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# Intellectual Potential, Personality Traits, and Physical Fitness at Recruitment: Relationship with Academic Success in Police Studies

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Nenad Koropanovski<sup>1\*</sup>, Filip Kukić<sup>2\*</sup> , Radivoje Janković<sup>1</sup>, Dag Kolarević<sup>1</sup>, Dane Subošić<sup>1</sup>, and Robin M. Orr<sup>3,4</sup>

## Abstract

This study investigated whether intellectual potential, personality, and physical fitness at recruitment predicted study success in police students (future officers), and whether biological sex influenced these factors. The intellectual potential (high school success and Serbian language test), personality traits (Big Five), and physical abilities (standing long jump, push-ups in 10-seconds, 30-seconds sit-ups, 12-min Cooper running test, and a whole body contract-extend test) of 115 students were assessed on their day of recruitment. Academic success (time-to-graduate and grade point average) were collected at graduation. An independent sample t-test and linear regression were used to determine between-sex differences and predict academic success. Between-sex differences occurred in Serbian language test, the extraversion personality trait, standing long jump, 10-second push-ups, 30-second sit-ups, running, and grade point average. Recruitment measures significantly predicted ( $p < .05$ ) grade point average in male ( $R^2 = 0.344$ ) and female ( $R^2 = 0.636$ ) students. High school success was the most significant predictor in males, while high school success, Serbian language test, and 10-seconds push-ups were significant predictors in females. Personality traits and physical abilities may differ between male and female police students, but individually they do not significantly predict the academic success, regardless of sex. However, higher prediction power in academic success in female students may reduce the cost of training and improve workforce employment, while higher levels in physical abilities may reduce the dropout rate, improve health, and provide the potential their ability to complete physically demanding tasks.

## Keywords

recruitment standards, gender, human performance modeling, training evaluation

## Introduction

### *Physical Fitness and Policing*

The physical demands of police work have the potential to be higher than those associated with more sedentary occupations, hence police agencies in the past may have assumed that males were better suited to the rigors of police duties (Anderson et al., 2001). To this end, and to ensure that police officers are physically capable of performing all occupational requirements safely and successfully, physical fitness assessments have been a mandatory part of the recruitment process (Anderson et al., 2001). Moreover, minimum standards for these assessments aim to ensure that every officer, regardless of sex, is physically fit enough to perform job tasks safely, (Gumieniak et al. 2011; Orr et al., 2021; Shephard and Bonneau, 2002). These physical requirements have been recognized as an objective barrier to the entry of women into uniformed police service (Silvestri & Tong, 2020).

Over the years, policing has evolved into a more complex occupation by a simultaneous increase in preventive and administrative duties; duties which do not rely on physical fitness (Green & Gates, 2014). Accordingly, physical fitness requirements have become less discriminant within police employment standards as many tasks of the policing profession do not require physical engagement when solving problems. The increasing diversification of police duties allows

<sup>1</sup>University of Criminal Investigation and Police Studies, Belgrade, Serbia

<sup>2</sup>Police Sports Education Center, Physical Fitness Assessment and Research, Abu Dhabi Police, Abu Dhabi, United Arab Emirates

<sup>3</sup>Bond University, Gold Coast, QLD, Australia

<sup>4</sup>Tactical Research Unit, Bond University, Gold Coast, QLD, Australia

\*These authors contributed equally to this work.

### Corresponding Author:

Filip Kukić, Police Sports Education Centre, Physical Fitness Assessment and Research, Abu Dhabi Police, Karama Street, Abu Dhabi Police, UAE.  
 Email: [filip.kukic@gmail.com](mailto:filip.kukic@gmail.com)



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for precise definition of duties that require minimum physical fitness standards and those that require different standards for job performance (i.e., officers in cyber security, interrogation, forensics, and anti-corruption). This diversification allows occupational task centered models of physical fitness assessment where needed (i.e., more physically demanding roles) and human-centered assessments (i.e., sex and age adjusted physical fitness) to be employed where performance does not depend of physical fitness (Orr et al., 2021). These two approaches correspond to well-established health-related and performance-related physical fitness domains as described by the American College of Sports Medicine (Riebe et al., 2018). However, despite the recent increase of women in police professions, most women are still are expected to treat their police service as a profession and not a career; the latter being reserved for men (Brown et al., 2019). This disparity could result in organizational structures and environments that pose higher stressors on females than males (Morash et al., 2006).

### *Policing, Stress, and Personality Traits*

The police training and working system have remained relatively rigid (Acquadro Maran et al., 2018; Mona et al., 2019; Violanti et al., 2016). Acquadro Maran et al. (2018) found that officers working both in the office and on outdoor patrols suffered from stressors such as shift work, working alone at night, over-time demands, risk of injury, dealing with co-workers, feeling that different rules apply to different people, and a constant urge to prove oneself to the organization. When engaging in police duties an officer can either prevent a potential problem or solve an existing problem by utilizing knowledge of social and forensic sciences combined with the information about the suspect, or by acknowledging that physical force may be the only solution (Fahsing & Ask, 2016). In that sense, the expertise in decision-making and selection of actions linked to knowledge, technique, and skills (or a combination thereof) is necessary for police officers. For instance, compared with less successful officers, successful officers tend to be more perceptive and possess better discreet knowledge (i.e., synthetic knowledge that allows them more accurate comprehension of a situation) in specific domains and situations (Fahsing & Ask, 2016).

In circumstances such as evidence gathering, interrogation, and suspect observation, police officers require certain personality traits, intellectual capability, and physical fitness capacities as means of coping with occupational workload (emotional, mental, and physical). Considering mental strain, personality traits such as neuroticism, agreeableness, conscientiousness, and extraversion have been associated with perceived sources of workload such as frustration, temporal constraints, and the physical and mental demands of policing (Chiorri et al., 2015; Grant & Langan-Fox, 2007). It is of

note, however, that although police officers may differ by sex in levels of extraversion, conscientiousness, and neuroticism, their personality, coping style, and cognitive emotion regulation are relatively the same (Grubb et al., 2015). To that end, prevalent stereotypes of the dominant characteristics of the two sexes that men are rational and women are emotional, that men cope with crisis situations better than women, and that a man's superiority commands respect, while women are passive and cannot command, do not have scientific support. Following their research, Morash et al. (2006) highlighted that female officers experienced significantly more perceptual challenges with underestimations in their physical ability, perceived lack of influence on how policing gets done, bias, language harassment, and sexual harassment when compared to male officers. However, the authors also found that workplace challenges explained 36% and 24% of the variances in stress in male and female officers, respectively.

### *Effects of Intellectual Potentials on Policing Performance*

A higher intellectual potential and an appropriate psychological profile (i.e., personality traits) could increase resilience to stress (Charles et al., 2008). Subsequently physical fitness could improve stress buffering and physical performance potentials (Charles et al., 2008). A review of higher education and policing showed that officers with higher education displayed a better understanding and comprehension of community issues and human behavior (Roberg & Bonn, 2004). Forero et al. (2009), investigating the effects of police training on job performance, used academic and behavioral qualifications of police cadets attained during their academy training to predict workplace scores provided by superior officers following 1 and 6 years of service. The authors found that academic qualification alone predicted about 27.3% of the variance in cadets' post-academy latent job performance, which the authors claimed to be evidence supporting the efficacy of academic training. The authors further suggested that actual job performance is indeed influenced by psychological variables but that these influences are mediated by academic training. In addition, studies have found that proficiency in reading and writing, as the main social and cultural constructs of a person (Filipović & Vučo, 2012), are crucially important prerequisites for academic success and good policing, while reading level is a significant predictor of academic performance measured by final scores whilst in the academy (White, 2008). Moreover, Grubb et al. (2015) showed that police officers had higher mean scores in negotiation skills than those obtained in general population, indicating the importance of language usage as a mean of vocal communication in policing. Considering this, the intellectual potential of a cadet at recruitment could impact on academic

performance just as intellectual potential developed during academy training may play an important role in job performance (Forero et al., 2009).

### *Recruitment and Academic Training for Policing*

Aforementioned findings are reflected in many police entry requirements including both academic assessments (i.e., academic outcome from high school) and physical fitness assessment (i.e., push-ups, sit-ups, running, etc.). The distinction between academic and physical fitness assessment is of importance given that recruited police who were successful in academic outcomes were shown to be more highly evaluated by their superiors when they joined the police agency (Henson et al., 2010). Therefore, although good physical fitness may occasionally advance the performance of physically demanding tasks, improve health, and reduce injuries, the overall quality of police work likewise can depend on academic knowledge and ability to utilize this knowledge. Thus, the recruitment process, and subsequent assessments, are designed so the recruited police students (who are to become officers) could be assumed to possess psychological, intellectual, and physical fitness capabilities that potentiate their ability to meet the demands of police work while concomitantly remaining mentally and physically safe and healthy. Conversely, once recruited, the academic training of police officers is designed to prepare cadets for the challenges that they may face once they become sworn officers. This includes a wide range of disciplines such as forensic science, interrogation techniques, law, information technology, self-defence, use of force skills, as examples. The assumption follows that the better the students are in mastering these disciplines and skills, the better their job performance as trained officers will be.

Despite the importance of these characteristics for successful policing, no known studies have investigated whether they differ between male and female police cadets. Nor has the degree in which recruitment measures are associated with the academic outcomes of police students been determined. This lack of research is of note given that the aim of the recruitment process is to identify the candidates who are more likely to meet the challenges of police studies and ultimately be successful in police work. Thus, the first aim of this study was to investigate if differences existed in intellectual potentials, personality traits, and physical fitness between female and male police students at the beginning of their police studies. The second aim was to determine if these measures were associated with students' academic success (i.e., grade point average and time-to-graduate). It was hypothesized that the intellectual potential and personality traits would not differ between female and male police students, while male students would be more physically capable. It was further hypothesized that intellectual potential and personality traits will be stronger predictors of academic success than physical abilities.

## **Materials and Methods**

### *Participants*

Retrospective data for 115 successfully recruited students from the University of Criminal Investigation and Police Studies (UCIPS), Belgrade, Serbia were analyzed. The sample consisted of 40 female (mean age =  $18.77 \pm 0.71$  years), and 75 male (mean age =  $18.88 \pm 1.25$  years) students. All participants went through the selection process, consisting of health status (eliminary test); high school success (maximum 40 points); Serbian language test, (maximum 20 points); evaluation of personality traits (maximum 20 points); and physical fitness assessments (maximum 20 points) (Dimitrijević et al., 2014; Kolarević et al., 2014). The recruitment data were collected in 2010, and study success data were collected in 2019, after the legal time for graduation passed (see Academic success below for details). All participants and the testing personnel were informed about the aims and the long-term importance of the data collection. Providing informed consent was a mandatory part of the selection process. The research was conducted in accordance with the conditions of the Declaration of Helsinki, considering the recommendations guiding physicians in biomedical research involving human subjects. Ethical permission was obtained for this study.

### *Intellectual Potential*

High school success was evaluated by calculating the average grade from all the subjects completed during high school. The Serbian language test consisted of several sections including grammar recognition, practical use of grammar in sentence constructions, and knowledge of synonyms.

### *Personality Traits*

Personality traits were evaluated by the standardized Revised NEO Five-Factor Inventory (Costa & McCrae, 1992), whereby participants individually completed a 240-item questionnaire. Thirty specific traits were evaluated, six for each of the five basic personality dimensions: neuroticism extraversion, openness to experience, agreeableness, and conscientiousness. Items were answered on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." The reliability for all dimensions was acceptable, with Cronbach  $\alpha$  ranging from 0.843 to 0.941.

### *Physical Abilities*

Lower-body muscular power in the horizontal plane was assessed indirectly by a standing long jump. Participants were instructed to jump as far as possible from the marked line with both feet, with no restrictions placed on the degree of arm swing or countermovement used (Pihlainen et al., 2018). Upper-body and trunk muscular power and muscular endurance were assessed by the maximal number of push-ups in

**Table 1.** Descriptive Statistics for Demographic, Academic Characteristics, Personality Traits, Fitness Measures, and Academic Success.

Variables	Male (n = 75)		Female (n = 40)	
	Mean	SD	Mean	SD
High school success (Points)	35.29	3.47	36.07	3.40
Serbian language test (Points)	10.91	2.56	12.03	2.49
Openness	112.36	15.75	113.95	17.41
Neuroticism	44.50	11.71	42.83	11.60
Conscientiousness	155.45	11.60	159.78	11.46
Agreeableness	167.46	17.82	165.95	15.61
Extraversion	117.69	12.57	126.90	12.92
Standing long jump (cm)	231.83	17.97	177.23	20.59
Push-ups in 10seconds (No)	11.84	1.57	5.50	2.67
Sit-ups in 30seconds (No)	26.68	3.36	22.40	3.04
Cooper running (m)	2747.49	240.50	2234.18	222.43
Whole body contraction-extension (No of Errors)	6.37	4.38	5.35	5.60
Grade point average	7.46	0.52	7.91	0.82
Time-to-graduate (months)	59.69	14.28	56.28	11.22

10 seconds and maximal number of sit-ups in 30 seconds that could be performed. (Dimitrijević et al., 2014).

General aerobic performance was assessed using the 12-minute Cooper running test, whereby the participants were required to cover the longest possible distance in 12 minutes (Bandyopadhyay, 2015). Motor educability (i.e., movement intelligence) was assessed by the whole-body contraction-extension test. The aim of the whole body contraction-extension test was to estimate the participant's ability to comprehend, learn and perform complex movement tasks (Kolarević et al., 2014; Koropanovski et al., 2020).

### Academic Success

Grade point average and time-to-graduate were collected after students graduated for further analysis. The higher grade point average reflected higher academic success, while the lower time-to-graduate showed better study efficiency. Police students who graduated at the end of the 8th semester were the most efficient students, and those who needed additional time were less efficient. The grade point average was calculated as the average grade of the total of 40 exams required to graduate, while the time-to-graduate reflected the number of months that had passed from the beginning of the student's studies until the day they graduated. The studies at the UCIPS last for 4 years (48 months). Four additional years were granted to students by the Law of Republic of Serbia to complete the remaining exams in case they did not complete them during regular study time. In these additional 4 years, the students did not have to attend lectures but only the exams and whether they completed the remaining exams sooner or later after the regular 4 years was a personal choice. The minimum pass mark for each exam was a grade of six,

while the maximum was a grade of ten. Thus, the students had to possess a minimum of 60% of dedicated knowledge in each subject.

### Statistics

Descriptive statistics (sample size [ $n$ ], mean and standard deviation [SD]) were calculated for each variable. An independent sample  $t$ -test was used to quantify the differences between female and male police officers in all investigated variables. A linear regression analysis (enter model) was used to establish the causal association between the initial psychological, intellectual, and physical fitness outcomes on the one hand and academic success on the other. Statistical significance was defined at 95% probability (i.e.,  $p < .05$ ). All statistical analyses were conducted using SPSS for Windows (IBM, SPSS Statistics, version 23, Chicago, IL). Effect sizes were calculated and defined according to Sullivan and Feinn (2012), being: small ( $d = 0.2-0.49$ ), moderate ( $d = 0.50-0.79$ ), large ( $d = 0.80-1.29$ ), and very large ( $d \geq 1.30$ ) for  $t$ -test and small ( $R^2 = 0.04-0.24$ ), medium ( $R^2 = 0.25-0.63$ ), and large ( $R^2 \geq 0.64$ ) for the regression analysis.

### Results

The descriptive statistics for mean and SD relative to sex is shown in Table 1. The differences between the sexes in the investigated characteristics are shown in Table 2. Regarding intellectual characteristics, female and male students entered the academy with the same high school success, while females had a significantly higher score in Serbian language test. There was no difference in personality traits

**Table 2.** Independent *t*-test for Academic Characteristics, Personality Traits, Fitness Measure, and Academic Success.

Variables	<i>t</i>	Sig	Mean Difference	95% CI		<i>d</i>
				Lower	Upper	
High school success (Points)	-1.16	0.25	-0.78	-2.12	0.56	-0.23
Serbian language test (Points)	-2.25	0.03	-1.12	-2.10	-0.13	-0.44
Openness	-0.49	0.62	-1.59	-7.94	4.77	-0.10
Neuroticism	0.731	0.47	1.68	-2.86	6.21	0.14
Conscientiousness	-1.91	0.06	-4.33	-8.82	0.16	-0.38
Agreeableness	0.45	0.65	1.51	-5.13	8.15	0.09
Extraversion	-3.70	0.00	-9.21	-14.15	-4.28	-0.72
Standing long jump (cm)	14.74	0.00	54.60	47.26	61.94	2.83
Push-ups in 10seconds (No)	16.05	0.00	6.34	5.56	7.12	2.99
Sit-ups in 30seconds (No)	6.72	0.00	4.28	3.02	5.54	1.34
Cooper running (m)	11.18	0.00	513.32	422.39	604.25	2.22
Whole body contraction-extension (No of Errors)	1.08	0.28	1.02	-0.85	2.90	0.20
Grade point average	-3.63	0.00	-0.45	-0.70	-0.21	-0.67
Time-to-graduate (months)	1.31	0.19	3.42	-1.74	8.58	0.27

**Table 3.** Regression Model Summary for Predicting Grade Point Average for Male and Female Police Students.

Predicted variable	Model	<i>R</i>	<i>R</i> <sup>2</sup>	SEE	ANOVA	
					<i>F</i>	Sig.
Grade point average	Male	0.586	.344	0.46	2.67	0.006
	Female	0.797	.636	0.59	3.93	0.002
Time-to-graduate	Male	0.480	.230	13.69	1.52	0.141
	Female	0.613	.376	10.66	1.36	0.246

Note. SEE—standard error of the estimate.

between the sexes, except in extraversion, in which females scored significantly higher. Regarding physical fitness measures, male students performed higher in standing long jump, push-ups in 10 seconds, sit-ups in 30 seconds, and the Cooper running test. Female students obtained a significantly higher grade point average than their male counterparts. The magnitudes of difference were small in intellectual characteristics, trivial to moderate in personality traits, small to very large in physical abilities, and small to moderate in academic outcomes.

A linear regression analysis revealed a significant association between the initial level of measured intellectual capacities, personality traits, and physical fitness outcomes, and the grade point average in female and male police students (Table 3). The effect size of predicting variables was medium in both sexes, but in females the coefficient almost reached a large effect size. The time to graduate could not be predicted from the investigated predictor variables. The analysis of Beta coefficients (B) revealed that the high school success was the most significant predictor of grade point average in male students, while high school success, Serbian language

test, and push-ups in 10 seconds were significant predictors of grade point average in female students (Table 4, Figure 1).

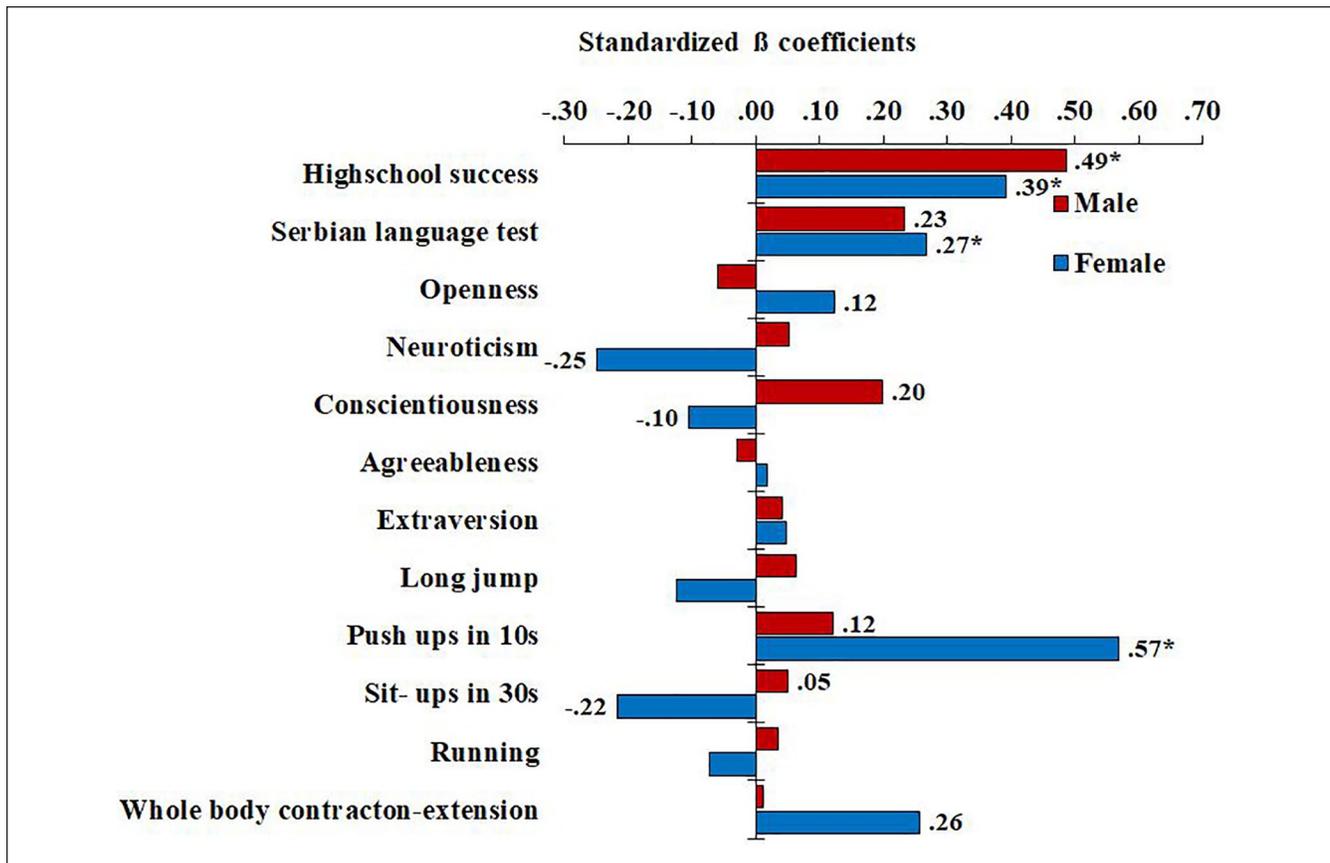
### Discussion

The main findings of this study suggest that female police students performed better in the Serbian language test than male students. Although the difference in high school success was not significant, a small magnitude of difference could be observed as female students had higher mean high school success results. Female students had significantly higher scores in the personality trait of extraversion, while the effect size analysis indicates a small magnitude of difference in conscientiousness as well. In contrast, standing long jump, push-ups in 10 seconds, sit-ups in 30 seconds, and Cooper running performance levels were higher in males by a large to very large magnitude when compared to females. However, the whole body contraction-extension indicated that the ability to comprehend and learn complex motor tasks was the same, regardless of sex. Therefore, the first hypothesis was partially true as female students were advanced in

**Table 4.** Regression Coefficients for Predicting Grade Point Average for Male and Female Police Students.

Variables	Male		Female	
	B	t	B	t
(Constant)	1.80	1.13	5.84	1.77
High school success (Points)	0.07	4.43*	0.09	2.63*
Serbian language test (Points)	0.05	1.99	0.09	2.10*
Openness	0.00	-0.45	0.01	0.87
Neuroticism	0.00	0.34	-0.02	-1.37
Conscientiousness	0.01	1.07	-0.01	-0.55
Agreeableness	0.00	-0.17	0.00	0.12
Extraversion	0.00	0.27	0.00	0.30
Standing long jump (cm)	0.00	0.51	0.00	-0.75
Push-ups in 10seconds (No)	0.04	0.92	0.17	2.79*
Sit-ups in 30seconds (No)	0.01	0.40	-0.06	-1.30
Cooper running (m)	0.00	0.31	0.00	-0.46
Whole body contraction-extension (No of Errors)	0.00	0.10	0.04	1.79

\*Significant at  $p < .05$ .

**Figure 1.** Standardized B coefficients for male and female police students across all measures.

\* $p < .05$ .

the Serbian language test and personality trait of extraversion. The grade point average and time-to-graduate results indicated that both sexes were similarly capable of using their initial potentials in passing all the exams within the

UCIPS curriculum. However, females, on average, attained a 0.45 higher grade point average. Regarding the regression analyses, 34.4% and 63.6% of the variance in grade point average in male and female students, respectively, could be

explained by their initial intellectual potentials, personality traits, and physical fitness potentials. The further analysis of Beta coefficients suggests that high school success was the most significant predictor of grade point average in both sexes, while the Serbian language test and push-ups in 10 seconds significantly contributed to prediction of grade point average in female students only. Thus, the second hypothesis was true for the intellectual potential but not for the personality traits.

A higher high school success and Serbian language test result for female, compared to male, police students suggests that, on average, female students were more successful in their previous schooling process. However, the magnitude of these differences revealed a small effect of sex on the intellectual potential of police students. These results could be explained by the differences in cognitive-motivational functioning of girls and boys in the academic environment, given that high school girls showed a higher internal locus of control compared to their male counterparts (Ghazvini & Khajepour, 2011). For instance, Ishihara et al. (2018) showed that self-fulfillment achievement motivation was associated with screen time/learning habits of school children of both sexes. Authors also found that the association was stronger in girls followed by a higher academic performance (grade point average pooled from eight different subjects). Moreover, Severiens and Dam (1997) found that meaning-directed and prove-yourself-directed learning styles did not differ between females and males. However, they found that reproduction-directed was higher in females and undirected learning style higher in males. Considering this, it seems that cognitive-motivational functioning and different learning styles might cause the difference between females and males in intellectual potentials at recruitment during high school, which was reflected in Serbian language test results (i.e., literacy).

In regard to personality traits, there were no differences between the sexes in neuroticism, openness, and agreeableness, while differences were found in extraversion and conscientiousness. This means that, while the sexes may differ by individual traits, both sexes could still attain academic success. However, the magnitude of the academic outcome may be different. Psychological traits play an important role in directing individual choice and level of persistence to engage in intellectually stimulating activities and settings (Chamorro-Premuzic & Furnham, 2003). For instance, conscientiousness was found to be positively, and neuroticism negatively, associated with grade point average in university students. Moreover, there was a direct association of extraversion, conscientiousness, and neuroticism to physical ill health, as well as the direct association of extraversion and conscientiousness to job satisfaction (Chamorro-Premuzic & Furnham, 2003). In addition, Farsides and Woodfield (2003) found that openness and agreeableness were positively associated with grade point average and academic success. Conversely, openness and agreeableness were also shown to be negatively

associated with grade point average (Rothstein et al., 1994). The results from the present study are in contrast with the above findings because the regression analysis did not identify any significant association between any of the personality traits and study success. This could be partially explained by the sample characteristics that may have produced a ceiling effect, as the police students that enrolled in the studies were selected because they fit a certain personality profile. Accordingly, the diversity of the sample in each of the measures was relatively limited.

In contrast to high school success, the Serbian language test, and personality trait, male students were, in general, significantly better performers in physical abilities when compared to female students by a large and very large magnitude. This could be attributed to the biological differences in body size and body composition of males and females as males are typically taller than females (approximately 7%), while females typically have a higher amount of fat and lower amount of lean muscular tissue (Dopsaj et al., 2015; Kukić et al., 2020). For instance, Dopsaj et al. (2015) found that Serbian male students, in general, were approximately 9% taller and 26% heavier than female students, resulting in a 12% higher BMI. Moreover, males had lower amounts of body fat (11%) and a higher protein/fat index (approximately 100% higher). Recently, Kukić et al. (2020) found that male police students were taller (7.37%) and heavier (26.59%) than their female counterparts, and had a lower percent of body fat (11.38%) and a higher percent of skeletal muscle mass (7.89%). Therefore, police officers (which cadets are to become) can be stated to possess biologically different bodies relative to sex. These differences are also reflected in physical abilities with male cadets performing better in the standing long jump (25.4%), push-ups in 10 seconds (56.1%), sit-ups in 30 seconds (15.7%), and in the Cooper running test (19.1%). However, the whole body contraction-extension score suggests that female and male students were equally capable of comprehending and learning complex motor tasks. For the purposes of recruitment, the tasks in the tests of physical abilities were the same for male and female candidates but they were graded according to standards relative to sex. Thus, the most capable candidates, physically, were selected for both sexes, which excluded the discrimination based on biological differences in physical abilities. Physical abilities as absolute measures were higher in male students, indicating higher physical fitness potentials in male compared to female students. However, the syllabus of physical education was mostly based on learning new skills, which is more related to the whole body contraction-extension test than the level of physical abilities. Moreover, even when the grading system involved evaluation of physical abilities, requirements were sex-adjusted, providing students with an equal opportunity to pass the exam with an indiscriminate grade.

The results obtained for the grade point average revealed that female police students achieved higher academic success than males, indicating that they were by a small measure

better in acquiring the knowledge related to policing jobs. The time-to-graduate was not different between sexes, suggesting similar study efficacy. Grade point average predictability in both sexes was based on the combination of intellectual potentials, personality traits, and physical fitness, whereby the magnitude of prediction in females was almost twice as high as that in males. The larger coefficient of prediction in female than in male students suggests that their academic success was possible to predict with more certainty. In that regard, the control of the system (prediction of human behavior) could be more accurate with females.

## Limitations

The sample consisted of only police students who collected the highest number of points at recruitment, which could have affected the data dispersion. The sample did not include students who dropped out, suggesting a survivor effect. Furthermore, grade point average and time-to-graduate are not the only indicators of academic success. However, the population of this study are a representative sample of a specific population and included the whole generation of police students from their enrolment until graduation. Considering the sample's exclusivity, the results should be cautiously compared to the general population. Future research should investigate the association of dropout rate with the measures from the recruitment as it may inform potential improvements in the recruitment process and selection of candidates. The data on job performance of those who graduated should be collected after several years of service to investigate the association between recruitment, graduation, and job success.

## Conclusion

Intellectual potential seems to be the best predictor of academic success in police students. Personality traits and physical abilities may differ between female and male police students; however, individually they do not significantly predict academic outcome, regardless of sex. Given the ample evidence that personality traits may have a modifying effect on academic success and perception of workload and work environment, their associations should be further investigated. In general, female police students seem to complete the studies for police officers with somewhat higher study success, which indicates that they enter police work force with higher intellectual predispositions. Considering the personality traits, both sexes enter the police workforce with similar personality, whereby females are more extraverted and tend to have higher conscientiousness. However, it seems that the performance of female cadets could be predicted with higher certainty, which is of importance for training management by police agencies. Noting the differences

in physical capability between the sexes, fitness-based assessments need to be considered if they are to serve as an indicator for health or as means of comparison to the general population. In contrast, if they are to serve as an indicator of performance of specific tasks (i.e., chasing and arresting, use of force, riot control, and firefighting) the assessment should be task-related rather than sex- or age-related. The obtained results suggest that employment of females in police agencies could (or should) be increased as it may increase the overall capability of the police service, which could positively reflect on public security and safety. Higher predictability of females indicate that their behavior could be implemented into organization with higher certainty, which is of importance for long-term planning.

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## Orcid iD

Filip Kukić  <https://orcid.org/0000-0002-8625-5375>

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