaviors (Beyko & Wong, 2005)**
- **There seems to be a relation between psychopathy, treatment attrition, and recidivism risk**

## **Consequences for treatment**

- **For this group of patients a more consequent and stricter policy is required among the referring agencies in case of drop-out**
- **Refusing to follow the training hardly had any negative consequences in most cases**
- **Creating alternative conditions and consequences for the completion of an obligatory treatment program has the highest priority**
- **For instance, the training can be provided at the office of the after-care and resettlement organization by a qualified trainer from the outpatient clinic and a probation officer**

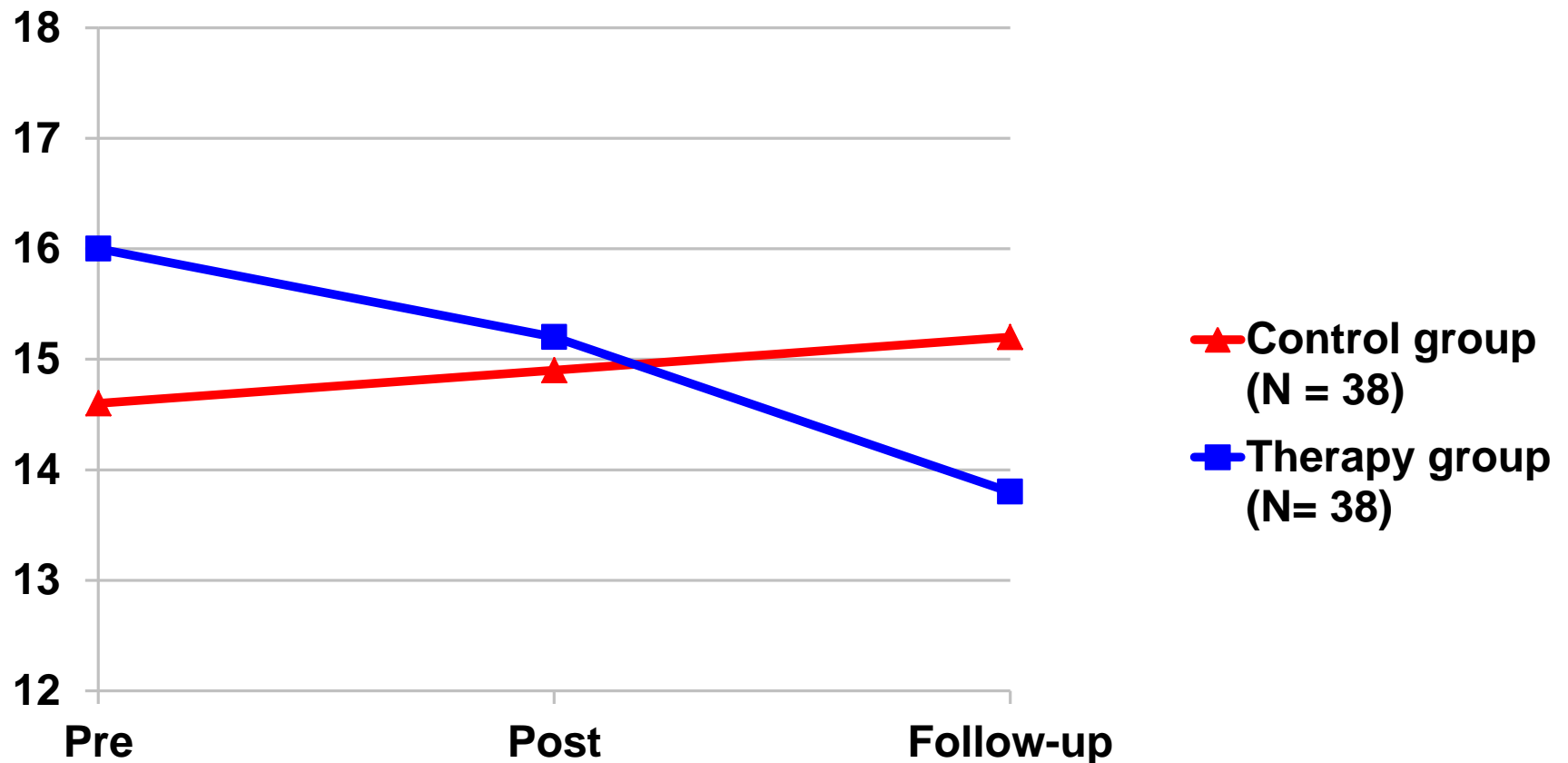
# ART in inpatients



## **Design and participants**

- **Multicenter study in six institutions**
- **Dropout rate was 13%**
- **Patients who dropped-out had significantly higher scores on the old factor 2 of the PCL-R**
- **A group of 38 inpatients who received ART were compared with a matched control group of 38 inpatients who received care as usual**
- **Patients had a cluster B personality disorder or a chronic psychotic disorder as their main diagnosis. In the psychiatric condition of the chronic psychotic patients had been stabilized to the extent that their comorbid personality disorder became more prominent**

# Results on the Aggression subscale of the OSAB (Hornsveld, Nijman, Hollin, & Kraaimaat, 2007)



# Results

- **Significant reduction on the OSAB-subscale Aggression**
- **No significant changes on the other subscales of the OSAB**
- **Significant decreases on self-report questionnaires for hostility and aggression in the experimental group but not in the control group**

**Extended ART + PMT for inpatients  
(Zwets, Hornsveld, Muris, Kanters,  
Langstraat, & Van Marle, submitted**

## **Extended ART for forensic psychiatric inpatients (Hornsveld & De Vries, 2009)**

**Thirty-five weekly therapy sessions lasting 1½ hours each and three five-weekly follow-up meetings:**

- anger management, sessions 1 to 5**
- social skills, sessions 6 to 10**
- moral reasoning, sessions 11 to 15**
- prosocial thinking, sessions 16 to 20**
- consequences of behavior on short and long term, sessions 21 to 25**
- prosocial network, sessions 26 to 30**
- attitudes towards women, sessions 31 to 35**
- follow-up and evaluation, sessions 36 to 38**

**Weekly homework sessions lasting ¾ hour**

# **Psychomotor Therapy**

**Therapy in which participants learn to focus on physiological sensations in stressful situations by means of physical exercises and who also learn how to cope these situations effectively**

## Example of an exercise during a psychomotor therapy session



# Evaluation of extended ART + PMT

## Design

- Treatment group: Extended ART (38 sessions) + PMT (25 sessions)
- Control group: Extended ART (38 sessions) + Sports (25 sessions)

## Participants

- Patients with a cluster B personality order as their main diagnosis, convicted for a violent offense

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Condition	N	Completers	Dropouts
ART + PMT	22	16	6
ART + Sports	15	11	4

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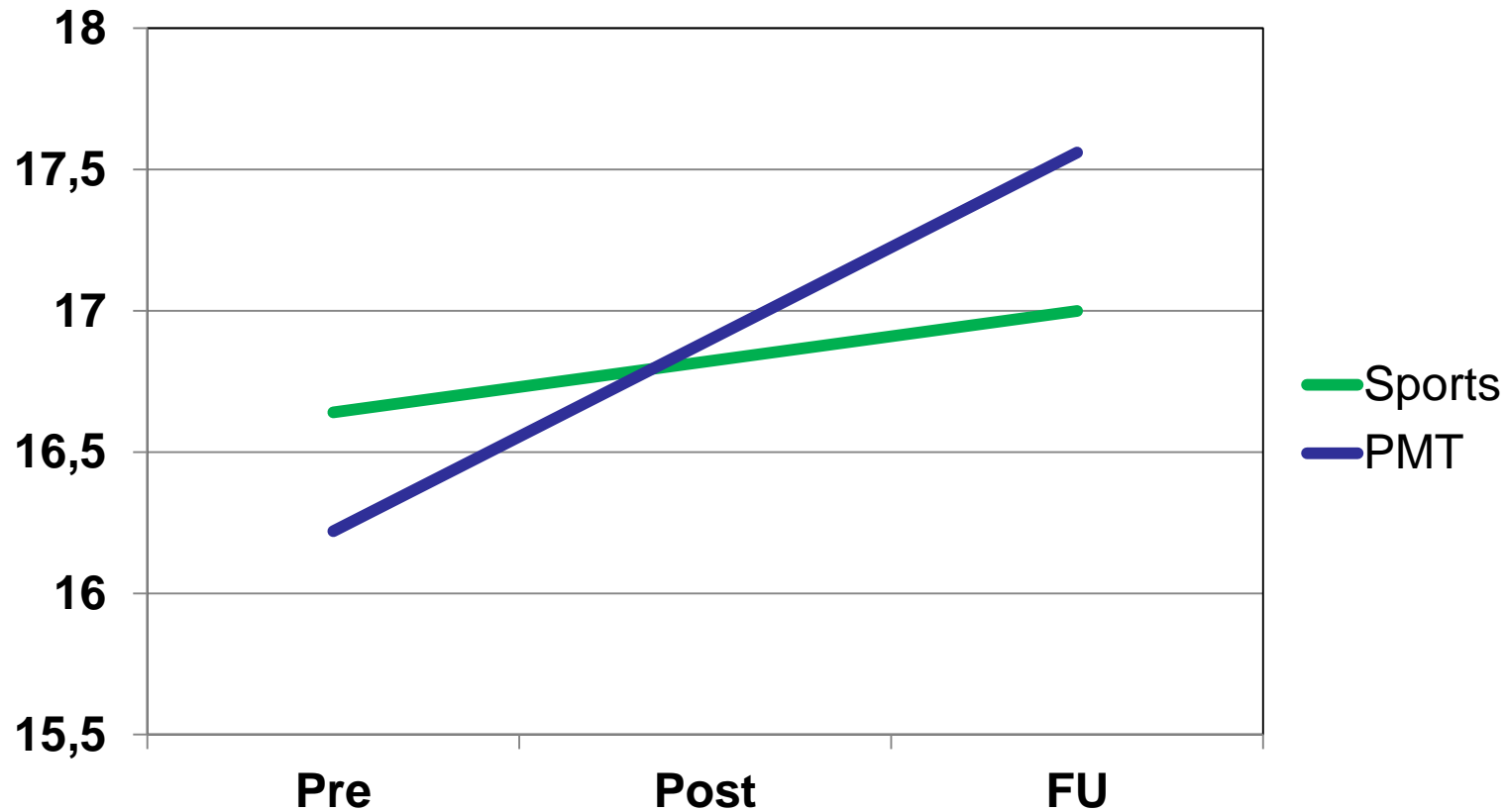
# Measures

- **Psychopathy: Psychopathy Checklist-revised (PCL-R; Vertommen, Verheul, De Ruiter, & Hildebrand, 2002)**
- **State anger: NAS part of the Novaco Anger Scale-Provocation Inventory (NAS-PI; Hornsveld, Muris, & Kraaimaat, 2011)**
- **Aggression: Aggression Questionnaire-Short Form (AQ-SF; Hornsveld, Muris, Kraaimaat, & Meesters, 2009)**
- **Bodily sensations during anger (ABSQ, Zwets et al., 2014)**
- **Coping behavior: Utrechtse Coping Lijst (UCL; Schreurs, Van de Willige, Brosschot, Tellegen, & Graus, 1993)**

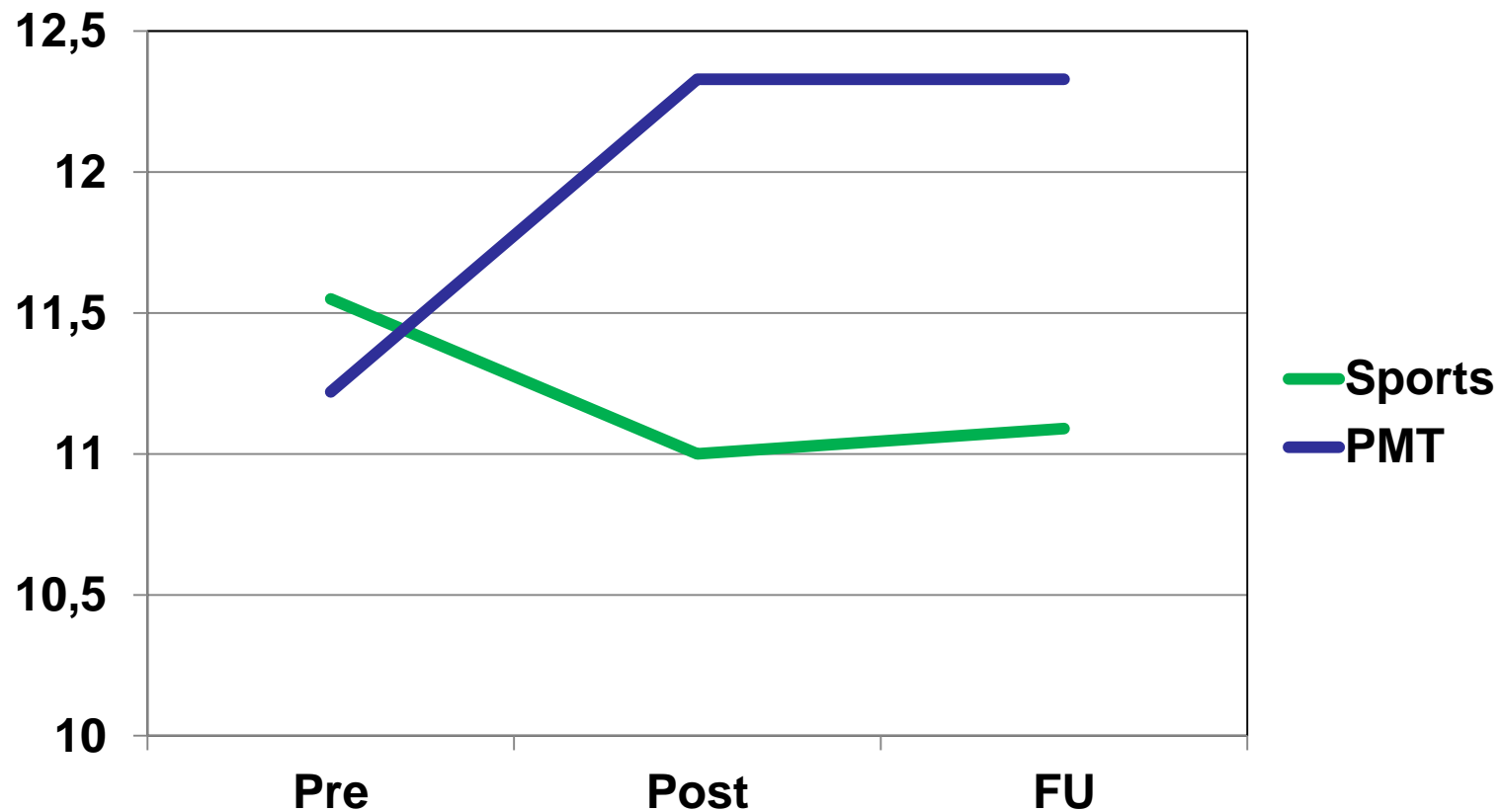
## **Measures (continued)**

- **Aggression/prosocial behavior: Observation Scale for Aggressive Behavior (OSAB; Hornsveld, Nijman, Hollin, & Kraaimaat, 2007)**

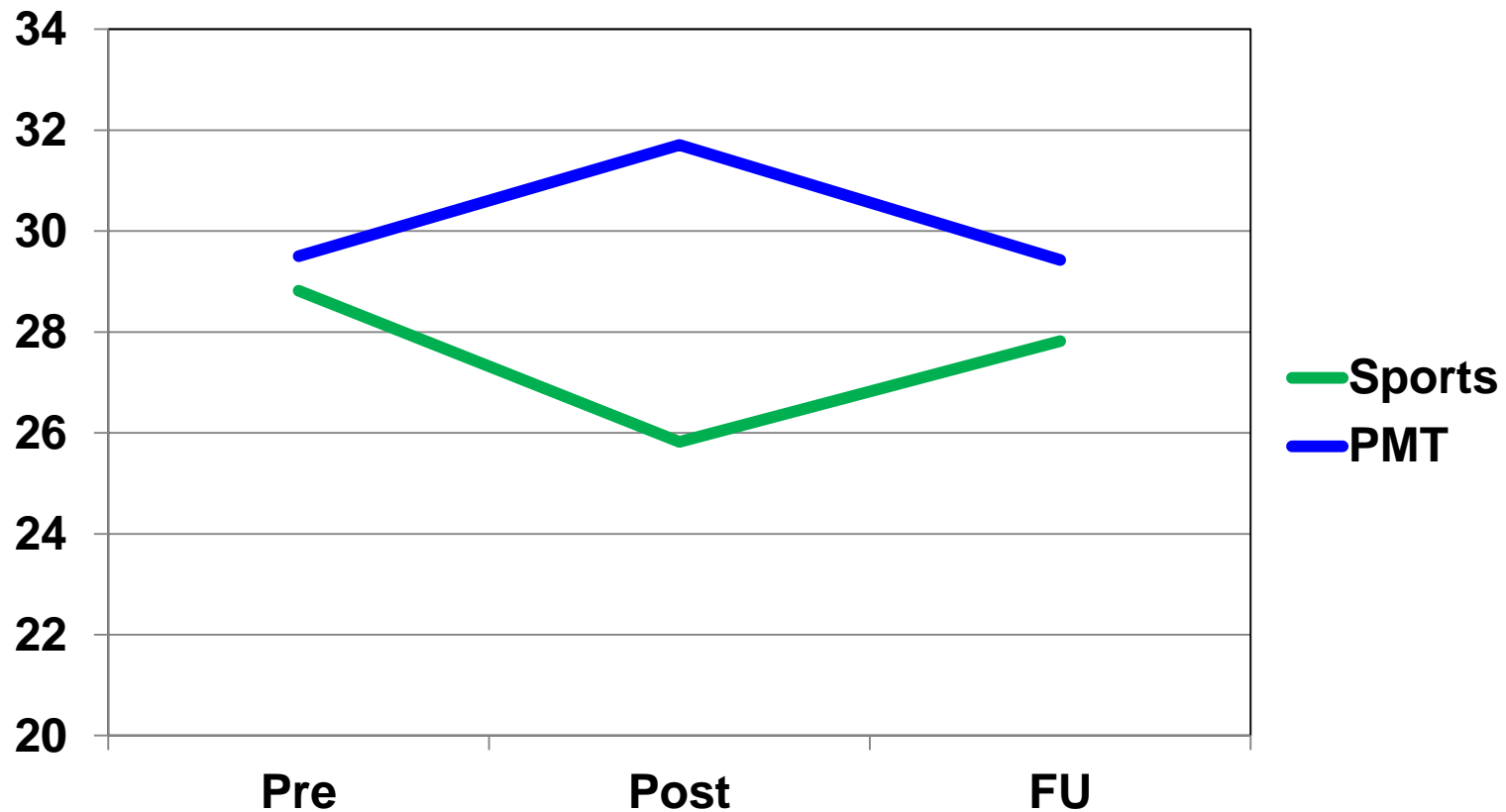
# ART + PMT vs. ART + Sports on awareness of physiological changes (ABSQ)



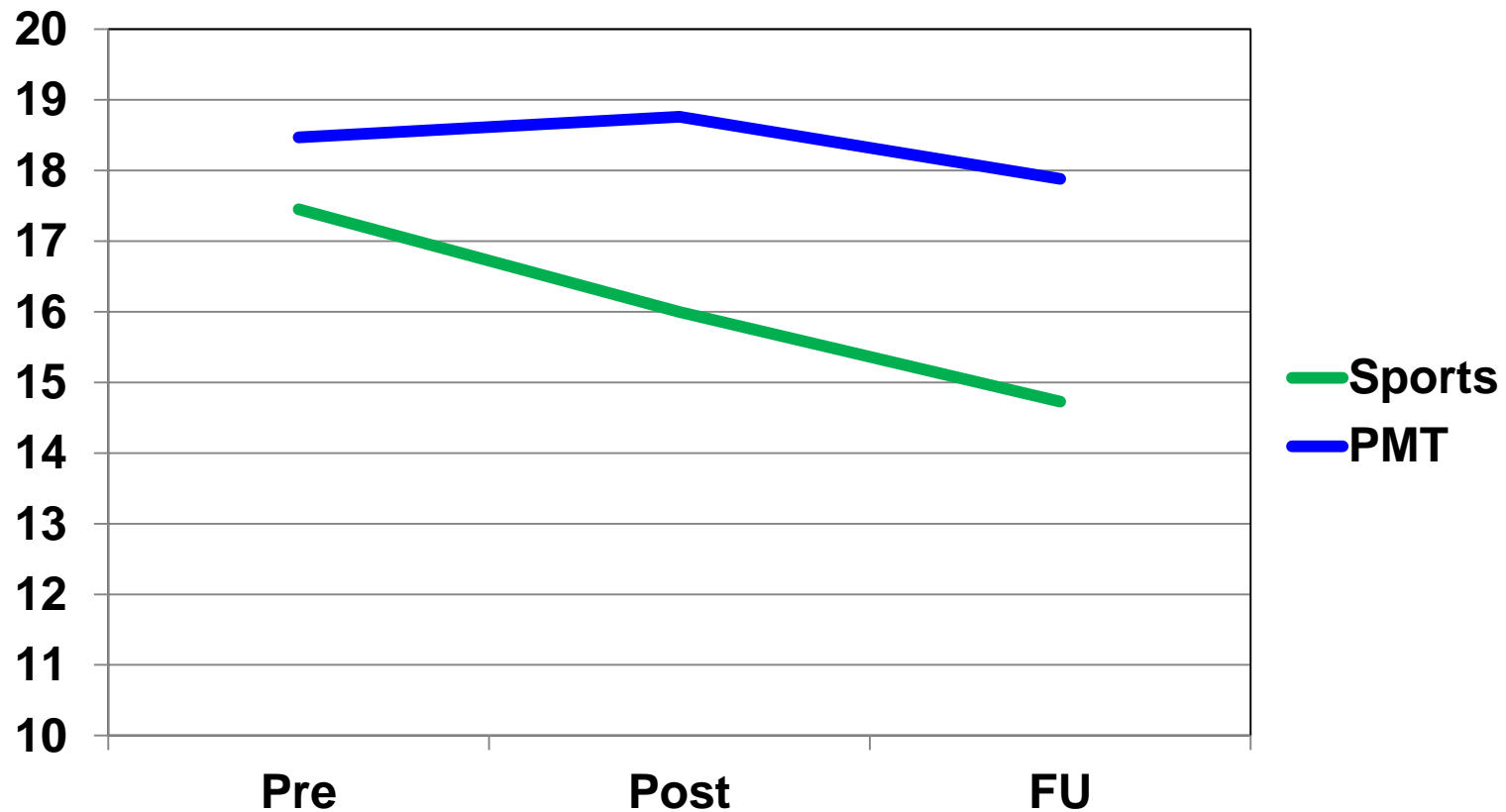
# ART + PMT vs. ART + Sports on coping behavior (UCL)



# ART + PMT vs. ART + Sports on aggression (AQ-SF)



# ART + PMT vs. ART + Sports on aggression (OSAB)



## **Preliminary conclusions**

- **Patients in the ART + PMT condition show significant improvement compared to the ART + Sports condition on self-reported coping**
- **Patients in the ART + PMT condition do not show significant improvements compared to the ART + Sports condition on aggression and bodily awareness**
- **Dropouts have significantly higher scores on the interpersonal factor and the lifestyle factor**

# **Part 2: Treatment of Dutch sexually violent forensic psychiatric inpatients**



# Psychological risk factors

## **Comparison with norm group or of subgroups with each other**

- **Sexually violent offenders score significantly higher on the NEO-FFI domain of neuroticism**
- **Rapists do report more aggression on self-report questionnaires than child abusers**
- **Rapists score higher than child abusers on psychopathy as measured by the PCL-R**
- **Child abusers associate children more with sex or submission than rapists or non-sexually violent inpatients by means of implicit association tests**

## **Relation of psychological risk factors to recidivism (Hanson & Morton-Bourgon, 2005)**

- **Deviant sexual orientation and antisocial attitudes are the most important predictors of recidivism**
- **Less important predictors are sexual preoccupations, unstable lifestyle/ impulsivity, offense supporting attitudes and problems in intimate relations**
- **Stress, denial of the sexual offense, lack of empathy or limited motivation for treatment had hardly or no relation to recidivism**

# Psychological risk factors (Mann, Hanson, & Thornton, 2010)

## Five groups of risk factors

- (1) Empirically supported risk factors (e.g., sexual preoccupation)**
- (2) Promising risk factors (e.g., hostile beliefs about women)**
- (3) Risk factors that are unsupported but with interesting exceptions (e.g., denial)**
- (4) Risk factors that are worth exploring (e.g., sexual entitlement)**
- (5) Not risk factors (e.g., poor victim empathy)**

# Effects of treatment programs

# **Relapse prevention model (Pithers et al., 1988)**

**Relapse is a process with a number of successive steps**

- feeling moody or brooding**
- fantasizing about deviant sexual behavior**
- distorted cognitions**
- making plans for a sexual offense**
- masturbating**
- committing the offense**

# Designs

- **Relation of treated versus non-treated sexually violent offenders to recidivism**
- **Relation of behavior change as result of treatment to recidivism**
- **At first, programs were based on risk factors which had contributed to the committed sexual offense (relapse prevention model), later on psychological risk factors who contribute to the continuation of recidivism risk (risk-need-responsivity model)**
- **Conclusion: treatment results in a significant but modest reduction of recidivism risk**

## Comments

- **No subdivision in relevant subgroups**
- **No holistic theory with functional analyses for the several problem behaviors of the individual participants**
- **No public and detailed treatment manual**
- **No clear quality standard for trainers**
- **No information about supervision of trainers**

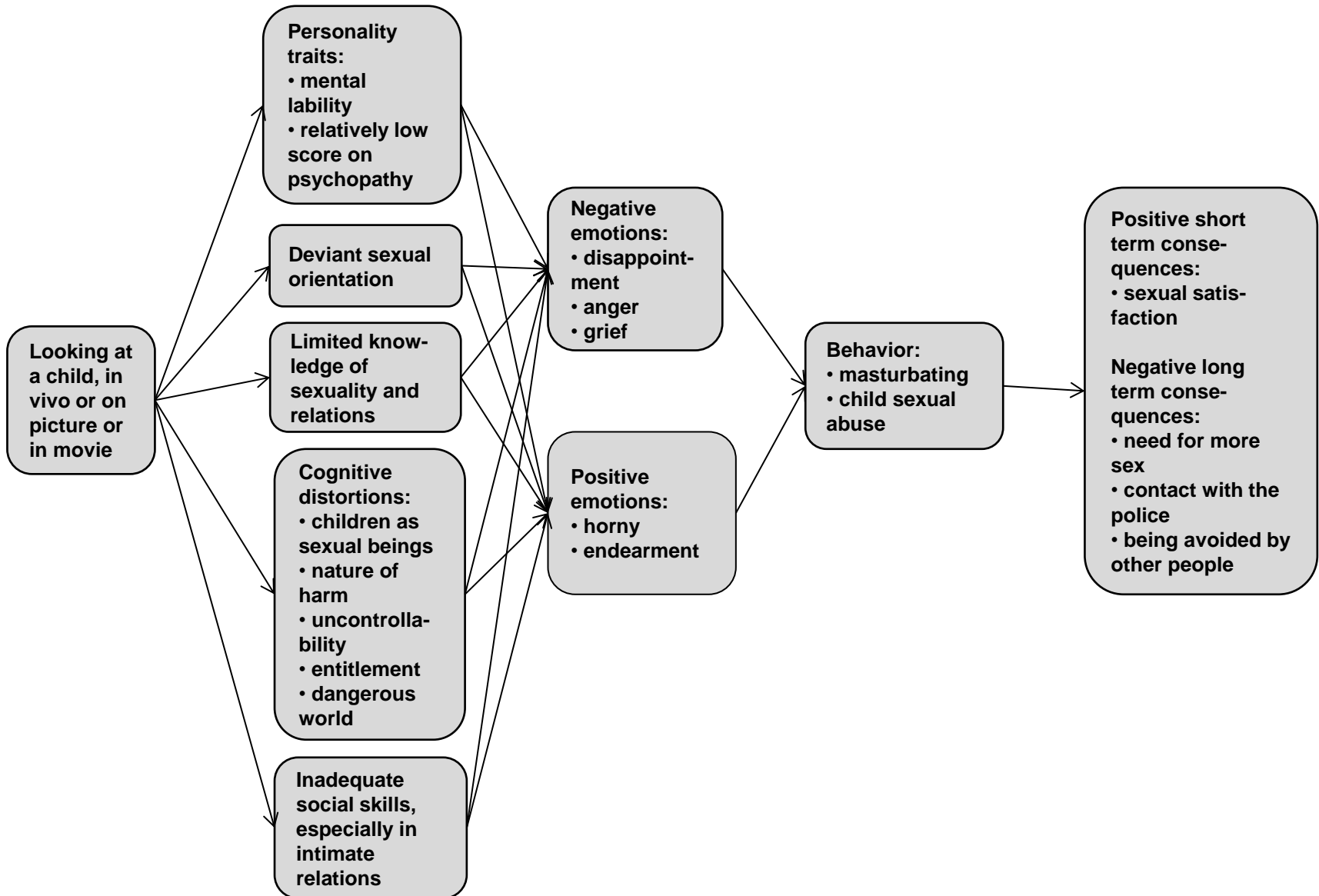


# **Treatment program for Dutch sexually violent forensic psychiatric inpatients**

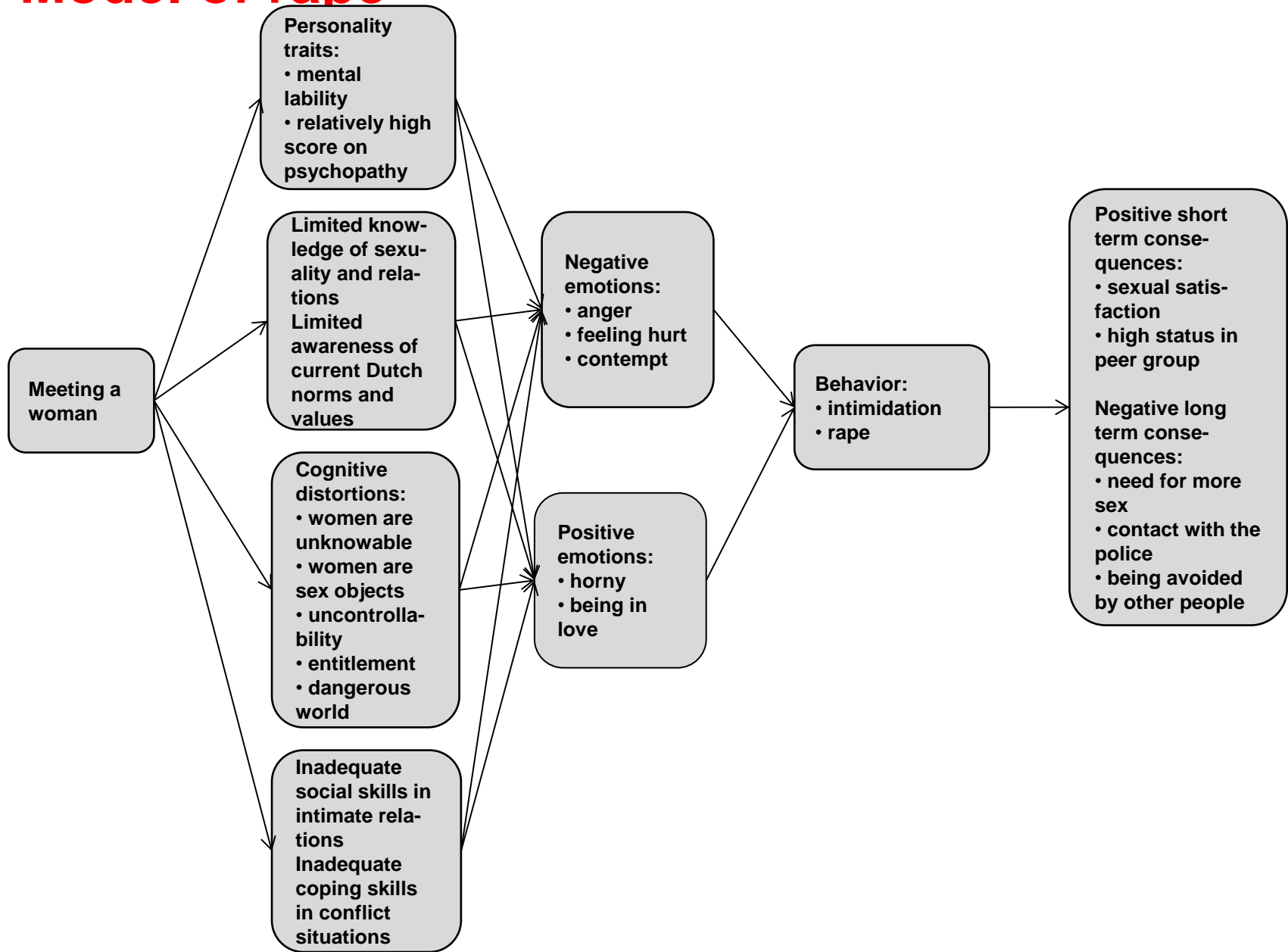
# Assessment

- **Stable-2007 (Hanson, Harris, Scott, & Helmus, 2007)**
- **Sexual Violence Risk-20 (SVR-20; Hildebrand, De Ruiter, & Van Beek, 2001)**
- **Historical, Clinical, Future-Revised (HKT -R; Spreen, Fire, Ter Horst, & Bogaerts, 2013)**
- **Psychopathy Checklist-Revised (PCL-R; Vertommen, Verheul, De Ruiter, & Hildebrand, 2002)**
- **Self-report questionnaires**
- **Observation scales for aggressive and/or prosocial behavior on the ward**
- **Structured Assessment of Protective Factors for violence risk (SAPROF, De Vogel, De Ruiter, Bouman & De Vries Robbe , 2007)**

# Model of child abuse



# Model of rape



# **Cognitive behavioral program for sexually violent inpatients**

## **Content**

- **Assessment**
- **Basic training for child abusers and rapists separately:**
  - **Emotion regulation and social skills training for child abusers**
  - **Aggression management training for rapists**
- **Specific training for child abusers and rapists together:**
  - **Psycho-education**
  - **Cognitive distortions**
  - **Prosocial skills**
- **Management of risk situations**
- **Evaluation**

# Psycho-education

## Topics

- **gender roles**
- **genitals**
- **sexually transmissible diseases**
- **contraception**
- **sexual diversity**
- **interpersonal relations**
- **pornography**
- **sexual violence**

**After information discussion. Inappropriate facts or opinions about illegal behavior are corrected by the trainers**

## **Cognitive distortions: Lars' problem situation**

**Lars is a single man of 36 years. He is often depressed and insecure in social contacts. Lars has no friends and his only contact is with family members. In the company of underage boys Lars feels at ease. Lars works as an ICT assistant at an elementary school. In this profession Lars has much contact with underage boys. Lars feels that he becomes more and more sexually attracted to a few boys and thinks about them when he masturbates at home.**

## **Lars' problem situation (continued)**

**On the playground, Lars starts a conversation with the 10-year-old Raymond. They appear to have a common interest, namely playing computer games. Lars has just bought a brand new game console and invites Raymond to come and play at his house. While Raymond is playing the video game, Lars asks Raymond if he wants to masturbate with Lars in exchange for the video game. Raymond really wants the video game and approves. This way, Lars regularly commits sexual abuse with other underage boys in exchange for video games.**



## **Lars' problem situation (continued)**

- **What do you think is the main problem of Lars?**
- **Is it a coincidence that Lars works at an elementary school as ICT assistant?**
- **Is it okay for Lars to have sex with underage boys if these boys say they are interested in sex?**
- **Do you think Lars should inform the school about his sexual orientation?**
- **Does it make any difference whether Lars only touches the genitals of the boys or that he had intercourse with them?**

# Homework assignment

**Describe a situation when you thought: *I'm so horny, I need to have sex with a minor!***

- **The situation was: .....**
- **Who where involved: .....**
- **Where were you: .....**
- **The other person did/said: .....**
- **What were your thoughts or how did you feel: .....**
- **What did you do: .....**
- **What was the other person's reaction: .....**
- **How do you look back on your behavior afterwards: .....**
- **What could you have done differently: .....**

# Prosocial skills

- **Treatment objectives**
- **Prosocial network**
  - **making acquaintance**
  - **making an appointment**
  - **intensifying contact**
  - **inform somebody about your offense**
  - **reacting on a rejection**
- **Relations and sexuality**
  - **showing a need for intimacy**
  - **reacting on a rejection**
  - **reacting on a approach**
  - **talking about sex**
  - **intensifying intimacy**

## **Prosocial skills (continued)**

- **Work and leisure activities**
  - **receiving a compliment and maintaining a contact**
  - **standing up for yourself and reacting on a refusal**
  - **refusing something and giving your opinion**
  - **being criticized and asking for help**
  - **criticizing and making a compliment**

# Homework assignment

**Describe a situation in which you intensify intimacy.**

- **The situation was .....**
- **Who was it .....**
- **Where were you .....**
- **What said/did the other person .....**
- **What were your thoughts and feelings .....**
- **What did you say or do .....**
- **How reacted the other .....**
- **Were you satisfied about the way you dealt with the situation .....**
- **How would you deal such a situation next time**  
.....

## Homework assignment

**Answer the questions about Omar's problem situation**

**Recently, Omar and Roswitha live together. Omar works as a salesman at the Media Markt and spends evenings much with his friends. Roswitha works in nursing and has irregular shifts. Omar has the feeling that all is not well with the relationship, partly because they see each other not much.**

**What could Omar say? .....**

## **Homework assignment (continued)**

**Roswitha appears to agree with Omar. She finds it annoying that he is often not at home when she comes back from her night shift. Omar is fed up of cooking his own meals on quite a few days. But Roswhita says she does not want to give up her job for the relationship. How could Omar react? .....**

.....

# Management of risk situations

**Sequence the following five situations from a small to a very high risk for recidivism.**

**1. The situation with very little risk on recidivism is ...**

.....

**2. The situation with a little risk on recidivism is .....**

.....

**3. The situation with a moderate risk on recidivism is**

.....

**4. The situation with a high risk on recidivism is .....**

.....

**5. The situation with a very high risk on recidivism is .**

.....



# Cognitive behavioral program for sexually violent inpatients (continued)

## Conditions

- **Manual for trainers and work book for patients\***
- **Trainers are psychologists, at least one of them is a health care psychologist who is member of the Dutch society for cognitive-behavioral therapy (VGCT)**
- **Supervisor is a clinical psychologist who is also a member of the VGCT**
- **Staff on the ward is qualified and informed about the targets and the content of the program**

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# **Cognitive behavioral program for sexually violent inpatients (continued)**

## **Additional interventions on indication**

- **Individual sessions for additional assessment or improvement of motivation**
- **Treatment of other problem behaviors such as depression or substance abuse.**
- **Pharmacological treatment**

# **Part 3: Methodological issues: pitfalls and challenges**

## Design

**All patients were measured bi-annually with the Observation Scale for Aggressive Behavior (OSAB; Hornsveld, Nijman, Hollin, & Kraaimaat, 2007)**

**In addition, data were collected from self-report questionnaires such as the NEO-FFI (Hoekstra, Ormel, & De Fruyt, 1996) and the Trait Anger subscale of the Spielberger (1980) *State-Trait Anger Scale* (STAS; Van der Ploeg, Defares, & Spielberger, 1982)**

# Measurement instruments

The **Observation Scale for Aggressive Behavior (OSAB)** measures behavior on the ward. The scale comprises 40 items spread over the subscales Irritation/Anger, Anxiety/Gloominess, Aggressive Behavior, Prosocial Behavior, Antecedent, and Sanction. The staff scores the behavior of the inpatients in the preceding week on a four-point scale with 1 = “no,” 2 = “seldom,” 3 = “occasionally,” and 4 = “frequently.”

In this study, three subscales were used: Irritation/anger (5 items), Aggressive behavior (10 items), and Prosocial behavior (12 items).

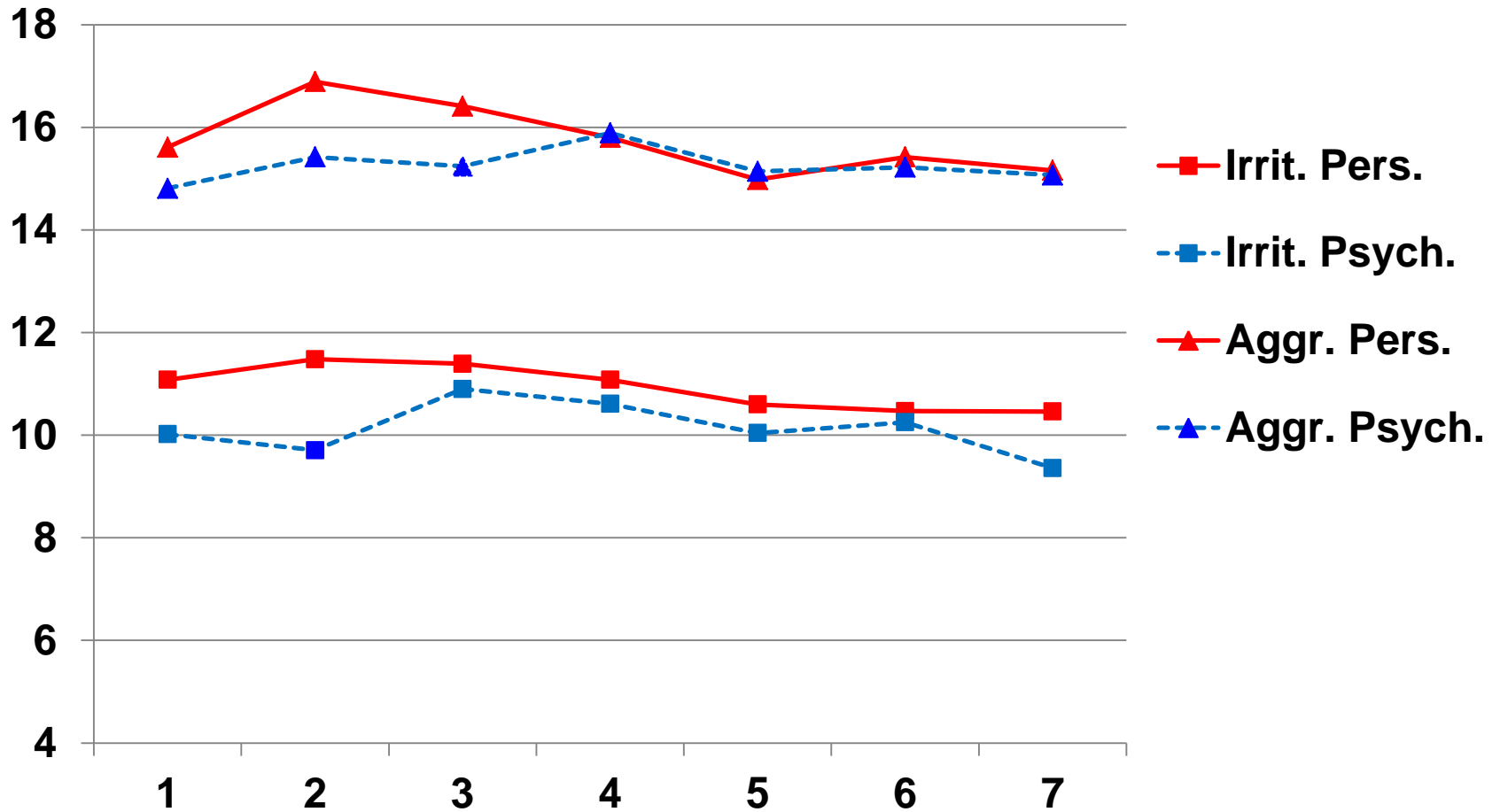
## Measurement instruments (continued)

The **NEO-FFI (Hoekstra, Ormel, & De Fruyt, 1996)** includes 60 items and measures the Big Five personality domains of neuroticism, extraversion, openness, agreeableness, and conscientiousness. Items are score on a five-point scale ranging from “entirely disagree” to “entirely agree.” In the present study, we were interested only in the neuroticism and agreeableness scales because these traits are considered as relevant in the context of aggression (Hornsveld, Nijman, & Kraaimaat, 2008).

## Measurement instruments (continued)

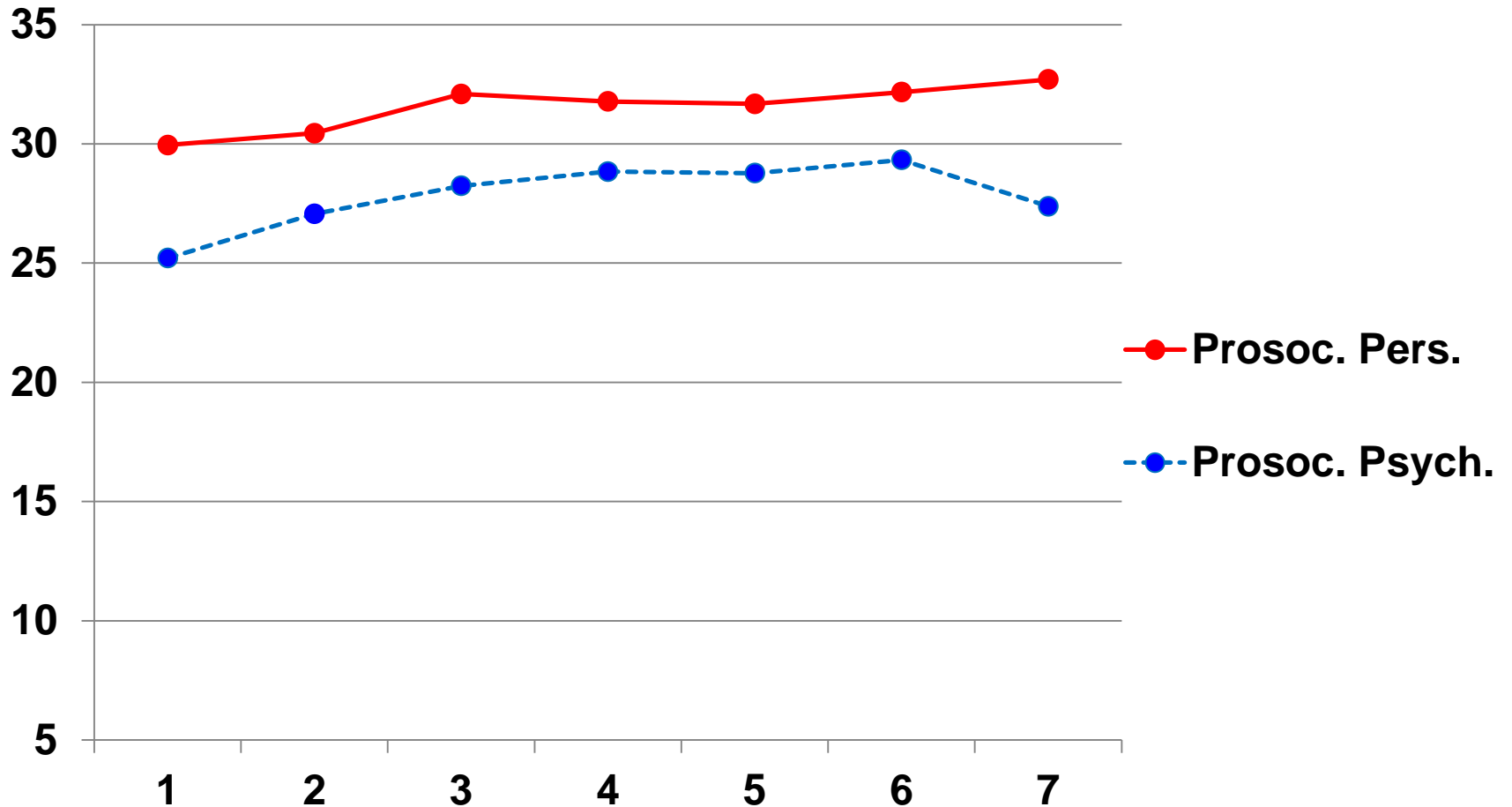
The **Trait Anger subscale of the Spielberger (1980) State-Trait Anger Scale (STAS; Van der Ploeg, Defares, & Spielberger, 1982)** consists of 10 items and was used as a measure of the general disposition to anger. Participants rate each item about how they generally feel (e.g., “I am quick tempered.”) by using a four-point scale: 1 = “almost never,” 2 = “sometimes,” 3 = “often,” and 4 = “almost always.”

**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**



**Table 1. Change scores on the OSAB  
(measurement 1 vs. measurement 7)**

OSAB sub- scale	Personality disordered patients			Chronically psychotic patients		
	Measure- ment 1	Measure- ment 7	Ef- fect size	Measure- ment 1	Measure- ment 7	Ef- fect size
	M (SD)	M (SD)	d	M (SD)	M (SD)	d
Irrit./Anger	10.57 (3.31)	10.46 (3.04)	.057	9.60 (4.03)	9.36 (3.57)	.113
Aggr. beh.	14.93 (5.38)	15.16 (4.67)	.065	15.02 (6.15)	15.07 (5.79)	.015
Prosoc. beh.	29.50 (8.39)	32.70 (6.94)	<b>.650</b>	24.22 (7.99)	27.38 (7.60)	<b>.646</b>

**Table 2. Correlations assessed shortly after admittance**

Measure	Factors or subscales	Personality disordered patients			Chronically psychotic patients		
		Irritation/ Anger	Aggressive behavior	Pro-social behavior	Irritation/ anger	Aggressive behavior	Pro-social behavior
PCL-R	Psychp	<b>.236**</b>	<b>.208**</b>	.016	.169	.052	.080
	Interper	.097	.069	.057	.192	.056	.089
	Affect	.177*	.122	-.051	.078	-.012	.073
	Lifest	<b>.207**</b>	<b>.199*</b>	-.001	<b>.245*</b>	.160	.034
	Antisoc	<b>.290**</b>	<b>.274**</b>	.091	.051	-.030	.039
NEO-FFI	Neurot	<b>.199*</b>	<b>.209*</b>	-.107	.059	-.001	.161
	Agree	-.097	-.160	.093	-.111	-.127	-.099
STAS	Anger	.140	.214*	.023	.157	.182	.078

## **Table 6. *Outflow of patients***

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

# 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.**

# 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 or four years has no incremental value.**