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Experiences of Serbian Police Officers in Working With Body-Worn Cameras in the Pilot Project

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Abstract: The implementation of body-worn cameras for police officers was first introduced in the United States at the beginning of the second decade of this century. The project of equipping police organizations with BWC quickly spread to European countries, either as a trend in modernization or as a genuine operational need. In September 2023, the Traffic Police Directorate of the Ministry of the Interior of the Republic of Serbia launched a pilot project on the use of body-worn cameras by traffic police officers. One year after the project implementation, a study was conducted among the police officers to assess their experiences, attitudes, and opinions related to the use of this technology. The study on police officers' experiences, attitudes, and opinions toward body-worn cameras represents the first such research within Serbian police practice. The presented research, comparative analysis, and conclusions may serve police leadership in making informed decisions about the body-worn cameras implementation, as well as in developing mechanisms to address potential challenges.

Keywords: body-worn cameras, technology implementation, police organizations, police officers, police accountability.

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INTRODUCTION

Technological innovations in the 21st century have produced numerous tools and devices that, in addition to their commercial use, have also found application within police organizations. Over the past decade, police organizations in the United States (hereinafter: the U.S.) and Europe have been equipping their officers with small cameras that can be mounted on uniforms or parts of their equipment (hereinafter: body-worn cameras or BWC). These cameras are intended to record interactions between police officers and citizens, thereby exerting a preventive influence to ensure adherence to laws, procedural rules, and norms of acceptable social behavior.

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The first large-scale implementation of BWC took place in the United States police organizations following the tragic event in Ferguson in 2014 (Peterson & Lawrence, 2019: 2–3). European police organizations followed this trend – or rather, adopted the good practice from the U.S. – and began implementing BWC in their own operations (Buchzik, 2016; Coudert et al., 2015; Hansen Löfstrand & Backman, 2021; Mohler, 2018; Meyer, 2020; Lehmann, 2017; Borovec & Balgač, 2016; Novak et al., 2021; Brands et al., 2015; Timan, 2016). Within less than a decade, BWC became one of the fastest adopted technologies in police organizations worldwide in the history of modern policing (Lum et al., 2020: 3).

In the past ten years, numerous studies have been conducted in the United States and Europe on the use of BWC. These studies focused on examining the effects and impact of BWC on police officers and citizens, the reduction of complaints and use of force, as well as the increase in the level of transparency of police organizations, increasing community trust in the police, improving police performance, etc. In the majority of publicly available research, the attitudes and opinions of police officers were the primary subjects of analysis (Lum et al., 2019: 97–98)[3].

Since September 2023, the Serbian Police have been using 60 BWC provided through a donation from the U.S. Department of Justice. Following the donation, a pilot project related to their implementation was initiated, and BWC were deployed within Traffic Police Directorate.

The research results presented in this paper originate from the first empirical study in Serbia examining police officers' experiences with BWC within the framework of a pilot project. As the primary end users of BWC, police officers represent a critical focus of research. By providing an evidence-based foundation, such research can support police leadership in making informed decisions regarding BWCs implementation and the way they are used in everyday police practice.

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METHODS

In December 2024, a survey was conducted using a questionnaire to examine the attitudes and opinions of the Traffic Police Directorate officers who had used BWC during the pilot phase. The research was carried out in two organizational units of the Traffic Police Directorate: the Department for Traffic Enforcement and Traffic Escort and the Traffic Police Station for State Roads. Since BWC were used exclusively within these units during the pilot phase, the sample was limited to 67 police officers, all of whom were assigned to traffic police duties and held secondary education qualifications. The respondents had used BWC for a period of 15 months, from September 1st 2023 to December 1st 2024. The study was based on a questionnaire, made specifically for this study, which include 10 questions aimed at examining respondents' experiences and attitudes regarding the use of BWC during the pilot project. Data collection was conducted within police organizational units at the beginning of respondents' work shifts. Prior to completing the questionnaire, the respondents were informed about the aim and purpose of the study, after which they voluntarily agreed to participate. Anonymity of the respondents was fully ensured throughout the entire data collection process.

3 Out of a total of 32 publicly available or published studies, the majority focused on examining the attitudes and opinions of police officers toward cameras (Lum et al., 2019: 97–98).

The years of service of the respondents were categorized into four groups: 0–10 years, 11–20 years, 21–29 years, and ≥ 30 years. Since the distribution was not normal (as indicated by the Shapiro–Wilk test, $p = 0.007 < 0.05$), years of service were presented using the median and interquartile range (P25–P75). The respondents' years of service ranged from 1 to 32 years. The median was 14.5 years (5–22 years), meaning that 25% of respondents had between 1 and 5 years of service, while another 25% had between 22 and 32 years. (Table T-1). Nine respondents did not provide information about their years of service. Minimum and maximum values were also provided.

Table T-1. *Years of Service in the Police*

Median	(P25-P75)	Min	Max
14.5	(5-22)	1	32

Note. P25 – 25th percentile; P75 – 75th percentile; Min – minimum value; Max – maximum value.

Other data were presented using frequencies (n) and corresponding percentages (%). Differences between categorical data were determined using the Chi-square test or Fisher's exact test. A p-value of 0.05 was considered statistically significant. Data were processed using the IBM SPSS Statistics 23 software package.

RESEARCH RESULTS

The indicator of the effectiveness of BWC used in the United States has most often been evaluated based on the reduction in the number of use-of-force incidents and the number of filed complaints against police officers. Following this criterion, the effectiveness of the cameras in the organizational units of the Traffic Police Directorate (TPD) was assessed through statistical indicators concerning the number of submitted complaints and recorded use-of-force incidents during the period BWC were used and the corresponding period of the previous 12 months when BWC were not used (Table T-2).

Table T-2. *Number of Use-of-Force Incidents and Filed Complaints*

No.	Organizational units of the Traffic Police Directorate	Number of filed complaints		Number of use-of-force incidents	
		01/09/2022–31/08/2023	01/09/2023–31/08/2024	01/09/2022–31/082023	01/09/2023–31/08/2024
1.	Department for Traffic Enforcement and Traffic Escort	1	4	1	0
2.	Traffic Police Station for State Roads	14	2	6	10

During the one-year observation period, in the Department for Traffic Enforcement and Traffic Escort, there was an increase in the number of complaints from 1 to 4, while, conversely, the number of use-of-force incidents decreased from 1 to 0. In contrast, the Traffic

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Police Station for State Roads recorded a substantial decrease in the number of citizen complaints, from 14 to 2, accompanied by an increase in the use of force from 6 to 10 incidents (Table T-2).

The respondents' answers to the survey questions are presented in Table T-3[4]. The responses are not shown separately for each of the two TPD's organizational units but jointly, representing all participants from the Traffic Police Directorate (Table T-3).

Table T-3. *Frequencies and Percentages of Respondents' Answers*

Questions asked		Answers		
		Yes[a]	**No[b]**	**I am not sure [c]**
1.	Can the use of cameras improve the safety of police officers?	3 (4.5)	60 (89,5)[a,c*]	4 (6)
2.	After being informed about the use of cameras, do citizens cooperate with you more effectively?	2 (3)	61 (91)[a,c*]	4 (6)
3.	Does the use of cameras enhance the quality of police procedures and the exercise of police powers?	1 (1.5)	64 (95.5)[a,c*]	2 (3)
4.	Have you acted more cautiously and thoroughly while working with cameras?	3 (4.5)	60 (89.5)[a,c*]	4 (6)
5.	Have you achieved improved daily work performance while using cameras?	0 (0)	65 (97)[c*]	2 (3)
6.	Has the use of cameras influenced your level of attention during interventions?	9 (13.4)	54 (80.6)[a,c*]	4 (6)
7.	Would cameras be useful in the work of the Serbian police?	2 (3)	59 (88)[a,c*]	6 (9)
8.	Should the Serbian Police introduce cameras into their operations?	3 (4.5)	59 (88)[a,c*]	5 (7.5)
		Always[a]	**Sometimes [b]**	**Never[c]**
9.	Have you used camera footage to assist in preparing reports or other official documentation?	0 (0)	3 (4.5)	64 (95.5) [b*]
		Yes[a]	No[b]	Sometimes[c]
10.	Have you modified your behavior while working with cameras?	2 (3)	63 (94)[a,c*]	2 (3)

Note. Fisher's exact test; *p < 0.001.

The data presented in Table T-3 indicate predominantly negative attitudes toward the effectiveness and usefulness of BWC in police work. Across all ten survey questions, the majority of respondents provided negative responses, ranging from 80.6% to 97.0%. The highest proportions of negative responses were recorded for survey questions concerning whether BWC enhanced officer safety, improved the quality of police measures and

4 Table T-4 contains only the answers to the questions.

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actions, and contributed to better daily work performance. Only a small proportion of respondents believed that BWC had a positive effect on their attentiveness during police interventions, citizens' cooperation with the police, or the overall usefulness of BWC in everyday policing. Overall, the survey responses indicate that respondents generally did not perceive BWC as having substantial positive effects on police work.

From a demographic perspective, the respondents' answers were analyzed based on their years of service. In addition to education, work experience represents an important factor in every profession. It plays a crucial role in shaping attitudes and opinions regarding the specific characteristics of the profession—for example, its organization, powers and duties, equipment, tools, and other elements essential for effective performance (Table T-4).

Table T-4. *The Overview of Respondents' Answers by Number of Years of Their Work Experience: N (%)*

Qs asked	Answer to the questions	Yrs of service not provided (n = 9)	0–10 years (n = 20)	11–20 years (n = 20)	21–29 years (n = 11)	≥ 30 years (n = 7)
1.	I am not sure[a]	0 (0)	2 (10)	1 (5)	0 (0)	1 (14.3)
	No[b]	9 (100)	16 (80)[a,c*]	19 (95)[a*]	11 (100)	5 (71.4)[a,c*]
	Yes[c]	0 (0)	2 (10)	0 (0)	0 (0)	1 (14.3)
2.	I am not sure[a]	0 (0)	3 (15)	0 (0)	0 (0)	1 (14.3)
	No[b]	9 (100)	15 (75)[a,c*]	20 (100)	11 (100)	6 (85.7)[a*]
	Yes[c]	0 (0)	2 (10)	0 (0)	0 (0)	0 (0)
3.	I am not sure[a]	0 (0)	1 (5)	1 (5)	0 (0)	0 (0)
	No[b]	9 (100)	18 (90)[a,c*]	19 (95)[a*]	11 (100)	7 (100)
	Yes[c]	0 (0)	1 (5)	0 (0)	0 (0)	0 (0)
4.	I am not sure[a]	0 (0)	1 (5)	2 (10)	0 (0)	1 (14.3)
	No[b]	9 (100)	16 (80)[a,c*]	18 (90)[a*]	11 (100)	6 (85.7)[a*]
	Yes[c]	0 (0)	3 (15)	0 (0)	0 (0)	0 (0)
5.	I am not sure[a]	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)
	No[b]	9 (100)	20 (100)	19 (95)[a*]	11 (100)	7 (100)
	Yes[c]	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
6.	I am not sure[a]	0 (0)	3 (15)	0 (0)	0 (0)	1 (14.3)
	No[b]	8 (88,9)[c*]	15 (75)[a,c*]	18 (90)[c*]	8 (72.7)[c*]	5 (71.4)[a,c*]
	Yes[c]	1 (11.1)	2 (10)	2 (10)	3 (27.3)	1 (14.3)
7.	I am not sure[a]	0 (0)	2 (10)	2 (10)	1 (9.1)	1 (14.3)
	No[b]	9 (100)	17 (85)[a,c*]	18 (90)[a*]	9 (81.8)[a,c*]	6 (85.7)[a*]
	Yes[c]	0 (0)	1 (5)	0 (0)	1 (9.1)	0 (0)
8.	I am not sure[a]	0 (0)	1 (5)	4 (20)	0 (0)	0 (0)
	No[b]	9 (100)	18 (90)[a,c*]	15 (75)[a,c*]	10 (90.9)[c*]	7 (100)
	Yes[c]	0 (0)	1 (5)	1 (5)	1 (9.1)	0 (0)
9.	Never[a]	9 (100)	19 (95)[b*]	20 (100)	10 (90.9)[b*]	6 (85.7)[b*]
	Sometimes[b]	0 (0)	1 (5)	0 (0)	1 (9.1)	1 (14.3)
	Always[c]	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
10.	Sometimes[a]	0 (0)	0 (0)	1 (5)	0 (0)	1 (14.3)
	No[b]	9 (100)	19 (95)[c*]	18 (90)[a,c*]	11 (100)	6 (85.7)[a*]
	Yes[c]	0 (0)	1 (5)	1 (5)	0 (0)	0 (0)

Note. Fisher's exact test; *p < 0.001.

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The analysis of responses according to the years of professional experience indicates that the respondents' attitudes were highly consistent regardless of the length of service. Across all experience categories, negative responses predominated, except for Question 9, where the predominant response was "Never". Only a small number of officers with up to ten years of service believed that the use of BWC could enhance police officer safety and improve citizen cooperation with the police after being informed that the interaction was being recorded. One officer in this category stated that BWC could improve the quality of police actions, and the exercise of police powers, while three respondents reported that they had acted more cautiously and thoroughly when using BWC. None of the categories of service length recorded a positive response indicating that BWC had contributed to improved daily work performance. The responses to Question 6 indicate that the use of BWC influenced the attentiveness of the officers during police interventions for only a small number of respondents, with positive responses being most frequent among officers with 21–29 years of service. Overall, the findings indicate that the respondents did not perceive BWC as having substantial positive effects on police work across all categories of service length.

Experienced police officers, particularly those with more than 10 years of service, are in a position to recognize the specific demands and challenges of the policing profession, especially the risks to their personal safety, the difficulties involved in collecting evidence, and the need to improve police performance. Therefore, the responses provided by respondents with more than 10 years of service can be considered particularly concerning. These experienced police officers did not recognize any positive aspects of the use of BWC in enhancing either their personal safety or the quality of their work.

In the final part of the questionnaire, respondents were given the opportunity to share their personal opinions about BWC. This opportunity was utilized by 32 respondents. In their comments, officers suggested that the use of BWC should be discontinued as soon as possible, citing negative effects on health, and an increase in stress, tension, and nervousness during work. The respondents also reported perceiving the pilot implementation as discriminatory or punitive because only officers from the Traffic Police Directorate were required to use BWC. They emphasized that all organizational units, especially those where officer safety is at risk, should have access to BWC. Additionally, respondents criticized the long duration of the pilot phase[5] and noted citizen dissatisfaction, as some did not want their interactions to be recorded. Citizens reportedly requested justification for the legal basis of their recording and the recording of data from documents.

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DISCUSSION

Over the past decade, an increasing number of police organizations worldwide have been implementing BWC in their operations. Police agencies in the United States adopted this technology primarily to address issues of racial profiling, as well as violence and unprofessional conduct by police officers toward African American citizens, and the resulting growing distrust of citizens and communities toward the police system (Stoughton, 2018; Peterson & Lawrence, 2019; Braga et al., 2018; Nowacki & Willits, 2018). In contrast, European police organizations did not face a similar crisis of public trust. Their motivation

5 The respondents were informed that the pilot project would last six months.

for adopting BWC stemmed from the increasing threats faced by police and state officials, which prompted them to introduce BWC as a measure to enhance safety and accountability (Buchzik, 2016; Coudert et al., 2015; Hansen Löfstrand & Backman, 2021; Ariel et al., 2015; Meyer, 2020; Sousa et al., 2016; White et al., 2017; White et al., 2018; Mohler, 2018; Lehmann, 2017; Borovec & Balgač, 2016; Novak et al., 2021; Brands et al., 2015; Timan, 2016).

The use of BWC in police work is intended to have a positive influence on both police officers and citizens, encouraging them to adhere to laws, regulations, and norms of socially acceptable behavior. When both parties know that their interaction is being recorded, they tend to pay more attention to their conduct. This heightened awareness occurs as a direct result of being recorded, which in turn positively affects the consciousness of both citizens and police officers (Peterson & Lawrence, 2019: 100). When individuals – whether police officers or citizens – are aware that their behavior and actions are being filmed, the likelihood of exhibiting inappropriate conduct or behavior decreases, primarily due to the potential consequences that may follow (Ariel, 2016: 735–736).

The period following the implementation of BWC in the U.S. police organizations was marked by numerous studies examining their effects, impacts and related issues. Research on the achieved effects of BWC use generally indicated a positive impact, particularly in terms of reducing the use of force and the number of citizen complaints (Hedberg et al., 2017; Peterson et al., 2018; Lum et al., 2019; Katz et al., 2014; Ariel et al., 2015; Miller et al., 2014; Braga et al., 2017; Jennings et al., 2017). In the Serbian Police, results over a one-year period varied across the two organizational units of the Traffic Police Directorate (TPD). In one unit, the number of complaints increased, while in the other it decreased compared to the period before cameras were used. Considering the statistical indicators over a one-year comparative period, no impact of the BWC on reducing the number of complaints or the use of force can be observed (Table T-2).

Based solely on the statistical data recorded over a one-year period in these two police organizational units, it is not possible to draw definitive conclusions regarding the impact of BWC on reducing citizen complaints and the use of force. Reliable conclusions can only be reached after examining the individual cases of complaints and use-of-force incidents during the observed period. For example, traffic police officers may have carried out a greater number of traffic control activities, resulting in a higher number of use-of-police powers incidents. In some cases, the effects of BWC cannot be clearly assessed because they cannot be examined independently of the organizational and operational context in which they are implemented. For example, the Rialto Police Department in California, USA reported substantial reductions in both citizen complaints and use-of-force incidents following the introduction of body-worn cameras. However, one year before BWC implementation, a new Chief of Police had been appointed and introduced numerous organizational reforms aimed at improving police performance, enhancing the department's reputation, and strengthening police–community relations. Consequently, the study could not determine whether the observed reduction in the use of force resulted from the organizational reforms introduced by the new police chief or from the implementation of BWC themselves (Ariel et al., 2015: 529–530).

The research evidence suggests that police officers believe that the use of BWC reduces specific types of complaints, particularly frivolous, malicious, and unfounded complaints. Citizens often refrain from filing complaints against police officers after being shown video

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recordings of police encounters (Lum et al., 2019: 100). On the other side, police officers, consciously or unconsciously, adhere more closely to established regulations and operational procedures, thereby improving public perceptions of fairness and procedural justice (Owens & Finn, 2018: 79). Ariel et al. (2015: 530) argue that the reduction in the use of force and the number of citizen complaints results from changes in police officers' behavior, as officers become aware that every interaction is being recorded. Ariel et al. found that higher rates of use of force were recorded among police officers who had greater discretion regarding when to activate and deactivate their BWC compared with officers whose discretion was more limited. When officers failed to comply with established camera activation and deactivation procedures, the use of force increased by more than 70%. Conversely, when officers complied with the prescribed camera activation and deactivation procedures, the use of force decreased by approximately 40% (Ariel et al., 2016: 458–461).

The research in the United States also highlighted positive attitudes and opinions of police officers toward BWC, along with beneficial effects and outcomes resulting from their use (Sousa et al., 2018; Jennings et al., 2014; Newell, 2016; Katz et al., 2014; Rankin, 2013; Wright & Headley, 2021; Meyer, 2020; Crow et al., 2017). On the other side, there are also studies, which are considerably fewer, that highlighted pessimistic attitudes and negative aspects arising from the use of BWC, including police officers' resistance to their implementation. In some studies, officers expressed concerns and reluctance regarding wearing BWC due to constant surveillance, accountability for minor mistakes, unsatisfactory technical solutions related to BWC functioning, the time required to transfer data from BWC, and stress caused by the need to focus on appearance and minor details, which sometimes led to neglecting the essential facts of an incident (Goetschel & Peha, 2017; Groff et al., 2020; Rowe et al., 2018; Heumann et al., 2018; Drover & Ariel, 2015). In this research the reluctance toward BWC implementation effects is strongly negative where the percentage of negative responses ranged from 80.6% to 97%. When responses were analyzed according to years of service, they were consistently negative, with only minor deviations, and did not differ significantly from the results presented in Table T-3.

Skepticism regarding the potential benefits of BWC has also been observed within police organizations in the United States (Jennings et al., 2015; Goetschel & Peha, 2017; Gramagila & Phillips, 2018; Lawshe et al., 2019; Gaub et al., 2016). However, as the initial positive effects of BWC use in the U.S. police organizations emerged, shifts in officers' attitudes happened. For example, at the early stage of BWC implementation, the Washington Police Department recorded an interaction between a citizen and police officers in which the individual verbally abused the officers and subsequently fled the scene. During the initial court proceedings, the defendant denied all charges and entered a plea of not guilty. The police department subsequently provided the defendant's attorney with a copy of the BWC footage, after which the defendant changed his plea and admitted guilt. Following this incident, some police officers revised their views regarding the usefulness of body-worn cameras (Newell, 2016: 1384; Kampfe, 2015: 1165–1166). Similarly, in Serbia, the recognition of early positive outcomes associated with BWC use may foster a perception of BWC as supportive tools in police work, comparable to practice observed in the United States.

Studies conducted across the USA and Europe show that BWC contributed to the enhancement of officer safety and professionalism, as well as increased caution, attention, and improved communication with citizens. They also supported better work performance and

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officers' willingness to continue using BWC in their duties. The use of cameras was associated with greater citizen cooperation during interactions with police officers. The officers reported that cameras were useful in collecting evidence, preparing reports, conducting procedural actions, and similar tasks. None of these positive effects and benefits of BWC were recognized by the respondents in Serbia as for the majority of the survey questions, they expressed predominantly negative views. Positive experiences contribute to favorable attitudes among police officers toward BWC, particularly with respect to enhancing officer safety, improving police performance, and facilitating evidence collection[6]. Conversely, negative experiences with BWC, insufficient knowledge and skepticism regarding their potential benefits, contribute to the development of negative attitudes toward their use among police officers.

One possible explanation for the respondents' negative attitudes is their perception that the use of BWC may alter already established work practices. With the use of BWC, all actions of police officers would be recorded. In such a scenario, officers would be expected to demonstrate greater engagement, persistence, thoroughness, professionalism, adherence to procedures, and overall effectiveness. In certain situations – especially in incidents without witnesses – it can be difficult to hide the truth. Additionally, BWC recordings would reveal differences in performance and work quality among officers. As a result, officers may perceive BWC as a tool for assessing their competences, identifying irregularities or unlawful behavior or detecting potential abuses (e.g., corruption) and other negative behaviors.

Instead of perceiving BWC as a valuable tool that supports their work, BWC are viewed as a mechanism for surveillance and disciplinary control which inherently create reluctance to their implementation. Such concerns have been reported in the United States, where dissatisfaction with BWC stemmed from officers' exposure to continuous supervisory oversight. Immediate supervisors routinely reviewed BWC footage and imposed disciplinary measures in cases of unprofessional conduct by police officers (Pelfrey & Keener, 2018: 547).

BWC implementation may be hindered by (1) the very way in which the need for BWC is justified and (2) the way in which they are implemented. For example, in the U.S. police agencies, BWC were introduced primarily to protect citizens from police violence. This justification implicitly categorized all police officers as irresponsible or violent, which generated dissatisfaction and resistance among officers who perform their duties professionally and lawfully (Hansen Löfstrand & Backman, 2021; Ariel et al., 2015; Meyer, 2020; Sousa et al., 2016; White et al., 2017; White et al., 2018). The Serbian Police did not use BWC to address some specific problem in police practice. The pilot project outlined that BWC are to be used for documenting and monitoring police work, improving law enforcement and work performance, assessing the validity of citizen complaints, preventing abuse and corruption, enhancing police operations, conducting analyses, and carrying out training activities. Emphasizing negative aspects of police officers' work, as a primary justification for BWC implementation, may generate resistance and dissatisfaction among officers, particularly those who perform their duties professionally, as such framing may be perceived as implying distrust in their work. At the same time, officers who do not consistently adhere to professional standards may also resist BWC implementation, given that cameras could expose their unprofessional conduct. This means BWC creates a "lose-

6 The use of BWC by police officers may prevent the obtaining of unlawfully obtained evidence during the conduct of evidentiary actions. For more on the obtaining of evidence by police officers (Živanović, 2024).

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lose" impression in the eyes of the officers: it offends the good and intimidates the bad, resulting in negativity towards it. When determining the reasons for implementing BWC, it is advisable to focus on general interests acceptable to both citizens and officers, such as enhancing their safety and establishing mutual trust. A reason defined in this way may positively influence the prejudices and attitudes of police officers toward BWC.

In police departments that adopted a well-organized and planned approach to BWC implementation, the use of BWC produced significant positive results. Officers held positive attitudes toward BWC both before and during implementation, and citizens also reported positive experiences in their interactions with police and with how they were treated (White et al., 2017; White et al., 2018; Miller et al., 2014; Hedberg et al., 2017; Ready & Young, 2015; Crow et al., 2017). Conversely, in other departments, even within the same country, no significant results were observed if unplanned and hastily executed implementation took place. For this reason, police organizations should adopt a planned and methodical approach to BWC implementation, taking into account anticipated problems and obstacles (Katz et al., 2014; Ariel et al., 2015; Jennings et al., 2015; Miller et al., 2014; Hedberg et al., 2017; Ready & Young, 2015).

The predominantly negative attitudes of respondents and all negative comments suggest that prior to the implementation of the project, there was a lack of planned preparation, particularly regarding provision of specialized training related to BWC use. As end users of BWC, police officers should have been familiarized with the advantages (best practices) and possible sources of skepticism related to BWC use, as well as the legal basis for BWC use in everyday policing in order to avoid any conflicts during police-citizen interactions. Such a training should have been informed by a systematic analysis of established police practices within law enforcement agencies in the United States and Europe, with the aim of proactively identifying and addressing potential obstacles to BWC implementation in local (Serbian) context. In the absence of such foundational knowledge, officers would not have the opportunity to perceive all (dis)advantages of BWC in their daily policing activities. At the same time, the lack of the capacity to provide comprehensive responses to citizens' inquiries, including those related to the legal grounds for BWC usage and other concerns raised by the members of the public caused stress and discomfort among officers and are reflected in their answers to survey questions.

Survey results, while striking given the prevalence of negative attitudes toward BWC implementation, are not entirely unexpected. In 2021, at a time when there was no indication of an upcoming pilot project for BWC implementation, a study was conducted to examine the attitudes and opinions of Serbian police officers toward BWC. The study involved 343 police officers from five organizational units of the Serbian Ministry of Internal Affairs. The majority of respondents in this study held negative attitudes and opinions about BWC, except regarding questions about the contribution of BWC to training and general acceptance of camera implementation in the Serbian Police (Milidragović & Milić, 2024a; Milidragović, Milić & Stamenković, 2025). Perhaps, to the greatest extent, the negative attitudes of respondents in the 2021 survey and the study presented in this paper, may result from their lack of knowledge about the positive aspects of BWC use. Adequate knowledge regarding the capabilities, impact, and contribution of BWC to police work may represent a key factor in their acceptance by end users and in reducing prejudice and negative attitudes. Through targeted education and exposure to positive international experiences,

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police officers may better recognize the benefits of BWC use and increasingly perceive BWC as supportive tools in their professional activities.

The respondents, through their comments in the survey, indicated certain negative effects of BWC use, including stress, nervousness, tension, dissatisfaction, negative health impacts, the long duration of the project, and citizen objections to recording. The additional responsibilities associated with the use of BWC – including checking their technical functionality, correctly attaching them to the uniform, activating them before police encounters, ensuring that the entire interaction is recorded, and reviewing, uploading, and storing the recorded footage in digital databases at the end of each shift – may contribute to negative attitudes, job dissatisfaction, and increased stress among police officers. At the end of each shift, in addition to preparing reports and completing other administrative paperwork, police officers must devote additional time to reviewing recorded footage and transferring and storing video files in electronic databases. In other words, the resistance is fueled by the perception that BWC add significant, uncompensated administrative labor. It is not just about wearing a camera; it is about the entire time-consuming workflow of manipulating them.

Furthermore, police officers may experience stress and dissatisfaction as a result of having to consciously regulate or modify their behavior during interactions with members of the public because they are aware that their actions are being recorded. Experiencing stress while using BWC is also well noted in the U.S. police practice due to the burden of wearing and operating the devices, as well as the need to focus on appearance and formalities rather than critical details of an incident. Officers also reported feeling less confident, and some hesitated to use force out of concern that their actions might appear inappropriate on video or could result in accountability (Goetschel & Peha, 2017; Groff et al., 2020; Rowe et al., 2018; Heumann et al., 2018; Drover & Ariel, 2015). Fear of continuous surveillance and concern about making procedural errors during police intervention shifts attention away from policing in a way that police officers adapt their behavior prioritizing procedural compliance over the substantive aspects of police work. As a result, officers often failed to identify or document key facts relevant to the incident. This adapted behavior also contributed to the omission of important details during police encounters, leading supervisors to place greater reliance on BWC footage than on officers' statements and written reports. Collectively, these factors contributed to increased job dissatisfaction and stress among police officers associated with the use of BWC (Goetschel & Peha, 2017; Groff et al., 2020; Rowe et al., 2018; Heumann et al., 2018; Drover & Ariel, 2015).

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CONCLUSION

The study aimed at examining police officers' attitudes and perceptions regarding BWC was conducted in two traffic police organizational units and included 67 officers who had used BWC during the course of their duties. Given an overall sample size of 67 respondents, there are limits to the generalization of findings presented in this research to assess the broader possibilities, effects, and impact of cameras on police officers in Serbian context.

The implementation of the pilot project in only two organizational units of traffic police limited the number of study participants and prevented the inclusion of the views and perceptions of police officers from other organizational units (branches of policing) and/or geographical areas[7]. Experiences from other units, in both smaller and larger jurisdictions, would present more reliable sample for drawing conclusions on the effects and impacts of BWC. Given the limited number of available BWC (60), it may have been more appropriate to limit the duration of the pilot project to six or eight months. Following this initial period, the cameras could have been reassigned to other police organizational units, thereby increasing the sample size and enabling the collection of more robust and generalizable data.

Depending on the scope and pace of the further implementation of BWC within the Serbian Police, future research should extend beyond police officers to include members of the public, examining citizens' perceptions of police officers equipped with BWC. At the same time, greater efforts should be made to improve the legal and regulatory framework governing the conditions and procedures for the use of BWC. Clear and comprehensive regulation would eliminate uncertainties among both citizens and police officers concerning the legality of camera use in specific operational situations. Future studies should also focus on evaluating the effects of BWC on police officers' performance and on examining changes in the structure and dynamics of police work by comparing periods before and after the introduction of BWC.

The responses to all survey questions were predominantly negative, ranging from 80.6% to 97%. In addition to the negative survey responses, all supplementary comments provided by the participants were likewise negative. The consistently negative responses may be interpreted as resistance to organizational change, particularly changes of established policing practices and the possibility that BWC may expose shortcomings in police officers' performance. Other factors that may have contributed to these attitudes include skepticism regarding the intended purpose of BWC, concerns about continuous supervisory monitoring, increased stress due the fact their behavior is recorded making BWC a source of anxiety rather than a support, the perception that video recordings are given greater evidentiary value than officers' reports and statements, hence making perception that officers' professional judgment is devalued, BWC shifts attention away from policing because officers focus on procedural compliance rather than incident management, the additional responsibilities associated with camera use (including wearing the device, ensuring its technical functionality, and uploading recorded footage after each shift) where extra work is viewed as a burden that detracts from core duties and extends the workday beyond core policing tasks.

The limited scope of the pilot project, together with the predominantly negative attitudes expressed by the respondents, may indicate that the implementation of BWC was not based on a sufficiently systematic and well-planned approach[8]. The lack of pre-implemen-

7 The use of BWC during the pilot phase is based on Article 52, Paragraph 3 of the Police Act. According to this provision, the police may exercise certain powers, measures, and actions, and conduct audio and video recording of police officers' activities only in public spaces. The restriction to public spaces was likely the main reason why the pilot project was conducted solely by the Traffic Police, as their traffic control duties are performed in public areas. For more on the legal basis for the use of cameras and the necessary changes of the Serbian Police Law, see Milidragović, Milić and Petrović, 2025.

8 For further discussion on the extent to which the implementation of body-worn cameras on police uniforms represents a genuine necessity or a forced solution see Milidragović and Milić, 2024b.

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tation training of the participating officers on the benefits of BWC and addressing the possible concerns they may have, based on international policing experiences related to BWC use, likely contributed to police officers' negative attitudes toward their use. However, the negative attitudes identified in this study should not be regarded as a permanent feature of police officers' perceptions of BWC. Instead, they are more likely to reflect the early stages of implementation, when the practical value of technology and potential benefits have not yet been fully recognized due to the lack of a well-planned and systematic implementation strategy. Such an approach will be more effective if lessons learned from pilot projects are carefully considered and incorporated into the follow-up implementation process. Evidence from other police organizations suggests that officers' perceptions often become more favorable over time as they gain practical experience with the technology, become familiar with clearly defined operational procedures, and receive adequate organizational support during the implementation. The entire process should be accompanied by realistic expectations on the part of all stakeholders involved in the implementation of BWC, as BWC should not be regarded as a "magic solution" to the challenges facing modern policing. They are a technical tool that can, to a greater or lesser extent, enhance the efficiency, performance, and safety of police officers, positively influence the legality and propriety of their actions, and improve relationships with citizens and the community.

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