

POLICE PERCEPTIONS OF BODY-WORN CAMERAS: CAN RESISTENCE BE
PREDICTED?

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ABSTRACT

The present study sought to examine the relationships between police officers' demographic and experiential characteristics and their perceptions of body-worn camera programs. If relationships were present, further examination would seek to identify any characteristics were predictive of the officers' support for a body-worn camera program and their willingness to wear a body-worn camera. There were four research questions in the study:

1. Are there relationships in police perceptions of body-worn cameras based on demographic characteristics such as age, sex, race, or education?
2. If there are relationships in police perceptions of body-worn cameras based on demographic characteristics, what characteristics, if any, may be predictive of police perceptions of body-worn camera use?
3. Are there relationships in police perceptions of body-worn cameras based on prior policing experiences such as rank, years of service, or internal affairs experience?
4. If there are relationships in police perceptions of body-worn cameras based on prior policing experiences, what prior policing experiences may be predictive of police perception of body-worn camera use?

The data included responses from a survey administered to 169 police officers. A Spearman's Rho correlation analysis was conducted to examine research questions one and three. This analysis showed several statistically significant correlations. Classification/rank, length of service, and use of force complaints all demonstrated relationships with age. Race demonstrated a relationship with BWC adoption. Classification/rank demonstrated relationships with length of service and education. Finally, the variable of BWC adoption demonstrated a relationship with BWC comfort.

A series of linear regression analyses were conducted in order to examine any predictive relationships among the variables to address research questions two and four. While the findings of the regression models were not as robust as the correlation models, one predictive relationship was identified between length of service and officer comfort with wearing a body-worn camera.

The present study serves to inform police administrators about officer characteristics that may prove to cause resistance to body-worn camera programs by police officers. Through a better understanding of these characteristics, police administration could target officers through training, communication, or involvement in an effort to improve officer adoption of new policies.

DEDICATION

This dissertation is dedicated to my wife, LeAnn, who has been incredibly supportive through my entire education. You have helped keep me focused on my goals and have driven me to success. To my son, Tucker, you are an inspiration to me. I hope you have a hunger for knowledge that never ends. To my mother, I cannot tell you how much I miss you, and truly wish we had a few more months so you could see me finish this journey. To my dad, you have shown me the value of hard work, and I am so thankful for all you have done for me.

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CHAPTER I

INTRODUCTION

Policing has come under increased scrutiny following several high-profile events that began in 2014. Police use of force is one of the most controversial issues that has to be addressed by law enforcement agencies. The use of force incidents can result in different portrayals of how police encounters occurred. Rojek, Alpert, and Smith (2012) examined differing accounts given in relation to police use of force incidents from both the police and the citizen. The study found that police and citizens provided remarkably different accounts of how the use of force incident took place. One technology answer to complaints against police behavior used in the past was in-car video cameras. The cameras were placed in a position allowing for the recording of police interactions that took place in front of their patrol car. The videos were often introduced into court cases and internal affairs investigations as evidence of contact between the police and civilians. As technology continued to evolve, body-worn cameras were developed, but calls for their use were not initially widespread.

Wallace, White, Gaub, and Todak (2018) explained that body-worn cameras have become increasingly popular since major incidents of 2014, noting that the ability to provide surveillance footage of incidents was a key element resulting in support for the cameras. Although there are positive elements to the implementation of body-worn camera use, there is also opposition based on factors such as privacy concerns for both officers and citizens. Alpert and McLean (2018) discussed the concerns surrounding the past implementation of in-car video,

pointing out issues such as storage of recordings, activation of cameras, and privacy.

Additionally, the authors discussed that many of the same issues exist with body-worn cameras, mentioning that while much research exists on the topic, clear goals for body-worn camera policies are not often discussed.

Statement of the Problem

Several high profile, deadly encounters between police and citizens have resulted in increased interest in the ways police interact with citizens. One method of addressing these interactions is the use of body-worn camera technology to help document each interaction. Tankebe (2013) explored perceptions of police legitimacy, the idea that a legitimate authority exists for police to operate and receive compliance. It was explained that legitimacy should not be interchanged with the obligation to obey the police, as some people will obey in order to avoid the consequences of not following orders. Tankebe (2013) pointed out several factors that should be considered when evaluating police legitimacy, including lawfulness and procedural justice. The study showed perceived legitimacy of the police influenced cooperation with the police. Parry, Moule, and Dario (2019) explained that cellular telephones and social media are widespread in society. These technologies allow for the recording and circulation of interactions between police and citizens. In their study, Parry et al. (2019) found that participants' perceptions of the police were influenced after being exposed to the video of a police encounter that did not involve any use of force. Issues of legitimacy and compliance could also be influenced by recordings of interaction between citizens and the police.

The suggestion of new technology implementation has also been met with concerns over privacy and policy implications. By examining the perceptions of officers prior to

implementation of a body-worn camera program, it may be possible to capture common elements of resistance and concerns of the officers, allowing for the issues to be addressed prior to implementation. These issues could include officers' concerns about trust within a department, privacy issues, and comfort issues when a body-worn camera is deployed.

Purpose of the Study

The purpose of this study was to identify factors that may relate to officer perceptions of body-worn camera programs prior to program implementation. Through the study of secondary data collected through surveys of 169 sworn police officers in a midsize southern city, the study sought to identify demographic and experiential factors that may be predictive of officers' perception of a body-worn camera program. Statistically significant relationships in the study may help guide future policy decisions as agencies work to implement body-worn camera programs. The possibility to determine factors influencing officers' perceptions would allow administrators to address specific concerns and resistance among officers.

Research Questions

1. Are there relationships in police perceptions of body-worn cameras based on demographic characteristics?
2. If there are relationships in police perceptions of body-worn cameras based on demographic characteristics, what characteristics, if any, may be predictive of police perceptions of body-worn camera use?
3. Are there relationships in police perceptions of body-worn cameras based on prior policing experiences such as rank, years of service, or internal affairs experience?

4. If there are relationships in police perceptions of body-worn cameras based on prior policing experiences, what prior policing experiences may be predictive of police perception of body-worn camera use?

Rationale of the Study

With the use of body-worn cameras in policing becoming more frequent, it is important to understand the concerns of officers who will be required to use this technology. By analyzing data from officers who were not yet using body-worn cameras, it may be possible to identify issues that would assist with future implementation of camera policies based on officer perception. Existing research on police perceptions of body-worn cameras has mainly consisted of descriptive studies focusing on officer perceptions of the use of cameras. These studies have focused on officer behavior during encounters with the public, as well as the behaviors of suspects (Gaub, Choate, Todak, Katz, & White, 2016; Huff, Katz, & Webb, 2018; Jennings, Fridell, & Lynch, 2014; Pelfrey & Keener, 2018). While much research focuses on these areas, it would be important to also give consideration to additional factors that have not been thoroughly addressed. The present study examined factors such as years of service, rank, and experiences with internal affairs, with the goal of identifying predictive factors that influence an officer's perception of body-worn cameras.

Huff et al. (2018) explained that much research has been conducted addressing the effectiveness of body-worn cameras in mitigating citizen complaints and reducing police use of force incidents. Additionally, it is noted that research exists on compliance with body-worn camera policy compliance and outcomes, yet limited research has been conducted to examine resistance to body-worn cameras from officers (Huff et al., 2018). Roy (2014) conducted a study

of officers in Mesa, Arizona, to explore possible differences between officers who volunteered to implement body-worn cameras and officers who were required to wear cameras. The study found differences between the groups in both the activation of their cameras during interactions and in their overall likelihood to issue citations and make arrests. Goetschel and Peha (2017) found only 31% of surveyed Pittsburgh police officers would be supportive of adopting body-worn cameras, noting that support does increase following the personal use of the cameras. With many recommendations being made for clear and understandable body-worn camera policies, and indications that some amount of resistance to the implementation of these policies exists, it is important to gain an understanding of the demographic and experiential characteristics of officers in order to create effective policy.

Importance of the Study

Much of the existing literature is related to issues surrounding body-worn cameras such as privacy, officer perception of implementation, and results of body-worn camera programs. One area that seems to have had little exploration is the identification of factors that might be related to an officer's perception of body-worn cameras. The current study made use of archival data to explore predictive relationships between demographic and experiential characteristics of a sample of 169 officers and their perceptions of body-worn cameras, prior to the implementation of a departmental camera policy.

Theoretical Foundation

The idea that certain controls exist on law enforcement and the government is not new, and the concept of protecting the innocence of the accused is considered to be part of our society.

Packer (1968) explained that the actions of law enforcement are subject to careful consideration in our culture. While he was initially addressing issues of search and seizure, this same idea can be generalized more broadly to the overall actions and behaviors of law enforcement officers as they perform their duties. Packer (1968) further explained that due process provides for the accused to become active in the progression of their cases. The accused having the availability of evidence documenting their interactions with the accuser provides an opportunity to add context to encounters between law enforcement and civilians. In the case of body-worn cameras, both law enforcement and civilians have the potential of becoming the accused or the accuser.

There are two models involved in the handling of crime that explain issues from different perspectives. The crime control model involves rigorous enforcement of the law in an effort to manage criminal behavior and is often described as an assembly line type of process. This model focuses on efficient action in addressing crime, resulting in large numbers of arrests that result in the conviction of offenders (Packer, 1968). The due process model operates in a much different way than the crime control model does. Due process works from the perspective that individuals are innocent until proven guilty, and acts in a way that slows the process in order to ensure the rights of the accused are preserved. This concept goes so far as to interrupt the efficiency of the crime control model in order to protect the individual from governmental injustice (Packer, 1968). As can be observed, substantial differences exist between crime control and due process models. With the occurrence of numerous high-profile police use of force incidents in the past several years, it appears there is still a large gap between the desire for expeditious handling of crime and the protection of individual rights. This concept remains visible as many in society have become more vocal in demands for police accountability for their actions. These demands have only grown recently with incidents of protests and civil unrest accompany the call for accountability.

CHAPTER II

REVIEW OF THE LITERATURE

Surveillance in Society

Huq, Jackson, and Trinker (2017) examined surveillance as it related to perceived legitimacy of the police. The authors explained that people may develop their opinions of certain issues through various methods, not limited to their own personal experiences. This includes having their opinions shaped by media and other influences. The participants were surveyed on a broad range of topics dealing with the legitimacy of the police, including questions that specifically addressed police surveillance and their privacy. These questions mainly dealt with electronic surveillance of communications, but they also addressed the idea of police respecting the privacy of citizens. The study did not find any statistically significant relationships between surveillance and perceptions of police legitimacy (Huq et al., 2017). The lack of such a finding was explained as possibly being the result of participants not feeling that they were being subjected to any surveillance, or that they felt surveillance was being equally applied to everyone (Huq et al., 2017).

In a study examining public perception of Closed Caption Television (CCTV) use in residential areas, Gill, Bryan, and Allen (2007) conducted surveys of United Kingdom residents to examine their perceptions of CCTV systems. The surveys were given both before and after the implementation of a CCTV system in their neighborhoods. The surveys attempted to collect data concerning the perceptions of residents in terms of fear of crime, victimization, behaviors to

avoid crime, awareness of the presence of CCTV, support for CCTV, concern for civil liberties, and the perception of the effect of CCTV in the residential area (Gill et al., 2007). The authors noted that one difference in this study was the location of CCTV being in a residential area rather than in more traditional public areas. Previous studies had indicated positive perceptions of CCTV in terms of fear of crime, the ability to detect crime, and deterrence of crime, but also indicated concern about privacy and civil liberties. The study found substantial support for the installation of CCTV in the preinstallation surveys but found a statistically significant reduction in support following the installation. The respondents were asked about civil liberty concerns in the surveys, but no statistically significant difference was observed pre- and post-implementation of CCTV. The finding suggested that loss of civil liberties due to surveillance was not a concern that played a role in perceptions of CCTV in the sample.

As the use of body-worn cameras increases, privacy concerns also begin to rise. Newell (2017) explored the idea of the unintended consequences involving body-worn cameras. More specifically, the disclosure of video containing private information recorded during a police encounter was examined. Concerns for privacy in the use of body-worn camera recordings were divided into two main categories. The first category was general concerns over the use of cameras to record interactions and gather evidence. The second category of concerns involved public access to recordings generated during police encounters. Newell (2017) explained that numerous states have enacted legislation that works to protect the release of recordings that contain personal information or involve incidents that are not criminal or use of force related. Officers surveyed in the study generally expressed concern about the public access of recordings involving victims, as well as videos that might contain their private discussions.

Brucato (2015) explained that surveillance has become something so common that many people assume they may be watched at any time. This is something that has also extended with the ready availability of camera phones in society and the ability for the public to record interactions with the police. Brucato (2015) contends that the ability of civilians to record police actions creates a sense of transparency since the recordings offer an objective memorialization of the interaction. It is also noted that transparency is promoted by the two-way relationship of the government recording the public and the public, in turn, being able to record the government.

Video of Police Encounters

The presence of cameras documenting interactions between the police and civilians is not new. The beating of Rodney King by Los Angeles police officers was captured on home video in 1991, and the video subsequently resulted in news stations seeking to buy videos of high profile incidents from people who captured the incidents on film (Weinstein, 1991). More recently, the use of portable technology has enabled cellular telephones to be equipped with the capability of recording video (Wasserman, 2009). The ability to record virtually every aspect of daily life has also allowed for easy recording of encounters with the police. This video evidence has been posted to social media, used in courtrooms, and aired on the news. Wasserman (2009) explained that while the existence of video evidence does document an encounter, it also shows only one perspective of what took place.

Context of Police Recordings

Newell (2017) explored the context and objectivity of video recordings of police encounters that bystanders filmed. It was acknowledged that some police officers view the act of

bystander recording as hostile. Additionally, Newell (2017) noted that a perception existed within the police that bystander video decontextualized interactions that had occurred. Losing the ability to control the narrative of a police encounter was another concern coming from videos originating from sources other than the police. In a time where there are increasing demands for the release of video evidence when a police encounter becomes controversial, it can be concerning for police when videos fail to place interactions in proper context, essentially providing a different context than what the officer experienced in an encounter (Newell, 2017).

Miethe, Venger, and Lieberman (2019) examined the ways in which video presentations of police use of force impacted perceptions of the incident. Since most citizens have not had extensive interactions with the police, perceptions of the police can be influenced and developed through media representations (Miethe et al., 2019). A number of factors were determined to affect the perception of viewers in terms of police use of force. The source of presented information influenced perceptions of police use of force. Videos attributed to major news outlets were trusted more than those coming from social media sources. Also, viewers were more likely to consider use of force excessive if the suspect was involved in a murder than suspects involved in other crimes. Finally, the personal importance of a use of force incidents and use of media moderated the ways in which police use of force incidents were evaluated (Miethe et al., 2019).

Effects of Body-Worn Cameras on Behavior

Ariel, Farrar, and Sutherland (2015) examined the ways in which body-worn cameras affect police use of force and complaints against the police filed by civilians. The experimental study placed police officers in two shifts, with one shift being equipped with body-worn

cameras, and the other not using the cameras. The results of the study explained that officers who were not equipped with cameras reported slightly more than twice as many use of force incidents than those using cameras. The overall rate of complaints was greatly reduced during the time of the study, but there was no statistically significant difference between the number of complaints filed against officers regardless of camera use (Ariel et al., 2015). The authors discussed several additional ideas surrounding the reduction in use of force incidents by the officers wearing cameras, noting that the presence of a camera could have also deterred suspects from committing acts that would cause the police to have to respond with a use of force since most of the recorded uses of force were made in response to a suspect action. This observation warrants future exploration of a mitigating effect that may be present when cameras are in use.

In a study of the effects of body-worn cameras on interactions between citizens and the police, Hedberg, Katz, and Choate (2017) collected data from two groups of police officers in the Phoenix Police Department, one group who had been issued body-worn cameras, and the second group was not using cameras. The results of the study showed a reduction of 62% in complaints against officers in the group equipped with cameras. It was noted that officers did not consistently activate their cameras as prescribed, with the authors noting that an increase in activation of cameras by officers could result in a reduction of complaints by as much as 96%. It was noted that officer perception of body-worn cameras could have an impact on the more frequent activation of the camera. Finally, in a finding that differed from that of Ariel et al. (2015), Hedberg et al. (2017) pointed out that the presence of a body-worn camera did not significantly reduce incidents of resisting arrest by suspects, noting that future research could consider the ways in which suspects are made aware of the presence of a camera in an attempt to explore suspect behavior when a camera is in use.

Braga and Apel (2020) examined compliance and cooperation of citizens during encounters with traffic enforcement police officers when body-worn cameras were present. The study found that citizens were more compliant with orders given by the police during traffic stops when a camera was in use. The presence of a body-worn camera also resulted in how willing motorists were to obey traffic rules, as well as their being more cooperative with officers (Sousa, Coldren, Rodriguez, & Braga, 2016). The authors indicated that the improved citizen behavior was the result of improved officer behavior that was related to the wearing of a camera.

Headley, Guerette, and Shariati (2017) conducted a study of 51 police officers in Broward County, Florida, to examine the impact body-worn cameras have on police behavior. One group of officers consisted of volunteers to use cameras, as well as sergeants who were required to adopt the cameras. A second group of officers continued their duties without being equipped with cameras. The study indicated slight reductions in officer use of force, but those results were not statistically significant. As noted in previous studies, officer compliance with camera activation policies is important (Hedberg et al., 2017). The authors found that officers initially were compliant with activating their cameras, having an 82% rate of camera activation, but the activation rate declined over time with a 55% rate at the end of a year. While there were also reductions in nonviolent resistance by suspects, this reduction was actually greater in the group of officers who were not using cameras (Headley et al., 2017).

Jennings, Lynch, and Fridell (2015) explored the ways in which body-worn cameras impacted officer response to resistance, as well as the impact on complaints against officers. Data were collected on 89 officers in the Orlando Police Department, with 46 officers being equipped with body-worn cameras, and 43 not using cameras. The study found that officers equipped with cameras had lower rates of serious response to resistance and lower rates of

external complaints than did the officers who were not using cameras. These findings were statistically significant (Jennings et al., 2015).

Lum et al. (2020) conducted a meta-analysis of 30 previous studies addressing the effects of body-worn cameras on police and citizen behavior. The authors explained that use of force was the most commonly examined item in the studies, also serving as the most frequent reason for agencies to have adopted cameras. While use of force was reduced following the adoption of body-worn cameras, no statistically significant relationship was observed. Numerous other variables were examined, but it was noted that a reduction in citizen complaints was the only statistically significant finding. The authors noted that, across the meta-analysis, body-worn cameras did not provide consistent changes to the behaviors of officers or citizens (Lum et al., 2020).

Officer Perception of Body-Worn Cameras

As previously noted, an increased rate of officer adoption of body-worn cameras may result in positive impacts on rates of use of force and citizen complaints (Hedberg et al., 2017). Gaub et al. (2016) interviewed officers with police departments in Phoenix, AZ, Tempe, AZ, and Spokane, WA to collect officer perception of body-worn camera data, both predeployment and postdeployment. The first finding of the study showed broad support for cameras in terms of the evidentiary value they provide. These results were consistent across all three departments. A consistent concern among the officers in the study was comfort and ease of use of the cameras. Skepticism of the positive effects of body-worn cameras was displayed by officers in Phoenix but was less obvious with officers from Tempe and Spokane (Gaub et al., 2016).

Goetschel and Peha (2017) studied officer perceptions of body-worn cameras in the Pittsburgh Police Department. Officers in the department were sent a survey to measure their perceptions on the implementation of cameras, and 179 officers responded. The responses from officers indicated an overall poor perception of body-worn cameras. The authors explained that 31% of officers believed cameras should be implemented across the entire department. Only 46% of officers surveyed believed the use of cameras would not impact trust with superiors, and 33% felt that officer safety would be improved. Officers did tend to agree that using cameras would help to reduce complaints by citizens. It was noted that some officers in the survey reported previous experience with body-worn cameras, and these officers demonstrated greater support for their use (Goetschel & Peha, 2017).

Sandhu (2019) conducted a qualitative study involving police attitudes toward being on camera as they conduct their jobs. Participants in the study expressed consistent opinions that the presence of various types of cameras would be beneficial in cases where complaints are filed against officers that are untrue or in which an interaction with the police has been misrepresented factually. Participants provided several examples of situations where their actions were recorded on camera, allowing for claims against the officers to be proven false. Several of the officers attributed these types of complaints to a modern antipolice culture. Some of the participants even discussed situations where they had intentionally attempted to move their contact with a citizen to an area where they knew some form of camera would record the event. While many participants showed support for the presence of cameras, some other participants had reservations. Some participants felt that a camera could fail to provide the complete context of an incident, while others felt that photographers who were making recordings sometimes would attempt to provoke officers into a negative reaction in front of the camera.

While officer perception of body-worn cameras is an important consideration when working to implement a camera policy, the perceptions of administrators must also be addressed. Smykla, Crow, Crichlow, and Snyder (2016) conducted a survey of command staff from agencies in a large southern county home to 27 diverse groups of law enforcement. Of the surveys sent out, 24 were returned. Half of the respondents indicated supporting the use of body-worn cameras, but one-third expressed that they either disagreed or strongly disagreed with their use. The majority of those surveyed indicated a neutral position when asked if they felt body-worn cameras would improve officer behavior as they dealt with citizens. Additionally, more than half of respondents felt that body-worn cameras would assist in the collection of evidence and with the quality of evidence. Privacy issues have been previously mentioned as a concern expressed by officers. Smykla et al. (2016) found that two-thirds of the respondents stated they did not feel the use of body-worn cameras was an invasion of officers' privacy, but there was no agreement on the cameras violating the privacy of citizens. When asked about the influence of the public on adopting body-worn cameras, two-thirds of the respondents indicated that they felt the public did not trust the police. Overall, the study found support among police administrators for the use of body-worn cameras.

Wooditch et al. (2020) conducted a study to examine police officer perceptions of body-worn cameras both predeployment and postdeployment across two divisions of the Los Angeles Police Department. The study found after the deployment of a body-worn camera program, officers from both divisions were more likely to respond that body-worn cameras are easy to use. Officers from the Newton division became more likely to indicate that body-worn cameras were not a violation of their privacy after the cameras had been deployed. Officers in the Mission division were less likely to indicate that cameras would help them secure a conviction, and also

proved less likely to agree that the public should have access to recordings (Wooditch et al., 2020). The study also found that after deployment officers were less concerned about being able to turn the cameras off during certain interactions, but the Newton officers did have greater levels of concern with being able to turn cameras off when dealing with sexual assault victims.

When considering the overall and individual perceptions of officers, the study found officers from both divisions to be more concerned that body-worn cameras decrease officer safety. Additionally, Mission division officers showed lower levels of agreement that body-worn cameras increased public trust in officers, or that the advantages outweigh the disadvantages of body-worn camera programs (Wooditch et al., 2020). Finally, after implementation of the body-worn cameras, officers in the Newton division were more likely to support cameras for all patrol officers while officers from the Mission division were less likely to support the cameras for all patrol officers (Wooditch et al., 2020).

Huff, Katz, Webb, and Hedberg (2020) conducted a study to examine if there were changes in police officer perceptions of body-worn cameras following the implementation of a camera program. The study additionally considered differences between officers who volunteered to wear body-worn cameras and officers who were mandated to wear them. In the posttest, officers who both volunteered to wear cameras and those who were mandated to wear the cameras were less likely to agree that the wearing of a body-worn camera would improve officer efficacy than they were during the pretest.

Additionally, officers who had resisted body-worn cameras and those who volunteered to wear them displayed more negative recommendations when considering the expansion of body-worn camera use (Huff et al., 2020). The officers who had been mandated to wear body-worn cameras demonstrated more negative general perceptions about the cameras. Officers who had

volunteered to wear body-worn cameras were less likely to agree that wearing a body-worn camera would improve officer behavior, or with the reactions of citizens or residents (Huff et al., 2020).

While body-worn camera program implementation may be able to be achieved by agencies, additional factors are involved in maintaining those programs successfully. Koen, Newell, and Roberts (2021) examined the case of a police agency that had adopted a body-worn camera program following a high-profile incident. At the time of the program implementation administrators in the agency were found to view body-worn cameras as an accountability tool, as well as a way to offer greater transparency, but officers who would be wearing the cameras felt that the cameras might be used as a way to detect minor violations of policy (Koen et al., 2021). These perceptions eased during the early part of the body-worn camera program, but with time shifted back to officers viewing the cameras as a way to be disciplined for minor infractions. Finally, following a series of technical issues with the body-worn cameras and dealing with the expense of maintaining the program, administrators abandoned the camera program and began to search for an alternative (Koen et al., 2021). The authors made note of the importance of future research to observe the ways in which officer perceptions of body-worn cameras may change over time (Koen et al., 2021).

CHAPTER III

METHODOLOGY

Introduction to the Sample and Population

The participants in the present study include 169 certified police officers from a police department located in a mid-size southern city. The sample include a diverse group of officers. The data for this study were extant, having been collected earlier, but with no previous analysis conducted using the data. Participants in the study were provided informed consent forms and made aware that participating in the study was voluntary, and that their personal information would not be used as part of the research. Participants were also made aware that no identifying information would be made available to their departmental administration.

Methodological Assumptions

The present study assumed that data collected through a survey are reliable and valid. It was also assumed that participants provided truthful responses to questions in the survey and the participants understood each question in the intended context. Additional assumptions also existed in relation to statistical methods used to analyze the study data.

Delimitations

The present study was focused on officer perceptions of body-worn cameras in a police department located in a midsize southern city. Surveys were distributed to police officers at roll

call for each shift and included informed consent forms and instructions. The officers involved in the survey were part of an availability sample. The sample is representative of their agency. The use of a Likert scale helped to focus the responses of the survey on the perceptions of officers more than making use of open-ended questions.

Limitations

The present study has some limitations. By using a sample of a single police department population, the results of the study may not generalize to the overall population of law enforcement officers and may only generalize to the single agency. Samples from other agencies may provide different results. Social desirability is a concern for some research. Social desirability is the idea that some respondents will possibly respond to questions in a way that is more socially acceptable by misrepresenting information about themselves or their experiences (Folz, 1996). Social desirability could influence some of the answers provided on these sensitive topics by causing respondents to attempt to portray themselves in a more positive manner. The present study will make use of a survey that included questions about police officers' experiences with issues such as internal affairs complaints that may be considered sensitive by some participants.

Variables

The first two research questions of the present study were as follows:

1. Are there relationships in police perceptions of body-worn cameras based on demographic characteristics?

2. If there are relationships in police perceptions of body-worn cameras based on demographic characteristics, what characteristics, if any, may be predictive of police perceptions of body-worn camera use?

The independent variables for these questions included age, sex, race, and education. Age was a continuous variable, sex and race were nominal, and education was coded as ordinal. Dependent variables included officer perception of body-worn camera use and officer support for body-worn camera implementation. Both dependent variables were scale.

The third and fourth research questions of the present study were:

3. Are there relationships in police perceptions of body-worn cameras based on prior policing experiences such as rank, years of service, or internal affairs experience?
4. If there are relationships in police perceptions of body-worn cameras based on prior policing experiences, what prior policing experiences may be predictive of police perception of body-worn camera use?

The independent variables for these questions included rank, years of service, and prior use of force complaints. Rank was coded as ordinal, years of service was continuous, and prior use of force complaints was nominal. The dependent variables for these questions were officer perception of body-worn cameras and officer support for body-worn camera implementation.

Both dependent variables were scale.

Data Collection

Data for the present study were extant and were collected through a survey administered to a convenience sample of certified police officers during their daily roll call (See appendix A). Officers were informed that data were being collected as part of a study into police perceptions

of body-worn cameras. Officers were made aware that participation in the study would involve filling out a survey that would take approximately 20 minutes to complete. Participants in the survey were told their personal information would not be used at any point in the study, their participation or withdrawal from the study was voluntary, and individual data would not be provided to the police administration. The participants were also informed that they could experience minor discomfort when answering some of the survey questions as they dealt with public perceptions of the police. No direct benefits to participants were noted. Prior to conducting the present study an application was made to the university's Institutional Review Board (IRB) for an exemption of the longer IRB process due to the data being extant. The IRB granted the exemption (see Appendix B).

Research Design

The present study was a survey design using quantitative methods. Correlation and regression were used to analyze data in the study since the study sought to identify relationships and predictive characteristics. Regression analyses allow for prediction through consideration of the values of the predictor variables in a model (Field, 2013). One concern with internal validity is that there should be equivalence of groups, even in associational research (Gliner, Morgan, & Leech, 2009). In the present study all participants were certified law enforcement officers, and all worked for the same agency. A second threat to internal validity is the ability to control extraneous variables (Gliner et al., 2009). Not all police officers work with the same citizen population, so there is the possibility that some officers may have been exposed to extraneous variables beyond those used in the study. Even though individual officers may have unique experiences, the overall group is assumed to be equivalent.

External validity can address issues with the population of a study (Gliner et al., 2009). As previously mentioned, the present study had the limitation that the sample may not be representative of the overall law enforcement population. There is an assumption that the sample is representative of the agency that employs the participants, thus there is also an assumption that the sample is representative of the accessible population.

In order to answer the first and third research questions, it was necessary to conduct correlation analyses in order to determine the presence of relationships between variables. The second and fourth research questions were addressed, as questions one and three determined there were relationships present. Since much of the data were ordinal, a Spearman's Rho correlation analysis was most appropriate. With the results of the correlation analysis demonstrating relationships between variables, it allowed for an examination of the predictive nature of police demographic and experiential factors on perceptions of body-worn cameras. Through the use of linear regression, it was possible to explore the ability of identified variables to predict factors that affect police perception of body-worn cameras discussed in research questions two and four.

The proposed study examined perceptions of law enforcement officers on the subject of body-worn cameras. Using a different approach than much of the extant literature, the study attempted to identify demographic or experiential factors that are related to officers' perceptions on the cameras. With related factors identified, policy implications may exist that would allow administrators to develop data-driven policies for the implementation of body-worn camera programs. These more informed policies could allow administrators to address employee concerns prior to program implementation. The study was delimited to a single law enforcement agency in a midsize southern city. The study also had some limitations that include the inability

of the sample to generalize to the larger population of law enforcement officers. A second limitation could be social desirability, the possibility that participants will not be truthful in their responses in an attempt to portray themselves more positively. Statistical models of the data to be collected explored relationships within the sample, and upon identifying relationships additional models were used to identify any relationships that may be present.

CHAPTER IV

RESULTS

Descriptive Statistics

An analysis of descriptive statistics of the respondents was conducted to determine frequencies of the sample. A total of 169 respondents took part in the survey, with a mean age of 33.7 years old and nearly 10 years of service as a police officer. Of the respondents, 88.2% or 149 were male, 5.3% female, and 6.5% missing responses. When reporting race, 76.3% of the respondents were white, with 13.7% being nonwhite and 10.1% missing. In terms of rank, 77.5% of respondents were classified as patrol officers, and 16.6% as corporal or sergeant, with 5.9% missing responses. Highest level of education was also considered, with 44.4% of respondents reporting a high school diploma or GED, 40.8% a bachelor's degree, 4.1% a master's degree, and 10.7% missing. Respondents were asked if they had been the subject of a use of force complaint in the previous 12 months to which 88.8% responded no, 3% yes, and 8.3% of responses were missing.

Spearman's Rho Analysis

Given that the data were predominantly ordinal, a Spearman's Rho analysis was conducted to measure correlations between variables (See appendix C for complete correlation matrix). Several statistically significant correlations were observed. The first variable considered was age. A Spearman's Rho correlation analysis of age and rank showed that older

officers were significantly more likely to have a higher rank, $p < .01$ (see table 1). The younger officers have not had the opportunity to reach promotion requirements that are often inclusive of length of service.

Table 1 Spearman's Rho Correlation of Age and Rank

Variable	Age	Rank
1. Age	-	
2. Rank	.497**	-

** $p < .01$.

A Spearman's Rho correlation analysis of age and length of service was conducted, revealing that older officers were also significantly more likely to have been a police officer for a longer period of time, $p < .01$ (see table 2). This is most likely due to the fact that older officers have had the opportunity to serve for a longer period of time than younger officers.

Table 2 Spearman's Rho Correlation of Age and Years of Service

Variable	Age	Years of Service
1. Age	-	
2. Years of service	.807**	-

** $p < .01$.

A Spearman’s Rho correlation analysis of age and use of force complaints revealed that younger officers were significantly more likely to have had a use of force complaint in the previous 12 months than were older officers, $p < .05$ (see table 3). While a small portion of the sample, five officers, indicated they had been the subject of a use of force complaint in the previous 12 months, all of the officers were 32 or younger, which is below the sample mean.

Table 3 Spearman’s Rho Correlation of Age and Use of Force Complaint

Variable	Age	Use of Force Complaint
1. Age	-	
2. Use of Force Complaint	-.183*	-

* $p < .05$.

The gender variable was considered, and no statistically significant correlations were observed between gender and any of the other included variables. It is unclear why gender would have no relationships, but with only nine of the respondents being female, potential relationships may not have been revealed.

A Spearman’s Rho correlation analysis was conducted on the variables of race and perception of body-worn camera adoption. Nonwhite officers were more likely to respond that they did not feel the agency should adopt body-worn cameras for all frontline police officers, $p < .05$ (see table 4).

Table 4 Spearman’s Rho Correlation of Race and No BWC Adoption

Variable	Race	No BWC Adoption
1. Race	-	
2. No BWC Adoption	.173*	-

* $p < .05$.

The variable classification or rank was considered, and a Spearman’s Rho correlation analysis was conducted. Officers with higher rank were more likely to have achieved higher levels of education than those of lower rank, $p < .01$ (see table 5). This finding may be explained by practices in law enforcement that provide incentives in the promotion process to officers who have completed college degrees.

Table 5 Spearman’s Rho Correlation of Classification/Rank and Education

Variable	Classification/ Rank	Education
1. Classification/Rank	-	
2. Education	.224**	-

** $p < .01$.

A Spearman’s Rho correlation analysis was conducted to examine years of service and the officer’s comfort with wearing a body-worn camera. Officers with fewer years of service were more likely to respond that they would feel comfortable wearing a body-worn camera, $p < .05$ (see table 6). This finding may illustrate younger officers’, who likely have fewer years of

service, overall comfort with being recorded. This is something that older officers have not experienced over their entire life. Additionally, the idea of social desirability may play a role in these responses, as officers with fewer years of service may wish to be agreeable with the administration concerning new programs and policies.

Table 6 Spearman’s Rho Correlation of Years of Service and BWC Comfort

Variable	Years of Service	BWC Comfort
1. Years of Service	-	
2. BWC Comfort	-.205*	-

* $p < .05$.

A Spearman’s Rho analysis was conducted to examine relationships between officers’ comfort with wearing a body-worn camera and their agreement that their agency should adopt body-worn cameras for all frontline officers. Officers who indicated that they were not comfortable wearing a body-worn camera were more likely to also agree that the agency should not adopt body-worn cameras for all frontline police officers, $p < .01$ (see table 7). This finding is not surprising in that it illustrates negative officer perceptions of body-worn camera use.

Table 7 Spearman’s Rho Correlation of No BWC Adoption and BWC Comfort

Variable	No BWC Adoption	BWC Comfort
1. No BWC Adoption	-	
2. BWC Comfort	-.487**	-

***p* <.01.

Regression Analysis

Linear regression models were also conducted to examine research questions two and four. Linear regression was used due to its ability to demonstrate predictive relationships between dependent and independent variables. This will assist in identifying any relationships that may be predictive of factors affecting an officer’s perception of body-worn camera programs. The dependent variables for each model were: No BWC Adoption (I don’t think this agency should adopt body-worn cameras for all frontline police officers), and BWC Comfort (I would feel comfortable wearing a body-worn camera). The independent variables were divided into groups representing demographic information and groups representing experiential information. The variables used for demographic information included age, sex, race, and highest degree obtained. The variables used for experiential information included classification or rank, how long the respondent had been a police officer, and whether the respondent had received a use of force complaint in the previous 12 months.

The first linear regression model (see table 8) was conducted using the demographic independent variables of age, sex, race, and education with No BWC Adoption being the dependent variable. Regression was used to identify any predictive relationships between variables. The R Square was .019, explaining 1.9% of the variance within the model. In this

model there were no statistically significant findings identified, meaning that no predictive relationships were observed.

Table 8. Regression Summary of Demographics and No BWC Adoption

Variable	<i>b</i>	<i>SE</i>	β
Age	.002	.011	.018
Sex	.056	.434	.011
Race	.338	.211	.139
Education	-.42	.179	-.020
R^2		.019	
<i>F</i> value		.655	
Significance		.625	

The second linear regression model (see table 9) was conducted using the demographic independent variables of age, sex, race, and education, with BWC Comfort being the dependent variable. Linear regression was used in an effort to identify any predictive relationships between the variables. The R square of this model was .037, explaining 3.7% of the variance within the model. There were no statistically significant findings in this model, meaning that none of the independent demographic variables had predictive relationships with the dependent variable.

Table 9 Regression Summary of Demographics and BWC Comfort

Variable	<i>b</i>	<i>SE</i>	β
Age	-.014	.009	-.130
Sex	.090	.360	.022
Race	-.296	.184	-.138
Education	-.055	.149	-.032
R^2		.037	
<i>F</i> value		1.261	
Significance		.289	

The third linear regression model (see table 10) was conducted using the experiential independent variables of classification/rank, length of service, and Use of Force, with No BWC Adoption as the dependent variable. The R Square for this model was .003, explaining .3% of the variance in the model. There were no statistically significant findings in this model.

Table 10 Regression Summary of Experientials and No BWC Adoption

Variable	<i>b</i>	<i>SE</i>	β
Classification/Rank	-.069	.162	-.044
Length of Service	.003	.018	.018
Use of Force	-.262	.606	-.037
R^2		.003	
<i>F</i> value		.121	
Significance		.947	

The fourth regression model (see table 11) was conducted using the experiential independent variables of classification/rank, length of service, and Use of Force, with BWC Comfort being the dependent variable. The R Square for this model was .05, explaining 5% of the variance in the model. In this model, length of service was found to be significant, $p < .05$.

While the Spearman’s Rho correlation analysis did not demonstrate a significant relationship between length of service and an officer’s comfort with wearing a body-worn camera, it did reveal a significant relationship between age and an officer’s comfort with wearing a body-worn camera. This is consistent with the significant correlation between age and length of service that explained older officers were more likely have a longer time of service. The regression model indicated that length of service could be predictive of an officer’s comfort with wearing a body-worn camera, something that could assist with the development of data-informed policies.

Table 11 Regression Summary of Experientials and BWC Comfort

Variable	<i>b</i>	<i>SE</i>	β
Classification/Rank	.148	.132	.114
Length of Service	-.036	.015	-.249*
Use of Force	-.639	.493	-.109
<i>R</i> ²		.050	
<i>F</i> value		2.397	
Significance		.071	

**p*<.05

Conclusion

Several data analyses were performed to explore correlations and predictive values of variables relating to police perceptions of body-worn camera use. The first group of analyses performed included Spearman’s Rho correlations used to identify correlations between the variables, including age, sex, race, classification/rank, length of service, education, use of force, no BWC adoption, and BWC comfort. These analyses demonstrated several statistically significant correlations. Classification/rank, length of service, and use of force complaints all demonstrated relationships with age. Race demonstrated a relationship with no BWC adoption.

Classification/rank demonstrated relationships with length of service and education. Finally, the variable of no BWC adoption demonstrated a relationship with BWC comfort.

Following the Spearman's Rho analyses, a series of linear regression analyses were conducted in an effort to identify statistically significant relationships between dependent and independent variables that might be predictive of an officer's perception of body-worn camera programs. The regression analyses only demonstrated one statistically significant relationship indicating that length of service was predictive of an officer being comfortable wearing a body-worn camera. The findings will help provide guidance for policy making decisions.

CHAPTER V

DISCUSSION AND CONCLUSION

This study sought to examine relationships between both demographic and experiential characteristics and police officer perceptions of body-worn cameras in an attempt to identify characteristics that might be predictive of officer resistance to body-worn camera programs. The study made use of survey responses collected from 169 respondents working in a police department located in a midsize southern city. The study may help provide guidance to police administrators as they work to implement a body-worn camera program in their agency, as well as addressing an area of the literature that has seen little attention.

Statement of the Problem

Several high profile, deadly encounters between police and citizens have resulted in increased interest in the ways police interact with citizens. One method of addressing these interactions is the use of body-worn camera technology to help document each interaction. Tankebe (2013) explored perceptions of police legitimacy, the idea that a legitimate authority exists for police to operate and receive compliance. It was explained that legitimacy should not be interchanged with the obligation to obey the police, as some people will obey in order to avoid the consequences of not following orders. Tankebe (2013) pointed out several factors that should be considered when evaluating police legitimacy, including lawfulness and procedural justice. The study showed perceived legitimacy of the police influenced cooperation with the

police. The present study examined factors that might be predictive of police officer perceptions of body-worn camera programs. The study found that length of service could be predictive of an officer's comfort with wearing a body-worn camera.

Review of Methodology

The present study attempted to identify relationships between variables and any predictive characteristics of officer perceptions of body-worn camera programs. There were four research questions used in the study:

1. Are there relationships in police perceptions of body-worn cameras based on demographic characteristics?
2. If there are relationships in police perceptions of body-worn cameras based on demographic characteristics, what characteristics, if any, may be predictive of police perceptions of body-worn camera use?
3. Are there relationships in police perceptions of body-worn cameras based on prior policing experiences such as rank, years of service, or internal affairs experience?
4. If there are relationships in police perceptions of body-worn cameras based on prior policing experiences, what prior policing experiences may be predictive of police perception of body-worn camera use?

The study received an exemption from the Institutional Review Board (see Appendix B) due to the data being archival in nature. Statistical analyses of the data were performed, consisting of Spearman's Rho correlations and linear regression. The Spearman's Rho analysis was used to identify any correlations between variables, while linear regression was used to

identify any predictive relationships between variables. Statistically significant findings were observed in both the correlation analysis and the regression models.

Summary of Results

Research questions one and three considered the presence of relationships between variables in the study. The Spearman's Rho analysis identified several relationships. Classification/rank, length of service, and use of force complaints all demonstrated relationships with age. Race demonstrated a relationship with no BWC adoption. Classification/rank demonstrated relationships with length of service and education. Finally, the variable of no BWC adoption demonstrated a relationship with BWC comfort.

The relationship between classification/rank and age was not surprising since being older allows an officer to gain seniority and training that are beneficial in many law enforcement promotion processes. The relationship between age and length of service was expected since older officers have had more years available to serve in law enforcement. The relationship between age and use of force indicated that younger officers had been more likely to receive a use of force complaint in the previous 12 months than older officers. One possible explanation for this could be the use of a more aggressive enforcement style by younger officers who are eager to fight crime early in their careers. Additionally, younger officers may not have acquired some of the skills in dealing with suspects that older officers have been able to develop.

The relationship between race and no BWC adoption indicated that non-white officers were more likely to agree that the agency did not need to adopt body-worn cameras for all frontline police officers. This finding does not necessarily have a clear explanation. Future studies may look to examine the relationships between race and body-worn camera adoption in

more detail. It may be possible that nonwhite officers, who have been historically underrepresented in policing, may attempt to take on the characteristics of their fellow officers. This has been observed in previous studies addressing the ways in which female officers assimilate with their male counterparts through working to make more arrests, or become physically stronger (Batton & Wright, 2019).

Classification/rank demonstrated a relationship with years of service, something that was expected much like the relationship with age. Officers with more years of service have had greater opportunity to be promoted. Classification/rank also demonstrated a relationship with education, showing that officers with higher rank also possessed higher levels of education. A possible explanation for this is that many law enforcement agencies have begun to include education in the promotion process.

A final relationship identified in the Spearman's Rho analysis was that officers who were more likely to agree that their agency should not adopt body-worn cameras for all frontline police officers were also more likely to respond that they would not feel comfortable wearing a body-worn camera. This finding seems to indicate resistance to body-worn cameras being present in the sample but does not necessarily indicate a particular characteristic that is related to the resistance. This finding lends itself to additional exploration in the future.

Research questions two and four considered predictive relationships between variables in the study. Linear regression models were created to examine these relationships. While the findings of the regression models were not as robust as the correlation models, one predictive relationship was identified between the length of service variable and officer comfort with wearing a body-worn camera. This finding helps to identify an experiential factor that is predictive of officer perception of body-worn cameras. While no relationship was present

between age and being comfortable wearing a body-worn camera, the relationship between age and length of service demonstrated that younger officers had fewer years of service. This combination of findings can guide us to believe that older officers may be less receptive to a body-worn camera program, although not at a statistically significant level.

Implications for Police Administrators

The findings of the current study can provide some amount of guidance to police administrators who are considering the implementation of body-worn camera programs in their agency. For example, knowing that nonwhite officers were more likely to respond that they did not feel the agency should adopt body-worn cameras for all frontline police officers or understanding that years of service is predictive of officers being comfortable wearing a body-worn camera could allow a more directed effort to explain camera benefits to officers in selected groups in an effort to improve cooperation prior to policy implementation. Administrators could also discuss directly with groups to attempt to gain insight into the perceptions of these officers. By addressing these concerns before attempting to establish a body-worn camera program, administrators may be able to avoid resistance that could spread to officers in other groups.

One potential way administrators could work to address the concerns of officers would be to include training on body-worn cameras as part of professional development or in-service training for officer prior to developing a camera policy. Such training could include examples of ways body-worn cameras could benefit officers through increased evidence from interactions with the public, the ability to memorialize statements given in investigations, or even the ability to exonerate an officer against unfounded complaints.

Implementing programs like a body-worn camera program can meet resistance from officers. Previous literature has mentioned officer concerns such as personal privacy, physical comfort, and reluctance to respond to calls for service due to camera use. Burke (2014) explained the importance of communicating the need for organizational change to members of the organization. By considering the importance of communication, police administrators can make use of clear explanations of the need or requirement of implementing new policies. In the case of body-worn cameras, continued calls for policy accountability following high profile incidents have brought about the need for change. Through effectively communicating expectations and needs for change to officers, administrators may find greater success of achieving buy in to new policies.

Resistance to change is not uncommon. Burke (2014) pointed out the need for effective leaders to be familiar with resistance in their organizations, and these leaders should work with the members of the organization to involve them in the change process. Policy development could possibly be more successful by including officers who are more likely to demonstrate resistance in the development process. Allowing these officers to be involved in a change process could help the officers feel that their voice is being heard, and their concerns considered.

While three of the four regression models in this study did not identify statistically significant relationships, it is still important to consider that these models may show that measuring police perceptions of body-worn cameras may be difficult. Significant correlations were present in the Spearman's Rho analysis, but the relationships were no longer significant when additional variables were controlled. One such example is the correlation indicating that non-white officers were more likely to oppose implementation of a body-worn camera program for all frontline police officers. It is possible that when controlling for other variables, this does

not become significant due to respondents embracing the culture of policing beyond their own racial identities. Ultimately, the lack of significant findings may help to guide future research efforts in attempting to identify police perceptions of issues.

Recommendations for Future Research

The current study uses a sample of police officers in an agency that had not adopted a body-worn camera program at the time of the survey. Future studies could seek to include officers from agencies that have a body-worn camera program in an effort to identify additional experiential factors that could shape officer perceptions of such programs. Positive or negative experiences could prove to change perceptions of a body-worn camera program.

A study consisting of surveys pre and post body-worn camera program implementation could help identify changes in perception of cameras among officers. Such information could inform other administrators of possible challenges they might face in policy implementation and could also serve as material to be shared with officers in their own agencies. The sharing of such information could help to address officer concerns as a body-worn camera program is being developed.

Additional research could be conducted to address the finding that younger officers are more likely to have had a use of force complaint in the previous 12 months than older officers. This could help identify what older officers may do differently that helps them to acquire fewer complaints. It is possible that older officers have developed skills that allow them to manage situations in a way that reduces use of force instances. It is also possible that the use of force may be perceived as more legitimate than the force used by younger officers.

While the prediction of officer resistance to body-worn camera programs has received little to no attention in previous literature, an additional consideration may exist. The present study identified length of service as being predictive of an officer's comfort with wearing a body-worn camera. Future studies may want to consider factors that might also indicate an officer's perception of body-worn cameras based on concerns over their own behavior, or the behavior of other officers. If such findings were made it would possibly identify substantial issues within an agency that would require immediate action.

The present study attempted to identify demographic or experiential characteristics that might be predictive of officer resistance to a body-worn camera program. This area has had little attention in previous literature. Based on the limited findings in the present study, it is important to attempt to address the issue in future studies to help administrations understand how to develop policies that will be easier to implement and that will receive less resistance. It is also important to attempt to identify why certain groups may possess particular views about body-worn cameras, either positive or negative. All of this information could help lead law enforcement administrators to make solid, data-informed decisions that benefit both their officers and society.

One significant correlation observed in the present study was that non-white officers were more likely to disagree with the implementation of a body-worn camera program for all frontline police officers in their agency. This finding did not remain significant in the regression models, but does still indicate a need for additional examination to help understand if race plays a role in how officers perceive body-worn camera programs, and what additional factors may be related.

The lack of significant findings in some of the regression models points to the difficulty of measuring and predicting police perceptions of issues such as body-worn cameras. This helps

to show the need for additional research on this topic in an effort to develop a better understanding of police perceptions of body-worn cameras. By gaining more insight into these perceptions, police administrators may be better equipped to implement body-worn camera programs without unnecessary resistance from officers.

Summary

In much of the current literature concerning body-worn cameras, the focus has been on issues such as camera impact on police use of force, police interactions with citizens, and suspect compliance with the police (Ariel et al., 2015; Headley et al., 2017; Hedberg et al., 2017; Jennings et al., 2015). These studies found reductions in use of force by officers who were wearing body-worn cameras, and possibly reduced resistance from suspects during encounters. Findings from these studies also indicated that officers equipped with body-worn cameras received much lower rates of citizen complaints than officers who did not wear the cameras. Additional studies have addressed officer perceptions of body-worn cameras (Gaub et al., 2016; Goetschel & Peha, 2017; Sandhu, 2019; Smykla et al., 2016). These studies found officers were skeptical of the positive effects of body-worn cameras, also noting concerns of comfort and ease of use. Some of these studies indicated poor overall police perceptions of body-worn cameras. While these poor perceptions did exist in some studies, others found that officers felt cameras could prove useful when dealing with untruthful complaints. None of the studies mentioned above attempted to identify particular characteristics of police officers that might predict their resistance to the implementation of body-worn camera policies.

Using a sample of 169 police officers from a midsize southern city, the present study sought to identify demographic or experiential characteristics of police officers that might be

predictive of resistance to the implementation of a body-worn camera program. Results indicated that when considering age, officers who were older were more likely to have higher rank and were more likely to have been police officers longer. This is not unexpected since it takes time to move from lower to higher ranks. Younger officers were more likely to have had a use of force complaint in the previous 12 months than older officers. Again, this is not completely unexpected, as older officers have more experience on the job, and may not be as aggressive in their enforcement activities as the younger officers. An examination of gender did not produce any significant relationships.

When exploring race as a variable, nonwhite officers were more likely to respond that they did not feel their agency should adopt body-worn cameras for all frontline police officers. Rank was also considered in the study, with higher ranking officers being more likely to have achieved higher levels of education. This finding is consistent with practices that have been in place in law enforcement agencies providing incentives for obtaining education. Some agencies provide pay incentives for earning college degrees, with the ability to obtain rank with fewer years of service also being offered by some agencies to officers with degrees. Finally, officers who had fewer years of service were found to be more likely to respond that they were comfortable wearing a body-worn camera. This group of officers would include at least some of the younger officers, who were found to be more likely to have received a use of force complaint in the previous 12 months. This could account for a willingness to wear a body-worn camera if these same officers felt that the complaints were unfounded.

When attempting to identify factors that might be predictive of officer resistance to a body-worn camera policy both demographic and experiential factors were used. In the models used to examine predictive demographic characteristics, no statistically significant relationships

were observed. Additional models were used to examine predictive experiential characteristics, with how long the respondent had been a police officer being found to be predictive of the officer's comfort with wearing a body-worn camera. Officers with fewer years of service were more likely to be comfortable with wearing a body-worn camera. This finding aligns with prior findings in this study showing that younger officers are more likely to have had a use of force complaint in the previous 12 months and officers with fewer years of service saying they are comfortable wearing a body-worn camera. If these officers feel the complaints have been unfounded, a possible explanation for these findings could be the idea of providing the officers a mechanism for additional due process in the complaint process. This would be consistent with the way due process was discussed by Packer (1968), allowing officers to become more active in the process of their cases.

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APPENDIX A

BODY-WORN CAMERA SURVEY

Police Perceptions of Body-Worn Cameras

Directions: Please fill in the blank or mark the box with an “x” that is appropriate for you. Thank you for your time.

- 1.) What is your current age? _____ (in years)

- 2.) What is your sex?
 Male
 Female

- 3.) What is your race/ethnicity?
 White (non-Hispanic)
 Black/African American
 Hispano/Latino
 Asian
 Native American/Alaskan Native
 Multi-Racial
 Other; Please list: _____

- 4.) What is your sexual orientation?
 Heterosexual
 Bisexual
 Homosexual
 Other: _____

- 5.) What is your relationship status?
 Married
 Partnered
 Single
 Divorced
 Widowed
 Separated

- 6.) What best describes your classification or rank?
 Officer
 Investigator/Detective
 Corporal/Sergeant
 Lieutenant
 Captain/Assistant Chief/Deputy Chief/Chief

- 7.) How long have you been a police officer? _____ (in years)

8.) What zone are you currently assigned?

- Alpha
- Bravo
- Charlie
- Echo
- Fox
- Delta
- George

9.) Which category best describes your primary role within your agency?

- Patrol
- Gang/Drug Investigations
- Family/Domestic Violence/Juvenile Crime
- Homicide/Robbery/General Investigations
- Administrative/Leadership
- Other

10.) What is your highest degree obtained?

- High School/GED
- Bachelor's
- Master's
- Doctorate

10a.) If applicable, what was your field of study? _____

11.) Have you had a use of force complaint filed against you within the past 12 months?

- Yes
- No

11a. If yes, were you disciplined for the complaint?

- Yes
- No

12.) Have you had a citizen complaint filed against you within the past 12 months?

- Yes
- No

12a. If yes, were you disciplined for the complaint?

- Yes

_____No

13.) How often do you attend religious services?

- _____Never
- _____Less than Once a Month
- _____Once a Month
- _____2-3 Times a Month
- _____Once a Week
- _____2-3 Times a Week
- _____Daily

14.) What type of setting best describes where you grew up?

- _____Rural
- _____Small town
- _____Suburban
- _____Urban

15.) Have you taken a diversity training course within the past 12 months?

- _____Yes
- _____No

Perceptions of Body-Worn Cameras:

Please rate your level of agreement for the following statements.

Q1. What are your perceptions about the impact of body worn-cameras in policing?

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I don't think this agency should adopt body-worn cameras for all front-line police officers.	5	4	3	2	1
I would feel comfortable wearing a body-worn camera.	5	4	3	2	1

Q2. What are your perceptions about wearing a body-worn camera while on duty?

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Wearing a body-worn camera would improve my behavior in the field.	5	4	3	2	1
Wearing a body-worn camera would improve the behavior of citizens I contact in the field.	5	4	3	2	1

Wearing a body-worn camera would make me feel safer while on the job.	5	4	3	2	1
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Q3. What impact would wearing a body-worn camera in the field have on your own behavior while on duty?

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Wearing a body-worn camera would reduce my use of force against subjects.	5	4	3	2	1
Wearing a body-worn camera would reduce the number of citizen complaints I would receive.	5	4	3	2	1
Wearing a body worn camera would reduce the number of department (internal) complaints filed against me.	5	4	3	2	1
Wearing a body-worn camera would reduce my willingness to respond to call for service.	5	4	3	2	1
Wearing a body-worn camera would increase the likelihood that my behavior would be “by the book.”	5	4	3	2	1

Q4. Suppose the “Agency” adopted the use of body-worn cameras for ALL of its front-line officers. What impact would wearing body-worn cameras have on other officers’ (not you) behavior?

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
The agency-wide adoption of body-worn cameras would reduce other officers’ use of force against subjects.	5	4	3	2	1
The agency-wide adoption of body-worn cameras would reduce the number of citizen complaints submitted against other officers.	5	4	3	2	1
The agency-wide adoption of body worn cameras would reduce the number of internal complaints submitted against the other officers’.	5	4	3	2	1
The agency wide adoption of body-worn cameras would reduce other officers’ willingness to respond to calls for service.	5	4	3	2	1
The agency-wide adoption of body-worn cameras would increase the likelihood that other officers’ behavior would be “by the book.”	5	4	3	2	1

Jennings, W. G., Fridell, L. A., & Lynch, M. D. (2014). Cops and cameras: Officer perceptions of use of body-worn cameras in law enforcement. *Journal of Criminal Justice*, 43, pp. 549-556.

Safety and Privacy Issues:

Q5. Are there safety and privacy concerns related to wearing body-worn cameras?

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Citizens would feel safer if I was wearing a body-worn camera.	5	4	3	2	1
Body-worn cameras are a violation of my privacy.	5	4	3	2	1
When taking personal phone calls, I should have the right to turn off my body-worn camera.	5	4	3	2	1
I should be able to turn off body-worn cameras at will.	5	4	3	2	1
Wearing body-worn cameras would make me feel safer as a police officer.	5	4	3	2	1
Body-worn cameras should be allowed access to all public buildings (e.g. hospitals).	5	4	3	2	1
Body-worn cameras should not be used when interviewing special populations (e.g. victims or juveniles).	5	4	3	2	1
Body-worn cameras should be utilized when conducted searches of private homes.	5	4	3	2	1

The Ferguson Effect:

Q6. Some have argued that the protests in Ferguson, MO, as a result of the shooting of Michael Brown have caused officers to be hesitant to enforce the law. What impact has this had on you as a police officer?

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
The Ferguson Effect has affected the way I operate as a police officer.	5	4	3	2	1
The Ferguson Effect has negatively affected the way citizens perceive me as a police officer.	5	4	3	2	1
I am less likely to enforce the law due to the "Ferguson effect."	5	4	3	2	1

Citizens are more likely to file complaints against me due to the “Ferguson Effect.”	5	4	3	2	1
The Ferguson Effect has negatively affected my relationship with minority communities.	5	4	3	2	1

APPENDIX B

INSTITUTIONAL REVIEW BOARD EXEMPTION

Institutional Review Board

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TO: Andy Browne **IRB #20-132**
Dr. David Rausch

FROM: David Deardorff, Interim Director of
Research Integrity Dr. Susan Davidson,
IRB Committee Chair

DATE: 10/22/2020

SUBJECT: IRB #20-132: An Examination of Police Perceptions of Body-Worn Cameras

Thank you for submitting your application for exemption to The University of Tennessee at Chattanooga Institutional Review Board. Your proposal was evaluated in light of the federal regulations that govern the protection of human subjects.

Specifically, 45 CFR 46.104(d) identifies studies that are exempt from IRB oversight. The UTC IRB Chairperson or his/her designee has determined that your proposed project falls within the category described in the following subsection of this policy:

46.104(d)(4)(ii): Secondary research for which consent is not required: use of identifiable information or identifiable biospecimen that have been or will be collected for some other 'primary' or 'initial' activity, and information is recorded so subject cannot readily be identified (directly or indirectly/linked); investigator does not contact subjects and will not re-identify the subjects

Even though your project is exempt from further IRB review, the research must be conducted according to the proposal submitted to the UTC IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an Application for Changes, Annual Review, or Project Termination/Completion form to the UTC IRB. Please be aware

that changes to the research protocol may prevent the research from qualifying for exempt review and require submission of a new IRB application or other materials to the UTC IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the UTC IRB as soon as possible. Once notified, we will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event.

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval.

For additional information, please consult our web page <http://www.utc.edu/irb> or email instrb@utc.edu.

Best wishes for a successful research project.

APPENDIX C

SPEARMAN'S RHO CORRELATION MATRIX

Spearman's Rho Correlation Matrix

Variable	1	2	3	4	5	6	7	8	9
1. Age	-								
2. Sex	-.30	-							
3. Race	-.035	-.104	-						
4. Classification/Rank	.497**	.028	-.011	-					
5. Length of service	.807**	.011	.035	.524**	-				
6. Education	.045	.103	-.044	.224**	.043	-			
7. Use of force complaint previous 12 months	-.183*	-.046	.043	-.084	-.109	-.085	-		
8. No BWC Adoption	-.055	-.003	.173*	-.048	.004	.008	-.008	-	
9. BWC Comfort	-.079	.057	-.133	-.034	-.205	.017	-.133	-.487**	-

* $p < .05$. ** p

VITA

John Andrew Browne is an Assistant Professor of Criminal Justice at the University of Tennessee at Chattanooga. He was born in Chattanooga, TN to J. Milton and Dorris Browne. He had an extensive career in law enforcement before earning his Bachelors of Science and Masters of Science degrees in Criminal Justice from the University of Tennessee at Chattanooga. During his law enforcement career he worked in corrections, patrol, school resource, criminal investigations, and narcotics and special operations assignments. He is focusing his research efforts on issues surrounding policing as well as security threat groups.