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# The Impact of the Use of Wearable Video Systems in Law Enforcement

DeAris Vontae Hoard  
*Walden University*

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# Walden University

College of Social and Behavioral Sciences

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the review committee have been made.

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Abstract

The Impact of the Use of Wearable Video Systems in Law Enforcement

by

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MS, Xavier University, 2017

BS, University of Louisville, 2016

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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## Abstract

Wearable video systems (WVSs) are one of the most popular and fastest growing technologies used by law enforcement today. While published WVS literature predominantly focuses on stakeholder perceptions, community interactions, assaults against officers, and use of force, there has been little exploration of the impact of WVSs as it related to aspects of police misconduct, especially in the Cruiser Police Department (pseudonym; CPD). The purpose of this mixed methods study was to explore and describe how the use of WVSs by the CPD impact police misconduct, by tracking the changes in complaint type and disposition of a 5-year period, and to examine how CPD officers perceive the impact of the use of WVSs. Deterrence theory and phenomenology provided structure for this research study. The quantitative portion of this study consisted of an interrupted time series analysis of 419 documented complaints against CPD officers between June 2013 and June 2018. The qualitative portion consisted of 67 anonymous, online surveys completed by current CPD officers with WVS experience that were thematically analyzed. Quantitative findings included a 13% overall increase in the number of complaints, a 15% drop in citizen complaints, a 28% increase in chief-initiated complaints, and a 41% increase in sustained complaints. Qualitative findings provided insight into CPD officers' acceptance and value of WVS, along with their strong concern for WVSs implementation creating more discipline of officers. Implications for positive social change include an awareness of unintended consequences of current policies and practices and empirical awareness of trends associated with WVS, specifically regarding discipline, officer acceptance, and police-community interaction.

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## Dedication

I would like to take the time to dedicate this accomplishment to my long-time mentor, Virinda Garland-Doddy. You were chosen by God to step into my life and provide me with support and guidance. You heard my voice and you saw my vision. I appreciate you for not giving up on me and continuously giving selflessly of yourself. We were known as “the” duo on the campus on Holmes High School. Doddy, I love you and I appreciate and will forever be thankful for God placing you in my life.

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## Chapter 1: Introduction to the Study

### **Introduction**

Within the last decade, there has been a significant increase in the use and popularity of wearable video systems (WVSs) by law enforcement officers. Most notably, this mentioned use and popularity of WVSs by law enforcement officers came about after the 2014 killing of Michael Brown by Officer Darren Wilson in Ferguson, Missouri. In 2013, just before the Ferguson incident, nearly one-third of the police agencies in the United States used WVSs (Gaub, Choate, Todak, Katz, & White, 2016). It was the belief that WVSs enhanced "police performance, conduct, accountability, and legitimacy, in the eyes of the public" (Ariel, 2016, p. 729). The perceived enhancements and benefits provided by the use of WVSs has perpetuated the popularity and use of WVSs.

There is a substantial expectation that the use of WVSs by law enforcement agencies will deter police misconduct and provide for safer interactions between officers and the citizens in which they serve. The focus of this mixed methods research study is two-fold: Cruiser Police Department (pseudonym; CPD) officers' perceived impact of the implementation of wearable video systems on police misconduct and the impact the CPD's implementation of WVSs has on police misconduct as measured through official police records of reported and founded misconduct. This study is crucial to gain clarity and empirical comprehension of the CPD's use of WVSs and the impact on police misconduct. Policymakers and police managers should be aware of the impact and

effectiveness of WVSs, thereby creating a justified and empirical foundation for WVSs use by the CPD.

There are also associated positive social change implications regarding this study. The results of this research could form the basis for substantive discussion on the subjects of police misconduct and police-community relationships. Not only did the results of the study make known the CPD officers' perceptions of the WVSs as it relates to police misconduct, but the results also provided an analysis of police misconduct, measured by reported and founded complaints against officers both before and after implementation of the WVSs. This study acted as a measurement of the effectiveness of CPD's use of WVSs with a specific emphasis on police misconduct.

### **Problem Statement**

There is a problem in law enforcement regarding the use of WVSs. Although the pace in use of WVSs has developed rapidly, the impact of WVSs has not been empirically and sufficiently analyzed (Pelfrey & Keener, 2016). Though a number of studies have explored officer behavior and perceptions of the technology, community member perceptions, effects of police-community interactions, assaults against officers, and officers' use of force, there has been no empirical research examining the impact of the WVSs used by the CPD, except Schaefer, Campbell, Hughes, and Reed (2016), who conducted their study a year after CPD's WVS deployment and studied a year before and after WVS deployment. Schaefer et al. (2016), however, was further limited in their study. At the time of the study, only one of the CPD's patrol divisions had been equipped with the WVS technology for an entire year post initial deployment. The current study

looked at all CPD divisions which were issued WVSs and for a significantly longer time period. The lack of empirical research substantiating the influence of WVS use by the CPD impacts all involved stakeholders, especially the citizens of Cruiser, who through tax contributions, create a financial foundation for police functions. It is crucial for the CPD and the community in which the agency serves to have a clear understanding of how the implementation of WVSs has impacted police misconduct and associated police actions. This study filled this gap by exploring and describing the use of WVSs by the CPD, and further describing their overall impact as it relates to police misconduct.

### **Purpose of the Study**

The purpose of this mixed methods study was to explore and describe how the use of WVSs by the CPD impacts police misconduct and to examine how CPD officers perceive the impact of the use of WVSs. The study used both qualitative and quantitative methods. For the qualitative lens, anonymous surveys with structured questions were distributed to CPD officers. The officers had the opportunity to provide their experiences with the WVSs as it relates to officer behavior. For the quantitative aspect, I reviewed official records maintained by CPD of reported and investigated complaints against police officers both before and after the implementation of WVSs.

### **Research Questions**

This mixed methods study included two research questions: one qualitative and one quantitative. Anonymous, semistructured surveys were used to collect narrative data targeting RQ1. Then, CPD records detailing reported and investigated complaints against officers were used to explore and compare figures across a 5-year time frame to answer



RQ2. The 5-year time frame included 2 years prior to CPD's implementation of WVSs, the year it took for the CPD to equip all the divisions with WVSs, and 2 years post CPD's complete implementation of WVSs.

RQ1—Qualitative: How do Cruiser Police Department officers perceive the use of wearable video systems?

RQ2—Quantitative: What impact has wearable video systems had on police misconduct within the Cruiser Police Department?

### **Theoretical Framework for the Study**

The mixed method nature of this research study necessitated the use of two frameworks. The qualitative portion of the study used phenomenology as a means of exploring and describing the officers' perceived impact of WVSs after departmental implementation and use. As drawn from Ferguson (2001), phenomenology was exclusively targeted and grounded in a phenomenon, in this case, the experiences of the CPD officers as it relates to the implementation and use of WVSs in law enforcement. However, explaining, evaluating, or attributing any significance to their individual experiences was disapproved and frowned upon (Ferguson, 2001; Lewis-Beck, Bryman, & Liao, 2004). It was important to describe the officers' experiences "in their own terms" to set a tone for reliability and accuracy, as what is being explored is unknown (Lewis-Beck et al., 2004, p. 816). The quantitative portion of the study was grounded in the deterrence theory. Deterrence theory asserts if punishment is swift, severe, and certain, the likelihood of individuals committing crimes diminishes; in other words, a rational thinking person would weigh the risk versus the reward before committing a crime and

then be deterred when these three elements are in place (Onwudiwe, Odo, & Onyeozili, 2005). Deterrence theory facilitated the understanding and conceptualization of how the implementation of WVSs impacted police misconduct within the CPD. The combination of phenomenology and deterrence theory complemented the research goals of illuminating how CPD officers perceive the impact of WVSs, along with exploring and describing how the use of WVSs by the CPD impacted police misconduct. Correspondingly, this combination helped to shape the platform and hopefully create discussion on how future policies and rulings regarding WVSs will be shaped, implemented, and evaluated.

### **Nature of the Study**

The nature of the study was mixed methods. A phenomenological and interrupted time series design was used to describe the phenomenon at hand: the use of WVSs by the CPD. As described by Creswell and Creswell (2018), the phenomenological research design targeted the lived experiences of members of the CPD, with reference to their perceived impact of WVSs. The interrupted time series (ITS) design focused on 2 years (24 months) before the implementation of WVSs by the CPD and 2 years (24 months) after WVSs were fully implemented across the department. This design also considered the approximate 1-year period the department deployed the WVSs to officers of all nine patrol divisions and the CPD Traffic Unit. The purposive sampling technique of homogeneous sampling was used for the qualitative portion as a means of gaining the needed data from research participants who are members of the CPD and have experience with WVSs. The impact of WVSs on the CPD was elucidated using secondary data

sources and anonymous, qualitative surveys. The secondary data sources measured complaints against officers, comparing the gross number of complaints and the sums of various complaint dispositions. The anonymous, qualitative surveys explored and described CPD officers' perceived impact of WVSs. The ITS design illuminated how the reported and investigated complaints against officers fluctuated before, during, and after WVS implementation. Thematic content analysis was used for the data collected via the anonymous, qualitative surveys. Conclusively, the research approach, designs, and analysis processes fulfilled the research gap by answering the proposed research questions.

### **Definitions**

*Exonerated complaints:* Claims where no truth is found and the subject is cleared of the allegation

*Not sustained complaints:* Claims where the subject of the complaint is not at-fault or acted under a special circumstance that is above the charged policy

*Police misconduct:* Any inappropriate or illegal act carried out by a law enforcement officer during the execution of the official duties (U.S. Legal, n.d.).

*Professional Standards Unit (PSU):* The Cruiser Police Department agency which conducts internal, administrative investigations, such as complaints against officers regarding violations of departmental policy

*Reported complaints:* Alleged claims against officers which are officially presented to an investigative body and detail violations of law or departmental policy.

*Secondary violation:* A violation of departmental policy or law which is detected during the investigation of a standing complaint

*Sustained complaints:* Officially substantiated or confirmed claims against officers.

*Unfounded complaints:* Claims against officers which cannot be corroborated but it does not mean the policy violation did not occur.

*Wearable video system (WVS):* also referred to as body camera or body-worn camera; any recording technology, such as a camera, that is mounted to a person for the purpose of recording evidence such as arrests, statements, and other official law enforcement actions (Body Camera, n.d.)

### **Assumptions**

WVSs are just one of the many tools that law enforcement officers use during the execution of their official duties. As the general topic of this study was police misconduct and WVS, these were the held aspects of the study which were believed but could not be demonstrated to be true:

- Complaints against officers were based on the premise that officers acted inappropriately and against clearly established law.
- The use of WVS caused a change in the behavior of the officers wearing the WVS and all those being recorded, such as other officers and citizens.

### **Scope and Delimitation**

In this research study, the changes in police misconduct were measured in relation to the implementation of WVS by the CPD. How CPD officers perceive the use of WVSs

was also explored, with a focus on police misconduct. The CPD was chosen because it is one of the larger police departments in the Midwest region of the United States and WVSs were implemented less than 5 years ago. The scope of the study was limited to full-time, sworn law enforcement officers of the CPD who then wore or had experience wearing a WVS during their tenure with the CPD. As previously mentioned, studies regarding the impact and effectiveness of WVSs within the CPD were nonexistent and are generally deficient in academia; therefore, the findings of this research should be beneficial in discussing and further evaluating WVSs as it relates to police misconduct. However, it should also be noted that while transferability could be achieved, generalizability could not be due to the lack of a randomized sample and a true experimental design.

### **Limitations**

As previously mentioned, the generalizability of the research study's findings was limited, as only one department was used and there was a lack of a true experimental design. This limitation was addressed throughout the research by useful documentation and vivid description to ensure that transferability can be achieved by future researchers. Secondly, as both the study's researcher and an active law enforcement officer, I had an inherent bias which could have acted as a limitation. This bias was addressed with useful documentation and vivid description, especially during the thematic analysis of survey responses. Rationalization for choices during data collection and analysis which stem from existing law enforcement experience were also documented.

### **Significance**

This research study filled the gap in understanding by providing a comprehensive account of how the use of WVSs by the CPD impacted police misconduct. Empirically, the impact of WVS use by the CPD was not known and inevitably understood. This research supported professional practice and had a practical application by setting a justified and empirical foundation for the use of WVSs by the CPD. Departmental policymakers and police managers having a knowledgeable awareness and understanding of WVS impact provides increased facilitation of more effective policies and practices surrounding the use of the technology. Positive social change could also be achieved through substantive discussion founded on the results of this study. While taking into account police misconduct, the results helped to see how officers perceive the impact of WVSs.

### **Summary**

The lack of outcome or impact evaluation within the CPD regarding their use of WVSs and police misconduct stood as a significant problem for the CPD. Also, the dearth of research assessing the impact and effectiveness of WVS implementation should be of concern to any law enforcement professional, especially policymakers and police managers. In this chapter, the topic of the study was introduced along with the background. Moreover, the study's problem, purpose, research questions, hypothesis, theoretical framework, and nature were presented. Finally, the scope, delimitations, limitations, and significance of the study were detailed. Now, a review of the literature will be provided in Chapter 2.

## Chapter 2: Literature Review

### **Introduction**

There is a pronounced use of technology in the execution of law enforcement practices in the world today. Law enforcement officers have used in-car video systems, electronic control devices (commonly referred to as tasers), license plate readers, and closed circuit-television systems ((International Association of Chiefs of Police, 2003; Jennings, Lynch, & Fridell, 2015). However, the use of WVS technology by law enforcement agencies in the United States is a rather new concept, with the number of law enforcement agencies using the technology rapidly increasing; in 2013, the Bureau of Justice Statistics reported that nearly one-third of the police agencies in the United States were using some type of WVS (Gaub, Choate, Todak, Katz, & White, 2016). The increasing popularity of WVSs is situated within the overall aims to increase agency transparency and quality of police-community relationships, to reduce complaints against officers, to document evidence which can be used during court proceedings, and to aid officer training objectives (Ariel, Farrar, & Sutherland, 2014; Ariel, 2016; Gaub et al., 2016; Goetschel & Peha, 2017; Hudson, 2014).

The bulk of the knowledge surrounding the use of WVSs in law enforcement focuses on the perceptions of law enforcement officers, law enforcement leadership, and community members. Although there have been studies, which are referenced above, that evaluated the impact and effectiveness of the technology, they are deficient, especially in proportion to the growing popularity of WVSs, policymakers, legislators, and law

enforcement command personnel should be aware of the empirically substantiated impact of their WVS implementation and use.

In this mixed methods research study, I planned to explore and describe CPD officers' perceptions of the impact of WVSs with anonymous, qualitative surveys, and to determine how the CPD's implementation of WVSs impacts police misconduct. The goal of this research was to have a significant understanding of the CPD officers' perceptions of the impact of WVS on police misconduct within the department and to see how the CPD's implementation of WVSs has affected police misconduct. The research used two mixed method designs: phenomenological research and ITS. Phenomenological research design targeted the lived experiences of the CPD officers, specifically regarding their perspectives on how WVS implementation has brought about changes related to officer and citizen behavior (see Creswell & Creswell, 2018). The research study capitalized on the revealing nature of the ITS design to determine if any changes manifested in relation to the department's implementation of the WVSs.

I anticipate that this research will inform CPD policymakers and police managers of the current perspective of the CPD rank-and-file, in addition to how the department stands statistically as it relates to WVS implementation and complaints against officers. The findings of this research study qualitatively and quantitatively gauged the impact and effectiveness of the CPD's WVS implementation and create discussion regarding the next steps and initiatives surrounding the department's use of WVS. This chapter provides a review of the current literature regarding the effects of WVSs on incidents of use of force



or response-to resistance, effects of WVSs on complaints against officers, phenomenology, and the theoretical concept of deterrence theory.

### **Literature Search Strategy**

The information used in this review of current literature on the topic of WVSs was acquired through a variety of Walden University Library databases and search engines which included but was not limited to Ebscohost, ProQuest Criminal Justice and Security database, SAGE Journals, and Google Scholar. The terms and phrases used to locate information in the referenced databases and search engines included terms and phrases such as: *police body cameras, police body-worn cameras, police misconduct and body cameras, effects of body cameras, impact of body cameras, police wearable video systems, deterrence theory, and Cruiser Police Department body cameras*. During the literature search, peer-reviewed scholarly articles which were published within the last 4 years were chiefly sought, so that during the course of the anticipated year of writing this dissertation the articles would not surpass the 5-year publication threshold.

### **Deterrence Theory**

Deterrence theory is focused on crime control and centered in classical criminology. One of the most fundamental principles of deterrence theory is the notion that human beings are rational beings and possess the free will to make their own choices (Onwudiwe et al., 2005; Reed, 2012). Therefore, criminality is a choice or a decision one makes. Deterrence theorists posit that individuals make the decision to violate the law only after a calculation of the risk versus the reward of the act (Onwudiwe et al., 2005).

Beccaria is credited with constructing the founding doctrine which eventually became deemed the deterrence theory by other scholars (Onwudiwe et al., 2005; Reed, 2012).

In 1776, Beccaria published *On Crimes and Punishment*. The theme carried throughout the work was that deviant and criminal acts occurred after one consciously weighed the potential positive rewards associated with committing the act against the potential negative consequences of committing the act (Reed, 2012). This series of calculations has been compared to the cost-benefit analysis which routinely occurs in the business world. Similar to the cost-benefit analysis, there must be more negative attributes attached to the risk and certain consequences of a behavior or actions than the perceived or associated positive attributes (Reed, 2012). Convincingly, if an individual believes the negative attributes or consequences outweighs the positive, then the behavior or act is less likely to occur.

Beccaria also made other significant assertions regarding deterrence theory. First, he held that those being punished should only be punished severely enough to deter and not any harsher (Reed, 2012). Furthermore, Beccaria provided the punishment should occur relatively soon after the offense and the punishment associated with the given offense must be certain (Reed, 2012). These three rules are known as the basic tenets of deterrence theory, and in summation, offer that crime will not occur, or at least is less likely to occur, when the associate punishment is swift, severe, and certain (Reed, 2012). Reed (2012) delivered each of the three tenets as important, not one being more significant than the others or mutually exclusive from one another. However due to the likelihood of being caught, certainty may be one of the most effective tenets.

Finally, there are two types of deterrence: general and specific (Marshall, 2002; Tomlinson, 2016). General deterrence is focused on preventing crime in the general population and specific deterrence is designed to deter individual offenders from reoffending in the future (Marshall, 2002). There must be a balance between the two in order for true deterrence to be achieved. General deterrence uses vicarious exposure and experience or the risk of punishment in order to deter individuals from committing criminal acts (Marshall, 2002). Specific deterrence is more fixated and associated with the caliber of the proscribed sanctions for each individual offender (Marshall, 2002).

Deterrence theory was chosen as the theoretical foundation for this study due to the distinctive and palpable purpose of WVSs. The theoretical nature of WVSs is to deter individuals from disobedience and refusal to comply with policy, laws, and regulations (Ariel et al., 2014). The conceptual appeal of the impact of WVS on human behavior, as noted in Ariel et al. (2014), and the lack of empirical understanding of the relationship between police misconduct and the use of WVSs necessitate the use of deterrence theory for further understanding. Furthermore, deterrence theory is noted as causally linking the use of WVS to the outcomes in police daily operations (Ariel, 2016). Ariel et al. also mentioned the relation of WVS use to human behavior, providing that when one is aware they are being recorded, they become more cognizant that undesirable behaviors will be recorded and thereby increase the likelihood of detection and punishment.

Deterrence theory is directly related to this study by providing an opportunity to explain the changes and trends in the measured aspect of police misconduct used in the study. Deterrence theory is linked to the quantitative research questions of this study

which focuses on the impact of the CPD's use of WVS on police misconduct. Hence, the basic tenets of the theory can also be evaluated regarding the presence, detection, and punishment of police misconduct in the CPD.

### **Phenomenology**

The makings of phenomenology date back to the early 20th century and are noted as being primarily developed by Husserl (Srubar, 2005). Husserl professed that even logic required a philosophical foundation in order to truly illuminate the context of meaning (Srubar, 2005). In 1976, Husserl described phenomenological reduction or *epoché*. Husserl deemed epoché as viewing an experience “as a phenomenon as it is happening and as it is constituted in the acts of consciousness that makes this phenomenon what it is for us” (as cited in Srubar, 2005, p. 3). Overall, the goal is to expose the “self-givenness of experiences” or to simply “let them appear as they really are” (Srubar, 2005, p.3).

Ferguson (2001) proclaimed that “phenomenology is simply the subjective turn which characterizes all modern thinking and brings clearly into awareness the insight that human consciousness is trapped in an endlessly self-referential system of representations” (p. 3). Essentially, each individual has their own truth, thereby substantiating the sovereignty of experience. I used phenomenology as a means of describing the experiences of CPD officers regarding the implementation and use of WVSs. Phenomenology was used to target the experiences of the officers without explaining, evaluating, or attributing any sense of significance to each of their individual experiences, which is disapproved and frowned upon (see Ferguson, 2001; Lewis-Beck et al., 2004).

Lastly, there is a critical responsibility to describe the officers' experiences in their own words as allows for better substantiating reliability and accuracy as what is being investigated is unknown for this specific department (see Lewis-Beck et al., 2004).

Phenomenology is widely used in the qualitative realm as a means of describing that which is lived (Ferguson, 2001). In this study, the qualitative research question examines how CPD officers perceive the use of WVSs. Their perceptions are their individual truths and are deemed subjective. The phenomenological approach provides meaning to this study by providing a rich, in-depth understanding of CPD officers' perceived impact of WVSs within their department.

### **Beginnings of Law Enforcement Use of Video Recording Systems**

America's law enforcement institution has undergone significant technological advances, most namely with the use of video recording systems. Although the first video recording systems became available in the early 1960s, it was not until the late 1960s when the Connecticut State Police explored their use in police patrol operations (International Association of Chiefs of Police, 2003). The camera and recorder used by the Connecticut State Police took up the entire front-passenger seat of the patrol car and the entire back seat as well (International Association of Chiefs of Police, 2003). It was not until the early 1980s when there was a noteworthy improvement of the already used video recording systems (International Association of Chiefs of Police, 2003). At this time, the once separate camera and recorder system were united into a self-contained audio/visual recording system that took up less space (International Association of Chiefs

of Police, 2003). This development was less cumbersome and indicated an actual transformation in the recording industry.

Next in the evolutionary process of the video recording system was the development of the video home system (VHS) recorder and tape. The VHS recorder and tape advancement shaped a smaller and more affordable video recording system that was more easily adopted into mainstream police operations (International Association of Chiefs of Police, 2003). The smaller size and affordability of the video recording systems was momentous. In addition to more agencies being able to acquire the systems, the usability of the system significantly broadened (International Association of Chiefs of Police, 2003). Video recording systems could now be used in the field for surveillance and to record crime scenes, to record interrogations, and to train (International Association of Chiefs of Police, 2003). The movability of the recording systems was crucial to these used and went far beyond the completeness and comprehensiveness of traditional still photography used as a means of evidence collection (International Association of Chiefs of Police, 2003).

Also, during the 1980s was the rapid deployment of in-car video recording systems, or in-car cameras (International Association of Chiefs of Police, 2003). According to International Association of Chiefs of Police (2003), this was in concert to the formation and marketing of Mothers Against Drunk Drivers (MADD). MADD campaigned against harsher sentencing and punishment for those who operated motor vehicles under the influence of drugs and/or alcohol (International Association of Chiefs of Police, 2003). The pressure MADD put on criminal justice practitioners necessitated

the need for better evidence collection measures to substantiate allegations of drunk and drugged driving (International Association of Chiefs of Police, 2003). The installation of in-car cameras recorded incidents that led up to suspected drunk and drugged drivers being stopped and the resulting field standardized sobriety tests (International Association of Chiefs of Police, 2003). As the awareness of the evidentiary value of in-car cameras increased along with the increased convictions in criminal courts, MADD began purchasing cameras for agencies and units who targeted suspected drunk and drugged drivers (International Association of Chiefs of Police, 2003). The use and evolution of video recording systems is extensive and continues to evolve.

As more agencies across the country implemented in-car cameras, there was a produced consciousness of additional benefits of the technology. These benefits included (a) increased officer safety; (b) documentation of criminal violations and citizen behavior; (c) reduced court time and burden of prosecutorial staff; (d) video evidence to be used in investigations; (e) reduction in the occurrence of foolish lawsuits; and (f) an increased likelihood of cases being prosecuted (International Association of Chiefs of Police, 2003). These benefits were further illustrated throughout the 1990s as the United States combatted illegal drugs (International Association of Chiefs of Police, 2003). The substantial advancement of law enforcement's use of video recording technology afforded the capability for interdiction stops to be better documented (International Association of Chiefs of Police, 2003). However, it was not until 1999 and into the 2000s, when the true value of the in-car video systems was brought to fruition.

Beginning in 1999, allegations of racial profiling and racial bias manifested and were charged against law enforcement officers throughout the country (International Association of Chiefs of Police, 2003). Simultaneously, there was a substantial increase in the occurrence of assaults on officers (International Association of Chiefs of Police, 2003). The manifestation of racial profiling and racial bias allegations coupled with the increase in assaults against officers motivated lawmakers at the state and federal level to promulgate laws requiring law enforcement to document details about traffic stops. It was then the Department of Justice, Office of Community Oriented Policing Services (COPS Office) perceived the worth of in-car cameras for police, specifically with regard to addressing officer safety and allegations of racial injustice.

In 2000, the COPS Office began providing funds to state police and highway patrol agencies through the In-Car Camera Initiative Program (International Association of Chiefs of Police, 2003). The COPS Office was fully aware that budgetary constraints of law enforcement agencies were an impediment that needed to be addressed (International Association of Chiefs of Police, 2003). A 2000 National Institute of Justice study investigating police use of technology concluded only 3,400, or 11%, of the patrol vehicles used by state police and highway patrol agencies were equipped with in-car cameras (International Association of Chiefs of Police, 2003). In 2003, after the COPS Office awarded approximately \$21 million to state police and highway patrol agencies for the purchase in-car cameras, the number patrol vehicles equipped with in-car cameras rose to 17,500, or 72%, of all state patrol vehicles (International Association of Chiefs of Police, 2003).



### **Transition to On-officer Cameras**

On-officer cameras, which are commonly referred to as body cameras or WVSs are the one of the newest technological advancements in law enforcement regarding surveillance. The first on-officer cameras, which were physically connected to individual officers, were introduced by Taser International in 2006 and named Taser Cams (Taser International, 2015). These cameras were attached to tasers, or electronic control weapons (ECWs), used by law enforcement officers to gain compliance and/or to de-escalate situations to a point where officers can safely and effectively bring about a desired disposition, such as an arrest (Taser International, 2015). These taser-mounted cameras were a step up from those already used in-car cameras because they provided heightened mobility and versatility.

As this initial form of the on-officer camera was attached to an ECW, the camera provided law enforcement agencies with a perceived opportunity to promote transparency and be held accountable for their actions, more specifically the use of this new weapon (Brucato, 2015). In 2008, just 2 years after the development of the Taser Cam, Taser International released what they called the Axon body camera and Evidence.com (Taser International, 2015). The Axon body camera was actually attached to the officers' person via several different mounting options, including headbands and uniform attachments (Taser International, 2015). The use of such a versatile piece of technology afforded the public an opportunity to witness more aspects of police operations, as close to first-hand as possible. Agencies who adopted the technology during the initial years of development advised the cameras reduced complaints against officers (Brucato, 2015). Furthermore,

Brucato (2015) suggested that such a sizeable amount of video showing raw police work assures there is police accountability and consequentially an increased level of legitimacy.

### **WVS on Incidents of Use of Force/Response-to-Resistance and Citizen Complaints**

#### **The Rialto Experiment**

Researched by Ariel et al (2014), the Rialto experiment, is one of the most notable research projects regarding WVSs as it was the first experiment to test the effect of the technology on police use of force and citizen complaints and used the shift as a unit of analysis. Until this experiment, there was no research evidence which provided any empirical benefits of WVSs (Ariel et al., 2014). The research project began in February 2012 and used the entire frontline officer population of the Rialto (California) Police Department (n=54) as the sample. Using a randomized-controlled experiment design, the sample was divided into an experimental and control group where the experimental group was equipped with a WVS.

In the 12-month experimental period, The Rialto experiment noted 25 incidents of police use of force during the study of nearly 1,000 police shifts: 17 from the control group and eight from the experimental group. Researchers used the Poisson model to determine there was treatment effect on the police use of force, as there was approximately twice as many police use of force incidents in the control group as compared to the experimental group. Also, there was a significant detection of a 58% reduction in incidents of police use of force from the year prior (Ariel et al., 2014).

The Rialto experiment did not observe any between-group treatment effect regarding citizen complaints and notes this as a result of the low occurrence of citizen complaints. There were three citizen complaints overall—one against an officer in the control group and two against officers in the treatment group. Rialto researchers, however, observed a significant reduction in the occurrence of citizen complaints from the 12 months before the experiment; the complaint total dropped from 24 to three (Ariel et al., 2014). Overall, there was an 88% drop in the total number of citizen complaints. However, the Rialto researchers did not describe how the use of WVS impacted the derived disposition of investigated complaints against officers. In conclusion, the researchers noted the benefits of using WVSs might outweigh the costs.

In the Rialto experiment, the investigation of the impact of WVSs was limited to instances of police use of force and citizen complaints. This study set the foundation for empirically investigating the impact of the WVSs but lacked variability and focus in the two areas studied. The Rialto researchers did not explore the various types of police use of force, but more importantly and specifically related to the current study, the researchers did not delve into the various dispositions regarding the citizen complaints. The current study not only looked at the occurrence of citizen complaints against officers, but the study also took into account the reached dispositions of the complaints. Additionally, the current study looked at changes in the occurrences of complaints over a vaster period of time since a randomized-controlled experimental design could not be utilized, while also noting and taking into account the dispositions of the investigations. The reached disposition of the citizen complaints was a new contribution to the body of

knowledge surrounding the impact and effectiveness of WVSs. The investigation of the reached dispositions of the citizen complaints provided awareness as to how the implementation of WVSs could have impacted police misconduct.

### **The Orlando Experiment**

Researched by Jennings et al., the Orlando experiment, was a randomized experiment of 89 officers which sought to evaluate the effect of police WVSs on R2R and serious external complaints. The Orlando experiment researchers used 12-month pre-WVS implementation and 12-month post WVS implementation data to compare between and within groups regarding their incidents of R2R and serious external, or citizen-initiated, complaints. Noteworthy of the Orlando experiment is the absence of any statistically significant pre-existing differences in the demographics of the participants or the outcomes of interest (R2R and serious external complaints).

The study of Jennings et al. (2015) concluded treatment participants had a significantly lower prevalence of R2R incidents, a significantly lower occurrence of serious external complaints, and a significantly lower prevalence of serious external complaints when compared to the 12-month post-WVS implementation data of the control group. Interestingly, the research also substantiated statistically significant within-group reductions for the treatment group in the total number of R2R incidents, the total number of serious external complaints, the prevalence of R2R incidents, and the prevalence of serious external complaints (Jennings et al., 2015). There were also reductions in the number of R2R incidents for the control group when comparing the pre-WVS and post-WVS implementation within-group data. This within-control group

reduction points to what Jennings et al. (2015) refers to as an ancillary, or unintended, consequence of the WVSs, as changes go beyond those wearing the technology and may be attributed to the general use of the technology. Overall, these are significant reductions in the measured outcomes of interest and are consistent with the earlier findings of Ariel et al. (2014).

The Orlando experiment researchers also focused on measures related to officers' use of force and citizen complaints. The Orlando researchers specifically termed their measures as "incidents of response to resistance" and "serious external complaints." The researchers took into account prevalence of both measures along with the occurrence. The current study did not consider the incidents of response to resistance, but targeted a measure of external complaints, termed citizen complaints against officers, or citizen-initiated complaints. Unlike the Orlando experiment, the current study took all citizen-initiated complaints into account and tracked the reached dispositions of the cases.

### **The Denver Experiment**

The Denver experiment was carried out to determine if the findings of the Rialto experiment were translatable to large, metropolitan police agencies. The Denver Police Department, at the time of the experiment, was the fifth largest police department in the country with nearly 1,500 sworn police personnel working across six geographic patrol districts spanning approximately 153 square miles (Ariel, 2016). WVSs were provided to all frontline, patrol officers in one of the districts (n=119), and the others frontline, patrol officers in remaining five districts were used as a control group, or what Ariel (2016) referred to as comparison sites (n=513).

The researcher of the Denver experiment used data compilations spanning eighteen months, including twelve months before the deployment of the WVSs in the treatment district and six months after their deployment. The researcher included use of force and citizen complaints as variables, just as The Rialto experiment's researchers; however, arrests were added as a new dimension of analysis. Also, unlike the Rialto experiment, the Denver experiment researcher used the total calls for service initiated by the public as a mean of stabilizing the data surrounding the outcome variables. Collectively, the use of this measurement provided a sense of balance between the groups, or districts, at baseline so they could more easily be compared to one another.

Using an adjusted odds ratio, the Denver experiment's findings concluded the odds of reporting use of force by a police officer in the treatment area was not significantly different to the odds within the controlled conditions. The Denver experiment's findings also exhibited a 38% increase in the number of complaints against the police, thereby, challenging the earlier findings of the Rialto experiment, also conducted by Ariel. Ariel (2016) also notes the findings regarding the complaints against the police are not experimental, as it looked at overall fluctuation and took into account the variation within the controlled districts. However, looking at between-group comparisons, complaints against officers in the control areas were higher than in the treatment area: misconduct complaints 14% higher and use of force complaints 35% higher.

Although the Denver researcher did not use a randomized controlled trial (RCT) methodology, the overall finding can be quite beneficial to law enforcement practitioners.

First, the Denver experiment researcher concluded there was no difference in the probability of reporting a use of force incident in the treatment versus the control. Next, the odds of a misconduct complaint against a police officer were 14% higher in the treatment area than the control area, yet there is a 35% greater odd of an officer receiving a complaint for the use of force in the control area, where WVSs are not used. Finally, regarding arrests, the Denver researcher observed an 18% decrease in the treatment area compared to the control area.

The Denver experiment researcher neglected to discuss the differences in the complaints against officer about use of force versus misconduct. Generally speaking, the use of force is deemed a type of misconduct which could be executed by police. Also, the researchers neglected to investigate how the presence of WVS impacted the specific disposition of complaints against officers. The WVS is closely linked to police accountability and transparency. Although use of force incidents, under the deterrence theory, would be suspected to minimize with the use of WVSs, there would also be an enhanced inclination to report use of force incidents more accurately (Ariel, 2016).

Furthermore, the Denver experiment researcher was also striking in his coupling of qualitative surveying of the treatment officers with the statistical analysis of complaints against officers and use of force incidents. The researcher sought to understand the officers views of the use of WVSs, the impact the technology may have on their sense of self-legitimacy, and if they viewed the technology as positive or negative (Ariel, 2016). The research did note the researcher only provided the surveys to the treatment officers and therefore, the findings could not be used as measures of

treatment. The qualitative findings of the researcher coincide with the causal estimates delineated by the derived quantitative data. Officers' more pronounced responses on the surveys in the Denver experiment include fear WVS will impede police work, such as the ridding of police discretions and the introduction of enhanced liability for decisions which would have usually been made more freely (Ariel, 2016). Also, many officers raised the element of mistrust as a concern (Ariel, 2016).

The current study was quite similar to the Denver experiment, as there was a mixed methods approach which tracked changes in time of quantitative variables and used surveying to gain qualitative data from research participants regarding their perceptions of changes. However, the current study did not focus on incidents of use of force, as did the Denver researchers. Interestingly, the Denver experiment researcher only used an eighteen-month time period in their evaluating of incidents of use of force and complaints against officers. As the current study was not a RCT experiment like the Denver experiment, there is a benefit in using an interrupted time series design. However, there must be a sense of symmetry. The Denver experiment used a twelve-month period before the implementation and a six-month period after the implementation. The current study looked at twenty-four months before and after the implementation of the WVSs, providing a greater sense of change over time and depiction of any probable patterns which may exist.

### **The Las Vegas Experiment**

According to Braga, Rodriguez, Coldren, Jr., Sousa, and Alper (2017), the Las Vegas experiment was a RCT study with WVSs in the Las Vegas Metropolitan Police



Department (LVMPD). LVMPD's approximate 2,600 sworn police officers, 1,400 which are assigned to the Patrol Division, service an estimated 1.5 million residents (Braga et al., 2017). The LVMPD began pilot testing WVSs on their own beginning in 2011 due to intense public scrutiny and criticism (Braga et. al, 2017). In 2013, the LVMPD designated Taser International as their vendor for WVSs and developed a WVS policy (Braga et al., 2017). The 2014 study conducted by the Las Vegas research team included a sample of 416 volunteer patrol officers, with 218 officers randomly assigned to the treatment group and 198 to the control group. The experiment included a combination of process and impact evaluations, including a cost-benefit analysis.

The RCT tested the impact of the WVSs on citizen complaints, police use of force incidents, and police activity measures, such as arrests and citations. The treatment officers were compared to the control officers during pre-intervention and interventions periods. During their analysis, the Las Vegas experiment researchers noted civilian complaints against police officers and use of force reports were a rare occurrence for LVMPD officers. During the pre-intervention period, approximately 45% of the treatment officers and 52% of the control officers did not have any citizen complaints, and approximately 69% of the treatment officers and 74% of the control officers did not have any use of force report (Braga et al., 2017). Moreover, the Las Vegas experiment researchers found when civilian complaints and use of force incidents did occur, the treatment and control officers only generated a single incident during the 12-month pre-intervention period. The researchers used binary coding for these events and analyzed the data using differences-in-differences of proportions  $Z$  tests to determine if the treatment

officers were less likely to receive complaints and participate in use of force incidents relative to control officers between the pre-intervention and intervention periods. Lastly, the researchers used the difference-in-differences estimator (DID) to determine the impact of WVSs on treatment officer relative to their control officer counterparts. Researchers concluded WVS presence created no statistically significant difference in monthly count of responses to dispatched call events, officer-initiated call events, and call events involving crime reports (Braga et al., 2017). However, researchers did find WVS presence was associated with a statistically significant 6.8% increase in the monthly count of calls events with citations issued and a statistically significant 5.2% increase in the month count of calls events with arrests by treatment officers in comparison to their control officer counterparts.

Unlike prior WVS impact study researchers, the Las Vegas experiment researchers more closely investigated the impact of WVS presence on various forms of measured officer activity, such as arrests made, citations issued, and officers' self-initiated activity. Las Vegas experiment researchers also used dispatched call event data, commonly referred to as computer-aided dispatched (CAD) data, like the Denver experiment researchers; however, instead of solely using the data to stabilize existing data like Denver experiment researcher, the Las Vegas experimenters used DID estimates to determine if any WVS impact could be substantiated.

The cost-benefit analysis conducted by the Las Vegas researchers is also significant but not effectually evaluated in prior WVS impact data. First, the researchers determined the LVMPD saved over \$6,200 in labor costs when using WVS footage to

investigate complaints (Braga et al., 2017). The average amount of time spent on a complaint where there is not WVS footage is 80 hours, compared to the six hours it takes to investigate a complaint where there is WVS footage (Braga et al., 2017). This means the use of WVS allows for an investigating detective to investigate a complaint 13 times faster than without WVS footage. Second, using the average number of complaints of the treatment officers during the 12 months before WVS implementation (0.59 complaints), the researchers used the difference-in-differences estimator to determine there would have been an average of 0.25 more complaints per officer (Braga et al., 2017). LVMPD provided to data that showed approximately 66% of complaints were cleared using WVS video footage alone (Braga et al., 2017). However, LVMPD data nor the Las Vegas experiment research stipulated how the used of WVSs impacted other dispositions of complaints from the pre-intervention period to the intervention period. Using the costs and benefits of WVS use by the LVMPD, the researchers determined the cost per officer using WVS to be between \$828 and \$1,097, and net annual savings of between \$2,909 and \$3,178 per officer using WVS (Braga et al., 2017). Collectively, using the predicted 0.84 complaints per officer each year if WVSs were not in use and the total amount of LVMPD patrol officers (1,400), the researchers suggested the WVS net annual savings to be \$4.1 million to \$4.4 million department-wide (Braga et al., 2017).

The Las Vegas experiment researchers outstandingly used measured changes in officer activity over time and the financial expenditure surrounding the use of WVS by the LVMPD to suggest that WVSs provided strong potential benefit to the police and the community alike (Braga et al., 2017). As discussed, there were not only reductions in

complaints against officers and use of force incidents, but there was also attributed cost savings which was shown in the cost-benefit analysis porting of the experiment. Contrary to findings of the Denver experiment researcher, Las Vegas experiment researchers described a significant increase in police productivity, measured by police stops and arrests (Braga et al., 2017).

Also, unlike prior WVS impact, except the Denver experiment researcher, the Las Vegas researchers included a qualitative portion, which they termed a process evaluation. The process evaluation included officer surveys, officer interviews, and WVS video review. The researchers' findings in these areas included: officers comfort with the technology improving over time, treatment officers feeling a greater sense of comfort than their control counterparts, concerns about developing muscle memory to activate WVS, concerns about WVS policy surround de-activation, the cumbersome nature of the WVS equipment, concerns about video being used against them by supervisors, a sense of protection from malicious and false complaints by citizens, and lastly, over half of the video reviewed was from officer-initiated activities (Braga et al., 2017).

The current study was comparable to the Las Vegas experiment because of the incorporation of mixed methods to evaluate the effectiveness and impact of the WVSs. However, the current study only evaluated the occurrence or number of citizen complaints against officers as a quantitative measure, as the Las Vegas experiment researchers took into account police use of force and police activity measures, like arrests and citations. Furthermore, the current study incorporated the reached dispositions of the citizen complaint against officer investigations. Also, similar to the Las Vegas

experiment, the current study incorporated a qualitative aspect via a survey; however, the qualitative portion focused on the participants' perceived changes in the behaviors of WVS stakeholders as it relates to citizen complaints against officers, or police misconduct.

### **Conclusion**

The use of WVSs by law enforcement agencies across the country is quite pronounced. In existing research studies regarding WVSs, researchers have chiefly investigated the perceptions of police officers, police leadership, and community members. However, there was a significant gap in research surrounding the impact and effectiveness of WVSs used by law enforcement. This literature review provided an exhaustive summation of studies similar to the current study or ones which are directly linked to the outcome variable of police misconduct, measured by citizen complaints against officers. As exhibited, the literature regarding the impact of WVSs was limited and merely focused on the number of incidents of police use of force and citizen complaints against officers, not taking into account the reached dispositions or the officers' perceptions of how the WVSs have impacted police misconduct. The discussed gaps concerning the impact and effectiveness of WVSs used by law enforcement in the discussed studies supported the need for this current study. More specifically, there was no empirically-driven analysis of the use of WVSs by the CPD, or any other major metropolitan police agency in the Midwest region. This current research study hopefully set the foundation for a more focused evaluation of the impact of WVSs on police misconduct, as measured by not only the number of complaints against officers but the

disposition of the investigated complaints, specifically whether or not the complaints are founded.

A mixed methods approach was used in this study to explore and describe how the use of WVSs by the CPD impacted police misconduct and described how CPD officers perceived the use of WVSs. This research study also conducted a focused evaluation of the reached dispositions of the citizen complaints against officers, which was neglected by previous studies and discussed earlier in this chapter. The methodology of this mixed-methods study is discussed in Chapter 3.

## Chapter 3: Research Method

### **Introduction**

The purpose of this mixed methods study was to explore and describe how the use of WVSs impacted police misconduct and to examine how police officers perceived the impact of WVSs, as it related to aspects of police misconduct. I used a combination of anonymous, qualitative surveys and a review of official police records to determine the general impact of WVSs on police misconduct. In this chapter, the setting, research design and rationale, the role of the researcher, methodology, threats to validity, and issues of trustworthiness will be discussed.

### **Setting**

The purposeful sampling technique of homogenous sampling was used during the study within the CPD. CPD is a pseudonym used in this research study to provide the law enforcement agency of focus anonymity and ethical protection necessary for participation in empirical research. The CPD is a medium-sized law enforcement agency in the Midwest region of the United States. The agency employs approximately 1,000 sworn law enforcement officers (at the time of study). The CPD, a full-service law enforcement agency with primary policing jurisdiction within the county in which it sits, provides policing services to the 2017 estimated population between 550,00 and 630,000 (U. S. Census Bureau, 2017). The sample was comprised of sworn law enforcement officers who were currently employed by the CPD and had experience with WVSs. The intent was to gather experiential information surrounding the use and perceived impact of the WVSs as it related to police misconduct within the CPD. A letter of cooperation was

obtained from the CPD chief of police granting written permission to conduct the study within the CPD organization. As the CPD is one of the larger law enforcement agencies in the region, this setting is relevant to the needs and purpose of the study.

### **Research Design and Rationale**

In this research study, there were two research questions: one qualitative and one quantitative. The research questions are as follows:

RQ1—Qualitative: How do Cruiser Police Department officers perceive the use of wearable video systems?

RQ2—Quantitative: What impact has wearable video systems had on police misconduct within the Cruiser Police Department?

The central phenomenon of the study was the impact WVSs have on police misconduct; more specifically, the associated changes which manifested as a result of the use of WVSs. The change, exclusively quantified as police misconduct in this study, was the focus and was investigated through documented, public police records and also through the perceptions of CPD officers with WVS experience. The study's distinctive phenomenon called for the use of a mixed methods design.

Convergent mixed methods was used in the research study, as it provided the best opportunity to acquire a comprehensive analysis of the study's problem and associated phenomenon (see Creswell & Creswell, 2018). In this design, the qualitative and quantitative data were collected at the same time. Also, there were instances where the data analysis processes were conducted at the same time, while remaining separate. The overall results of the data were then used together to address the phenomenon of the



study and any contradictions or incongruent findings which may exist, as described in Creswell and Creswell (2018).

Using a mixed methods design permitted a more advantageous response to each of the research questions of the study. The qualitative research question, RQ1, targeted the lived experiences and perspective of the CPD officers, with reference to their perceived impact of WVSs on police misconduct. Using Creswell and Creswell (2018) as a reference, phenomenological research design was used to target the lived experiences of the CPD members with WVS involvement, as they have all perceived the described phenomenon.

I used the second research question, RQ2, to quantitatively investigate the impact WVSs has had on police misconduct. The goal was to elucidate this impact through the use of secondary data sources and organization of the described data into a pre- and postimplementation, or ITS, design. This design showed trends in the data over time, with references to the total numbers of complaints and to the frequencies of various complaint dispositions.

The employment of convergent qualitative and quantitative methods provided a richer and more complete understanding of the impact of WVSs on police misconduct in the CPD. The use of numerical data showed trends over time and the narrative data described the CPD officers' perceived impact of WVSs complement one another. The use of both approaches to respond to the research problem acted as a check and balance. The quantitative analysis of the public police records helped to provide a foundation for the CPD officers' perception of the WVS impact. Equally, the qualitative analysis of the

CPD officers' perception of the WVS impact helped to further explain the observed trends in the quantitative data.

### **Role of the Researcher**

At the time of this study, I was an active law enforcement officer with approximately six years of law enforcement experience. I have held the rank of police officer and has had significant experience in various assignments including patrol, homicide squad, auxiliary mounted patrol unit, and health and safety unit. During my time in patrol, there was approximately two years of experience with using a WVS, as I was assigned one to wear during my patrol shifts.

Although I am familiar with a significant amount of CPD personnel, I did not have supervisory authority over any of the participants. I did not use any social affiliation to influence the participants' decision to join the study or contribute to its findings and ensured researcher bias was mitigated by being professional and eradicating personal communication with the research participants regarding aspects of the study. I also ensured that all participants of the research study were treated equally and respected as individuals. In order to further achieve respect and, because I worked in the same environment as the research participants, I ensured anonymity was provided to all participants. In the qualitative portion of the study, the surveys were completed online to mitigate the disclosure of a participants' identity being revealed. In the quantitative portion, the data was broken down no further than to the collective sums of patrol divisions regarding the number of complaints and the various type of dispositions. Under no circumstances were the names or any specific identifiers of the participants be

recorded, documented, or described. In this study, there were no forms of compensation for any participants. Also, all study participants' participation was completely voluntary, with no threats, promises, or acts of coercion applied.

As a researcher conducting research in his working environment, there is the likelihood this researcher may become a supervisor of or have an instructor relationship with a member of the agency. However, due to there being no individually identifiable information collected from the participants or about the participants at the time of the study, any ethical concerns are mitigated. Furthermore, I will attempt to ensure in the future there is no preferential treatment established on my behalf or executed by me because of this research study.

## **Methodology**

### **Participant Selection Logic: Quantitative**

Four hundred and nineteen ( $n=419$ ) complaints against CPD officers were used for the quantitative portion of this study. CPD complaint records were obtained via an open records request sent to the department, which detailed: a breakdown of the complaints against officers during the studied time period (June 2013 to June 2018), the source of each complaint, the duty assignment of the officer complained on, the disposition of the complaint filed after being investigated. Whether or not WVS footage was used during the investigation was requested, but was not obtained. The data used to track changes over time, beginning with 2 years prior to the date WVS cameras were implemented, the year time period the cameras were implemented across the various divisions/units, and 2 years after full implementation was completed. Since there was no

RCT employed, there was no ability to determine any correlation between the presence of WVS and the number of complaints. However, an assessment of the number of complaints and the reached disposition was reviewed to determine if there were any noticeable trends in the data.

### **Participant Selection Logic: Qualitative**

In the qualitative portion of this research study, purposive sampling was used to ensure research participants could provide feedback to understand the impact of the WVSs as it related to police misconduct and the qualitative research question. Ravitch and Carl (2016) justified the use of purposive sampling as there is a need to recruit specific officers, purposefully, which can provide insight about the core constructs and the qualitative research question. Officers who then currently worked for the CPD and had experience with WVSs were targeted. The participants had to then be assigned a WVS or have had experience with a WVS during the studied time period: this is another caveat of purposive sampling. Ravitch and Carl argued the deliberate selection of participants meeting criteria such as having knowledge of a specific phenomenon or having had a certain experience is necessary to gain a “context-rich and detailed account” (p. 128). Since there was a likelihood the assignment of officers could have changed during and/or since the studied time period, a departmental email was sent out from a departmental email account used by chief’s office to broadcast to the sworn officers. This email was sent by CPD’s chief’s office and requested the participation of officers who met the criteria. The email was only sent to sworn CPD officers, totaling approximately 1,000 officers, and it was the expectation that only officers with WVS experience would

respond. The email contained information about the research study and described the criteria which needed to be met in order to participate. Since the goal was for no correlation or relationship to be drawn in this research study, there was a plan to use the research participants for the qualitative portions to gain a comprehensive understanding of the CPD officers' perception of the impact of WVSs on police misconduct, as it related to officer and community member conduct, behavior, and attitude.

Although the sampling frame was unknown, due to there being a lack of knowledge of CPD officers who have experience with WVSs, there was a plan to make the sample size large as possible. Although Creswell and Creswell (2018) provided saturation is generally reached in phenomenologically founded studies at three to 10 participants, the use of an anonymous, qualitative survey provided the ability for greater success with a large sample.

### **Instrumentation**

Anonymous, semistructured surveys (Appendix B) were used for data collection in the qualitative portion of this study. The survey was researcher-developed and was centered around the chosen theoretical framework, deterrence theory, and the qualitative research question for this study. The survey was appropriate for the study because it targeted the experiences of CPD officers with WVS experience. The survey explored the perceptions of the CPD officers surrounding their perceived change in behavior and attitude, along with the perceived changed of their fellow officer and community members. Lastly, as a means of protecting the identity of the participants and increasing the officers' honesty, hence the reliability of the data, the survey was anonymous.

Reliability and construct validity were also important components of this instrument. The reliability of the instrument was determined as the themes of the survey's responses were explored. As themes appeared and repeated, reliability was established, as the data produced was both stable and consistent. Construct validity was attained through exploring the participants' perception of various forms of officer interaction post implementation.

The anonymous, qualitative survey (Appendix B) for the qualitative portion of this study consisted of basic demographical information and nine research questions. The demographical information was gathered to be able to collectively describe the sample. The demographics included the participants' division/unit assignment, years of law enforcement experience, race, age, and highest level of educational attainment. The qualitative research question was evaluated using the nine survey questions. The focus was the participants' perceived impact of the use of WVSs by the CPD as it related to the participants' own behavior, the participants' perception of changes in other officers' behavior, the participants' perceptions of changes in community members' behavior, and participants' perception of complaints against officers and departmental discipline of officers.

### **Quantitative Procedures for Recruitment, Participation, and Data Collection**

An open records request was sent to the CPD requesting the official departmental record of complaints against officers. The open records request asked for a breakdown of the complaints against all officers from June 2013 through and including June 2018, the source of the complaint, the division/unit assignment of the officer complained on, the

disposition of the complaint after the investigation, and whether WVS footage was used during the investigation. In request data, there was no uniquely identifying information permitting identification of any officer, thereby producing anonymity.

### **Qualitative Procedures for Recruitment, Participation, and Data Collection**

The CPD's Chief Office was approached to determine their suitability and willingness to participate in a research study regarding the impact of WVSs on police misconduct. During this conversation there was also an exploration of whether CPD officials would be interested in cooperating in the future, allowing research within the agency. Members of the chief's office expressed interest and provided a letter of cooperation.

The plan was to purposefully select research participants based on their status as a sworn officer with the CPD and experience with having and using a WVS. An email document was sent out to sworn members of the CPD (Appendix A), specifically targeting those who had experience with the WVS. The participants were then directed to an anonymous, qualitative survey (Appendix B) on the SurveyMonkey platform. In the email document and on the SurveyMonkey platform there was an informed consent statement, possible implications, and an explanation/purpose of the research study. The officers' participation in the anonymous, qualitative survey stood as implied consent to participate in the research study. The participants were advised during the explanation of the research study that their participation was completely voluntary and they were free to cease participation in the research study at any time.

**Data Analysis Plan: Quantitative Component**

Once the complaint data from the open records request was obtained, it was organized using Microsoft Excel based on the following factors:

- Date of the complaint
- Source of the complaints (i.e. citizen, chief, supervisor, etc.)
- Division/Unit of the officer being complained on
- Disposition of the complaint

There was then an analysis of the data using line charts and bar graphs to create a visual representation of the complaint data. The line charts had a specific emphasis, as it showed changes in time regarding the complaints relative to the WVS implementation period. This analysis did not result in any statistical relationships but aided in discussing and describing the changes in complaints against officers over time relative to the implementation of WVS.

**Data Analysis Plan: Qualitative Component**

Qualitative data was collected using the anonymous, qualitative surveys for approximately two weeks. Phenomenological/thematic analysis was used to describe the lived experiences of the research participants through their responses. Relationships, similarities, and differences were explored in the responses to gain a rich, in-depth understanding of how the participants perceived the impact of the WVSs (Ravitch & Carl, 2016). QSR International's software tool, NVivo, along with Microsoft Word was used to help analyze the data collected with the surveys. In the analysis, the discrepant



cases were used as a means of describing the inclusive impact perceived by all participants of the study.

Ravitch and Carl provided triangulation can be used as a means of enhancing the validity of a study. In this research study, the goal was to assess the impact of WVSs by using the research questions as a guide. The unique combination of qualitative and quantitative components in this study provided a means for there to be a visually observed change over time of the impact of WVS implementation on police misconduct while also gaining rich, narrative-based data from the anonymous, qualitative surveys. The survey provided insight as to why the police misconduct changes over time occurred.

Thick description and reflexivity were also used during the qualitative component of the data analysis to ensure the goals of transferability and confirmability were met.

### **Threats to Validity**

The lack of an experimental design in this study created issues regarding the inability to generalize the findings. These threats to external validity were mitigated through the use of documentation and vivid descriptions, allowing future researchers to replicate the study, in hopes of observing an element of transferability in the findings. The lack of experimental design also mitigated the threats to internal validity, as there were no causal relationships being sought by analysis of the data. The validity of the study was established as themes were continuously observed through the qualitative data collection phase, thereby substantiating saturation. Also, validity was maintained by using triangulation of the data, since there were qualitative and quantitative components.

### **Issues of Trustworthiness**

Credibility, transferability, dependability, and confirmability were addressed using the following validation techniques: triangulation, thick description, reflexivity, and reporting of negative or discrepant data.

### **Ethical Procedures**

As this study was planned, the following ethical principles stipulated in the *Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subject of Research* (1979) were taken into account: respect for persons, beneficence, and justice. In the research study, it was ensured that all participants were provided with all necessary information allowing them to make an informed decision on whether or not to participate. The participants were safeguarded from any threats, coercion, or promises related to their participation. The research study strove to capitalize on the benefits of the researcher while minimizing harm or injury to the participants, whether psychological or physiological. Lastly, it was planned and was ensured in the study that all of the participants were treated fairly and equally, not being discriminated against or receiving any preferential treatment regarding their race, sex, sexual orientation, physical condition, rank, educational attainment, or duty assignment. It was also covered in the informed consent disclaimer that any participant can discontinue participation at any time during the survey.

In the research study, the identity of all participants was protected. The use of an anonymous, qualitative survey conducted online provided all of the participants the benefit on anonymity. All of the study's collected data will be retained on a password-

protected, encrypted external hard drive for five years following the conclusion of the study. The data will be made available for examination upon formal request. It is planned to distribute the results of this study to the agency from which the sample was taken, after acceptance of the final study. Likewise, each participant can receive a copy of the results of the study upon formal request.

Before the research study commenced, permission was obtained from the Walden University Institutional Review (IRB) Board to conduct the study (Walden IRB approval number 05-22-19-0755996). The Walden University IRB confirmed the study complied with the set university ethical standards. Permission via a letter of cooperation from the CPD was also obtained to serve as a written agreement of access to CPD officers to solicit them to serve as research participants.

### **Summary**

This chapter provided an overview of the methodology chosen for the study. This mixed methods study included the purposive sampling of law enforcement officers from a medium sized, Midwest law enforcement agency. The quantitative component of the study used official agency complaint records to document changes over time and the qualitative component of the study consisted of purposefully selected participants completing anonymous, qualitative surveys online. This chapter discussed the analysis of the collected data and also considered the threats to validity and issues of trustworthiness. Lastly and importantly, this chapter highlighted the permission to conduct the study provided by the Walden University IRB.

## Chapter 4: Results

### Introduction

The purpose of this convergent mixed methods study was to explore and describe how the use of WVSs by the CPD impacts police misconduct and to examine how CPD officers perceive the impact of the use of WVSs. The study was directed by two research questions, one qualitative and one quantitative.

RQ1—Qualitative: How do Cruiser Police Department officers perceive the use of wearable video systems?

RQ2—Quantitative: What impact has wearable video systems had on police misconduct in the Cruiser Police Department?

In this chapter, the results of the study will be discussed. There will be a discussion of the quantitative analysis, followed by a discussion of the qualitative analysis. Next, there will be a discussion of the evidence of trustworthiness. The chapter ends with an overall summary of the chapter.

### Data Collection: Quantitative

A communication was sent to the Open Records Unit of the CPD requesting complaint data from June 2013 to June 2018. More specifically, the requested data for each of the complaints during this period was the date, the source of the complaint, the duty assignment of the officer complained about, the disposition of the complaint filed after being investigated, and whether or not WVS footage was used during the investigation. The last data point, whether or not WVS footage was used during the investigation, was not provided in response to the request. The CPD's Open Records Unit

responded with a total of 419 complaints ( $n=419$ ). The complaints were organized in an Excel spreadsheet including all of the requested data points, except whether or not WVS footage was used during the time of the investigation. This data point was not used during the quantitative analysis.

### **Demographics: Quantitative**

As discussed in Chapter 3, the CPD is a medium-sized law enforcement agency in the Midwest region of the United States. During the time of the study, the department employed approximately 1,000 sworn law enforcement officers. The 419 received complaints were made against officers in at least 27 different unit/division assignments. There were three complaints with a unit/division assignment as unknown. The frequencies for each of the divisions/units are represented in Table 1.

Table 1

*Frequencies: Division/Unit*

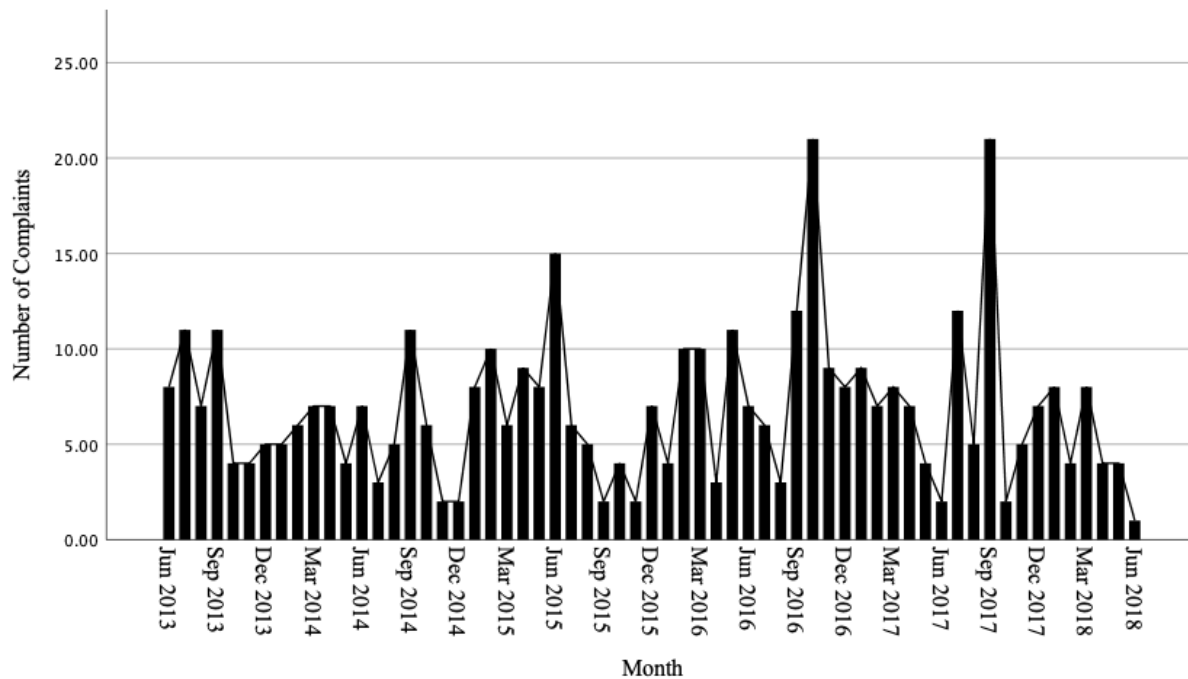
	Frequency	Percent
1st Division	70	16.7
2nd Division	52	12.4
3rd Division	41	9.8
4th Division	46	11.0
5th Division	32	7.6
6th Division	42	10.0
7th Division	24	5.7
8th Division	33	7.9
9th Division	5	1.2
Administrative Services	1	.2
Air Unit	1	.2
Canine	5	1.2
Chief's Staff	5	1.2
Crime Information Center	1	.2
Community Services	7	1.7
Domestic Violence	1	.2
Homicide	3	.7
Inspections and Compliance Unit	1	.2
Mounted Patrol	1	.2
Narcotics	8	1.9
Professional Standards Unit	1	.2
Robbery	1	.2
Sex Crimes	1	.2
Support Bureau	1	.2
Traffic	13	3.1
Training	5	1.2
Unknown	3	.7
VIPER	15	3.6
Total	419	100.0

## **Results: Quantitative**

### **General Trends / Descriptive Analysis**

In the quantitative portion of this study, the collected complaint data was examined, and changes over time were tracked. The goal was to determine if there were any noticeable differences in the complaint data from the preimplementation period, June 2013 to June 2015, and the postimplementation period, June 2016 to June 2018. IBM SPSS Statistics Version 25 was used to organize the data and conduct data analysis. During the initial review of the open records complaint data provided by the CPD, it was noted there were some complaints with more than one alleged violation of departmental policy, or what was referred to as a charge. In these cases, if any of the charges were sustained the complaint was marked as sustained, to make the data point comparable to other complaints. There were also some complaints with more than one division/unit noted. In these cases, the first division/unit noted was used to make the data point comparable to other complaints.

First, the changes in the collective number of complaints from June 2013 to June 2018 were explored. The collective totals included both citizen-initiated and chief-initiative complaints. These totals are shown in Figure 1. There are several spikes in the total number of complaints represented. These spikes appear to generally occur within one to two-month proximity of September for each of the represented years. For example, there are significant spikes represented in June 2015, October 2016, and September 2017. These months include the most significant spikes in the number of complaints, and all occurred after the implementation of WVS by the CPD.



*Figure 1.* The changes in the total number of complaints over time

Next, it was essential to explore the changes in the number of complaints by the source of the complaint throughout the same time period. Figure 2 provides a representation of these changes. This figure shows that each of the spikes in the number of total complaints, shown in Figure 1, are directly correlated to the increases in the number of chief-initiated complaints. Also, there was a nearly routine higher number of chief-initiated complaints versus citizen-initiated complaints, especially after the WVS implementation period began in June 2015.



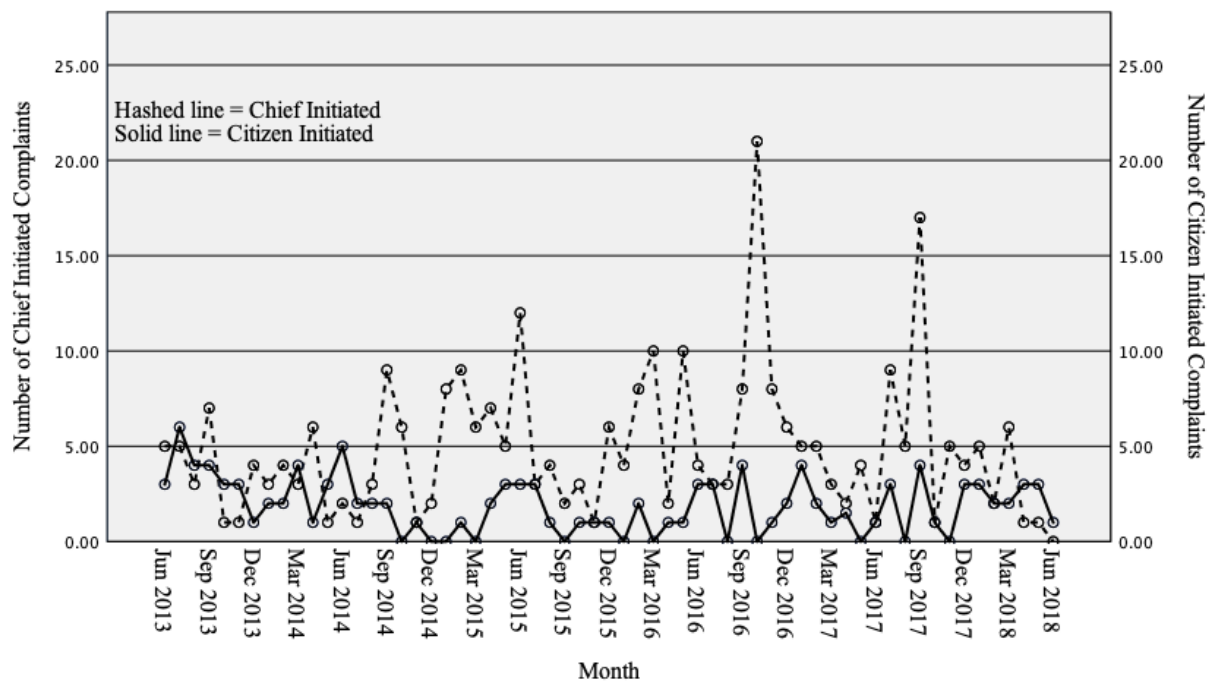


Figure 2. The changes in the number of complaints by the source of the complaint

### Pre- / Postanalysis

The quantitative research question for this study was targeted using an ITS, or pre- and postanalysis, as described in the early chapters of the study. It was important to see if there were any differences in the total number, disposition, and source for complaints during the pre and post implementation periods. Tables 2 and 3 are frequency tables depicting the frequencies of complaint disposition and source of the complaint during the WVS preimplementation period for the CPD.

Table 2

*Frequencies: Complaint Disposition Preimplementation*

	Frequency	Percent
Closed by Exception	15	9.6
Exonerated	28	17.9
Not Sustained	36	23.1
Open	2	1.3
Sustained	70	44.9
Unfounded	4	2.6
Unknown	1	.6
Total	156	100.0

Table 3

*Frequencies: Source of Complaint Preimplementation*

	Frequency	Percent
Chief-initiated	102	65.4
Citizen-initiated	54	34.6
Total	156	100.0

Similarly, Tables 4 and 5 depict the frequencies of the complaint disposition and source of the complaint for the WVS postimplementation period for the CPD.

Table 4

*Frequencies: Complaint Disposition Postimplementation*

	Frequency	Percent
Closed by Exception	15	8.5
Exonerated	28	15.8
Not Sustained	27	15.3
Sustained	99	55.9
Unfounded	8	4.5
Total	177	100.0

Table 5

*Frequencies: Source of Complaint Postimplementation*

	Frequency	Percent
Chief-initiated	131	74.0
Citizen-initiated	46	26.0
Total	177	100.0

There was a total of 156 complaints during the preimplementation period compared to 177 complaints during the postimplementation period, an increase of approximately 13%. The number of chief-initiated complaints increased by 28% from preimplementation to postimplementation, whereas citizen-initiated dropped by 15%. There was also notable change regarding the complaint dispositions from preimplementation to postimplementation; the percentage of sustained complaints increased by 41%.

### **Evidence of Trustworthiness**

As discussed in Chapter 3, triangulation, thick description, reflexivity, and reports negative or discrepant data were all used as a means of addressing credibility, transferability, dependability, and confirmability. The use of triangulation in this research study was highly valuable and necessary. The combination of a survey of CPD departmental records and an anonymous, qualitative survey focusing on the topic of WVSs' impact on police misconduct helped to provide insight through descriptive statistics and changes over time regarding police misconduct, along with in-depth, qualitative data surrounding the CPD officers' perceptions. Thick description was used via quoted examples and explanation of processes during the report of the CPD officers'

responses on the qualitative survey. It was important to provide context for the cultural descriptions, phrases, and individual perspectives of the CPD officers. Reflexivity was also essential, as it helped me note and assess my position, beliefs, preconceptions, and values regarding law enforcement and this study's research topic. Lastly, in this research study, all of the collected data was reported, including negative or discrepant data. Outlying data points and perspectives provided on the qualitative survey were important to provide for purposes of completeness and trustworthiness.

### **Demographics: Qualitative**

The qualitative portion of this research study included 74 submitted online surveys from officers of the CPD. However, there was a completion rate of 91%, with 67 of the 74 respondents completing all questions of the survey. For analysis purposes,  $n=67$ . The sample included participants from all of the CPD patrol divisions, the Traffic Unit, and a collection of officers assigned to various other units, where the officers either currently used a WVS or has in the past. The years of service for the participants ranged from one year to 34 years, with an average of 10 years of service. The ages of the participants ranged from 24 to 55, with an average age of 36. Of the 67 participants, approximately 81% were White, 15% were Black or African American, 3% Asian or Pacific Islander, and 1% identified as other. Approximately 61% of the participants' highest level of education was a bachelor's degree. There was approximately 16% with a graduate degree, 12% with an associate's degree, and 11% with a high school diploma or GED.

### **Data Collection: Qualitative**

On May 23<sup>rd</sup>, 2019, a recruitment email (Appendix A) was sent out to sworn members of the CPD by a designee of the CPD chief's Office. The recruitment email specifically targeted sworn members with experience using a WVS. A copy of the informed consent statement was attached to the recruitment email. The email directed prospective participants to an anonymous, online survey (Appendix B) hosted by SurveyMonkey.com. The participants were directed to further explore the informed consent statement, possible implications, and an explanation/purpose of the research study. Each of the participants provided electronic informed consent to participate in the research study by clicking to begin the survey. The data collection period ended on June 6, 2019.

During the initial portion of the survey, participants responded to five questions which collected the demographical information presented in the previous section of this chapter. Afterward, each of the participants responded to these nine survey questions, in this exact order:

- Do you support your agency's implementation of wearable video systems?
- Are you currently assigned a wearable video system or did you have a wearable video system in a past assignment?
- How has your behavior toward citizens changed since your agency's implementation of wearable video systems?
- Have you observed other officers' behavior towards citizens change since your agency's implementation of wearable video systems? Please explain.

- How has citizens' behavior toward your agency's officers changed since your implementation of wearable video systems?
- How has your agency's implementation of wearable video systems affected the department's discipline of officers?
- How have complaints against officers been impacted by your agency's implementation of wearable video systems?
- In single words or phrases, how would you describe the advantages of your agency's implementation of wearable video systems?
- In single words or phrases, how would you describe the disadvantages of your agency's implementation of wearable video systems?

These nine survey questions target the qualitative research question of this study.

### **Data Analysis: Qualitative**

The data collected from the qualitative survey was analyzed using CSR International's NVivo 12 for Mac and Microsoft Word. First, basic descriptive statistics were calculated for the data collected from the responses to questions one through five. These statistics were used to give an overall representation of the sample. Next, questions six and seven were analyzed to give an overall perspective of the participants' support for their agency's implementation and whether or not the participant currently possess a WVS. Then, the participants' responses to questions eight through fourteen were analyzed in NVivo to gain an awareness of frequently used words or phrases and patterns throughout the responses. Then, each of the responses were coded in Microsoft Word,

and themes were developed from them. Codes and themes were developed for each of the questions which required a narrative response.

Survey question six (Q6) of the survey measured the participants' support for their agency's implementation of WVS. 73% of the participants supported their agency's implementation with a contrasting 27% opposing. Question seven (Q7), measuring how many participants currently have WVSs as opposed to being assigned one in the past, provided 65% of the participants were currently assigned and using a camera, with 35% having one in a past assignment.

Survey question eight (Q8) assessed the participants' perception of their change in behavior toward citizens after their agency's implementation of WVSs. Approximately 72% of the responded noticed no change in their behavior toward citizens postimplementation. Behavioral themes developed from the other participants' responses were enforcement, language, and intra/interpersonal skills. Participant 4 responded "less willing to give them a break" and participant 21 responded "has degraded my ability to use officer discretion". Each of these responses, after being respectively coded as "increased enforcement" and "decreased discretion", were then thematically coded as enforcement. The theme of language is best represented by participants 11 and 57. Participant 11 stated "I try to use more appropriate language, otherwise my response to calls has not changed at all"; in this statement, "use more appropriate language" was coded as "better language". Participant 57 wrote, "It really did not change except for trying not to cuss". In this response, "trying not to cuss" was coded as "word choice". 11 of the 67 survey participants' responses to Q8 were thematically coded as

intra/interpersonal skills. These responses reflected the changes in behaviors regarding the social interaction between the participants and the citizenry. Participant 12 responded "I have tried to be more personable and outgoing and tried to be a bit more formal in my interactions" and Participant 15 stated, "dealing with individuals I am a little more courteous and patient with citizens". These responses highlight the overall responses from the approximate 16% percent of responses thematically coded as intra/interpersonal skills.

Survey question nine (Q9) pertained to the participants' perceptions of how other officers' behavior had changed toward citizens since the implementation of WVSs. Approximately 49% of the participants perceived no change in other officers' behavior after WVS implementation. Intra/interpersonal skills was the theme for approximately 28% of the participants' responses. This theme included codes such as "meticulous", "cautious", and "professional". This theme is best exhibited by the Q9 responses from participants 10 and 12. Participant 10 stated, "Yes, they are more likely to take unnecessary action (reports or complaints) that are not to believe to have occurred because they are afraid that if they refuse service to a citizen on camera it will look bad". Participant 12 provided "Officers are generally being more professional and explaining themselves more". These responses were coded as cautious and professional, respectively.

Survey question ten (Q10) highlights the participants' perceptions of the citizens' behavior toward officers after WVS implementation. Although 55% of the survey participants noted no change in the behavior of the citizens after implementation, there



were three themes observed throughout the data: "cooperation", "confrontation", and "observation". Almost 18% of the participants' responses were coded as confrontation. These responses included statements like "citizens are much more empowered to test officers and try to entice officers in misconduct" from participant 23, "they are more brazen and bold knowing they are being filmed" from participant 26, and the following from participant 35:

Citizens are more likely to test or push the boundaries with officers as they know complaints are easy to file or self-initiated by their command staff and officers will be reprimanded for even the same actions which the citizens have presented with officers. This is further enforced as it is publicly displayed if you challenge an officer on a stop you have nothing to lose but could gain

In contrast, 7% of the participants provided the citizens were cooperative, which was themed as "cooperation". These statements included "most don't realize you have it but I have had some calm down when I say everything is being recorded" from participant 54 and "they are not as nasty if they know they are being recorded" from participant 60. Also, 3% provided citizens are more "observant", which served as a theme.

Question 11 (Q11) considered the participants' perception of the WVS implementation on the department's discipline of officers. Nearly 72% of the officers' responses were themed as "increased discipline". Interestingly, 17% of the responses themed as increased discipline contained a reference to secondary violations. Responses themed as increased discipline included "Yes, more discipline for forgetting to turn on

your camera" from participant 42, "It seems as though officers are disciplined at a much higher rate and for minor violations that only degrade the officer or destroy his confidence in his ability to do the job" from participant 30, and "officers are being disciplined more now for administrative policy violations (i.e. failure to activate the WVS) versus misconduct captured by the WVS" from participant 36. Participants 20, 24, 36, 40, 42, and 51 all made explicit reference to discipline increase with relation to officers failing to activate the WVS during calls for service.

Question 12 (Q12) explored the perceptions of the participants regarding the impact of WVS implementation on complaints against officers. Approximately 7% of the participants stated they perceived no impact. Contrarily, roughly 57% of the participants provided they perceived a decrease in complaints. There were also nearly 15% of participants who professed an increase in the complaint with a nearly universal reference to chief-initiated complaints.

Question 13 (Q13) and question 14 (Q14) of the survey called for the participants to essentially self-code their perceptions of the advantages and disadvantages of their agency's implementation of WVSs: Q13 for advantages and Q14 for disadvantages. These attained codes were thematically analyzed. Q13 resulted in three themes with three of the 67 participants providing no response to the question. The themes established were "protection", "legitimacy", and "evidence". There was roughly 19% of the responses thematically coded for protection, 22% for legitimacy, and 33% for evidence. The theme protection included responses like "protection from false accusations" from participant 1, "attempts to show officer's actions and perspective while on scene" from

participant 11, and lastly, "keep most out of trouble" from participant 46. Participants 2 and 31 highlighted the theme of legitimacy with their responses of "a necessity for 21<sup>st</sup> Century Policing" and "transparency", respectively. "Evidentiary facts" from participant 15, truthful representation of events" from participant 10, "documentation" from participant 33, and "helps in court proceedings" from participant 37 all align with the theme evidence.

Q14, as stated above, addressed the participants' perception of the disadvantages of their agency's implementation. 37% of the participants' responses were themed as "creates tension". Examples of responses included "lack of trust in their officers" from participant 2, "distrust between line-level officers and command" from participant 12, "more nit-picking of officer's actions" from participant 24, and lastly, "just a reflection that apparently my oath and sacrifice are not enough, that I cannot be trust otherwise" from participant 26. 24% of the participants' responses included responses like "secondary violations" from participant 3, "discipline" from participant 16, "officer are being punished more for secondary administrative policy violations. Even with WVS, many citizens do not care the actions involved in critical incidents are proven to be justified" from participant 36. These responses were themed as "discipline". The themes "incompleteness" and "cost" each comprised 10% of the participants' responses. "Does not always show the full story" from participant 6 and "does not capture feelings and emotions at time of incident" from participant 14 were aligned with incompleteness. Participants 8 and 19 responded with "expensive" and "extremely costly and a burden to a department with financial problems already", respectively. These responses were used to

develop the theme of cost. Privacy was the last theme developed. Participant 9's response "officers feel like they are being watched in a critical way" and "constant monitoring of officers" from participant 44 were aligned with this theme.

### **Summary**

In this chapter, I discussed the quantitative and qualitative portions of the research study. In the quantitative study, 419 ( $n=419$ ) complaints against officers of the CPD were evaluated to explore and describe how the use of WVSs by the CPD impacts police misconduct, measured by complaints against CPD officers, over the course of the five-year study period, including two years pre-WVS implementation, a year of WVS implementation, and two years post-WVS implementation. Regarding the quantitative research question (RQ2) of this study, analysis of the data provided there was an overall 13% increase in the number of complaints from the preimplementation period to the postimplementation period. The number of chief-initiated complaint increased by 28%, and the number of citizen-initiated complaints dropped by 15%. There was also notable change in the reached disposition for the complaints: sustained complaints rose by 41%.

In the qualitative study, 67 ( $n=67$ ) participants completed the online survey assessing the perceived use of WVSs by the CPD officers. 73% of the participants supported their agency's implementation of WVSs and 65% were currently assigned and using a WVS. For each of the seven qualitative research questions, the participants' responses were coded and then thematically analyzed. Themes were developed for each of the survey questions. Collectively, important themes developed for the qualitative survey questions were intra/interpersonal skills, confrontation, increased discipline,

decreased complaints, evidence, and creates tension. Analysis of the qualitative results concerning RQ1 provided CPD officers perceived the use of WVSs had changed the dynamics of their interactions with the public. CPD officers feel officers have been focused on using more intra/interpersonal skills, while also dealing with confrontation from citizens and tension in the work environment. CPD officers also view the WVSs as a means of generating evidence, increasing discipline, and decreasing complaints.

In the next chapter, there will be a discussion of the interpretation of the findings, the limitations of the study, recommendations, and implications.

## Chapter 5: Discussions, Conclusions, and Recommendations

### Introduction

The purpose of this mixed methods research study was to explore and describe how the use of WVSs by the CPD impacts police misconduct and to examine how CPD officers perceive the impact of the use of WVSs. The impact and perception of WVS use by the CPD were elucidated using secondary data and an anonymous, qualitative survey. The quantitative results of this research study represented the changes over time regarding complaints against officers as it relates to the implementation of WVSs. The qualitative results of this research study provided awareness of the CPD officers' perceptions of the use of WVSs by the CPD and may stimulate policy change and departmental discussion regarding more effective operation of the WVS program.

In the quantitative portion of this research study, 419 ( $n=419$ ) complaints against CPD officers were explored to describe how the use of WVSs by the CPD impacted police misconduct, which was measured by complaints against officers. From the preimplementation period to the postimplementation period, there was an overall increase of roughly 13%. More specifically, the chief-initiated complaints increased by 28%, and citizen-initiated complaints dropped by 15%. There was also observed notable change in the percentages of the dispositions of the complaints: sustained increased by 41%.

In the qualitative portion of this research study, 67 ( $n=67$ ) anonymous survey responses were used to assess the CPD officers' perceived impact of WVS use. The 14-question survey provided that 73% of the participants supported their agency's implementation of WVSs. Important themes developed from the survey responses were

intra/interpersonal skills, confrontation, increased discipline, decreased complaints, evidence, and creates tension. The results of the quantitative analysis of the complaints during the five-year research period align with and are supported by the analysis of the CPD officers' perceptions of the use of WVS by their agency. In this chapter, there will be a discussion and interpretation of the finding of the study, limitations of the study, recommendation for future research, and finally, the implications of this study.

### **Interpretation of the Findings**

As previously discussed in Chapter 2, the Rialto Experiment and the Orlando Experiment noted a decrease in the number, or occurrence, and the prevalence of complaints against officers. The Rialto Experiment observed an 88% drop in the number of citizen complaints against officers (Ariel et al., 2014). The Orlando Experiment concluded there were a significantly lower presence and occurrence of serious external complaints against officers (Jennings et al., 2015). However, the Denver Experiment researcher in Ariel (2016) detected a 38% increase in the number of complaints against officers. Also, the Denver Experiment researcher provided misconduct complaints were 14% higher, and the use of force complaints were 35% higher in the control group as compared to the treatment group, who possessed the WVSs (Ariel, 2016).

The findings of this research study confirm the findings of the Rialto and Orlando Experiments, but also help to possibly expound on the findings from the Denver Experiment. In this research study, there was a 13% overall increase in the number of complaints from the preimplementation period to the postimplementation period. However, when the types of complaints are broken down, the number of citizen-initiated

complaints dropped 15%, and chief-initiated complaints rose 28%. The use of the WVSs could have created and helped to substantiate complaints which would not have existed without WVSs. This could have accounted for the significant increase in the number of chief-initiated complaints. Just as this is represented in the CPD data, this could have affected the Denver Experiment.

Also, the findings of this research study confirm several of the themes represented in the qualitative surveying conducted by the Denver Experiment researcher and the Las Vegas Experiment researchers. The Denver Experiment participants echoed their belief WVSs inhibited discretion and therefore impeded on police work (Ariel, 2016). Also, there were responses signaling the perception WVSs perpetuated mistrust (Ariel, 2016). The Las Vegas Experiment participants provided qualitative responses regarding concerns about the video being used against them by their supervisors, a sense of protection from malicious and false complaints, and concerns about WVS policy surrounding their use (Braga et al., 2017). The qualitative findings of Ariel (2016) and Braga et al. (2017) were represented in the qualitative responses of this research study, as discussed in Chapter 4. The confirmation of these finding concluded the likeness of police officer concerns in different parts of the United States surrounding their use of WVSs.

Although this research study is nonexperimental, the results of the study did emphasize the presence of the deterrence theory. Deterrence theory provides an opportunity to explain the changes and trends in the measured complaints against officers. Also, deterrence theory helps to interpret the themes developed from the



collected qualitative data. The basic tenets of deterrence theory are swiftness, severity, and certainty (Reed, 2012). These tenets helped me to understand why changes in the complaints, most namely the number of citizen-initiated complaints and the changes in the disposition frequencies. Although one would presume deterrence theory would call for an overall decrease in the number of complaints, research suggests there must first be a set standard and level of expectation. The qualitative results of this research study provided the three tenets of deterrence theory are at work within the CPD rank-and-file.

Additionally, the qualitative results documented the prevalence of secondary violations and the dissemination of discipline based on the department, at the direction of the chief, determining a policy violation occurred from a review of WVS footage. Using triangulation, it is speculated that the rise in the quantitatively measured occurrence of chief-initiated complaints is due to secondary complaints, or complaints that manifest from the investigation of existing complaints. It is also vital to mention that the collected complaint data did not take into account the alleged charges or violations of the complaint, but rather the occurrence of complaints against officers. Deterrence theory is actualized in this research study by the fact the citizenry complained less on CPD officers. There is additional actualization by there being a pronounced theme of increased discipline. The participants promoted in their surveys a sense of certainty and ease in their wrongdoing being captured by the WVSs and thereby confirming the allegation, which would encourage punishment.

### **Limitation of the Study**

There are numerous limitations to this study. The data collected in the study was from one medium-sized law enforcement agency. The use of just one law enforcement agency coupled with the use of purposeful sampling does not provide an ability to generalize outside of the department to other law enforcement agencies. Additionally, there was also a lack of experimental design, which prohibited the ability to determine any correlation in the quantitative analysis.

The method by which the quantitative complaint data was analyzed was also a limitation of this study. CPD complaints against officers can have multiple alleged violations or charges within one complaint. For this study, if there were any violation or charges sustained, the complaint as a whole was deemed sustained. The quantitative complaint data also did not stipulate when there was a secondary violation observed during a complaint investigation, which brought about either more charges or an entirely different complaint brought about by the chief or his designee.

The use of online, qualitative survey did not allow for follow-up or probing questions. This did not allow for a clearer understanding of the participants' responses. The survey's participation was solicited through a recruitment email directing the participant to complete the survey; this may have negatively affected the response rate. However, there is no ability to determine the response rate because it is unknown how many officers were qualified to take the survey by either currently using a WVS or having experience using one in a past assignment.

Lastly, there was an inherent bias of me being an active law enforcement officer. This bias was mitigated using useful documentation of participants' responses and vivid description through the thematic analysis portion of the study and reporting of results.

### **Recommendations**

In this study, a small sample was used compared to the number of officers in the CPD and the number of law enforcement officer throughout the country which use WVSs. The future researcher should use larger samples from more than one law enforcement agency or a large sample from a large law enforcement agency. In this study, mixed methods and a nonexperimental design were used. Mixed methods allowed for a more in-depth analysis and understanding of the trends and changes within the quantitative complaint data. However, purposeful sampling and the nonexperimental design did not allow for there to be any correlations drawn or the results generalized.

Future researchers should also explore the impact of WVSs using other measures such as those from prior research, like arrests and citations. Other measures could include pedestrian stops and traffic stops. It is also important for future researchers to structure their studies in such a manner that correlations and statistical significance can be determined. Lastly, another valuable impact of the WVSs that could be explored is the relationships between law enforcement agencies and the communities in which they serve.

### **Implications**

The increasing popularity of technology and tools in law enforcement has necessitated exploration of efficacy. Positive social change calls for an evaluation of the

effectiveness and betterment of the quality of life for all stakeholders. I believe the findings of this research study will support the need for law enforcement agencies to generate substantive discussion founded on the results of this study, along with their respective agency's WVS impact and officers' perceived impact. Within the CPD, the results of this research study will hopefully push for a better awareness of the unintended consequences of the current WVS policy, such as increased investigation and discipline surrounding secondary investigations that would not otherwise be brought about without the use of WVSs. Lastly, the results of this study indicated the current state of the CPD officers' perception and morale, as a result of the CPD's implementation of the WVS and supporting practices.

This research study suggested that departments who use WVSs analyze how their WVS implementation and supporting policies or practices affect complaints and discipline of their officers. The study also provided that complaints against officers increased due to a substantial increase in chief-initiated complaints. Qualitative participant responses suggested that new investigations or violations were brought about as departmental members watched WVS footage to investigate existing charges or violations. These reviews of footage could have provided training opportunities and/or counseling to acquire feedback from the rank-and-file concerning the agency's implementation and associated practices. Furthermore, it is conjectured such review and training with officers would decrease tension in the rank-and file; increase officer morale and productivity; stimulate conversation; and provide for an increase in officers' understanding and value of the technology.

## Summary

This study was conducted to explore and describe how the use of WVSs by the CPD impacts police misconduct, measured by complaints against officers, and to examine how CPD officers perceive the impact of the use of WVSs by the CPD. Data from the quantitative portion of the study showed overall complaints against officers increased by 13% percent, with citizen-initiated complaints dropping 15%, and chief-initiated complaints rising by 28%. The quantitative data also showed a 41% increase in sustained complaints. Data from the qualitative portion of the study indicated the following themes: intra/interpersonal skills, confrontation, increased discipline, decreased complaints, evidence, and creates tension. Together, the data supported the manifestation of deterrence theory as is related to the presence of police misconduct in the CPD.

This research study discovered that WVSs are used as a mean to increasingly gain awareness of CPD officers' actions and discipline officers for their misconduct, even for alleged violations where there were no initial complainants or arising concern. The study also provided the participants' appreciation for the evidentiary benefit of WVS footage in the prosecution of their court cases and protection from scrupulous citizen complaints. Although 73% of the participants supported their agency's implementation of WVSs, the overall results of this study necessitate an evaluation of the CPD's current policy and procedure surrounding WVS use.

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## Appendix A: Recruitment Email

Greetings,

My name is DeAris Vontae Hoard and I am a doctoral candidate in the Department of Public Policy and Administration at Walden University. I am conducting a research study investigating the impact of wearable video systems, also known as body cameras, on police misconduct. The purpose of this email is to seek police officers with current or past experience with wearable video systems and ask for them to take about 15-30 minutes to complete an anonymous, online survey. Participation in the research study is completely voluntary and all responses, along with the identity of the research participants, will be entirely anonymous.

If you are interested in participating in the research study, please click on the link for the survey and additional information: [LINK TO SURVEY ENTERED HERE](#)

Thank you for your time and consideration,

DeAris Vontae Hoard, M.S.  
Ph.D. Candidate, Criminal Justice  
Walden University  
College of Social and Behavioral Sciences  
Department of Public Policy and Administration

## Appendix B: Online Qualitative Survey Questions

### **Assessing the Impact of the Use of Wearable Video Systems**

#### Questions for the Anonymous, Qualitative Survey (Online format)

##### Participant Demographics

1. Officer's division assignment
2. Officer's years of law enforcement experience
3. Officer's Race
4. Officer's Age
5. Officer's highest level of educational attainment
  - a. High School Diploma/GED
  - b. Associate's Degree
  - c. Bachelor's Degree
  - d. Graduate Degree

##### Qualitative Measurements

1. Do you support your agency's implementation of wearable video systems?
  - YES or NO
2. Are you currently assigned a wearable video system or did you have one during a past assignment?
  - Currently or Past Assignment
3. How has your behavior toward citizens changed since your agency's implementation of wearable video systems?
4. Have you observed other officers' behavior toward citizens change since your agency's implementation of wearable video systems? Please explain.
5. How has citizens' behavior toward your agency's officers changed since your agency's implementation of wearable video systems?
6. How has your agency's implementation of wearable video systems affected the department's discipline of officers?
7. How have complaints against officers been impacted by your agency's implementation of wearable video systems?
8. In single words or phrases, how would you describe the advantages of your agency's implementation of wearable video systems?

9. In single words or phrases, how would you describe the disadvantages of your agency's implementation of wearable video systems?