

EVALUATION OF LIFESTYLE CRIMINALITY SCREENING FORM IN CROATIAN PRISON SYSTEM

ALEKSANDAR BUĐANOVAC, ANITA JANDRIĆ

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This paper examines metric characteristics and factor structure of Lifestyle Criminality Screening Form (LCSF). Also, the correlation between LCSF and Level of Service Inventory- Revised (LSI-R) is analysed. The sample consists of 399 male prisoners, placed in the Department of Diagnostics and Treatment Programming in Zagreb Prison between March 2004 and June 2005. Analysis of the metric characteristics suggested that the LCSF questionnaire requires some improvements. Reliability measures of the first principal components, as well as the standard reliability measure are not satisfactory enough (under .80). The same is true for the LCSF representativity. Regression analysis revealed high multiple correlation between LCSF and LSI-R, which implies satisfactory diagnostic validity.

Key words: Lifestyle Criminality Screening Form (LCSF), evaluation, Croatian prison system

INTRODUCTION

Lifestyle theory appeared during the 1990-ties (Walters, 1990, 1996a, 1996b, 1998, 2000a, 2000b).

Lifestyle is one of the ways the individuals react to existential fear, or to changes in environment. There are three possibilities in which organism reacts to constant changes in the environment: withdrawal (depression), adaptation (changes in accordance with the changes in environment - the optimal way of reaction), and lifestyle (development of the ritualized behavior patterns which provide a sense of security and control in life). Lifestyle develops as a reaction to the existential fear, related to the areas of achievement of three main life tasks: achievement of social connections, achievement of control (power), and development of identity (self-image). Failure in some of these areas may determine the nature of individual's lifestyle (Walters, 1998).

Lifestyle is theoretically defined by three key elements (3Cs), and these are: conditions, choice and cognition.

Conditions are internal (heritage, intelligence) and external (family relationships, peer pressure). Depending whether these conditions are positive or negative, they increase or decrease

chances of an individual to develop lifestyle of criminality and/or addiction. Conditions can limit personal life choices, but they do not determine behavior. Moreover, lifestyle theory argues that the individual chooses how to respond to given conditions.

Choices - the concept of lifestyle is rooted in choice and decision making. This model views the individual as an active participant, who makes decisions and determines goals and priorities, generates and evaluates options, and is able to choose among the alternatives. Impossibility of making right decisions may lead to development of non-functional lifestyles, like criminal or drug lifestyle.

Cognition is the way in which the individual supports, justifies or explains his/her own behavior by distorted thinking process. No one wants to think about himself/herself as a bad person, thus when he/she makes bad decisions or choices that hurt other people, he/she adjusts his/her thinking as to feel better.

Three Cs provide frame for lifestyle structure, but it has to be emphasized that every lifestyle has its own rules, roles, rituals and relationships - four Rs. Therefore, four Rs present the content of the behavioral styles, i.e. they show behavioral patterns defining the lifestyles. **Rules** are

regulations which govern the implementation of the behavior style. **Roles** are being played by an individual in the implementation of the behavioral style. **Rituals** are routine behavior patterns in which the behavioral style transforms. **Relationships** are social interactions that the individual employs within the frame of the behavioral style. Therefore, each behavioral style is defined by multiple rules, roles, rituals and relationships (Walters, 1998).

According to Walters (1991, 1998) lifestyle consists of certain number of behavioral styles. For example, criminal lifestyle, which is the focus of this paper, consists of four behavioral styles: irresponsibility, self-indulgence, interpersonal violence and breaking of social rules.

Irresponsibility includes lack of reliability and general unwillingness for fulfilling personal responsibilities toward the family, friends, employers, teachers, creditors and oneself. Behavioral style of irresponsibility follows the rule "do not bother with reliability".

Self-indulgence is an egocentric attempt for achievement of the instant gratification. This can be visible in drug abuse, gambling or in intensive sexual behavior. Cardinal rule of self-indulgence is participation in the activities pleasing to individual, regardless adverse long-term consequences.

Behavioral style of **interpersonal intrusiveness** includes breaking the rights of other people - violating their privacy, dignity or private space. Rule that characterizes the abusive behavior says that the individual has the right to govern other people's property even through violence, if necessary. Such individuals often play the role of bullies. The rituals which stem from this style include humiliation of others and self-elevation.

Breaking of the social rules - the rules are required for the social life; even the criminal lifestyle has its own rules. However, the rules of this style are often in conflict with the rules of the rest of society (Walters et al., 1991; Walters, 1998).

Walters et al. (1991) have designed a questionnaire for measurement of lifestyle involvement - Lifestyle Criminality Screening Form (LCSF). The questionnaire consists of four subscales describing four behavioral styles (for more detailed

information see description of the instrument).

There are relatively few evaluations of the LCSF. In the 1991 research, Walters et al. (1991) have checked the validity of the newly developed questionnaire by comparing the results of 25 inmates from the maximum security prison with the results of 25 inmates from the minimum security prison. This comparison confirmed the presumption that the questionnaire provides good differentiation between the two groups of respondents, because in maximum security prisons there should be significantly more individuals who have developed criminal lifestyles. The questionnaire made a good differentiation between the two groups, although independent and dependent variables were mixed to some degree - items on the scale of social violence were mostly the same ones which the Prison office uses to determine the level of security required for an individual prisoner. Although the differences were largest on that scale, the differences in the whole questionnaire were significant even when the items from the scale of social violence were removed. This preliminary study has shown the applicability of the LCSF questionnaire in the practical purposes, but it has not said much about the correctness of the described theoretical model, according to which the criminal lifestyle consists of four above mentioned behavioral styles. The evaluation of the theory required factorial analysis of the questionnaire. Explorative analysis of the questionnaire (Walters, 1995), with the use of image criteria of extraction and oblique oblimin rotation showed the presence of four factors, different than those proposed by the theory. These factors were labeled **Antisocial identity, Aggression of the last criminal act, Family/interpersonal conflict, and Poor adjustment in school/work**. Later factorial analysis (Walters, 1997) showed that this four factor solution, achieved through the explorative method, explains the factorial space better than the confirmative analysis which was used to evaluate the proposed theoretical model. The author concluded that lifestyle consists of continuums of multiple dimensions, and that more comprehensive evaluation of the position of an individual on these continuums can be achieved using subscales of the supposed behavioral

styles, as well as factors gained by the explorative analysis.

THE GOAL OF THE PAPER

The contemporary penology requires effective classification of offenders into categories according to the level of risk and treatment needs; one reason being the prison overcrowding, but also the need for more community sanctions (Andrews and Bonta, 1994; Mejovšek, 1998). For this purpose, it is extremely important to match offenders to the sanctions as accurate as possible, regarding the danger they present for the community and the rehabilitative benefits they may have from retaining their freedom.

Because of this, it is necessary to have short and reliable instrument. LSI-R (Andrews and Bonta, 1995) has very good metric characteristics, and consists of 54 items divided into 10 subscales (Bonta and Motiuk, 1985; Stevenson and Wormith, 1987; Faulkner et al., 1992; Andrews, 1982; Buđanovac, Mikšaj-Todorović, 2001; Damjanović, 2000). The existing version of the LCSF consists of 14 items, therefore it is certainly more economic, but its metric characteristics are not confirmed yet.

Therefore, the goal of this paper is to examine the metric characteristics and factorial structure of LCSF, as well as its relation to LSI-R (Andrews, Bonta, 1995) on sample of convicts in Republic of Croatia.

METHODOLOGY

Instrument

The LCSF consists of 14 variables. Theoretically, it measures four aforementioned behavioral styles that define the criminal lifestyle. The items of each subscale are selected to represent typical behaviors or characteristics of certain behavioral style.

LCSF:

IRRESPONSIBILITY

(LCSF 1) Nonsupport of child

1. Yes (1)

2. No (0)

(LCSF 2) Terminate education prior graduating from high school

1. Yes (1)

2. No (0)

(LCSF 3) Longest job held

1. Less than 6 months (2)

2. From 6 months to 2 years (1)

3. Two or more years (0)

(LCSF 4) Quit/fired from job

1. Two or more times (2)

2. Once (1)

3. Never (0)

SELF-INDULGENCE

(LCSF 5) History of drug or alcohol abuse

1. Yes (2)

2. No (0)

(LCSF 6) Marital background

1. Two or more divorces (2)

2. One divorce/more than one separation (1)

3. Single, with illegitimate child (1)

4. Married, without divorces/single, no children (0)

(LCSF 7) Physical appearance (check only one box)

1. More than 4 separated tatoos/tatoos on the face or neck (2)

2. One to four separate tatoos (1)

3. No tatoos (0)

INTERPERSONAL INTRUSIVENESS

(LCSF 8) Intrusive confining offence

1. Violent criminal act (murder, rape, robbery, assault) (1)

2. No violent acts (0)

(LCSF 9) Prior intrusive offences

1. Three or more (2)

2. One or two (1)

3. None (0)

(LCSF 10) Use of weapon during confining offence

1. Yes (1)

2. No (0)

(LCSF 11) Physical abuse of a family member

1. Yes (1)

2. No (0)

SOCIAL RULE BREAKING

(LCSF 12) Prior arrests (except traffic violations)

1. 5 or more (2)

2. 2 to 4 (1)

3. one or none (0)

(LCSF 13) Age at first arrest (except traffic violations)

1. 14 years or younger (2)

2. From 14 to 19 years (1)

3. 19 and older (0)

(LCSF 14) History of school disciplinary problems

1. Yes (1)

2. No (0)

3.2 Participants

The research has been conducted on a sample of 399 male adult convicts aged 19 to 60 years ($M= 31,8$, $SD= 8,22$) who have passed through the Department of Diagnostics and Treatment Programming in Zagreb Prison in the period from March 2004 to June 2005.

Most of the respondents (28%) were convicted for the criminal offence related to drug abuse, for aggravated robbery (19%), for robbery (11%), fraud (8%) and for murder (7%). All other criminal offences were represented in significantly smaller percentages.

3.3 Data processing

The data were processed by the rtt7 program, contained in the IR software package, which computes the metric characteristics of the instruments, and by the factorial (principal components) and regression analyses contained in the SPSS for Windows 10.0. software package.

RESULTS

Metric characteristics of the LCSF

Metric characteristics analysis of LCSF showed average reliability and representativity under all measuring models. Possible cause is relatively small number of items, but also low metric characteristics of several items.

Based on the analysis of the metric characteristics of the items (Table 2), we concluded that the items 1 and 6 are to be removed from the questionnaire.

Namely, item 1 (“Nonsupport of child”) showed extremely low variability - almost all respondents checked category 0. Furthermore, this certainly includes the respondents without

Table 1: Questionnaire reliability under several models of measurement

Image matrix of co-variances and homogeneity	0.568
Guttman-Nicewander reliability	0.774
Grade of the lower reliability limit	0.596
Lower reliability limit under the image model	0.600
Upper reliability limit under the image model	0.949
Cronbach-Kaiser-Caffrey reliability measurement	0.726
Lower reliability limit under the mirror image model	0.455
Upper reliability limit under the mirror image model	0.894
Standard measure of reliability	0.636
Test representativity coefficient	0.519
Standard measure of the test homogeneity	0.111

Table 2: Metric characteristics of the LCFS items

Item	Representativeness	Homogeneity	Validity	Discriminativity
LCSF1	0.138	0.002	-0.003	0.198
LCSF2	0.530	0.397	0.543	0.541
LCSF3	0.555	0.415	0.542	0.471
LCSF4	0.503	0.390	0.530	0.482
LCSF5	0.472	0.351	0.474	0.440
LCSF6	0.179	-0.068	-0.103	0.096
LCSF7	0.480	0.369	0.481	0.456
LCSF8	0.566	0.052	0.084	0.314
LCSF9	0.428	0.327	0.431	0.425
LCSF10	0.551	0.073	0.096	0.303
LCSF11	0.157	0.071	0.109	0.301
LCSF12	0.775	0.599	0.743	0.631
LCSF13	0.775	0.601	0.742	0.630
LCSF14	0.654	0.494	0.647	0.559

children, thus changing the item meaning.

Regarding the item 6 (“Marital background”), it seems that it is not directly related to the subject of measurement of the scale SELF-INDULGENCE, because it is not clear why the categories of that item should be correlated to hedonism. For example, category *Married, no divorcelsingle, no children* yields 0 points on the self-indulgence scale. A man who is not married with no children can be very much focused to self-indulgence, and such possibility is not foreseen in this item. Moreover, married and unmarried individuals are leveled in this category. The fact is that marital status is not necessarily correlated to self-indulgence.

The items 8 (“Intrusive confining offence”), 9 (“Prior intrusive offences”), and 10 (“Use of weapon during confining offence”), which are included in the interpersonal abusiveness scale, have somewhat lower metric characteristics, but we hold that their content is related to the object of measurement, therefore, for time being, they remained a part of the questionnaire.

In trying to improve the metric characteristics of the LCSF scale, we propose several new items:

In the IRRESPONSIBILITY scale, the

following items should be considered: “Provides for primary/secondary family” (No 1, Yes 0), and “Problems with debt payments” (credits, loans) (No 0, Yes 1).

In the SELF-INDULGENCE scale, the items “Gambling/lottery/betting” (Often 2, Sometimes 1, Never 0), and “Promiscuity” (Yes 1, No 0) should be considered.

In the INTERPERSONAL INTRUSIVENESS, the following items should be added: “Verbal or physical violence toward others” (Physical and verbal 2, Only verbal 1, No 0).

The increase of item quantity is expected to increase reliability of the questionnaire.

4.2 Factorial analysis of the LCFS

Five statistically significant principal components were extracted using Guttman-Keiser criteria. Eigenvalues and percentages of the variance, which are explained by individual factors, as well as the cumulative percentage of the variance, are shown in the table 3. Five extracted factors account for 57.67% of variance.

It is obvious from the table 4 that the first principal component is defined by seven items, suggesting that the questionnaire does not measu-

Table 3: Eigenvalues and variance percentage of the extracted factors

Principal component	Eigenvalues	% Variance	Cumulative%
1	3,064	21,887	21,887
2	1,605	11,463	33,349
3	1,205	8,604	41,954
4	1,134	8,099	50,053
5	1,067	7,621	57,673

Table 4: Coefficient matrix of the original factor solution

Item	C1	C2	C3	C4	C5
LCSF1	-,015	-,042	,549	,486	,327
LCSF2	,542	,065	-,141	,279	-,129
LCSF3	,542	,021	,405	-,241	-,079
LCSF4	,530	-,137	,061	,012	,250
LCSF5	,472	,077	,008	-,145	,625
LCSF6	-,053	-,206	-,491	,693	,036
LCSF7	,481	,040	-,401	,065	,022
LCSF8	,075	,867	-,038	,114	-,060
LCSF9	,436	,036	,169	,121	-,652
LCSF10	,093	,851	-,112	-,012	,091
LCSF11	,023	,144	,454	,474	,019
LCSF12	,749	-,148	-,036	,032	-,028
LCSF13	,741	-,089	,127	-,023	-,150
LCSF14	,650	-,042	-,219	-,038	,143

re one general factor (it explains 21.88% of total variance only).

The rotation of the components into the oblique oblimin position was conducted as well.

Coefficients of pattern and structure are shown in tables 5 and 6.

The items 2 (“Terminate education prior to graduating from high school” - Irresponsibility), 4 (“Quit/fired from job” - Irresponsibility), 5 (“History of drug/alcohol abuse” - Self-indulgence), 7 (“Tatoos - physical appearance” - Self-indulgence), 12 (“Prior arrests (except traffic violations)” - Breaking of the social rules), and 14 (“History of school disciplinary problems” - Breaking of the social rules) have highest loadings on the first factor. This factor relates to Walters’

1st explorative factor: **Anti-social identity**.

The items 8 (“Intrusive confining offence” - Interpersonal abusiveness) and 10 (“Use of weapon during confining offence” - Interpersonal abusiveness) have highest loadings on second factor. This factor relates to Walters’ 2nd explorative factor: **Aggression of the last criminal deed**.

Third factor is defined by the items 1 (“Nonsupport of child” - Irresponsibility) and 11 (“Physical abuse of others - family members” - Interpersonal abusiveness). This factor corresponds to Walters’ 3rd explorative factor: **Family/ Interpersonal conflict**.

Fourth factor is defined by the items 3 (“Longest job held” - Irresponsibility) and 6

Table 5: Pattern coefficients of rotated factors

Item	P1	P2	P3	P4	P5
LCSF1	-,001	-,069	,793	,051	,154
LCSF2	,515	,126	,075	,200	-,249
LCSF3	,367	-,011	,101	-,529	-,176
LCSF4	,572	-,104	,120	-,076	,140
LCSF5	,591	,111	,085	-,160	,554
LCSF6	,163	-,108	,140	,876	-,024
LCSF7	,546	,119	-,212	,224	-,017
LCSF8	-,058	,874	,080	-,032	-,074
LCSF9	,188	,032	,035	-,128	-,750
LCSF10	,010	,865	-,017	-,072	,103
LCSF11	-,059	,120	,648	,049	-,133
LCSF12	,724	-,097	-,003	-,048	-,156
LCSF13	,630	-,065	,041	-,208	-,283
LCSF14	,699	,023	-,127	,024	,066

Table 6: Structure coefficients of rotated factors

Item	S1	S2	S3	S4	S5
LCSF1	-,008	-,088	,784	-,030	,129
LCSF2	,536	,169	,075	,148	-,324
LCSF3	,444	-,002	,168	-,574	-,220
LCSF4	,559	-,084	,139	-,149	,068
LCSF5	,545	,114	,095	-,229	,473
LCSF6	,076	-,073	,062	,843	-,054
LCSF7	,527	,161	-,221	,194	-,087
LCSF8	,004	,871	,068	-,006	-,105
LCSF9	,299	,068	,078	-,142	-,775
LCSF10	,051	,859	-,029	-,045	,067
LCSF11	-,024	,112	,644	-,003	-,153
LCSF12	,743	-,053	,028	-,121	-,244
LCSF13	,685	-,026	,089	-,274	-,360
LCSF14	,687	,062	-,114	-,033	-,021

(“Marital background” - Self-indulgence), and the fifth factor by the item 9 (“Prior intrusive offences” - Interpersonal abusiveness). Fourth and fifth factor differ from Walters’ fourth factor gained by the explorative analysis - **Bad adjustment in school/at work**. It is possible

that this factor was not emphasized because of the differences in social-economical structure of American and Croatian society. For example, in Croatian society, general unemployment probably has a different influence on the criminal behavior than in American society. Because of

general unfavorable economic conditions, the rate of unemployment is high, and it is probably less correlated with criminal activities than in USA.

Furthermore, we should not neglect the possibility of getting somewhat different results due to implementation of different software for factorial analysis.

Five-factor option did not provide solution similar to the four presumed behavioral styles of the criminal lifestyle. No behavioral style was clearly visible in the presumed factors, although the relation is visible among some variables of interpersonal abusiveness and breaking of the social rules.

Table 7: Correlations between the rotated factors

Factor	1	2	3	4	5
1		,054	,026	-,100	-,128
2			-,019	,032	-,041
3				-,097	-,035
4					-,010

The resulting factorial solution is more similar to factorial solution found by Walters (1995, 1997) by the explorative method, although there are certain differences. These may be explained by the cultural differences, and the differences in the ways of conducting the research.

The correlations between the factors are low, the highest being between factor 5 and 1.

General conclusion is that the questionnaire should be modified by adding few more relevant variables. Also, it should be reconsidered whether a better theoretical solution exists for the factors that are included in the criminal lifestyle.

By adding the proposed items, the questionnaire would not be significantly longer. It is possible that some metric characteristics will be better,

Table 8: Multiple correlation and determination

Multiple correlation R	Determination R ²	F	Sig.
.70	.49	28,029	,000

resulting in clearer factorial structure. Therefore, in the next research, we will use the modified LCSF questionnaire.

Relation between LCSF and LSI-R

The correlation between the LCSF and LSI-R was assessed by the method of regression analysis. Since the LSI-R was comprehensively evaluated worldwide (Bonta and Motiuk, 1985; Stevenson and Wormith, 1987; Faulkner et al., 1992; Andrews, 1982), as well as in Croatia (Budanovac, Mikšaj-Todorović, 2001), we deemed it to be a good external criterion for evaluation of the LCSF diagnostic validity. According to the theory, the degree of risk/needs should be in high correlation with the degree of criminal lifestyle involvement. If such correlation exists, it may be said that LCSF is valid for measuring the degree of involvement.

It is important to say that a research on the drug addicts (Sabljić, 2004) was conducted to determine the relation between LSI-R and 5 lifestyle theory questionnaires. The dependent variable was the LSI-R summ, and the predictor

Table 9: Beta coefficients and significance

Item	Standardized Coefficients		Sig.
	Beta	T-test	
(Constant)		20,695	,000
LCSF1	,114	3,068	,002
LCSF2	,151	3,726	,000
LCSF3	,111	2,699	,007
LCSF4	,145	3,687	,000
LCSF5	,130	3,264	,001
LCSF6	,075	1,983	,048
LCSF7	,114	2,864	,004
LCSF8	,076	1,705	,089
LCSF9	,096	2,428	,016
LCSF10	,007	,170	,865
LCSF11	-,002	-,061	,951
LCSF12	,271	5,786	,000
LCSF13	,075	1,600	,110
LCSF14	,069	1,605	,109

variables were sums from the 5 lifestyle scales, namely Estimated Self-Efficacy in Avoiding Drugs, Lifestyle Stress Test, LCSF, LDSF, and Fear Checklist. Regression analysis showed high multiple correlation (0.72) for the predictor set and the criterion variable; it needs to be stressed that the LCSF had the largest contribution to this correlation.

Table 8 shows that the multiple correlation coefficient between the sum of the LSI-R and the items of the LCSF is very satisfying (.70).

Significant beta coefficients were found for items "Nonsupport of child" (LCSF1), "Terminate education prior to graduating from high school" (LCSF2), "Longest job held" (LCSF3), "Quit/fired from job" (LCSF4), "History of drug or alcohol abuse" (LCSF5), "Marital background" (LCSF6), "Physical appearance" (LCSF7), "Prior intrusive offences" (LCSF9) and "Prior arrests" (except traffic violations) (LCSF12), Table 9.

Such relation is not surprising; items of the Irresponsibility and Self-indulgence scales made largest contribution to this relation.

Based upon the results of regression analysis, it may be concluded that the LCSF is reliable enough to assess the level of risks and needs. However, the reliability of the instrument needs to be increased. We proposed the changes with this purpose.

Therefore, the result of Sabljic (2004) research, according to which LCSF scale is in high correlation with the LSI-R, was confirmed on the sample of convicted criminal offenders.

CONCLUSION

The analysis of the metric characteristics suggested that the LCSF, as a whole, requires some improvements. Reliability measures of the first

principal components, as well as the standard reliability measure which indicates whether the sum of the items can be used, are not satisfactory enough (under .80). The same is true for the LCSF representativity.

To improve the metric characteristics, we suggested removal of two items with the lowest metric characteristics ("Nonsupport of child" and "Marital background"), as well as introduction of five new items, describing behaviors characteristic typical for certain criminal lifestyle behavioral styles ("Provides for primary/secondary family", "Problems with debt payments", "Gambling/lottery/betting", "Promiscuity" and "Verbal or physical violence toward others").

The first three factors extracted by explorative factorial analysis are in concordance with Walters' factors (1995): **Antisocial identity**, **Aggression of the last criminal act** and **Family/interpersonal conflict**. Fourth factor, **Poor adjustment in school/work**, did not appear in our analysis.

Therefore, the results of our research confirmed the assumption that the above described factorial structure achieved through explorative method is better than the original four factor model (Irresponsibility, Self-indulgence, Interpersonal intrusiveness, Breaking of the social rules).

Regression analysis showed high multiple correlation with the LSI-R, which implies satisfactory diagnostic validity.

This is an indication that LCSF can be used for the diagnostics as well as for predicting the penological treatment outcomes. Of course, its reliability needs to be increased.

Final conclusion is that the additional evaluation of the proposed modified version of the LCSF is necessary. Adding the new suggested items may provide better insight into factorial structure of the LCSF.

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