THE DIFFERENCE IN CRIMINAL THINKING STYLES AND THE DEPTH OF INVOLVEMENT IN CRIMINAL LIFESTYLES WITH REGARD TO THE AGE, RECIDIVISM AND VIOLENCE OF A CRIMINAL OFFENCE

Žana S. Vrućinić
University of Banja Luka, Faculty of Security Studies
Bosnia and Herzegovina

Abstract: The aim of this study is to determine the differences in criminal thinking styles measured by Psychological Inventory of Criminal Thinking Styles, PICTS (Walters, 1995; 2005), on the one hand, and criminal behavioural styles measured by Lifestyle Criminality Screening Form score, LCSF (Walters, White & Denney, 1991) on the other hand, given the age, type of crime and recidivism. The sample of this research consisted of 126 inmates of Banja Luka Correctional Facility. The results show that younger convicts violate social rules more than the older ones. The convicts who commit violent crimes have higher scores in interpersonal intrusiveness, while convicts who are prone to non-violent crimes have more present discontinuity as a criminal thinking style. Recidivists, unlike un-recidivists, have higher scores in self-indulgence and social rule break, and also have significantly more pronounced criminal thinking styles of mollification, entitlement, super-optimism and discontinuity. Theoretical and practical implications of these findings are discussed.

Keywords: convicts, criminal thinking styles, behavioural criminal styles.

INTRODUCTION

Trying to define human functioning as a certain “lifestyle”, Walters (1990) identified that perpetrators of criminal offences have a specific lifestyle called “criminal lifestyle”. Walters’ (1990) lifestyle model proposes that criminal behaviour is based on a lifestyle made up of four behavioural styles termed interpersonal intrusiveness, irresponsibility, self-indulgence, and social rule breaking. This criminal lifestyle is further proposed to be the result of three factors, namely conditions, choice, and cognition. Conditions are seen as the internal or external factors, such as heredity and family
that determine people’s predisposition to adopting a criminal lifestyle. Within these constraints, people have options or choices about the behaviour and lifestyles they pursue. Finally, people will develop justifications for their behaviour. Therefore, these three factors are interdependent, and produce a dynamic set of multi-directional influences on criminal behaviour (Palmer & Hollin, 2003).

In addition, the theory of the criminal lifestyle presupposes the existence of eight criminal thinking styles based on a criminal personality model where special emphasis is placed on cognitive errors in thinking (Yochelson & Samenow 1976; 1977). Cognitive errors are present in all aspects of life. They are considered errors solely from the perspective of personal responsibility and the society’s point of view. Each error must first be considered individually, and then put into the context of the overall behaviour. Based on previously identified cognitive errors (52 errors), as well as making certain changes and adding new terms Walters and White (1991, according to Walters, 1990) identified certain cognitive styles such as - mollification (MO), cut-off (CO), entitlement (EN), power orientation (PO), sentimentality (SN), super-optimism (SO), cognitive indolence (CI), and discontinuity (DS) that are involved in maintaining a criminal lifestyle.

According to the criminal lifestyle theory, stages of the development of the criminal lifestyle are divided into four categories with respect to age (Walters, 1990, p. 114) - pre-criminal stage, early criminal stage, advanced criminal stage and stage of criminal maturity (“criminal burn out stage”). The first category includes respondents aged 10 to 18, the second category includes respondents aged 18 to 20, and the third category includes respondents from late 20s to the early 40s, while the last category includes persons over 40.

A criminal career refers to a longitudinal sequence of crimes committed by an individual at some point in time (Blumstein, Cohen, Roth & Visher, 1986), while the criminal lifestyle is a blend of different thoughts, motives and behaviours that can ultimately lead to the commission of a criminal offense. The basic dimensions of a criminal career are participation in the commission of criminal offenses, the frequency of committing crimes, the gravity of the crimes committed, and the length of the criminal career (Blumstein et al., 1986). For the purpose of this paper, the age of the respondents, the recidivism, and the type of committed criminal offense, i.e. the violence of a criminal offense are taken from the concept of a criminal career.

**CONNECTION BETWEEN CRIMINAL LIFESTYLE AND AGE, RECIDIVISM AND THE TYPE OF CRIMINAL OFFENSE**

According to our previous findings, the questionnaires used in this study, which derived from the criminal lifestyle theory, LCSF (Lifestyle Criminality Screening Form, Walters, et al., 1991) that measures the depth of involvement in criminal lifestyle, and the PICTS (Psychological Inventory of Criminal Thinking Styles, Walters, 1995) that measures the criminal thinking style, have been
used in different studies on a sample of convicts to inform risk judgments for institutional misconduct, criminal recidivism, and violence (Walters, Revella & Baltrusaitis, 1990; Walters & Chlumsky, 1993; Walters, 2002; Walters, 2003; Walters, 2003a; Walters, 2005; Walters, 2007a; Walters et al., 1991; Walters, 1996; Walters, 1997; Walters & Di Fazio, 2001; Walters, 2011; Walters, 2006).

The criminal lifestyle theory by Glenn Walters has also been tested in Southeast Europe, especially in Croatia (Doležal, 2009; Jandrić, Nišević, 2010; Doležal & Mikšaj-Todorović, 2008). Doležal (2009) combines the depth of involvement into criminal lifestyle (LCSF) with the age, recidivism and the violence of a criminal offence. The research results have shown that there are significant differences in the depth of involvement into criminal lifestyle considering the age, recidivism and the violence of a criminal offence in a way that the youngest interviewees, recidivists and violators are more deeply involved in criminal lifestyle than other convicts.

It is now a truism that age is one of the strongest factors associated with criminal behaviour. In fact, some have claimed that the age-crime relationship is invariant, or universal across groups, societies, and times (Hirschi & Gottfredson, 1983). According to the findings in the field of criminal career (Blumstein et al., 1986), the younger the criminal offender is, the greater the likelihood is that a criminal career will be longer. In Doležal’s survey (2009), higher results on LCSF describe the youngest respondents (18-29 years). Given four categories of criminal lifestyle measured by LCSF, the same survey pointed out that criminal lifestyle of the youngest respondents is characterized by irresponsibility, social rule breaking, self-indulgence, and interpersonal intrusiveness to some extent.

The age criterion in relation to the depth of involvement in the criminal lifestyle and the type of criminal thinking styles is important in terms of identifying which age group is more involved in the criminal lifestyle and which criminal thinking styles are more pronounced, this representing important information for targeted preventive programs, as well as specific programs in penological treatment (Doležal, 2009).

One of the main behavioural components of the criminal lifestyle is interpersonal intrusiveness. Interpersonal intrusiveness is often manifested as aggressive, violent acts towards others, and the difference in the degree of its manifestation is reflected in the nature of the acts committed (Doležal, 2009). In Doležal’s survey (2009), the perpetrators of violent crimes, unlike the perpetrators of non-violent crimes, are characterized by high level of interpersonal intrusiveness. For crimes such as rape or murder, it is considered that the degree of interpersonal intrusiveness is higher than for crimes of trafficking in illegal drugs or arson (Walters, 1990). The criminal lifestyle theory assumes that persons with higher interpersonal intrusiveness have a higher predisposition to commit violent crimes or criminal acts with elements of violence (Doležal, 2009).

The research of recidivism is used to improve procedures related to the risk assessment for re-commissioning a criminal offence or to identify individuals who require intensive treatment during the process of re-socialization in correctional facilities. In accordance with a recognized fact in the field of criminal career (Blumstein et al., 1986), there is a group of people who constantly recidiva-
te thereby going deeper into a criminal lifestyle (Walters, 1990). The concept of professionalism in the commission of criminal offenses implies a high level of ability to commit crimes, the transformation of crime commission into the way of acquiring money for everyday life and, most importantly, the development of a specific lifestyle (Walters, 1990: 57). The criminal lifestyle of the recidivist is primarily characterized by a social rule breaking and self-indulgence (Doležal, 2009). Criminal career research (Palmer & Carlson, 1976; Gottfredson et al., 1978, according to Blumstein et al., 1986) confirmed that the information about the earlier commission of crimes is the best predictor of future criminal behaviour.

The relation between criminal thinking styles (PICTS) and the depth of involvement in criminal lifestyle (LCSF) was verified at the sample of 415 convicts stationed in the Department of Diagnostics and Treatment Programming in Zagreb Prison in the period from December 2007 to February 2009 and it was established that convicts more deeply involved into criminal lifestyle (moderate and deep involvement) have more pronounced criminal thinking styles (Jandrić Nišević, 2010). The predictive validity of the PICTS was verified at the sample of 399 convicts stationed in the Department of Diagnostics and Treatment Programming in Zagreb Prison in the period from March 2004 to June 2005, whereas the result sum at the Level of Service Inventory-Revised - LSI - R (Andrews & Bonta, 1995) was taken as a criterion variable, and PICTS items, that is, eleven factors at the same questionnaire were taken as a predictive variable. The majority of predictors have shown a significant contribution in explaining criterion variable (Doležal & Mikšaj-Todorović, 2008).

In the basic postulates of the lifestyle theory and criminal lifestyle theory, there are two factors that determine one's lifestyle - behaviour and thinking (Walters, 1990). It is without doubt that the depth of involvement in the criminal lifestyle and criminal thinking styles are very important for understanding the whole concept of criminality, each from its own point of view. In relation to this, according to our previous findings, there are no studies that, when explaining individual criminal behaviour, take into account information from both concepts in relation to age, type of crime and recidivism. The importance of simultaneous observation of the depth of involvement in the criminal lifestyle and the types of criminal thinking styles is reflected in the possibility to recognize high-risk populations and make better classification of the existing perpetrators of crimes with regard to age, type of crime and recidivism. Accordingly, the penological treatment would be more individualized according to the needs of the individual.

The aim of the research is to gain insight into the differences in criminal thinking styles and the depth of involvement in the criminal lifestyle of convicts with regard to the age, recidivism and type of crime. Based on the results of previous research (Doležal, 2009), we can assume that there are differences in the depth of involvement in the criminal lifestyle with regard to age, recidivism and type of crime in a way that younger respondents, recidivists and convicts committing violent crimes are more deeply involved in criminal lifestyle. So far, according to our knowledge, there have been no studies dealing with criminal thinking styles with regard to age, recidivism and the type of crime and we cannot clearly set up hypotheses. We can say that our research in this part is exploratory.
METHOD

Subjects

The sample in this research was convenient and consisted of 126 prisoners of the Banja Luka Correctional Facility (The Republic of Srpska, Bosnia and Herzegovina). The average age of respondents serving the prison sentence is 38.83 years (SD = 12.13). As it was previously mentioned, the author of the criminal lifestyle theory has defined stages of the development of the criminal lifestyle with regard to age (Walters, 1990: 114). Having in mind the age structure of the sample in this research, we have defined categories which somewhat correspond to the age categories of the criminal lifestyle. The convicts were divided into two groups: younger convicts (19‒35) and older convicts (35‒70).

Most of the respondents have completed secondary school (62.3%), while 22.6% of respondents completed primary education. The part of other categories in the sample (without education, college and faculty) is negligible. When talking about marital status, 33% of respondents are married, while 22.6% are in common law marriage. 20.8% of the respondents are unmarried. The part of other categories in the sample (divorced, not married, widower) is negligible.

The convicts who were subjects in this research have stated as a reason for serving a prison sentence the commission of the criminal offenses in the following areas: Crimes against life and limb (Chapter XII of the Criminal Code of the Republic of Srpska); Criminal offences against sexual freedom (Chapter XIV of the Criminal Code of the Republic of Srpska); Criminal offences against marriage and family (Chapter XVI of the Criminal Code of the Republic of Srpska); Criminal offences against public health (Chapter XVII of the Criminal Code of the Republic of Srpska); Criminal offences against property (Chapter XX of the Criminal Code of the Republic of Srpska); Criminal offences against the economy and the payment system (Chapter XXI of the Criminal Code of the Republic of Srpska); Criminal offences against official duties (Chapter XXV of the Criminal Code of the Republic of Srpska); Criminal offences against public peace and order (Chapter XXVIII of the Criminal Code of the Republic of Srpska); Criminal offences against the public safety of persons and property (Chapter XXX of the Criminal Code of the Republic of Srpska); Criminal offences against the economy, market integrity and in the area of customs (Chapter XVIII of the Criminal Code of Bosnia and Herzegovina); Crimes against humanity and values protected by international law (Chapter XVII of the Criminal Code of Bosnia and Herzegovina); Conspiracy, preparation, associating and organized crime (Chapter XXII of the Criminal Code of Bosnia and Herzegovina).

Of the total sample of the perpetrators of criminal offences, 40 respondents (31.75%) committed criminal offences with elements of violence, 62 respondents (49.21%) committed criminal offences without elements of violence, while 24 respondents (19.05%) committed criminal offences belonging to both categories. It should also be noted that 21 respondents (16.67%) are serving a prison sentence for up to one year; 57 respondents (45.24%) are serving a prison sentence for one to five years; twenty-five respondents (19.84%) are serving...
a prison sentence from five to ten years, while sixteen respondents (12.70%) are serving a prison sentence of 10 to 15 years. One respondent (0.79%) is serving a prison sentence of 15 to 20 years, while six respondents (4.76%) did not provide the information regarding the duration of the sentence. There are 56 (44.44%) recidivists in the sample. Of these, 28 (22.22%) were previously criminally punished for criminal offences against property.

**Instrumentation**

The depth of involvement in the criminal lifestyle was measured with the updated version of LCSF (Lifestyle Criminality Screening Form, Walters, et al., 1991), which, besides 14 original items, was supplemented with four items and in theory it measures four behavioural styles typical for criminal lifestyle: irresponsibility (5 items), self-indulgence (4 items), interpersonal intrusiveness (5 items) and social rule breaking (3 items). After the metric characteristics of the questionnaire were analysed, Buđanovac and Jandrić (2007) proposed the update of the instrument reliability and added further four items to the questionnaire. The items are scored by 0-1 and 0-2 system and the result provides for total at each subscale.

A description of the four scales can be seen in Table 1. Having in mind that LCSF consists of a subscale with a relatively small number of items, internal consistency was verified by calculating mean inter-item correlations. In our study, the value of MIC for the irresponsibility subscale is R=.14, for self-indulgence R=.21, for interpersonal intrusiveness R=.24, and for social rule breaking R=.52. All mean inter-item correlations fall in the recommended range of .15-.50 (see Briggs & Cheek, 1986, according to Clark & Watson) except for mean inter-item correlation for the subscale irresponsibility which is something lower.

The variable of criminal thinking style was measured with PICTS (Psychological Inventory of Criminal Thinking Styles, Walters, 1995; 2005). This instrument has a total of 80 items in two scales of validation confusion (CF) and defensiveness (DF) which were developed in order to detect non-veridical response, and eight scales representing the criminal thinking styles mollification (MO), cut-off CO), entitlement (EN), power orientation (PO), sentimentality (SN), super-optimism (SO), cognitive indolence (CI), and discontinuity (DS).

Each subscale consists of 8 items. Items have a 4-level Likert format. A description of the eight thinking scales and two validity scales can be seen in Table 1. Internal consistency for PICTS was also verified by calculating mean inter-item correlations. In our study, the value of MIC for confusion is R=.18, for defensiveness R=.23, for mollification R=.31, for cut-off R=.45, for entitlement R=.18, for power orientation R=.40, for sentimentality R=.39, for super-optimism R=.35, for cognitive indolence R=.36, and for discontinuity R=.44. All mean inter-item correlations fall in the recommended range of .15-.50 (see Briggs & Cheek, 1986, according to Clark & Watson, 1995).
Procedure

The survey was carried out at the Correctional Facility in Banja Luka in November 2017 with 126 respondents. Prior to the visit to the Correctional Facility for research purposes, we requested and were granted the consent by the Ministry of Justice. It should be noted that the Correctional Facility currently has 147 male inmates and that certain number of them was not able to participate in the research. Namely, some of the respondents were excluded from the research because they have been imposed a measure of solitary as a result of the violation of discipline, then mentally ill individuals who have significantly reduced mental capacity, those participating in work of common interest for the life and work of the convicted persons (on pig farms), illiterate, foreigners, those who are on leave, and those who did not want to participate in the research. The research at the Correctional Facility was conducted by the authors with the help of correctional officers. The respondents filled out the questionnaires in the area intended for eating. The respondents were provided with basic information on what is being researched, and it was emphasized that it was anonymous and that the results will be used exclusively for research purposes.

RESULTS

Descriptive statistical indicators (M, SD) obtained on PICTS and LCSF questionnaires in relation to age, type of offense and recidivism are shown in Table 2. In order to determine the difference in the depth of involvement of convicts in the criminal lifestyle and the difference in their criminal thinking styles in relation to age, type of crime and recidivism, six multivariate analyses of covariates were conducted. These variables, individually, were analysed in MANCOVA as criterion variables, or as covariates. Preliminary analyses determined that the assumptions about the normality of the distribution, linearity, homogeneity of the variation, homogeneity of regression slopes and reliability of covariance measurement were not violated.

| Scale        | Description                                                                 | Scale       | Description                                                                 |
|--------------|------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------|
| Confusion    | Psychological distress, mental confusion, poor reading skills, or deliberate attempt to portray oneself as having psychological disturbance. | Irresponsibility | Global sense of irresponsibility in all aspects of one’s behaviour - neglecting social, moral and legal obligations to others and acts as if one is accountable to no one but himself. |
Defensive Test-taking style in which the respondent is attempting to present oneself as free of minor difficulties, deficiencies and foibles.

Mollification Justification, rationalization of criminal behaviour; focus on external factors.

Cut-off Elimination of deterents (e.g., fear, anxiety, disgust) to criminal behaviour.

Entitlement Perception of oneself as privileged or special.

Power orientation Focus on power and control over others.

Sentimental Deny or minimize harm by performing good deeds to appear kind and generous.

Super-optimism Over-confidence in ability to avoid negative consequences.

Cognitive indolence Putting little effort into problem-solving or critical evaluation of thought.

Discontinuity Being easily distracted; trouble following through on good intentions.

Lack of one’s self-restraint and continual search for pleasure despite the negative long-term consequences of one’s action.

Callously encroaching on the rights, feelings and private lives of one’s victims with little regard for the destructiveness of one’s behaviour.

Reveals a blatant disregard for the laws and norms of society.

* Validity scale * From Walters, 1995*, Walters et al., 1991.

After statistically eliminating the influence of covariates in each MANCOVA individually, it was established that convicts statistically differ in the depth of involvement in the criminal lifestyle with respect to the age $\Lambda_W = .908$, $F(6, 119) = 2.55$, $p < 0.05$, the type of criminal offense $\Lambda_W = .827$, $F(6, 119) = 5.09$, $p < 0.01$ and recidivism, $\Lambda_W = .906$, $F(6, 119) = 2.51$, $p < 0.05$ (see Table 2). There was a difference in criminal thinking styles with regard to the type of criminal offense, $\Lambda_w = .829$, $F(6, 119) = 1.88$, $p < 0.05$, as well as the difference in criminal thinking styles with respect to recidivism, $\Lambda_w = .864$, $F(6, 119) = 1.44$, $p < 0.05$ (see Table 2). Table 2 shows the results of six multivariate analyses of covariates ($F$ and $p$), a difference between groups of convicts in relation to age, type of crime and recidivism on individual scales of questionnaires PICTS and LCSF. The degrees of freedom for all $F$ ratios in the table are $df_1 = 6, df_2 = 119$. 
Table 2. Descriptive statistics and MANCOVA results of convicted persons for the PICTS and LCSF scores considering age, type of crime and recidivism (N=126)

|                     | Younger (N=60) | Older (N=66) | Mean Difference M1-M2 | Effect-size (Cohen's d) | F   |
|---------------------|----------------|--------------|------------------------|-------------------------|-----|
| **PICTS**           |                |              |                        |                         |     |
| mollification       | 14.94(.61)     | 14.80(.57)   | 0.14                   | .12                     | 0.03 |
| cut-off             | 12.52(.61)     | 12.52(.58)   | 0.01                   | .00                     | 0.00 |
| entitlement         | 14.43(.61)     | 14.04(.57)   | 0.43                   | .34                     | 0.25 |
| power orientation   | 13.07(.56)     | 12.98(.52)   | 0.10                   | .02                     | 0.00 |
| **LCSF**            |                |              |                        |                         |     |
| irresponsibility    | 2.50(.23)      | 2.22(.22)    | 0.28                   | .53                     | .75  |
| self-indulgence     | 1.45(.19)      | 1.30(.18)    | 0.15                   | .38                     | .33  |
| interpersonal       | 2.11(.26)      | 1.47(.25)    | 0.64                   | .78                     | 3.16 |
| intrusiveness       |                |              |                        |                         |     |
| social rule break   | 2.13(.22)      | 1.19(.21)    | 0.93**                 | .91                     | 9.50** |
| confusion           | 16.60(.41)     | 16.99(.39)   | -0.39                  | -.44                    | .45  |
| defensiveness       | 17.87(.45)     | 18.05(.43)   | -0.18                  | -.20                    | .08  |
| mollification       | 14.94(.61)     | 14.80(.57)   | 0.14                   | .12                     | 0.03 |
| cut-off             | 12.52(.61)     | 12.52(.58)   | 0.01                   | .00                     | 0.00 |
| entitlement         | 14.47(.61)     | 14.04(.57)   | 0.43                   | .34                     | 0.25 |
| power orientation   | 13.48(.56)     | 12.98(.52)   | 0.50                   | .42                     | 0.40 |
| sentimentality      | 17.55(.72)     | 16.65(.67)   | 0.90                   | .54                     | .78  |
| Super-optimism      | 13.85(.62)     | 13.67(.59)   | 0.17                   | .15                     | 0.04 |
| cognitive indolence | 15.14(.63)     | 14.29(.59)   | 0.86                   | .57                     | .91  |
| discontinuity       | 12.79(.63)     | 13.96(.66)   | -1.16                  | -.67                    | 1.66 |

**Violent criminal offenses**

|                     | Violent (N=64) | Non-violent (N=62) | Mean Difference M1-M2 | Effect-size (Cohen's d) | F   |
|---------------------|----------------|---------------------|------------------------|-------------------------|-----|
| irresponsibility    | 2.20(.21)      | 2.56(.25)           | -0.36                  | -01                     | 1.20 |
| self-indulgence     | 1.20(.17)      | 1.60(.20)           | -0.40                  | -.73                    | 2.25 |
| interpersonal       | 2.21(.23)      | 1.16(.28)           | 1.04**                 | .90                     | 7.81** |
| intrusiveness       |                |                     |                        |                         |     |
| social rule break   | 1.54(.20)      | 1.77(.24)           | -0.23                  | -.46                    | .53  |
| confusion           | 17.10(.36)     | 16.38(.42)          | 0.72                   | .68                     | 1.59 |
| defensiveness       | 17.93(.40)     | 18.01(.48)          | -0.09                  | -.09                    | .02  |
| mollification       | 14.85(.53)     | 14.89(.64)          | -.04                   | -.03                    | .00  |
| cut-off             | 12.56(.54)     | 12.46(.65)          | 0.10                   | .08                     | .02  |
| entitlement         | 14.28(.54)     | 14.19(.64)          | 0.09                   | .08                     | .01  |
| power orientation   | 13.32(.49)     | 13.08(.59)          | 0.24                   | .22                     | .10  |
| sentimentality      | 16.86(.62)     | 17.38(.75)          | -0.52                  | -.35                    | .27  |
| Super-optimism      | 13.72(.55)     | 13.83(.66)          | -0.11                  | -.09                    | .01  |
| cognitive indolence | 14.50(.56)     | 14.96(.67)          | -0.46                  | -.35                    | .26  |
| discontinuity       | 12.61(.56)     | 14.53(.67)          | -1.92*                 | -.84                    | 4.67* |
Recidivists N=56  Non-Recidivists N=70  Mean Difference M1-M2  Effect-size (Cohen's d) F
irresponsibility  2.26(.24)  2.43(.22)  -0.17  -.35  .25
self-indulgence  1.69(.19)  1.09(.18)  0.60*  .85  4.97*
interpersonal intrusiveness  1.87(.28)  1.69(.26)  0.18  .32  .20
social rule break  2.02(.23)  1.30(.21)  0.72*  .85  5.07*
confusion  16.94(.41)  16.68(.38)  0.26  .31  .20
defensiveness  18.33(.46)  17.65(.42)  0.68  .61  1.11
mollification  15.85(.63)  14.02(.58)  1.83*  .83  4.23*
cut-off  12.95(.62)  12.15(.57)  0.80  .56  .83
entitlement  15.60(.61)  13.08(.57)  2.52**  .91  8.42**
power orientation  13.96(.57)  12.58(.52)  1.39  .78  3.04
sentimentality  18.06(.73)  16.23(.68)  1.83  .79  3.12
Super-optimism  14.94(.63)  12.75(.58)  2.19*  .88  6.12*
cognitive indolence  15.83(.64)  13.70(.59)  2.13*  .87  5.59*
discontinuity  14.37(.65)  12.58(.60)  1.79  .82  3.84

*p < .05  **p < .01

Bonferroni Test for subsequent comparisons found that younger convicts are more social rule-breakers than the older ones. The convicts who commit violent crimes have higher score in dimension of interpersonal intrusiveness, while the convicts who commit non-violent crimes have discontinuity as a criminal thinking style. Recidivists, unlike non-recidivists, have significantly higher scores in dimensions of self-indulgence and social rule break, and also have significantly more pronounced criminal styles of thinking - mollification, entitlement, super-optimism and discontinuity (see Table 2).

Based on the Cohen's d coefficient, it can be seen that all statistically significant differences in arithmetic mean show the effect of high intensity (see Table 2).

DISCUSSION

The results of the research conducted on a sample of prisoners of Banja Luka Correctional Facility show that there is a statistically significant difference in the depth of involvement in the criminal lifestyle of convicts with regard to the age, type of crime and recidivism, which is expected. Regarding the criminal thinking styles in this context, a statistically significant difference was identified with regard to the type of crime and recidivism.

This study showed that there was a statistically significant difference in the
depth of involvement in the criminal lifestyle with respect to age, meaning that younger respondents were more involved in the criminal lifestyle and violate social rules more than the older ones. Similar results came from Doležal (2009). In line with criminal career concepts and criminal lifestyle concepts (Walters, 1990), this is the result that has been expected. The depth of involvement in the criminal lifestyle declines over the years, which is understandable by itself, due to various internal (aging, maturation, fed-up with way of life) and external (conflicts with representatives of law, smaller possibility of employment due to criminal past, prison-time) factors since aging people become increasingly focused on seeking safety and stability in life rather than adventurism. This is supported by the fact that the existential fear in persons with a criminal lifestyle is getting bigger as people age (Walters, 1990: 116). The fact that this study shows that older convicts are less involved in the criminal lifestyle than younger convicts is also in line with the theory of criminal career and criminal lifestyle.

The older age represents a breaking point in many criminal careers and criminal lifestyles due to burn-out syndrome (Blumstein, Cohen & Hsieh, 1982; Blumstein, et al.; Blumstein, Cohen & Farrington, 1988). Also, the fear of going to jail, which is lost relatively quickly by younger population, replaces the fear of aging and ending a life within prison bars (Walters, 1990: 123), which should also be kept in mind. In addition, it should not be forgotten that majority of younger convicts have a motto “think fast, live fast” that reflects their irresponsibility to social rules and norms and put themselves and their goals and needs in the first place (Walters, 1990). Since the process of cessation of criminal career is not sufficiently researched one should be cautious in generalizing conclusions (Doležal, 2009).

In our research, the convicts statistically differ in the depth of their involvement in criminal lifestyle given the type of crime, which is expected. The perpetrators of violent crimes have higher scores in interpersonal intrusiveness. According to Yochelsona & Samenowa, 1976, the perpetrators of violent crimes, in contrast to the perpetrators of non-violent crimes, are more deeply involved in the criminal lifestyle and their main characteristic of the criminal lifestyle is interpersonal intrusiveness. These facts were elaborated in detail by these authors in their study and they came to the conclusion that the pattern of behaviour dominated by interpersonal intrusiveness is actually learned and is a result of the fact that these persons were not adequately punished by persons who were at certain moment in the position of their authority (parents, school, police ...) and thus received a “permission” for such behaviour. In this study (Yochelsono & Samenowa, 1976) it was found that precisely this characteristic is a generator that sets off and keeps going a criminal lifestyle, but keeps a criminal career active. Walters (1990: 76) agrees that the interpersonal intrusiveness is a characteristic the most difficult to change and if someone’s criminal lifestyle is dominated by this characteristic, the person has the least chance to leave this criminal lifestyle. Doležal (2009) came to the same findings.

Alongside with the recidivists, this group of criminals is capable of committing the gravest crimes, those against life and body. Therefore, it is no surprise that numerous criminal studies (Otašević, Jovanov and Oljača, 2014; Vukosava-
vljević Gvozden, Dražić, Tenjović, 2014; Dinić, Barna, Trifunović, Angelovski and Sadiković, 2016; Olsoni Stalans, 2001; DeLisi & Conis, 2008) are dealing with this group of convicted persons.

The respondents who are recidivists are more deeply involved in the criminal lifestyle than the respondents who did not recidivate. According to the results of our research, the criminal lifestyle of the recidivist is primarily described by a social rule breaking and self-indulgence. This finding is expected and in line with Doležal's (2009) findings. The main characteristic of recidivism is a continuous violation of law, but it should be emphasized that recidivists, apart from this violation, are characterized by extreme disrespect and violation of other social rules and norms (Walters, 1990: 78). The fact that self-indulgence is one of the important characteristics of the criminal lifestyle of the recidivist is not surprising given the fact that self-indulgence signifies the attitude towards things and people, whose characteristic is the satisfaction of personal desires and needs regardless of price, including violation of the law. This data is in favour of the results from the field of criminal career (Kyvsgaard, 2003, Kazemian, 2007) and criminal lifestyle (Walters, 1998b) (all according to Doležal, 2009a) which show that the higher rate of recidivism at criminal offenders implies a longer criminal career and deeper involvement in the criminal lifestyle. Such characteristics of the criminal lifestyle are important because they influence the development of a career criminal, a person who perceives criminal acts as a “job” he is perfecting by a constant violation of social rules (Doležal, 2009).

In our research, the respondents statistically differ in criminal thinking styles with regard to the violence of the criminal offense in a way that the convicts who commit non-violent crimes, unlike those who commit violent crimes, have higher score in the dimension of discontinuity. This error is one of the most important ones that keeps the criminal lifestyle going and prevents specific focusing on real problems that have led to criminal behaviour. This cognitive error leads to fluctuations both in thinking and in action itself (Walters & White, 1989). The mentioned authors point out that discontinuity is a “glue” that keeps cognitive errors together. More research is needed to determine how much this criminal thinking style is expressed between the two groups of convicts, and the result should be considered preliminary.

According to the obtained results, recidivists, unlike non-recidivists, statistically differ in criminal thinking styles so that they achieve higher scores in dimensions of mollification, entitlement, super-optimism, cognitive indolence as specific cognitive styles, which is in line with the theory of criminal lifestyle (Walters, 1990). A multiple criminal recidivist seeks to justify and rationalize his criminal offenses by pointing out the presence of unjustified or unjust relations in wider social environment (Walters, 1990). A cognitive error of mollification implies the desire of a person of a criminal lifestyle to alleviate, deny or reduce the responsibility for his crimes by highlighting external factors that have caused it, which may be correct or incorrect, but which may have nothing to do with his behaviour. Mollification as a cognitive process is related to the violation of social rules because a person justifies his or her tendencies for violation of rules by circumstances that are often
irrelevant to the current situation (Walters & White, 1989).

According to Walters (2007), persons with a criminal lifestyle have a strong sense of entitlement over their criminal offenses violating social laws and rights of others without any remorse. Similar to egoism this type of entitlement lies in the conviction that the world exists to satisfy their personal needs and benefits. The entitlement is therefore a prerequisite to any criminal offense because most people will refrain from activities characteristic for persons committing criminal offenses in the absence of the feeling of having right to something or in the absence of the need to possess certain things. As this feeling is quite strong in criminal offenders, such persons will rarely re-examine their “privileged status” when they receive new information. This kind of thinking brings them back to the commission of criminal offenses. According to the results of our research, recidivists, unlike non-recidivists, have a strong sense of entitlement.

In our research, recidivists, unlike non-recidivists, achieve higher scores in dimension of cognitive indolence. This cognitive style includes the entire process of criminal thinking: indiscipline, negligence, rapid loss of interest in the current activity (Walters & White, 1989). Cognitive indolence is a major obstacle to changing behaviour in the future, as it encourages the sense of reluctance of a person with a criminal lifestyle to deal with irresponsible and irrational thoughts.

According to Walters and White (1989), a criminal has been taught by the experience that he will not bear the consequences for most of his actions. Due to expressed super-optimism, most of them are convinced that they will never be caught and accused of their actions or that they will not be caught “this time” since they have not been caught and accused of their actions yet. Super-optimism is connected with a behavioural style of self-indulgence as it serves to raise the conviction that chances of negative consequences are at a minimum or even zero (Walters & White, 1989). In this study, recidivists, unlike non-recidivists, achieve higher scores in the super-optimism dimension (see Table 2).

It is quite possible that the results of our research were influenced by the tendency of the convicted persons to present themselves as socially desirable or to minimize their antisocial and delinquent behaviour because it is socially undesirable (Eysenck & Gundjonsson, 1989). Namely, the respondents in our research fulfilled the behavioural criteria, i.e. they showed criminogenic behaviour. The results obtained in our research could have been affected by certain confounding variables, which makes it impossible to apply them generally to the entire population of convicted persons. Being in a prison facility is an important confounding variable when it comes to testing personality traits since the score is modified by the institution’s influence on the person. Prison conditions contribute to deprivation, including deprivation of liberty, deprivation of material goods and services, deprivation of autonomy, security and heterosexual contacts, which have significant psychological, physical, emotional and social consequences for the personality of prisoners (Sykes, 2007).
CONCLUSION

The basic starting points of criminal lifestyle are a behavioural component (irresponsibility, interpersonal intrusiveness, self-indulgence and social rule break) and a cognitive component, i.e. the patterns of thinking (mollification, cut-off, entitlement, power orientation, sentimentality, super-optimism, cognitive indolence, and discontinuity, which serve as a support for the behavioural component (Walters, 1990). With regard to the above mentioned, it made sense to assume that by combining both components one can fully understand the concept of crime in relation to age, recidivism and violence of a criminal offense. This study is partially explorative because for the first time it puts in relation the two criminological concepts that determine the criminal lifestyle - behaviour and thinking - a criminal career (the depth of involvement in the criminal lifestyle) and the criminal thinking style.

As noted earlier, the author of the criminal life theory, Walters (1990) has identified four stages of the development of a criminal lifestyle with regard to age. However, given the structure of the sample, the respondents were necessarily divided into two groups - younger convicts (19-35) and older convicts (35-70). In order to get a clearer picture of the criminal personality within the context of the depth of involvement in the criminal lifestyle and criminal cognitive styles, the idea for future researchers would be to collect data and to investigate criminal activity before the age of 18, which is of great importance for the area of prevention and penological treatment.

Given that the sample in our research is too small for additional goals, it would be useful to research criminal cognitive styles depending on the type of the committed crime in the future in order to obtain a fuller picture of the criminal personality. For example, the research found a difference in the depth of involvement in the criminal lifestyle with regard to the type of crime (Doležal, 2009a). The perpetrators of violent crimes as well as the perpetrators of aggravated robbery and robbery are characterized by a criminal lifestyle dominated by interpersonal intrusiveness, while the perpetrators of narcotic drugs abuse are characterized by self-indulgence (Doležal, 2009a). Furthermore, unlike other perpetrators, the perpetrators of property crime manifest a criminal lifestyle dominated by social rule-breaking and irresponsibility. These data are of particular importance to the treatment staff in the prison system because, unlike interpersonal intrusiveness, these behavioural characteristics can be corrected through the rehabilitation process, while interpersonal intrusiveness is more of a personality trait, much more difficult to influence and to correct (Doležal, 2009a). The same author (Doležal, 2009a) found that the perpetrators of aggravated robbery and robbery are the most involved in the criminal lifestyle, which makes them the riskiest category in terms of recidivism.

The results of our research can help experts who work in penological treatment to identify which convicts should be paid special attention to when developing individual treatment programs in order to avoid potential problematic situations, e.g. disagreements among prisoners. In this way, individual treatment programs could be developed that would be aimed at identifying and
reducing certain criminal thinking styles from the beginning of the imprisonment. Although thinking is developed in response to certain behaviour under specific conditions and in accordance with choices made under those conditions, cognitive factors should take precedence over other factors in any program aimed at changing behaviour (Walters, 1990). Recognizing the criminal thinking styles and the depth of involvement in the criminal lifestyle in the context of age, recidivism and the type of crime can certainly contribute to a faster and more efficient preventive practice, as well as to reducing the crime rate and raising the quality of work of all crime-related institutions (Doležal, 2009).

The differences in the expression of criminal thinking styles and the depth of involvement in the criminal lifestyle of convicts were most pronounced among recidivists and non-recidivists, indicating that the LCSF and PICTS questionnaires can identify these potentially the most dangerous categories of convicted persons. This information is important because of penological treatment that can be focused on the reduction of criminogenic styles of both behaviour and thinking.

REFERENCES

1. Andrews, D.A., & Bonta, J. (1995). *The Level of Service Inventory-Revised*. Toronto, Canada: Multi-Health Systems.
2. Blumstein, A., Cohen, J., & Hsieh, P. (1982). *The Duration of Adult Criminal Careers. Final report to the National Institute of Justice*. Pittsburgh: Carnegie-Mellon University, School of Urban and Public Affairs.
3. Blumstein, A., Cohen, J., Roth, J.A., & Visher, C.A. (1986). *Criminal Careers and “Career Criminals”*. Vol. I. Washington, D.C.: National Academy Press.
4. Blumstein, A., Cohen, J., & Farrington, D.P. (1988). Criminal Career Research: Its Value For Criminology. *Criminology*, 26(1), 1‒35.
5. Buđanovac, A., & Jandrić, A. (2007). Evaluation of Lifestyle Criminality Screening Form in Croatian Prison System. *Croatian review of rehabilitation research*, 43(2), 17‒27.
6. Clark, L.A., & Watson, D. (1995). Constructing Validity: Basic Issues in Objective Scale Development. *Psychological Assessment*, 7(3), 309‒319.
7. Criminal Code of Republic of Srpska. *Official Gazette of RS*, No. 49/03, 108/04, 37/06, 70/06, 73/10, 1/12 and 67/13.
8. Criminal Code of Bosnia and Herzegovina. *Official Gazette of BiH*, No. 3/03, 32/03, 37/03 54/04, 61/04, 30/05, 53/06, 55/06, 32/07, 8/10, 47/14, 22/15 and 40/15.
9. Delisi, M., & Conis, P.J. (2008). *Violent offenders: Theory, Research, Public Policy and Practice*. USA: Jones and Bartlett Publishers.
10. Dinić, B., Barna, J., Trifunović, B., Angelovski, A., & Sadiković, S. (2016). Two types of personality among offenders: the differences in psychopathy, aggressiveness and criminal acts. *Applied Psychology*, 9(2), 199‒217.
11. Doležal, D. (2009). Differences between Involvement in Criminal Lifestyle among Prisoners Considering Age, Recidivism and Violent Behaviour. *Criminology and Social Integration*, 17(2), 35-47.

12. Doležal, D. (2009a). *Criminal career and criminal lifestyle* (doctoral thesis). Zagreb: Faculty of Education and Rehabilitation Sciences of the University.

13. Doležal, D., & Mikšaj-Todorović, Lj. (2008). Relation between the Psychological Inventory of Criminal Thinking Styles and Level of Service Inventory Revised. *Criminology and Social Integration*, 16(1), 25-32.

14. Eysenck, H.J., & Gudjonsson, G.H. (1989). *The causes and cures of criminality*. New York: Plenum.

15. Hirschi, T., & Gottfredson, M. (1983). Age and the explanation of crime. *American Journal of Sociology*, 89, 522-584.

16. Jandrić, Nišević, A. (2010). Differences in Criminal Thinking Styles Considering the Involvement in Criminal Lifestyle. *Croatian Review of Rehabilitation Research*, 46(1), 1-12.

17. Olson, D.E., & Stalans, L.J. (2001). Violent Offenders on Probation: Profile, Sentence, and Outcome Differences among Domestic Violence and Other Violent Probationers. *Violence against Women*, 7(10), 1164-1185.

18. Otašević, B., Jovanov, M., & Olijača, M. (2014). Differences between violent and nonviolent offenders and members from general population. *Primjenjena psihologija*, 7(4), 565-579.

19. Palmer, E.J., & Hollin, C.R. (2003). Using the Psychological Inventory of Criminal Thinking Styles with English prisoners. *Legal and Criminological Psychology*, 8, 175-187.

20. Perpetrators of thefts, perpetrators of robberies and persons with no criminal record: The differences in amorality and socio-economic characteristics. *Psychological research*, 17(2), 105-120.

21. Sykes, G.M. (2007). *The society of captives: A study of a maximum security prison*. New Jersey: Princeton University Press.

22. Walters, G.D., & White, T.W. (1989). Lifestyle criminality from a developmental standpoint. *American Journal of Criminal Justice*, 13(2), 257-278. doi:10.1007/bf02887513

23. Walters, G. (1990). *The Criminal Lifestyle: Patterns of Serious Criminal Conduct*. 2455 Teller Road, Thousand Oaks California 91320 United States: SAGE Publications. doi:10.4135/9781483325569

24. Walters, G.D., Revela, L., & Baltrusaitis, W.J. (1990). Predicting parole/probation outcome with the aid lifestyle criminality screening form. *Psychological Assessment*, 2, 313-316.

25. Walters, G.D., White, T.W., & Denney, D. (1991). The Lifestyle Criminality Screening Form: Preliminary data. *Criminal Justice and Behavior*, 18, 406-418.

26. Walters, G.D., & Chlumsky, M.L. (1993). The Lifestyle Criminality Screening Form and Antisocial Personality Disorder: predicting release outcome in a state prison sample. *Behavioral sciences and the law*, 11(1), 111-115.
27. Walters, G. (1995). The Psychological Inventory of Criminal Thinking Styles: Part I: Reliability and Preliminary Validity. *Criminal Justice and Behavior*, 22(3), 307-325. doi:10.1177/0093854895022003008

28. Walters, G.D. (1996). The Psychological Inventory of Criminal Thinking Styles: Part III. Predictive Validity. *International Journal of Offender Therapy and Comparative Criminology*, 40(2), 105-112. doi:10.1177/0306624x96402003

29. Walters, G.D. (1997). Predicting short-term release outcome using the LCSF and PICTS. *Journal of the Mental Health in Corrections Consortium*, 43(3-4), 18-25.

30. Walters, G.D., & Di Fazio, R. (2001). Changes in the PICTS scales following participation in various psychological programs. Unpublished raw data.

31. Walters, G.D. (2002). The Psychological Inventory of Criminal Thinking Styles (PICTS): A Review and Meta Analysis. *Assessment*, 9(3), 278-291. doi:10.1177/1073191102009003007

32. Walters, G.D. (2003). Predicting criminal justice outcomes with the Psychopathy Checklist and Lifestyle Criminality Screening Form: a meta-analytic comparison. *Behavioral Sciences and the Law*, 21(1), 89–102.

33. Walters, G.D. (2003). Changes in outcome expectancies and criminal thinking following a brief course of psycho-education. *Personality and Individual Differences*, 35(3), 691-701. doi:10.1016/s0191-8869(02)00246-5

34. Walters, G.D. (2005). Incremental Validity of the Psychological Inventory of Criminal Thinking Styles as a Predictor of Continuous and Dichotomous Measures of Recidivism. *Assessment*, 12(1), 19-27. doi:10.1177/1073191104270662

35. Walters, G.D. (2006). Use of the Psychological Inventory of Criminal Thinking Styles to Predict Disciplinary Adjustment in Male Inmate Program Participants. *International Journal of Offender Therapy and Comparative Criminology*, 50(2), 166-173. doi:10.1177/0306624x05281129

36. Walters, G.D. (2007). *Lifestyle Theory: Past, Present and Future*. New York: Nova Science Publishers.

37. Walters, G.D. (2007a). Predicting Institutional Adjustment with the Lifestyle Criminality Screening Form and the Antisocial Features and Aggression Scales of the PAI. *Journal of Personality Assessment*, 88(1), 99-105. doi:10.1080/00223890709336840

38. Walters, G.D. (2011). Predicting recidivism with the Psychological Inventory of Criminal Thinking Styles and Level of Service Inventory–Revised: Screening Version. *Law and Human Behavior*, 35(3), 211-220. doi:10.1007/s10979-010-9231-7

39. Yochelson, S., & Samenow, S. (1976). *The Criminal Personality: Profile for Change*. Vol. 1. New York: A Jason Aronson.

40. Yochelson, S., & Samenow, S. (1977). *The Criminal Personality: A Profile for Change*. Vol. 2. New York: A Jason Aronson.