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CHARACTERISTICS OF PERSONALITY AND ATTITUDE TOWARDS LIFE IMPRISONMENT AMONG HIGH SCHOOL STUDENTS

ABSTRACT: This research examines high school students' attitudes towards life imprisonment (LI) and the relationship of those attitudes with empathy and traits of the dark triad. The aim of the study was to uncover the connection between attitudes towards LI and levels of empathy, as well as to consider the role of the dark triad in shaping these attitudes. Additionally, correlations between attitudes towards LI and measured personality traits were explored, with a particular emphasis on gender differences. For the purposes of the research, a scale was created that identified three factors related to attitudes towards LI: prevention and treatment, the nature of the crime, and the severity of the punishment. The study was conducted with a sample of 342 high school students of various educational profiles, aged 18 and 19, who completed a survey either through an online platform or using traditional pencil-and-paper methods. The results indicate that gender and levels of Machiavellianism are predictors of attitudes towards LI, explaining 19% of the shared variance. The conclusion of the study suggests that gender is a significant determinant in forming attitudes towards LI, while higher scores on the Machiavellianism scale indicate a more positive attitude towards LI.

KEYWORDS: *attitude towards life imprisonment, empathy, dark triad, high school students*

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1. INTRODUCTION

Crime is older than the law. Throughout history, societies have come to recognize deviant behavior and sanction it appropriately. Social sciences and humanities have attempted to better understand the development of crime in a society and how it is treated. It is not always easy to determine an appropriate punishment for a crime, especially when crimes are committed against children. Thus, the influence of environmental factors on individual behavior is inevitable, as is the reaction and reflection of society after individuals commit crimes. Nevertheless, in addition to environmental factors, it is also essential that criminal behavior and reactions to it are influenced by individual differences, the most relevant of which are those that determine antisocial behavior and sensitivity to others, i.e., empathy.

The Republic of Serbia has adopted amendments to the Criminal Code, under which rapists and child murderers are sentenced to life imprisonment without the possibility of parole. Experts warn that this provision violates the European Convention, which is binding for Serbia. A life sentence must include the possibility of parole and sentence review. This provision not only violates international law but also undermines the purpose of punishment. Essentially, the question arises as to whether our legislation is repressive or corrective, i.e., whether individuals are prosecuted in order to change their behavior through rehabilitation and make them useful members of society, or whether the purpose of punishment is merely to remove the perpetrator from the community that they pose a danger to.

Attitudes are an integral part of our lives; almost daily we express our views of the world, constantly seeking others to share their opinions, and attempting to change the views of others. Social customs and cultural norms play a significant role in shaping our attitudes, particularly on sensitive issues such as incest, rape, child abuse, etc. (Lemut, 2012). Social and/or cultural norms may have some level of agreement, but individual experiences create differing opinions and contribute to differences (Albarracin et al., 2005). According to Allport (1935; as cited in Pennington, 1997), an attitude is a neural and mental readiness, formed

based on experiences that exert a direct and indirect influence on an individual's reactions to the objects and situations they encounter. However, under the pressure of reality, due to new knowledge, experiences, and environmental influences, we do change our attitudes, providing varying degrees of resistance (Albarracin et al., 2005). Various types of attitudes can be categorized according to their subject and specific characteristics. With respect to the subject, attitudes are most commonly divided into personal and social. Personal attitudes are characteristic of the individual and their intimate circle, while social attitudes relate to objects, situations, and phenomena that are significant to society.

This paper focuses on the social attitudes of youth towards life imprisonment for rapists and child murderers. It is clear that this is an attitude emotionally colored by feelings of anger and fear, which are among the strongest motivators of human behavior.

When it comes to empathy, the term was first used by Titchener in 1909 and is used in a broader sense, i.e., as a cognitive ability to understand the internal state of another person and as a certain type of social-cognitive connection (Raboteg-Šarić, 1993). Most researchers believe that empathy is a multidimensional construct that includes understanding the subjective experience of another person, taking the perspective of others, and experiencing the emotional state of another person, which typically leads either to feelings of care and compassion or to one's own experience of stress (Gery et al., 2009). To better understand empathy, it is necessary to clarify the concepts of cognitive and affective empathy. The cognitive aspect of empathy involves understanding and knowing the consciousness and conditions of another person or awareness of how something happening to another person may affect them. Thus, cognitive empathy can be explained with the sentence: "I know how you feel." Many who emphasize this aspect believe that cognitive empathy is a prerequisite for affective empathy (Stephan & Finlay, 1999). The ability to personally experience and feel the emotions that other people experience represents affective empathy (Blair, 2005). Affective empathy can be illustrated by the sentence: "I feel what you feel." Marshall and Marshall (2011) attempted to explain the process of empathy, which consists of several stages, each subsequent stage of which cannot occur unless the previous one has taken place. The first stage is

accurately recognizing the emotional states of another person, followed by taking their perspective, providing an appropriate emotional response, and finally, taking action to reduce that person's stress (Marshall & Marshall, 2011). Empathy can also be viewed as a developmental process that occurs in social interaction alongside cognitive development. During the developmental period of adolescence, individuals enter the stage of formal operations, which causes emotional development. During this period, the ability to take another's perspective and empathize with a person who is not currently present (McDonald & Messinger, 2011; Tone & Tully, 2014). The development of abstract thinking allows adolescents to better anticipate the emotional states of others and to experience the feelings, experiences, and expressions of others (Jagmić, 2022). This suggests that adolescence brings a greater awareness of the emotions of others, manifesting through more developed responses aligned with the feelings of others. Gender differences in the development of empathy among adolescents have also been observed. Research indicates that girls develop empathy earlier than boys. Perspective-taking occurs in boys from the age of 15, whereas in girls, it occurs earlier. Furthermore, girls show a higher level of empathic concern than boys, and while empathic concern remains stable during adolescence in girls, boys exhibit a decrease from early to middle adolescence, returning to initial levels in late adolescence (Jagmić, 2022). Therefore, we can say that empathy is a construct that can be viewed from the perspective of various schools and disciplines.

The concept of the dark triad was devised by Delroy Paulhus and Kevin Williams. It refers to the fact that Machiavellianism, subclinical narcissism, and subclinical psychopathy as personality traits often appear together (Paulhus & Williams, 2002). Individuals with pronounced Machiavellian traits are manipulative, prone to deception and exploitation of others, possess a cynical attitude towards morality, and are self-interested. Narcissism encompasses feelings of personal grandiosity, superiority, and dominance over others. Psychopathy, considered the "darkest" of the triad, refers to a lack of both empathy and feelings of shame, guilt, and remorse, along with high impulsivity and a quest for excitement (Furnham et al., 2013). When discussing the traits of the dark triad through the perspective of adolescents, we notice a smaller

number of studies compared to adult populations. The dark triad and adolescents are most commonly researched in the context of their relationship to aggressive behavior and delinquency. This may be due to the rising aggression and violent behavior among youth. This has also been noted by scholars in Serbia, where aggression—especially when wrapped in the cloak of Machiavellian ability and the flashy, superficial charm of narcissism—is often reinforced in peer environments, as it is considered a socially desirable form of behavior until it becomes explicitly antisocial, necessitating the definition of early forms of expression and detection (Brunell et al., 2008 as cited in Mitov et al., 2016). Chabrol, Van Leeuwen, and Rodgers conducted a study on a sample aged 14 to 21 years, examining the relationship between the dark triad and delinquent behavior. The results indicated a connection between delinquency indices and psychopathy, particularly in males. A 2016 study investigated the role of the dark triad in peer violence and victimization. Conducted on a sample of 245 boys and 235 girls, the study showed that Machiavellianism and psychopathy were positively correlated with peer violence, while narcissism was positively correlated with victimization. Hierarchical regression results indicated that psychopathy positively predicts peer violence; however, none of the dimensions of the dark triad predict victimization among adolescents (Fatima, 2016). Considering the developmental characteristics of adolescents, this paper will examine whether dark traits and empathy, and to what extent, predict high school students' attitudes towards perpetrators of the most serious criminal violent acts against children, as well as towards the punishment of these perpetrators.

2. METHODOLOGY

2.1 Research Objective

The primary objective is to investigate how the factors of gender, empathy, and the dark triad influence the formation of attitudes towards life imprisonment among high school students. Additionally, we aim to examine gender differences in the measured constructs. The secondary objective was to validate the scale of attitudes towards life imprisonment

that we constructed for this research. The practical goal of this research is to contribute to the discussion on the amendment of life imprisonment laws in the Republic of Serbia, as well as to consider the social context and the perception of society, victims, and offenders.

2.2 Hypotheses

H1: There is a statistically significant negative correlation between empathy and a positive attitude towards life imprisonment.

H2: There is a statistically significant positive correlation between the dark triad and a positive attitude towards life imprisonment.

H3: There is a linear combination of variables: gender, empathy, Machiavellianism, psychopathy, and narcissism, which can explain a significant portion of the total variance of attitudes towards life imprisonment among high school students.

H4: Males score higher on the dimensions of the dark triad compared to females.

H5: Compared to males, females have higher empathy.

H6: Males have a more positive attitude towards life imprisonment compared to females.

2.3 Procedure and Analysis

Our research was conducted in two phases, from November 2022 to December 2023. In the first phase, we created a questionnaire on attitudes towards life imprisonment (LI) and conducted a pilot study on a sample of high school students. Subsequently, we performed factor analysis to identify factors and define scale items. In the second phase of the study, we conducted research on a sample of adult high school students in Bačka Palanka and Novi Sad. The questionnaire was available in both paper-pencil and electronic formats. After data collection, we analyzed respondents' answers using SPSS Statistics 25. We analyzed the data using descriptive statistics, inferential statistics, and factor analysis. To test the first and second hypotheses, we used Pearson's correlation coefficient. We examined the third hypothesis using hierarchical linear

regression, while gender differences were explored using canonical discriminant analysis.

2.4 Sample

The sample included 342 high school students with an average age of 18.1 years, of whom 48.2% were male and 51.8% female. The sample was collected through convenience sampling, allowing all adult high school students to choose if they want to participate and complete the questionnaire. Participants came from various educational profiles: 29.5% attended technical school, 19% gymnasium, 15.8% economic school, 26% medical school, and 9.6% music school.

2.5 Instruments

We measured the empathy of our respondents using the Affective and Cognitive Measure of Empathy (ACME; Vachon & Lynam, 2016). This questionnaire consists of 36 items that respondents rated on a scale from 0 to 4, where the lowest value indicates complete disagreement and the highest value indicates complete agreement with the statement. The questionnaire contains 3 subscales, each with 12 items: cognitive empathy, affective resonance, and affective dissonance. A high score on cognitive empathy and affective resonance indicates a high level of empathy, while a high score on affective dissonance indicates low empathy. In the total empathy score, items measuring affective dissonance were recoded. The dark triad was operationalized using the Short Dark Triad Scale (Jones & Paulhus, 2014). The scale consists of 27 items, with the first nine measuring Machiavellianism, the next nine measuring narcissism, and the last nine measuring psychopathy. The questions on this scale are in Likert format, requiring respondents to rate statements from 1 to 5.

The scale of attitudes towards life imprisonment was constructed for this research and initially contained 22 items, which were reduced to 13 items measuring 3 main components through exploratory factor analysis: prevention and treatment, causes of crime, and stricter punishment. The questions on the scale were also posed in Likert format.

3. RESULTS

3.1 Scale of Attitudes Towards Life Imprisonment

We examined the structure of this scale using exploratory factor analysis, employing the principal component extraction method and Promax rotation. The KMO measure of sampling adequacy was 0.618, and Bartlett’s test of sphericity justified the use of factor analysis ($\chi^2(342) = 682.816$, $df = 78$, $p < .000$).

The chart shows that 5 factors with characteristic values greater than 1 emerged, explaining 61.3% of the variance. Starting from a “rational” assumption of the existence of 3 dimensions of the scale when creating items, we subsequently extracted 3 factors that explained 44.4% of the variance, which we used as new variables in further analysis.

Chart 1: Percentages of Explained Total Variance

Component	Characteristic Root	Percentage of Explained Variance	Cumulative Percentage of Explained Variance	Characteristic Root After Rotation
1	2.525	19.420	19.420	2.309
2	1.989	15.302	34.722	2.006
3	1.255	9.655	44.377	1.810
4	1.184	9.105	53.482	
5	1.020	7.848	61.330	
6	0.937	7.210	68.540	
7	0.865	6.653	75.193	
8	0.810	6.231	81.424	
9	0.620	4.769	86.194	
10	0.539	4.144	90.338	
11	0.458	3.521	93.859	
12	0.421	3.239	97.098	
13	0.377	2.902	100.000	

Chart 2: Content of the scale for the first three components of attitudes toward life imprisonment, along with factor loadings from the factor matrix

Items	Factor Loadings	No.	Factor Name
If we worked on prevention systems and good rehabilitation programs for prisoners, harsh sentences like life imprisonment wouldn't be necessary.	0.658	1	Prevention and Treatment
After long-term therapy and supervision, it is possible for the most serious offenders to change.	-0.538		
I believe that murderers and child rapists can never change.	0.499		
A person who rapes or kills a child is a monster and deserves no second chances.	-0.675		
The victim is never to blame for what happens to them.	0.437		
A prisoner receiving psychotherapy during their sentence and supervision after release can be prevented from reoffending.	0.539		
People who commit murder and rape were victims themselves as children.	0.641	2	Causes of Crime
If violent and antisocial behavior is recognized in young people early, it can be mitigated with adequate psychotherapy.	0.614		
Sometimes, victims can provoke the perpetrator to commit a crime through their behavior.	0.819		
Rapists and murderers experienced trauma during their upbringing, which is why they became that way.	0.561		
A life sentence without parole is too lenient for rape and murder of a child.	0.657	3	Stricter Punishments
Rapists will reoffend every time they have the opportunity.	-0.575		
For those who murder and rape children, the death penalty should be introduced.	0.658		

3.2 Content of the Factors

“Prevention and Treatment” is the first factor related to attitudes towards life imprisonment. It contains the highest number of facets describing high school students’ beliefs in crime prevention and the effectiveness of psychotherapy for offenders. Generally, respondents giving the highest rating (5) believe that prevention and treatment cannot influence change in offenders. “Causes of Crime” is the second main component, defining respondents’ views on the reasons for crime, including the violence suffered by the perpetrator and the influence of the victim. “Stricter Punishments” is the factor representing the belief that life sentences are insufficient and that recidivism is the norm among such offenders. It also expresses the view that the death penalty should be reinstated.

3.3 Descriptive Analysis

When observing the dimensions of attitudes towards life imprisonment, our respondents scored higher than the theoretical arithmetic mean, with the most notable stance being towards stricter punishments. In terms of empathy, respondents scored above average in the dimension of affective resonance, while for the dimensions of the dark triad, scores were below the theoretical arithmetic mean, except in the dimension of Machiavellianism. We assessed the reliability of the life imprisonment scale and its dimensions using Cronbach’s α , indicating low reliability and small internal consistency of its items. For the dimensions of the dark triad, the internal consistency of the subscales was at an acceptable level. The dimensions of empathy also indicated satisfactory homogeneity.

Chart 3: Descriptive Indicators and Cronbach's α of Measured Variables

	Theoretical AM	AM	SD	α
Prevention and Treatment	20	22.02	4.07	0.62
Causes of Crime	12	12.25	2.86	0.57
Stricter Punishments	9.5	12.92	2.28	0.47
Total LI	43	47.28	5.91	0.58
Cognitive Empathy	41	45.40	6.42	0.82
Affective Resonance	43	49.52	7.46	0.83
Affective Dissonance	31	25.55	6.23	0.65
Machiavellianism	28	30.42	6.28	0.73
Psychopathy	24.5	19.96	6.81	0.75
Narcissism	28.5	26.86	5.93	0.68

3.4 Correlational Analysis

The correlational analysis shows that “Prevention and Treatment” and total attitudes towards life imprisonment positively correlate with cognitive empathy and affective resonance, while a negative correlation was observed with affective dissonance. “Causes of Crime” are positively related to affective resonance. Additionally, a negative correlation is noted between “Prevention and Treatment” and narcissism and psychopathy. The overall attitude towards life imprisonment negatively correlates with psychopathy. Therefore, we can reject the first and second hypotheses.

Chart 4: Correlation of Attitudes Towards Life Imprisonment and Empathy and the Dark Triad

		Cognitive Empathy	Affective Reso- nance	Affective Disso- nance	Machiave- llianism	Psycho- pathy	Narci- ssism
Prevention and Treatment	r	.143**	.170**	-.161**	-.048	-.178**	-.116*
Causes of Crime	r	.045	.122*	-.099	.084	-.011	.042
Stricter Punishments	r	.041	.087	-.097	.012	-.080	-.012
Total LI	r	.130*	.214**	-.198**	.007	-.161**	-.081

*<0,05 **<0,01

3.5 Hierarchical Regression

In the regression model, we included sets of predictor variables. In the first step, the variable “gender” was introduced; in the second, the dimensions of empathy; and finally, the dimensions of the dark triad. The model was conducted in 3 steps, resulting in a regression coefficient of $R = 0.43$, $F(7,296) = 9.705$, $p < 0.001$. Analysis of the regression coefficients in the final model indicated that the predictors “gender” and “Machiavellianism” were statistically significant. The greatest influence on attitudes towards life imprisonment was attributed to gender, while higher scores in Machiavellianism indicated a more positive attitude towards life imprisonment. Therefore, we can partially accept the third hypothesis.

Chart 5: Coefficient of Multiple Regression and Coefficient of Determination

Model	R	R ²	Adjusted R ²	Change in R ²	F	p
1	.352	.124	.121	.124	42.70	.000
2	.388	.150	.139	.027	3.12	.026
3	.432 ^c	.187	.167	.036	4.39	.005

Chart 6: Partial Contributions of Predictors

	β	t	p
Gender	.272	4.769	.000
Cognitive Empathy	.071	1.259	.209
Affective Resonance	.123	1.666	.097
Affective Dissonance	-.138	-1.931	.054
Machiavellianism	.265	3.575	.000
Psychopathy	-.083	-1.088	.278
Narcissism	-.085	-1.399	.163

3.6 Gender Differences

To test for gender differences, we used canonical discriminant analysis to determine differences in the dimensions of empathy, the dark triad, and attitudes towards life imprisonment. The results show that the obtained function is statistically significant and explains 26.6% of the group differences based on gender. The dimensions of “prevention and treatment” and “affective resonance” are located on the positive pole with loadings above 0.4, while “affective dissonance” and “psychopathy” are positioned on the negative pole.

From the centroids of the groups, we observe that women are on the positive pole of the dimensions, while men are on the negative pole. Based on the dimensions that comprise this function, we named it “empathy”. Thus, men are more prone to affective dissonance and psychopathy, whereas women lean towards affective resonance and the stance on prevention and treatment. Based on the obtained function, 73% of respondents were successfully classified into the appropriate groups.

Chart 7: Characteristics of Functions, Structure Matrix

	Function 1
Prevention and Treatment	.725
Affective Resonance	.560
Affective Dissonance	-.497
Psychopathy	-.497
Machiavellianism	-.282
Cognitive Empathy	.255
Causes of Crime	.246
Narcissism	-.205
Stricter Punishment	.027
Canonical Correlation	.516
$\chi^2(df)$	92.14
Wilks' λ	.734

Chart 8: Centroid Position of Groups on the Function

Gender	Function
Male	-.709
Female	.509

4. DISCUSSION

In this study, we aimed to examine whether we can explain a part of the variance in attitudes towards life imprisonment using predictors such as gender, empathy, and the dark triad. We defined a scale to operationalize attitudes towards life imprisonment and subsequently investigated the latent structure of the factors and functions. Finally, we examined the correlation between positive attitudes towards life imprisonment and empathy, the dark triad, as well as gender differences in the measured constructs.

4.1 Connection between attitudes towards life imprisonment and other variables

When we examined the correlation between positive attitudes towards life imprisonment and empathy, we noticed that all dimensions of empathy were related to the overall attitude towards life imprisonment and the dimension of prevention and treatment, while the dimension of crime causes was associated with affective resonance. In terms of the direction of the correlation, all dimensions were positively related except for affective dissonance, which negatively correlated with both the overall attitude towards life imprisonment and prevention and treatment. Respondents who were better at detecting emotions and responding to the emotional states of others were also more inclined to believe that there is no possibility for change through prevention and treatment of offenders. Respondents with higher scores on affective resonance also had higher scores on the dimension of crime causes. We can interpret these research results through compassion for crime victims, which influences the belief that offenders cannot be influenced either preventively or therapeutically. Nevertheless, our respondents show an understanding of the reasons for antisocial behavior. It is important to note that our respondents are adolescents, and their empathetic responses are conditioned by their developmental stage. Studies from 2003 indicate that adolescents' empathetic responses are primarily directed towards understanding the suffering and negative emotions of others, while empathy for positive emotions is associated with more intimate interpersonal relationships (Rosenblum & Lewis, 2003). Through cognitive development in adolescence, there is progress in formal thinking and moral reasoning, resulting in more mature and complex forms of empathy compared to childhood (Batson, 2008). Considering these factors, we can conclude that our data correspond with the mentioned studies. Adolescents in our sample demonstrate an understanding of the complexity of antisocial behavior and empathize with the victims, which aligns with their developmental period and the advancement in empathy that occurs during adolescence.

Regarding the connection between the dark triad and attitudes towards life imprisonment, we observe a negative correlation between

prevention and treatment with psychopathy and narcissism, as well as between the overall attitude towards life imprisonment and the presence of psychopathy. The results indicate that individuals with lower levels of narcissism and psychopathy exhibit greater doubts about the possibility of prevention and treatment for offenders, and consequently, about the overall attitude towards life imprisonment. We can find reasons for this in their higher empathy and understanding of the circumstances contributing to criminal behavior, which may make them skeptical of simple interventions like prevention or treatment. This opinion is supported by research results indicating that all dimensions of the dark triad are negatively correlated with empathy and positively with aggression (Friedenfelt & Klinteberg, 2007). Additionally, individuals who do not possess traits of narcissism and psychopathy may have a deeper understanding of the complexities of human behavior and the difficulties in changing deeply rooted behavioral patterns. We can say that attitudes arise from both personal experience and the personality traits we possess, so the results we obtained are consistent with research on the relationship between personality traits and the dark triad. Muris and colleagues, based on a meta-analysis, concluded that psychopathy and conscientiousness are negatively correlated. Furthermore, in a study using the HEXACO model of personality, a negative correlation was observed between all dimensions of the dark triad and honesty.

4.2 Prediction of Attitudes Towards Life Imprisonment

We discovered two significant predictors that explain 19% of the variance in attitudes towards life imprisonment: gender and Machiavellianism. Additionally, we can observe that the dimensions of empathy are not predictors of attitudes towards life imprisonment. An explanation for this may lie in the interaction between empathy and the dark triad—there are significant connections between the dimensions of empathy and attitudes towards life imprisonment, but these connections are likely the result of shared variance with the dimensions of the dark triad.

Regarding the findings that gender and Machiavellianism are predictors of attitudes towards life imprisonment, one possible explanation is that individuals with higher tendencies towards Machiavellian-

ism generally exhibit a propensity for manipulative behavior, a lack of empathy, and a focus on personal interests (Jonason & Webster, 2012). Individuals with pronounced levels of Machiavellianism may support harsher penalties, such as life imprisonment, as a means of protecting their personal interests or maintaining control. This attitude stems from their cynical view of human nature, leading them to believe it is important to prioritize their own interests over moral principles (O'Boyle et al., 2011).

Jonason and Webster conducted research indicating that individuals with pronounced dark triad traits tend to adopt an adaptive approach in interpersonal relationships. In other words, they easily adjust their attitudes and behaviors to conceal their true intentions and maximize their own benefits. Furthermore, Machiavellians exhibit a negative attitude towards human nature and do not believe in the possibility of positive change in people. This may further justify their support for life imprisonment. Compared to other traits of the dark triad, Machiavellians are less prone to impulsive behavior, as indicated by research by Christie and Geis (1970). Thus, we might assume this is the reason Machiavellianism stands out as a predictor of attitudes towards life imprisonment. While individuals with pronounced psychopathy and narcissism may support harsher penalties as a quick response to situations or to satisfy their immediate desires or needs, Machiavellians are more inclined to rational deliberation and strategy, making decisions based on utility or personal goals.

When considering the role of gender in shaping attitudes towards life imprisonment, we observe that gender identity has a significant impact on these attitudes. These results align with previous research on empathy, showing that women are more likely to support life imprisonment (Hoffman, 1981). Additionally, studies such as those conducted by Mestre et al. (2009) confirm that adolescent girls display higher emotional empathy compared to boys, as well as a greater understanding of the emotional states of others. This sensitivity to the suffering of crime victims may result in support for life imprisonment. Furthermore, Vinayak and Judge (2018) also find that girls in adolescence are more empathetic than boys. Gender differences in developmental trends of empathy are observed, with girls exhibiting a faster increase than boys.

Perspective-taking appears in boys around the age of 15, while it occurs earlier in girls (Jamgić, 2022). A better insight into the emotional states of others and concern for others may lead to a perception of greater risk in society, resulting in support for life imprisonment as a means of protecting oneself and others from potential threats. Considering the social roles and experiences of women, they often demonstrate greater sensitivity to the suffering of others and a heightened perception of risk in society, which can result in support for life imprisonment.

4.3 Gender Differences in Dimensions of Empathy, Dark Triad, and Attitudes Towards Life Imprisonment

We examined gender differences using canonical discriminant analysis and derived a function that we named empathy. We can conclude that men are more inclined towards affective dissonance and psychopathy, while women lean towards affective resonance and attitudes regarding prevention and treatment. These results align with previous research on empathy and the dark triad. Existing studies indicate that men are more prone to all traits of the dark triad (Baughman et al., 2012; Jonason et al., 2012; Paulhus & Williams, 2002). In our study, psychopathy was more pronounced in men. We also obtained expected results in empathy, where women are more inclined towards affective resonance, while men exhibit affective dissonance. Previous research agrees that empathy is more developed in women than in men (Hoffman, 1981). These differences are thought to stem from variations in socialization processes and gender identification occurring in men and women (Jordan et al., 1991). Society typically guides women towards the role of caregiver, encouraging them to develop nurturing, compassion, and the ability to attend to the needs of others. Conversely, men are often encouraged to adopt a competitive spirit, autonomy, and aggressiveness, which may result in less emphasis on developing empathy.

Gender differences were also observed in the dimension of attitudes towards life imprisonment—prevention and treatment. Thus, women are more likely to believe that prevention and treatment cannot lead to change in offenders. This result may be surprising given the common perception that women are more empathetic and understanding. How-

ever, the need to protect themselves from potential dangers may explain these results. Their distrust in treatment or prevention could stem from fears for their own safety or that of society as a whole, leading them to prefer more repressive measures and sanctions.

When discussing the limitations of our research, it is important to highlight several key points. The first limitation concerns the restricted sample of respondents from Novi Sad and Bačka Palanka. This may raise questions about the generalizability of the results to the entire adolescent population in Serbia. Given that attitudes towards life imprisonment are a complex phenomenon that can vary in different socio-cultural contexts, it is advisable to conduct research across the entirety of Serbia to obtain more representative results. The second limitation relates to the reliability of the scale measuring attitudes towards life imprisonment used in the study, and thus the results should be taken with some caution. In the results section, we noted that the reliability of the overall scale, as well as its individual dimensions, was somewhat lower. This could be due to several factors, including the small sample size and the limited number of items in the scale. Additionally, reliability may be affected by a lack of variability in respondents' answers, low homogeneity, and item consistency. Further research is certainly recommended to examine the psychometric properties of this scale and ensure its reliability and validity.

The results of our research can be useful in designing violence prevention programs, improving mental health care for adolescents, and developing initiatives that promote empathy and social sensitivity through the educational system. These practical implications can contribute to creating a safer and more supportive environment for young people in their communities.

Although our research focuses on the topic of attitudes towards life imprisonment, the key contribution lies in examining the level of empathy among high school students, particularly considering recent events at the Vladislav Ribnikar school in Belgrade.

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