

MATE

NEXUS: A New Instrument to Assess the Relationship between Substance Use and Criminal Behaviour

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MATE

Measurement in the Addictions for Triage and Evaluation



MATE

manual
and
protocol

manual and protocol for assessment,
rating and use of the
MATE 1/1

grand officers
two (optional)
engine builders

engine builders
index etc.

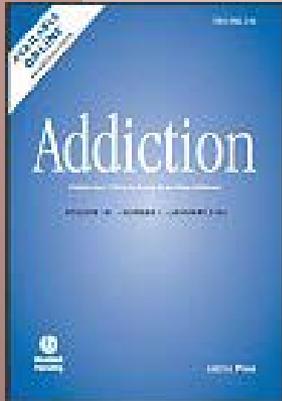


Characteristics of the MATE

- Measurement instrument to use in the beginning of all substance abuse treatment trajectories
- Functional for triage and evaluation of treatment
- Suited for all populations (different versions available)
- Modular mix of interview and questionnaires, total administration time ca one hour
- Assessing:
 - Substance use and substance use disorders
 - Psychiatric and somatic comorbidity
 - Psychosocial functioning
 - Treatment history
 - etc



Launched in Dutch in 2007; International in 2010



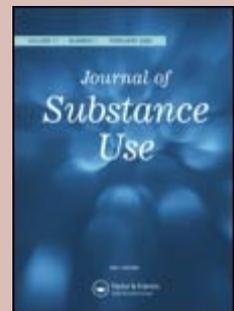
Measurements in the Addictions for Triage and Evaluation (MATE): an instrument based on the World Health Organization family of international classifications

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Schippers, G.M., Broekman, T.G., Koeter, M.J.W., & Van den Brink, W. (2004). The addiction severity index as a first-generation instrument: Commentary on 'Studies of the reliability and validity of the Addiction Severity Index' by K. Mäkelä. *Addiction*, 99, 416-417.

Broekman, T.G., Schippers, G.M., Koeter, M.J.W., & Van den Brink, W. (2004). Standardized assessment in Substance Abuse Treatment in the Netherlands : The case of the ASI and new developments. *Journal of Substance Use*, 9, 147-155.





Publications

Special issue:
Measurements in the Addictions for Triage and Evaluation (MATE)

Guest Editor: Fred Rist

Editorial

Evolution and revolution in addiction treatment?

Research Reports

Revamping Dutch addiction-treatment services

Ein neues Messinstrument: Der Measurements in the Addictions for Triage and Evaluation (MATE)

The german version of Measurements in the Addictions for Triage and Evaluation (MATE): Reliability, validity, and feasibility

MATE indices: Sensitivity to change and prognostic validity

Themenschwerpunkt:
Measurements in the Addictions for Triage and Evaluation (MATE)

Gastherausgeber: Fred Rist

Editorial

Evolution und Revolution: auch in der Suchtbehandlung?

Originalarbeiten

Die Innovation der niederländischen Suchthilfe

Introducing a new assessment instrument: The Measurements in the Addictions for Triage and Evaluation (MATE)

Die deutsche Version des Measurements in the Addictions for Triage and Evaluation (MATE): Reliabilität, Validität und Anwendbarkeit

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10 Modules of the MATE

1. Substance use: quantities, frequency and variability
 2. Indicators for psychiatric / medical consultation
 3. History of substance use disorder treatment
 4. Substance dependence and abuse
 5. Physical complaints
 6. Personality
 7. Activities & Participation, Care & Support (MATE-ICN)
 8. Environmental factors influencing recovery (MATE-ICN)
- Q.1. Craving
- Q.2. Depression, Anxiety, & Stress



Outcomes: 20 MATE-scores

- S2.1 Characteristics of physical comorbidity**
- S2.2 In psychiatric or psychological treatment**
- S2.3 Characteristics of psychiatric comorbidity**
- S4.1 Dependence**
- S4.2 Abuse**
- S4.3 Severity dependence/abuse**
- S5.1 Physical complaints**
- S6.1 Personality**
- S7.1 Limitations - Total**
- S7.2 Limitations - Basic**
- S7.3 Limitations - Relational**
- S8.1 Positive external influence**
- S8.2 Negative external influence**
- S7.4 Care & support**
- S8.3 Need for care**
- SQ1.1 Craving**
- SQ2.1 Depression**
- SQ2.2 Anxiety**
- SQ2.3 Stress**
- SQ2.4 Depression Anxiety Stress - Total**



Interweavement

- Criminal behaviour and use of alcohol/drugs are highly associated.
- Heavy use of alcohol/drugs is considered to be an important criminogenic factor.



MATE-Crimi is meant for judicial clients with (possibly) alcohol- or drugproblems and for substance abusers with (possibly) criminal behaviours

MATE-Crimi adds 2 modules to the MATE:

- **NEXUS:** Interview relationship between substance use and criminal behaviour
- **MATE-Crimi MfT:** Questionnaire for the Motivation for Treatment



12 Modules of the MATE-Crimi

1. Substance Use: Quantities, Frequency and Variability
2. Indicators for Psychiatric / Medical Consultation
3. History of Substance Use Disorder Treatment
4. Substance Dependence and Abuse
5. Physical Complaints
6. Personality
7. Activities & Participation, Care & Support (MATE-ICN)
8. Environmental Factors Influencing Recovery (MATE-ICN)
- 9. Relationship between Substance Use and Criminal Behaviour (NEXUS)**
 - Q.1. Craving
 - Q.2. Depression, Anxiety, & Stress
 - Q.3. Motivation for Treatment**



MATE

Crimi

NEXUS

**Relationship between
Substance Use and
Criminal Behaviour**



Relationship between Substance Use and Criminal Behaviour (NEXUS)

Aims to assess

1. if the person was involved in criminal behaviours in the past five years;
2. if there is a regular pattern of criminal behaviour;
3. what the relationship between is between the criminal behaviour pattern and the use of psychoactive substances.



Relationship between substance Use and Criminal Behaviour 4 pathways

Paul Goldstein's (1985) tripartite classification of drugs-violence connections.

White, H.R. & Gorman, D.M. (2000). *Dynamics of the Drug-Crime Relationship*.

Bennet & Holloway (2005). *Understanding drugs, alcohol and crime*.



1. Criminal Behaviour Leading to Substance Use

- *Instrumental* use of psychopharmacological effects to act defiantly
- Deviant individuals giving themselves an *excuse*



2. Substance Use Leading to Criminal Behaviour

- *Economic-compulsive*: Violence/theft committed instrumentally to generate money to purchase expensive drugs.
- *Psychopharmacological*: Violence due to the direct acute effects of a psychoactive drug on the user.



3. Reciprocal Relationship Between Criminal Behaviour and Substance Use

- *Systemic*: Involvement in a subculture, adopting a criminal life style. Violence/theft associated with the marketing of illicit drugs, such as turf battles, contract disputes, and so on.

Substance use and criminal behaviour are causally linked and mutually reinforcing, no longer distinguishable.



4. No Direct Causal Link between Criminal Behaviour and Substance Use

No relation, or related because they share common causes (such as genetic or temperamental traits, antisocial personality disorder, parental alcoholism, and poor relations with parents).



NEXUS: Relationship between Substance Use and Criminal Behaviour

NEXUS consists of 12 items:
Concluding Item 12 is the core item!



NEXUS Concluding Item 12

1. The criminal behaviour is at the forefront; it is primary.
C → S
2. The substance use is at the forefront and the criminal behaviour is primarily a consequence of the use.
S → C
3. There is no (longer) a difference in how dominant the criminal behaviour and the substance use are. Their influence is reciprocal. **C ↔ S**
4. There is no demonstrable connection between the primary pattern of criminal behaviour and the substance use. **C | ↔ | S**



Intervention Advice Based on NEXUS Typology

If **C** → **S**: treatment should be directed at the criminal behaviour in the first place

If **S** → **C**: treatment should be directed at the substance use in the first place

If **C** ↔ **S**: treatment should be aimed both at criminal behaviour and at substance use – preferably integrated

If **C** | ↔ | **S**: treatment of criminal behaviour and substance use does not need to be integrated, and even not be aimed at in the first place

- How does the instrument look like?
- What are the results?
- Is it valid and reliable?



9. Relationship between substance use and criminal behaviour

† In large part, the NEXUS can be assessed from medical records or from the results of other tests that have already been given. If no medical records are available or you cannot obtain them, query the person about the subject.

For some topics that are presented in italics as sample questions. For additional information consult the manual..

At present, 5 years

1	a	The person is incarcerated.	Yes	No
	b	The person has a suspended sentence or is under supervised probation.	Yes	No
	c	There is a criminal case against the person.	Yes	No
	d	In the last five years, the person has done something illegal. <i>«In the past five years, have you committed an offence, have you been in conflict with the law or have you done something that was forbidden?»</i>	Yes	No

† If all of the first items (1a, 1b, 1c, and 1d) were answered with NO, stop with the NEXUS. No conclusion can be drawn if in the last five years there was no criminal behaviour.: Stop

5 years, Lifetime

2	Pattern of criminal behaviour						
	† (A) First, check whether the categories of criminal behaviour (a – g) occurred during the past five years.						
	† (B) Next, check to see whether there is a pattern with respect to the criminal behaviour, i.e., whether more or less the same behaviour was carried out under similar circumstances and for the same motives. A pattern might extend over a longer period than five years.						
	Categories of criminal behaviour			A	B		
				Criminal behaviour during the last five years	Criminal behaviour constitutes a lifetime pattern		
	a	Violence against people † Murder, manslaughter, threats of armed violence, abuse, rape † If it is also related to domestic violence, tick here: <input type="checkbox"/>		Yes	No	Yes	No
	b	Violence against people with property crime † Robbery		Yes	No	Yes	No
	c	Property crime † Theft/burglary		Yes	No	Yes	No
e	Vandalism and indecent behaviour		Yes	No	Yes	No	
f	Manufacturing, possession of large quantities, trading or contraband of illegal drugs		Yes	No	Yes	No	
g	Risky behaviour on the road, driving while under the influence		Yes	No	Yes	No	

† If there is no pattern (no "yes" under 2B) Stop



Pattern of Criminal Behaviour

Is there a pattern with respect to criminal behaviour, i.e. was more or less the same behaviour carried out under similar circumstances and for the same motives?

A pattern might extend over a period longer than five years.



8 Probe Questions to Guide the Typology Judgment

Item nr

4. Is the occurrence of the pattern related to being under the influence?
5. Is the main function of the criminal behaviour to finance the person's own substance use?
6. Do the effects of substances not intentionally facilitate criminal behaviour?
7. Do the effects of substances evoke the criminal behaviour?
8. Are the substances used with the intention to facilitate criminal behaviour?
9. Does the substance use and criminal behaviour result mainly from the person's need to suspense and excitement?
10. Should the substance use be seen as a mean to sustain a criminal lifestyle?
11. What came first in the person's developmental history?



Concluding Item 12: Judgment by the assessor on the relationship in four types

Draw a conclusion about the relationship between criminal behaviour and substance use.

Use primarily Items 5 to 10 inclusive.

If this is not sufficient for the assessment, then also include Item 4 and Item 11 in your assessment.

Choose one of the following four typologies.

12	The relationship between [—pattern of criminal behaviour—] and substance use can be categorized as:	† Tick only one of the four possibilities:
1	The criminal, inappropriate, or antisocial behaviour is at the forefront; it is primary and the use of psychoactive substances allows this behaviour in particular to be implemented.	<input type="checkbox"/> C → S
2	The use of psychoactive substances is primary and the criminal behaviour is primarily a consequence of the use.	<input type="checkbox"/> S → C
3	There is not, or there no longer is, a difference in how dominant the criminal behaviour and the substance use are. Their influence is reciprocal.	<input type="checkbox"/> C ↔ S
4	There is no demonstrable connection between the primary pattern of criminal behaviour and the substance use. They do not influence each other.	<input type="checkbox"/> C ↔ S



2010:

- Version 1.0: Implementation project in three SAT-probation centers N=520 clienten; ca 60 assessors (probation officers and psychologists)
- Validation and reliability study in N=100

2012

- Prevalence Study Typologies version 1.0 (N=707)

2013

- Reliability study revised version 1.1 (N=100)



Interviewer-interviewer Agreement Typology Judgment (n=47)

Type	C → S	S → C	C ↔ S	Total
C → S	0	3	1	4
S → C	1	22	5	28
C ↔ S	3	2	10	15
Total	4	27	16	47

% agreement: 68%, $\kappa = .41$



2010 Results - Feasibility

- Assessor accepts NEXUS advice in 86% of the cases.
- Applying the NEXUS is smooth and accepted with no resistance.
- Probation officers appreciate formulations: they copy texts in their judicial reports.



Conclusions 2010 Study

- NEXUS first instrument focusing on the individual's relationship between substance use and criminal behaviour
- Makes judicial advice and decisions more transparent
- NEXUS is a feasible module of the MATE
- Evaluated as helpful in pre-sentence trajectories
- Vs 1.0 modest reliability



2012 Prevalence Study with revised NEXUS version 1.1

- N=707 Convenience Sample of Clients in Probation from 10 large Dutch Substance Abuse Treatment Centers from 2010-2012
- 93% Male, Mean age: 35.2
- 45% Currently Detained
- Primary Problem Substance: 45% Alcohol, 23% Cocaine, 13% Cannabis; 8% Opiates, 6% Stimulants
- 58% Substance Dependent; 26% Abuser; 16% Neither
- 48% History of Substance Abuse Treatment
- 28% Psychiatric Comorbidity



2012 Prevalence Study (N=707)

Categories of criminal behaviour

- | | |
|---|--|
| a | Violence against people
† Murder, manslaughter, threats of armed violence, abuse, rape

† If it is also related to domestic violence, tick here: <input type="checkbox"/> |
| b | Violence against people with property crime

† Robbery |
| c | Property crime

† Theft/burglary |
| e | Vandalism and indecent behaviour |
| f | Manufacturing, possession of large quantities, trading or contraband of illegal drugs |
| g | Risky behaviour on the road, driving while under the influence |

Total

Nexus



2012 Prevalence Study

N=605 with Criminal Behaviour Pattern (86%)

YES

4	a	The [—pattern of criminal behaviour—] occurred while the person was under the influence of substances. <i>«If the [—pattern of criminal behaviour—] occurred, were you mostly under the influence of alcohol or drugs?»</i>
---	---	--

81%

c	The [—pattern of criminal behaviour—] occurs exclusively when the person is under the influence of substances
---	---

46%

Under the influence of

alcohol	56.0
cannabis	17.7
opiates	11.3
cocaine	28.6
stimulants	7.3
Ecstasy/XTC	1.7



2012 Prevalence Study

N=605 with Criminal Behaviour Pattern (86%)

YES

The following three items indicate generally dominance of substance use (S → C, 5, 6, 7).

5	The main function of the [—pattern of criminal behaviour—] is to finance the person's own substance use.	34%
6	The psychopharmacological effects of the consumed substances facilitate the [—pattern of criminal behaviour—] without the person intending it. † The psychopharmacological effects of the consumed substances lower the inhibitions or serve to strengthen impulses without the person being aware of these effects or intentionally seeking them.	67%
7	The psychopharmacological effects of the consumed substances evoke the [—pattern of criminal behaviour—]. † Being under the influence of the substance changes the person; if the person is not under the influence, there is no propensity for the [—pattern of criminal behaviour—].	45%



2012 Prevalence Study

N=605 with Criminal Behaviour Pattern (86%)

YES

The following two items indicate generally dominance of criminal behaviour (C → S, 8, 9).

8	The substances are used with the intention of facilitating the [—pattern of criminal behaviour—]. † The psychopharmacological effects of using the substances are to lower the inhibitions or intensify impulsivity, and these effects are deliberately sought. Enhancing courage or guts, reinforcing impulses.	13%
9	Both the substance use and the [—pattern of criminal behaviour—] result mainly from the person's need for suspense and excitement.	19%



2012 Prevalence Study

N=605 with Criminal Behaviour Pattern (86%)

The following item indicates generally an interweaving between substance use and criminal behaviour C ↔ S (10).

- 10 The substance use and the [—pattern of criminal behaviour—] can first of all be seen as part of the person's lifestyle or social milieu.
† Think, for example, about the association with a criminal or antisocial milieu in which certain behaviour is expected from the person.

47% YES

Genesis

- 11 The temporal sequence of substance use and criminal behaviour in the development of the person is:
† This item pertains to criminal behaviour and problematic substance use in general, not to the current use or current behaviour per se.
- a Criminal behaviour developed at the age of:
- b Problematic substance use developed at the age of:



2012 Prevalence Study

N=605 with Criminal Behaviour Pattern (86%)

Draw a conclusion about the relationship between criminal behaviour and substance use.

Use primarily Items 5 to 10 inclusive.

If this is not sufficient for the assessment, then also include Item 4 and Item 11 in your assessment.

Choose one of the following four typologies.

YES

		† Tick only one of the four possibilities:
12	The relationship between [—pattern of criminal behaviour—] and substance use can be categorized as:	
1	The criminal, inappropriate, or antisocial behaviour is at the forefront; it is primary and the use of psychoactive substances allows this behaviour in particular to be implemented.	<input type="checkbox"/> C → S 6%
2	The use of psychoactive substances is primary and the criminal behaviour is primarily a consequence of the use.	<input type="checkbox"/> S → C 56%
3	There is not, or there no longer is, a difference in how dominant the criminal behaviour and the substance use are. Their influence is reciprocal.	<input type="checkbox"/> C ↔ S 27%
4	There is no demonstrable connection between the primary pattern of criminal behaviour and the substance use. They do not influence each other.	<input type="checkbox"/> C ↔ S 11%



Discussion

- How important is it to assess the relationship between substance use and criminal behavior?
- How to differentiate interventions according to this relationship?
- Is the MATE-Crimi useful in pre-sentence assessment?
- Should the NEXUS be extended other psychiatric disorders?