

## A Critical Evaluation of the Pilot Program Regarding Body Worn Video Cameras by South Korean Police

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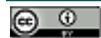
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### Abstract

Despite the widespread adoption of body worn video cameras by law enforcement agencies globally, very few research has been carried out to evaluate the effects of the use of those cameras. The South Korean police ran a pilot program of using body worn video cameras in Seoul for five months and found that frontline police officers were reluctant to use the cameras. This paper aims to explore the reasons behind this unpopularity and evaluate the efficacy of the use of the cameras in the South Korean context. In-depth semi-structured interviews were conducted with nine police officers who have used the body worn video cameras during the pilot program. The findings suggested key restricting factors: (1) BWV cameras relative to smartphones were cumbersome to use, (2) BWV recordings did not reduce the paperwork load, and (3) BWV recordings could be accessed by the Inspection Division. Findings reveal that relevant policies need to be examined in a comprehensive manner and that it is of importance to prioritize the problems and set out to solve those problems accordingly.

**Keywords:** Body worn video camera; Korean national police agency; Pilot program; Restricting factors; Police-citizen encounters.



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### 1. Introduction

Over the past 3-4 years, police departments in some countries, including the UK, US, and Canada, have implemented or have been pushing for the use of body worn video (BWV) cameras by police officers. The use of BWV cameras by police officers has attracted extensive attention from the media. The efforts of police departments to adopt and implement policies are generally met with considerable internal resistance. However, the use of BWV cameras by police officers has been implemented without requiring extensive research, due to the perception that the use of BWV cameras enhances the law enforcement's sense of responsibility, reduces abuse of police authority, and fosters safety for both police officers and citizens (Conlon, 2016).

The use of BWV cameras by police officers is already widespread across the UK and US. In the US, the use of BWV cameras in the police has been adopted by approximately 7,000 out of 18,000 police departments (Sanburn, 2015). To promote the use of BWV cameras, the federal government has consistently provided funding to support BWV camera programs. As such, it is probable that the use of BWV cameras will become even more prevalent in the US (Edwards, 2015). In 2015, the Metropolitan Police Service, which is the largest police force in the UK, announced that all of its frontline officers would be equipped with BWV cameras (Evans, 2016). It was expected that a vast number of frontline officers across the UK would be equipped with BWV cameras (Peachey, 2016). However, the motivations for adopting BWV cameras differ from country to country, as social context in which they are situated and the challenges they face are dissimilar. Despite the differences in the circumstances and expected results of adopting BWV cameras, these countries share a commitment to enhancing public trust in police officers.

South Korea also intends to foster public trust in law enforcement by equipping field officers with BWV cameras. More specifically, the South Korean police places great emphasis on establishing law and order which is directly related to public safety. The public expects the police to actively respond to crimes ranging from serious criminal offenses to minor offenses. But there has been an increasing number of unlawful public interference with the police in the execution of their duties, which includes verbally abusing and/or assaulting police officers. Public complaints involving police misconduct have also been on the rise. As such, police officers find it increasingly difficult to carry out their duties with integrity and conviction. The Korean police, in response to this trend, have been in the process of equipping police officers with BWV cameras. BWV recordings were expected to be useful in resolving situations when there is more than one version of a given situation as they can be used as evidence in a court of law.

To evaluate the effectiveness of adopting BWV cameras, the Korean National Police Agency (KNPA) carried out a pilot program to equip officers with BWV cameras from 1 November, 2015 until 30 March, 2016. During this period, 100 BWV cameras were distributed to police officers from 21 police stations. After the pilot program, the Korean police headquarters proposed recommendations based on an analysis of the results of the pilot program.

## 2. Literature Review

BWV cameras are recording devices that are worn attached to the police officer's uniform to capture the officer's interactions with the public. An advantage of equipping police officers with BWV cameras is that the recorded files can be used as evidence in investigations and court proceedings. From the standpoint of criminology, the use of BWV cameras by police officers is effective in preventing and deterring crime, as well as lessening abuses of authority. However, the police use of BWV cameras raises privacy issues. Other concerns that have been raised are the high costs of purchasing BWV cameras, and storing and transmitting data. There are concerns that a heavy reliance on BWV cameras would be problematic should the devices become defective, as the cameras may be unable to record essential details.

In the US, the increase in police use of firearms and the abuse of police authority in police-citizen encounters has emerged as a societal problem over the past several years. A section in The New York Times called 'Police Brutality, Misconduct and Shootings' covers the use of excessive force by US police departments in-depth.<sup>1</sup> As more and more unarmed minorities were killed by police, a growing number of protests were held in response to the deaths and police brutality against minorities. The violent unrest in Ferguson, Missouri, which occurred in August, 2014, was an extreme case. Police at federal, state and local level determined that the use of BWV cameras would be a viable solution, and as such sought to distribute BWV cameras to field officers. The Obama Administration proposed a \$75 million budget to purchase and deploy 50,000 BWV cameras over a three-year period. State and local police departments across the US were set to receive funding of \$20 million, starting 2015 (Edwards, 2015). No comparable riots occurred in the UK. However, the UK sought to use the BWV cameras to record police-citizen encounters, which would make available enhanced evidence (Home, 2006).

The research exploring the effects of BWV cameras on the police-public relations is still in its nascent stage. The Home Office in the UK published a report on the first national pilot program on the use of BWV cameras (Home, 2007). The report asserted that the use of BWV cameras shortened the time police officers spent on administrative work, which lengthened the police patrol time, effectively increasing public satisfaction with the police. Ellis *et al.* (2015) conducted a comparative study of the police officers on the Isle of Wight with BWV cameras. The study gathered and compared data in the year before and after equipping the police officers with BWV cameras on the following issues: public attitude toward police; reduction of crime rates; judicial response to domestic violence; and citizens' complaint against police. In general, the use of BWV cameras had a positive effect on the abovementioned issues. The crime rates dropped. In particular, the number of domestic violence cases, indictments, and complaints against the police decreased. On a similar note, Ariel *et al.* (2015) found that the deployment of BWV cameras had a positive effect on the way the police use physical force including Taser and firearms. The study held that BWV-wearing police officers were half as likely to use physical force than those police officers who were not issued BWV cameras. The number of complaints against police officers decreased from 0.7 complaints per 1,000 contacts to 0.07 per 1,000 contacts after a year-long use of BWV cameras. The assertion that the number of public complaints against the police decreased is supported by a number of studies (Ellis *et al.*, 2015); (Rankin, 2013); (Smart, 2013). The study showed that police officers who wore BWV cameras were more careful about conducting a stop-and-frisk, and made significantly fewer arrests. The aforementioned studies show that use of BWV cameras not only impacts the crime rate and judicial process, it also changes behaviours of police officers in police-citizen encounters in a way that reduces the indiscriminate use-of-force. It can be claimed that these overall positive effects enhance public trust in the police as it is measured in the decreased complaints of citizens against the police.

This study examines interviews of nine police officers who used BWV cameras in accordance with materials based on a BWV pilot program in Korea. Initially, 20 police officers were approached but 11 police officers declined to be interviewed. Nine police officers were interviewed using the unstructured interview approach. There were two reasons for using the unstructured interview approach to collect information. The first reason was to find out concepts and themes related to the use of BWV cameras within the Korean context, as there currently exists very little research on the subject. Second, the Korean police's conservative work culture and unwillingness to provide information were the driving forces behind the freestyle conversations, which was an effective way to draw out as much information as possible from the interviewees. This study aims to delineate problems associated with deployment of BWV cameras, as illustrated in the interviews, and propose improvements that are applicable to other countries' use of BWV cameras.

## 3. Background and Expected Outcomes

In Korea, police officers' ability to apply their powers to enforce laws is routinely put at risk. It is not uncommon for persons involved in a skirmish to obstruct patrolling police officers, when the officers arrive at a scene (Sin, 2010). Also, if the public is dissatisfied with any aspect of police conduct, the public can file a complaint with the police or in court. The media calls the Korean police the "battered police" and states that the Korean police struggle to enforce the law strictly. According to the Korean National Police White Paper published in 2014, 576,829 complaints, including petitions, against police officers were filed by the public that year. Considering that the total number of police officers in 2014 was 109,364, an average of 5.27 complaints per officer were filed. If the number of police officers who perform various administration duties are excluded from the calculation, the number of

<sup>1</sup> <http://www.nytimes.com/topic/subject/police-brutality-misconduct-and-shootings>

complaints filed against frontline police officers would in fact be higher than the average of 5.27 complaints per officer.

Furthermore, the seriousness of the problem is underscored by the number of incidents and arrests for interfering with the police in the execution of their duties. An arrest for interfering with the police in the execution of their duties can be made when an individual unlawfully obstructs the police in the lawful execution of their duties. The total number of investigations for obstructions ranges from 13,407 to 15,142 from 2012 onwards. However, the number of arrests<sup>2</sup> for obstruction was much higher in 2014 and 2015 than in 2012 or 2013, which indicates that these incidents are becoming more serious, requiring severe penalties. Specifically, the number of arrests in 2014 was 122% higher than the number of arrests in 2012. The number of arrests in 2015 was 151% higher than the number of arrests in 2013. To make an arrest, police officers or prosecutors must obtain an arrest warrant issued by a judge, which implies that an arrest requires a consensus from all major actors in criminal justice system. The growing number of arrests demonstrates that the police, prosecutors and the courts agree that interfering with the police in the execution of their duties is an increasingly serious issue.

<Number of Interference with Law Enforcement Incidents and Arrests>

	Arrest	Non-arrest	Total	Annual increase rate
2012	729	13,660	14,389	-
2013	573	12,834	13,407	-6.8%
2014	1,617	13,525	15,142	+12.9%
2015	1,437	13,119	14,556	-3.87%

Source: National Police White Paper

In June of 2015, the KNPA conducted a survey of 8,200 police officers across Korea on the adoption of BWV cameras as an operational tool. 97% of the respondents indicated that they were in favor of adopting BWV cameras as an operational tool (Park, 2015). The majority of respondents favored the deployment of BWV cameras because not only can BWV recordings be used to resolve complaints, they can be used in court proceedings as evidence.

The KNPA determined that most of the frontline police officers needed BWV cameras, and proceeded to push for deployment of BWV cameras in the latter half of 2014. Among many studies in relation to BWV cameras, the Korean police headquarters closely examined the positive results set forth in the study by Ellis *et al.* (2015), expecting similar effects such as the rise in domestic abuse prosecutions and decline in complaints against police officers when deploying BWV cameras in Korea. Against the backdrop, main expectations are suggested as follows.

First, the use of BWV cameras is expected to protect the frontline police officers in the lawful execution of their duties. Civilians interfering with the police in the execution of their duties occurs quite often. It is expected that informing people that frontline police officers are equipped with BWV cameras would reduce unreasonable or irrational behaviour in public-citizen encounters. Furthermore, the BWV recordings would be useful in resolving situations when there is more than one version of a given public-citizen encounter. The police use of BWV cameras can reduce complaints against officers including false allegations in that the BWV footage has the potential to be used as evidence in court. Second, the use of BWV cameras is expected to reduce abuse of police authority, as the officers' use of excessive force would lessen. The public is particularly concerned with abuse of police authority, which is the main source of public complaints against police officers. Effectively controlling abuse of police authority would enhance public trust in law enforcement. Third, saving the BWV recordings to the police databases would enable police data sharing as needed. However, the police organizational structure does not facilitate police data sharing. Also, indiscriminate disclosure of crime scenes may raise privacy and security concerns. As such, secure sharing of BWV recordings must be examined.

#### 4. Planning Procedure

As in many countries, the Korean police has limited budgetary support. As such, in order to adopt BWV cameras, the KNPA made a request for funding to the Ministry of the Interior and Safety. The Ministry of Interior, in an aim to improve the quality of life of all citizens, distributes funding through its U-Service Program for government affairs. Specifically, this program provides funding for technology and innovation in administrative work. On 18 December, 2014, the Business Inquiry Commission panel which assesses the funding applications made the following statements (Korean, 2014b): (1) Even though the public's sense of safety is increasing, the level of law and order, as well as nighttime safety, is still at an unacceptable level. Measures to better secure evidential data are necessary to establish governmental authority and foster safety; (2) The potential benefit of equipping patrol officers with wearable cameras is the deterrent effect on officers and citizens, resulting in fewer crimes. The deterrent effect is expected, especially, if the use of wearable cameras is advertised enough. The Business Inquiry Commission determined that the deployment of wearable cameras would have a positive impact, and allocated 805,000,000 KRW (approximately, US\$720,000) to the wearable cameras project (Korean, 2014b).

<sup>2</sup> In this context, an arrest denotes indictment with physical detention up to 30 days. If physical detention is applied, it represents seriousness of the case.



<Planning organizational Structure>

## 5. Pilot Program

The pilot program of using BWV cameras was conducted from 1 November, 2015 until 30 March, 2016. 100 BWV cameras were distributed to 21 police stations across the nation. The purposes of adopting BWV cameras are to protect the frontline police officers in the lawful execution of their duties and to provide evidence in complaint cases against the police (Korean, 2014b). The use of BWV cameras was limited to police officers responding to 112 emergency calls, checking for traffic violations and investigating traffic accidents. The use of BWV cameras was not permitted when protest policing and investigating, as these usages raised human rights concerns. In general, the selected police stations were those located in areas with high policing demands. Specifically, 78 BWV cameras were deployed by the Patrol Division, and 22 BWV cameras were deployed by the Traffic Division.

After 5 months of piloting the BWV camera program, the KNPA released data on the number of BWV cameras booked in and out per month and the number of BWV recordings made per month.

<BWV Cameras: Number of Bookings and Recordings (KNPA, 2016a)>

	Total	'Nov., '15	Dec., '15	Jan., '16	Feb., '16	Mar., '16
Bookings	10,219	1,875	2,183	2,035	1,549	2,577
Recordings	187	42	109	11	20	5

The above table shows that the frontline police officers did not actively use BWV cameras. They booked an average of 2,044 BWV cameras, and made an average of 37 BWV recordings per month. Considering that a total of 100 BWV cameras were issued, the monthly average booking per camera was 20.4 and the monthly average recording per camera was 0.37. This meant that it took 1.47 days for a given BWV camera to be booked out, and it took 81 days for 1 recording to be made. When the number of bookings is compared to the time it took for 1 recording to be made, it shows that 1 recording was made when approximately 55 times a given BWV camera was booked out. Considering that an important purpose of adopting BWV cameras was to secure evidence of frontline situations, booking out and making recordings on a crime scene should have been given a high priority. However, the ratio of bookings to recordings was 55:1, which meant that recordings were made only in about 2% of cases of the BWV bookings. The low usage of the recording function is surprising given that 97% of those surveyed in June of 2015 were in favour of adopting BWV cameras.

What is the reason behind results? Why did the frontline police officers avoid using the BWV cameras? Based on the results of the interviews with the 9 police officers, the factors limiting the use of BWV cameras are examined, as below.

## 6. Main Findings and Discussions

Firstly, there are inconveniences associated with using BWV cameras. Korea has the world's highest rate of smartphone ownership at 88%, with the US at 72% and the UK at 68% (Poushter, 2016). A majority of police officers in Korea use smartphones, and use the recording function on the smartphones for work-related activities. Using BWV cameras is not compulsory, which means police officers can choose to use smartphones on their duties if BWV cameras are difficult and inconvenient to use.

*Police Officer 1: I have been using my smartphone to capture photos and videos while responding to emergency calls. Prior to the deployments of BWV cameras, the use of smartphones was widespread among police officers. Perhaps because the adoption of BWV cameras is in an early phase, many police officers find using BWV cameras to be complicated. Capturing a video with a BWV camera had to be followed up with documentation, which the older police officers found cumbersome.*

*Police Officer 4: There was one time when I was unable to make video footage using the BWV camera because while I was turning my camera on, the disorderly conduct of the drunk people was already subdued. When I checked afterwards, it took 10 seconds for the camera to power on. In a situation where things are happening fast, 10 seconds is a very long time, and makes using a BWV camera a difficult task. The camera is turned on upon arriving on the scene because the camera will only run for about 2 hours with a fully charged battery. Longer battery life would be useful.*

*Police Officer 6: Uploading recording files was inefficient as it takes a while. Furthermore, as I wasn't sure the uploaded recording would be utilized, I found uploading recording files to be a cumbersome task.*

It appears that using BWV cameras is not as easy as using a smartphone. Issues, as discussed above, hampered the effectiveness of BWV cameras. Frontline officers, when necessary, use their own smartphones (or smartphones provided by the police department) to capture footage. Successful adoption of BWV cameras depends on ensuring that BWV cameras are more effective and easier to use than smartphones. It must be noted that police officers are very familiar with smartphones as they use it daily. Better BWV devices must be developed, as improved versions of smartphones with the newest technology are released each year.

Secondly, BWV camera-related procedures deter police officers from using BWV cameras. Police officers are required to comply with certain rules when using BWV cameras. To book out a BWV camera, police officers must follow certain rules. Once a recording is made, police officers to submit the footage to the applicable division. It has been noted that using BWV cameras does not reduce the paperwork load for police officers.

*Police Officer 3: Police officers are required to access the computer system using their network login. However, there is a limited number of computers at a given police station, and may take more than 10 minutes for a police officer to gain access to a computer. Computers are not always available at any given moment, and when there is an emergency call that I need to respond to and I can't access a computer immediately, booking out a BWV camera is not an easy task.*

*Police Officer 2: When an incident requires to be booked, I have to do the same paperwork as before and make physical delivery of the materials to the Investigation Division or the Women and Youth Division depending on the nature of a case. As such, in addition to preparing the conventional documents, I was required to upload the recorded file to the server. It would be efficient if the recordings could be substituted for the paperwork.*

*Police Officer 9: In a traffic accident case, investigators do the paperwork as usual, such as attaching pictures on an accident scene and mapping a crime scene. The reality is that BWV footage did not reduce the paperwork burden. So I do not feel a particular need to use BWV cameras.*

There seems to be a direct relationship between the problems associated with the current procedure for booking out BWV cameras and the low number of bookings of BWV cameras. 6-10 police officers are stationed at any given police station across Korea. Also, there are 2-3 computers per police station. Police officers give priority to 112 emergency calls and administrative work over other chores (e.g. booking out BWV cameras). In addition, submitting recorded evidence does not add any efficiency in the investigation process, and this deters police officers from making BWV recordings. For example, after having responded to an emergency call, the frontline officer has to complete the necessary paperwork and submit the gathered evidence to the Investigation Division or other relevant investigatory divisions. Patrol officers have consistently complained of the paperwork burden. If using BWV cameras relieved them of their paperwork burdens, more police officers would use BWV cameras as a way to gather evidence.

Thirdly, there is a discrepancy in the actual use depending on the duties that police officers carry out. BWV cameras are more likely to be used by officers assigned to the Patrol Division than the Traffic Division. These two divisions use BWV cameras for different purposes.

*Police Officer 7: When police officers show up at a traffic accident scene, it is usually the case that the traffic collision has already occurred. As such, I found that taking pictures with a camera or a smartphone works well. Making a recording with a BWV camera is not necessary. Also, it is not unusual that we are on duty for 4-5 hours at a DUI checkpoint, and we end up apprehending only one impaired driver. So police officers at DUI checkpoints typically turn off their BWV cameras. I have never used a BWV camera when on traffic duty.*

Disputes sometimes arise between citizens and patrol officers when the officers respond to 112 emergency calls. Patrol officers tend to record these disputes, meaning that there is a video footage of the encounter. However, police officers assigned to the Traffic Division normally arrive at the scene of an accident after the accident has occurred. Because the accident has already occurred, police officers are not as motivated to use the BWV camera to make a recording. They prefer to use smartphones, which are less cumbersome to use than BWV cameras.

Fourthly, frontline officers feel uncomfortable using BWV cameras because they record the officers' voices and behaviours and do not have an editing function. There is a division that is responsible for overseeing all operations of a local police force. The Inspection Division takes a strong lead on finding faults with rank-and-files and internally disciplining them. The division routinely checks whether police officers follow orders and guidelines which are handed down from upper departments along the hierarchy. It is understandable that police officers are afraid of the fact that BWV recordings may be used against them for internal disciplining purposes. In addition, BWV footage may be used as evidence in a court against field officers if they are involved in a skirmish with an individual. As such, BWV footage of police behaviour would be reviewed as part of performance evaluation or in legal dispute.

*Police Officer 8: When dealing with intense emotional situations, there were times when I spoke inappropriately. So I became hesitant to use the BWV cameras, as BWV cameras do not have an editing function. BWV footage can be used as evidence, and in other ways that I am unaware of.*

*Police Officer 5: There are times when police officers detain a person who engages in unlawful interference with the police in the execution of their duties. If there is a video footage of the encounter, such footage will be examined by the court. The footage can be a double-edged sword. If the police officer made a minor error and it was recorded, the court ruling might lead to an unfavourable outcome for the police officer.*

There is currently no regulation that states that BWV recordings can only be used in related court proceedings. As such, BWV recordings can also be used as a surveillance tool by the Inspection Division, which carries out internal monitoring activities. It is no secret that the Korean police engages in extensive monitoring of police officers to maintain its strict hierarchical structure. Although official data on officers who are disciplined is not available, the monitoring operations of the police can be ascertained through the number of staff assigned to the Inspection Division. According to the [Korean \(2014a\)](#), there were 1,555 police personnel assigned to the Inspection Division, accounting for 1.4 % of all police personnel. Depending on the seriousness of the complaint against the police officer, inspection activities can occur at all levels of the Korean police structure. Given these characteristics and implications of the Korean police structure, it appears reasonable that frontline officers are concerned about BWV recordings being accessed by the Inspection Division.

The above interview excerpts highlight factors that limit the use of BWV cameras. The concerns that (1) BWV cameras relative to smartphones are cumbersome to use; (2) turning on a BWV camera takes a while; (3) uploading recording files takes a while; (4) booking out a BWV camera is an inconvenient process; (5) BWV recording does not reduce the paperwork load; (6) traffic officers typically arrive at the scene of an accident after the accident has occurred (Different nature of duties between the Patrol Division and the Traffic Division); (7) BWV recordings can be accessed by the Inspection Division; and (8) BWV recordings can be used against police officers in court proceedings, all effectively discourage police officers from using BWV cameras.

Restricting factors	Interviewees who referenced the restricting factor
1. More cumbersome to use than smartphones	Police Officers 1, 2, 3, 4, 9
2. Turning on a BWV camera takes a while	Police Officer 4
3. Uploading recording files takes a while	Police Officers 4, 6
4. Booking out a BWV camera is an inconvenient process	Police Officers 3, 4
5. BWV recordings do not reduce the paperwork load	Police Officers 1, 2, 3, 9
6. Different nature of duties between the Patrol Division and the Traffic Division	Police Officer 7
7. BWV recordings can be accessed by the Inspection Division	Police Officers 1, 4, 5, 8
8. BWV recordings can be used against police officers in court proceedings	Police Officers 5, 8

A close examination of the interviewees’ responses shows that the restricting factor which is mentioned most frequently is that ‘BWV cameras relative to smartphones are cumbersome to use’. Given that the majority of officers use their smartphone on the frontline, this assertion appears to be reasonable. The second most-mentioned factors are the assertions that ‘BWV recordings do not reduce the paperwork load’ and that ‘BWV recordings can be accessed by the Inspection Division’. These responses are indicative of the widespread dissatisfaction and concern among police personnel with the paperwork load and being infringed upon by an internal monitoring body. Korean police officers want to see such dissatisfaction and concern to be addressed. On the other hand, factors such as ‘turning on a BWV camera taking a while’ and ‘different nature of duties between the Patrol Division and the Traffic Division’ do not appear to play an important role in deterring police officers from using BWV cameras. The other factors were of intermediate importance in deterring police officers from using BWV cameras.

Restricting factors	Interviewees who referenced the restricting factor	Order of priority
1. More cumbersome to use than smartphones	Police Officers 1, 2, 3, 4, 9	<b>Very High</b>
5. BWV recordings do not reduce the paperwork load	Police Officers 1, 2, 3, 9	<b>High</b>
7. BWV recordings can be accessed by the Inspection Division	Police Officers 1, 4, 5, 8	
3. Uploading recording files takes a while	Police Officers 4, 6	<b>Intermediate</b>
4. Booking out a BWV camera is an inconvenient process	Police Officer 3, 4	
8. BWV recordings can be used against police officers in court proceedings	Police Officers 5,8	
2. Turning on a BWV camera takes a while	Police Officer 4	<b>Low</b>
6. Different nature of duties between the Patrol Division and the Traffic Division	Police Officer 7	

To help future efforts to increase the police use of BWV cameras, restricting factors were assessed and ordered in descending priority, as above. Resolving the issues, especially in the order of descending priority, would lead to a more efficient and effective system of using BWV cameras by frontline officers.

## 7. Policy Implications

At the end of the pilot program, the KNPA proposed and implemented the following recommendations (Korean, 2016). Because traffic officers generally did not find BWV cameras to be useful in carrying out traffic related functions, all of the BWV cameras used during the pilot program were redistributed to be used for patrol related functions. The fact that 21 police stations participated in the pilot program was an obstacle to effective management of the pilot program and accurate assessment of data. It was recommended that the number of police stations assigned to the pilot program should be decreased. The number of police stations participating in the pilot program was to be reduced to 2-3. Lastly, new features were developed to simplify the BWV devices to make them easier to use. Also, an improved educational training program, which stresses the evidence documenting feature of the BWV camera, has been created and implemented.

There are a number of problems with the recommendations proposed by the KNPA. First, the recommendations do not comprehensively address overall consequences of the policies, but mainly dealing with inconveniences of field users. Applications of technologies need to be considered carefully over their impacts on users and encompassing organisational environments. When it comes to the BWV camera program in Korea, the program influenced behaviours of police officers into an unexpected way. The use of BWV cameras showed conflicts with existing organisational cultures. For example, the strict internal inspection culture generated a strong avoidance of accepting the recording devices. As the pilot program at issue showed, an insignificant number of frontline officers chose to use BWV cameras. Given how few frontline officers used the BWV cameras, it is almost impossible to accurately assess the effects created by the frontline officers' use of BWV cameras. As such, the KNPA must first examine how the use of BWV cameras can be improved.

Second, it is crucial to prioritize the problems and set out to solve those problems accordingly. The recommendations made by the KNPA do not indicate which measures should be prioritized to improve the issues at hand. It is important to prioritize which problems should be tackled first. As the interview findings suggest, the most commonly cited issues must be resolved first. Specifically, the following issues should be resolved prior to the other issues: the development of BWV cameras to ensure that they are more convenient to use than smartphones; the reduction in the police paperwork load afforded to frontline officers who use BWV cameras; and the disallowing of recordings to be used for internal inspection purposes. Once these issues are resolved, a selective approach in sorting out the other trivial matters should be adopted. Any anxiety and questions that police officers may have about the changes to the BWV system should be addressed in an educational program after the BWV system has been improved.

## 8. Conclusion

This study examined the pilot BWV program implemented by the KNPA, and suggested policy implications based on the interviews of police officers who used BWV cameras. Even though the initial goal was to interview many police officers for this study, only a small sample of police officers were interviewed due to the Korean police's conservative work culture and unwillingness to provide information. The small sample size and the qualitative findings mean that the results cannot be generalized. As such, the likelihood of applying the results of this study to police agencies of other countries is relatively low. Future research should be conducted on a larger sample to enhance the validity of qualitative or quantitative findings. But this study is useful as it conducts an evaluation of KNPA's policies regarding the BWV pilot program. It is important to note that this study is particularly meaningful as the evaluation was conducted not long after the pilot program was carried out. In addition, this study does not specifically examine which of the restricting factors affected the use of BWV cameras more negatively. Thus, future research should analyze the determining factors that lead to the widespread reluctance among police officers to use BWV cameras. Such analysis would contribute to creating more refined policies that encourage police officers to actively use BWV cameras.

The KNPA adopted the pilot BWV camera program due to the weak law enforcement capacity of the frontline officers. The KNPA actively implemented the program. However, due to the relatively unsophisticated model, results could not be evaluated in a detailed manner. Also, an in-depth analysis could not be conducted due to the limitations of the materials available. Despite these limitations, the scholarly approach to assessing a policy and the growing trend worldwide to use BWV cameras imply that the recommendations made in this study will provide a meaningful basis for future policies. The assessments made in this study can provide guidance to countries in the process or planning phase of adopting the use of BWV cameras.

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