

Validation of the Levenson Self-Report Psychopathy Scale in Bulgarian Substance Dependent Individuals

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Background

- ❖ Psychopathy is characterized by a specific constellation of affective, interpersonal and behavioral characteristics.
- ❖ Psychopathy and substance use disorders (SUDs) are highly comorbid. Their co-occurrence is associated with higher relapse rates and increased risk of violent offending
- ❖ Studies on the validity of different measures of psychopathy in samples of substance-dependent individuals (SDIs) are scarce.
- ❖ Validating effective measures for assessing psychopathy among SDIs could have significant implications for prevention and intervention programs for SUDs.

Aims

The aim of the present study was to examine the psychometric properties of the Bulgarian version of the Levenson Self-Report Psychopathy Scale (LSRP) in a large community sample of SDIs.

We also examine how the LSRP relates to the psychopathy construct as defined by the Psychopathy Checklist: Screening Version.

Participants

- ❖ N = 615; 402 male (65.4%), 213 female (34.6%)
- ❖ 106 'pure' heroin users (HDI), 91 'pure' amphetamine users (ADI), 123 polysubstance users (PDI), 295 controls
- ❖ The majority of substance dependent participants were in protracted abstinence (i.e. have not met SUD criteria for 12 months and longer).
- ❖ All participants were negative on a urine drug screen and a breathalyzer test for alcohol.

Measures

- ❖ Substance dependence was assessed with the *Structured Clinical Interview for DSM-IV Substance Abuse Module* (First et al., 1996).
- ❖ *Levenson Self-Report Psychopathy scale (LSRP)*; Levenson et al., 1995) consists of 26 items, with the first 16 items measuring primary psychopathy (callous and manipulative behavior) and the remaining 10 items assessing secondary psychopathy (impulsive and antisocial behavior).
- ❖ *Psychopathy Checklist: Screening Version (PCL:SV)*; Hart et al., 1995) consists of a semi-structured interview, which involves the assessment of 12 characteristics of primary (Factor 1) and secondary (Factor 2) psychopathy.

Statistical analysis

- First, we examined three possible factor structures for the LSRP by means of confirmatory factor analysis (CFA).
- Second, we assessed the internal consistency of the best fitting model.
- Third, LSRP was compared with the PCL:SV.
- Finally, we assessed group differences in psychopathy between heroin, amphetamine, polysubstance users, and controls.

Results

We tested 3 models: (1) the original dual-factor model (F1 *primary* and F2 *secondary* psychopathy) proposed by Levenson (1995), (2) a tri-factor model (F1 *egocentric*, F2 *antisocial*, F3 *callous*) (Brinkley et al., 2008), and (3) the same tri-factor model with 4 correlating errors (Brinkley et al., 2008).

- ❖ The modified Brinkley's 3-factor model with 4 intercorrelated errors performed the best among the three models.
- ❖ Brinkley's modified model exhibited acceptable internal consistency across groups.

Table 1. Internal consistency of the LSRP across groups.

Sample	Raw Alphas	Mean ITCs	Mean Inter-item correlation
Controls	.78/.62/.69	.45/.37/.47	.27/.24/.36
SDIs	.80/.57/.52	.47/.33/.31	.28/.20/.22
Total sample	.80/.63/.62	.47/.38/.40	.28/.25/.29

- ❖ The total score of the LSRP scale correlated positively with the total score of the PCL:SV ($r=.48$). The *egocentric* and *callous* LSRP factors were positively correlated with PCL:SV Factor 1 (reflecting primary psychopathy), but not with PCL:SV Factor 2 (reflecting secondary psychopathy). In contrast, the LSRP *antisocial* factor was positively related to PCL:SV Factor 2, but negatively related to PCL:SV Factor 1.
- ❖ Significant group differences were found on the total scale and subscales of the LSRP, with SDIs scoring higher than controls. There were no significant group differences between substance dependent groups on any of the LSRP factors.

Table 2. Group differences in LSRP factors and total score.

	Control group		HDI		ADI		PDI		F/p	Contrast
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Egocentric	8.08	5.29	10.42	6.03	9.80	5.96	10.70	5.43	9.00/.00	C < HDI, PDI
Callous	2.52	2.62	3.67	2.43	3.02	2.21	3.58	2.39	8.47/.00	C < HDI, PDI
Antisocial	4.77	3.02	6.48	3.04	6.57	2.99	7.24	3.01	24.72/.00	C < HDI, ADI, PDI
Total	15.36	7.83	20.57	8.98	19.40	8.38	21.46	8.12	21.87/.00	C < HDI, ADI, PDI

- ❖ The LSRP factors correlated well with related measures of antisocial behaviour, aggression and impulsivity ($r= .11 - .58$) demonstrating adequate concurrent validity. Only the *antisocial* factor of the LSRP was associated with measures of internalizing psychopathology (e.g. anxiety, depression, alexithymia).

Discussion

- ❖ The Bulgarian version of the LSRP demonstrates adequate to good reliability, concurrent validity, and predictive validity, suggesting that the LSRP is a valid instrument for measuring psychopathy in SDIs.
- ❖ Brinkley's (2008) tri-factor model with 4 correlating errors best fit the current data. The three factors were interpreted as *egocentric*, *antisocial* and *callous*. The model included 19 out of the original 26 items.
- ❖ All LSRP factors were able to distinguish between groups of SDIs and controls.
- ❖ All LSRP factors exhibited the expected pattern of relationships with the PCL:SV total score and its factors, suggesting promising criterion-related validity.
- ❖ The LSRP could be used as a valid measure of psychopathy in SDIs and thus could inform personality-matched interventions aimed to decrease relapse rates and criminal behaviours among SDIs.

References

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