

COMMENTARY

Body-worn camera technologies can promote positive policing

Daniel M. Ravid^{1*} , Bradley D. Pitcher² , Bradley J. Alge², and Tara S. Behrend² 

¹University of New Mexico, Albuquerque, NM, USA and ²Purdue University, West Lafayette, IN, USA

*Corresponding author. Email: dmr@unm.edu

(Received 4 July 2022; revised 24 July 2022; accepted 1 August 2022)

Although we agree with Dhanani et al. (2022) about the need for I-O psychologists to play a role in law enforcement policy, we disagree with their claim that the incorporation of advanced technologies into policing is a predominantly negative influence. In fact, advanced technologies such as police body-worn cameras (BWCs) have the potential to improve positive policing, and I-O psychologists are well poised to ensure that these technologies are implemented in a way that achieves that goal. Our research team recently conducted research with several police organizations to better understand the way they perceive and use BWCs. This commentary is informed by focus groups and interviews with these officers and captains. In the following sections, we discuss the ways that BWCs can promote positive policing and then discuss opportunities for I-O psychologists help police organizations effectively implement BWCs.

BWCs can help reduce police violence

BWCs are small video and audio recording devices that police officers wear when in the field and when interacting with the public. These cameras can be turned on manually or automatically based on a variety of procedures, policies, rules, or prompts that are determined by an agency, government, or another municipal oversight group (Williams et al., 2021). A growing number of law enforcement agencies are adopting BWCs, with the most recent adoption estimates provided by the Bureau of Justice Statistics indicating that as of 2016, 60% of local police departments and 49% of sheriff's offices had fully deployed BWCs (Lum et al., 2019). The integration of BWCs into police practices has the potential to reduce police violence and promote positive policing in a variety of ways.

Training

BWC footage gives police organizations the opportunity to assess training needs and training outcomes by capturing behavioral information that may otherwise go unobserved. For instance, one police chief we spoke with explained that the BWC footage helped them identify inconsistencies in handcuffing technique within the department:

We observed 50 different handcuffing techniques on video. Handcuffing techniques are very important because the quicker you get someone in handcuffs, the less chance of resisting arrest and, therefore, the less chance of use of force. Once we noticed this on camera, we made handcuffing technique a point of emphasis in training. Within 3 months, handcuffing technique had vastly improved.

Similarly, officers noted that their instructors review footage anytime there is use of force “to see if there is anything we can improve on, to see if there is anything we could do different.” Experts have commented on the difficulty of obtaining unbiased training needs assessment data (Aguinis & Kraiger, 2009). BWCs provide opportunities to collect high-fidelity behavioral data that can inform training needs and transfer.

Additionally, BWC footage can be beneficial for the design of high-fidelity trainings that can help prepare officers for situations where they may be prone to using excessive force, especially when those situations occur infrequently in the real world and are difficult or dangerous to simulate. Officers noted that their department partnered with a provider that uses BWC footage to develop highly realistic virtual reality training simulations. Training delivered via high-fidelity media is associated with better transfer of training (Liu et al., 2008; Salas et al., 2009) and greater acceptance of training (Dahl et al., 2010). By enabling this kind of training, BWCs can make a significant contribution to promoting positive policing.

Occupational stress

BWCs can promote positive policing by reducing officer stress and workload, enabling officers to make more careful and deliberate decisions. A common theme that emerged in our focus groups was that officers felt more secure and effective interacting with civilians knowing that the interaction would be captured on video. Many officers felt that the footage protected them against false accusations: “It cut down on false complaints, almost immediately, because they know now that it is all on video. I love it.” Several officers also noted the variety of ways BWCs reduce their workload during these interactions, including assisting them in evidence collection and interview transcription.

Officers also described how BWC live streaming capabilities can assist them in escalating and high-pressure situations: “Officers will call dispatchers and say, ‘log into my camera,’ and dispatchers will help set perimeters. In rural areas dispatchers will say, ‘here are the tree lines, here are where people are, here is where you need to be.’” The additional support BWCs provide officers can reduce situational uncertainty and acute stress, facilitating better decision making by officers (Salas et al., 2016).

Performance management

BWCs provide police agencies with opportunities to improve their performance management systems by facilitating consistent performance measurement and feedback. Police commanders described how their department uses BWC footage to set performance expectations and deliver positive and corrective performance feedback: “We call it Friday night film night. We randomly audit BWC footage to identify areas for improvement but also to find instances of exemplary performance to highlight as an example for others.” These kinds of informal performance reviews are a key element of effective performance management systems (Schleicher et al., 2018). As the authors of the focal article note, departmental emphasis on conflict management, de-escalation tactics, and cultural competency may be key to promoting positive policing. BWC footage provides opportunities for agencies to observe and reward effective demonstrations of these behaviors.

Importantly, incorporating BWC footage into performance management systems provides a mechanism for public oversight to hold officers accountable when police misconduct occurs. A common theme among high profile examples of police racialized violence is that the actions of these officers were caught on video. It is often the publicized footage of these occurrences that spark public outrage and force accountability. BWCs make it far more likely that any occurrence of police racialized violence will be captured on video. A large majority of US states have now

passed laws requiring that BWC footage is made available to the public. We view this type of transparency and oversight as integral to the reduction of racialized police violence.

Opportunities for I-O psychologists to inform BWC policy and practice

Despite the potential of BWCs to promote positive policing and reducing police violence, mixed results from research exploring the effects of BWCs on police use of force (Gaub & White, 2020; Lum *et al.*, 2020; Williams *et al.*, 2021) suggest that there are conditions in which BWCs are more or less effective, and opportunities for I-O psychologists to inform policy and practice to make these conditions more likely.

Communicating BWC policies

Officer attitudes toward BWCs are an important component to their successful implementation (Jennings *et al.*, 2014; Lawshe *et al.*, 2019), and I-O psychologists are well positioned to help police agencies communicate BWC policies in a manner that make these policies more likely to be supported. I-O psychologists can help agencies craft BWC policies that are clear and transparent to officers. Theory regarding the benefits of procedural transparency in human resource practices is well developed (Posthuma *et al.*, 2018). Research suggests that individuals tend to respond more favorably to monitoring when organizations are open and transparent about it (Ravid *et al.*, 2020, 2022), and sentiments during our interviews with officers were consistent with these findings. As one officer recounted, “the cameras turn on any time you travel 70 miles per hour. We didn’t know that and had one guy get in trouble because of it. It made us feel like the cameras were just there to watch you.” Officers are likely to feel surveilled or untrusted when agencies are not transparent in BWC use. Additionally, police agencies that provide officers with a clear justification for BWCs and emphasize the safety and developmental benefits of the technology can expect more positive responses from officers (Stanton, 2000; Tomczak *et al.*, 2018).

Training officers to use BWCs

I-O psychologists can help police organizations effectively integrate BWCs by assisting them in the design and implementation of BWC trainings. In focus groups, when asked about the training officers were provided for their BWCs, one officer replied, “I don’t remember how they were introduced, just ‘hi, welcome, here’s your body cam.’” Effective training design is a predictor of skill and knowledge acquisition as well transfer implementation intentions and performance (Bisbey *et al.*, 2021; Machin & Fogarty, 2003). Several officers noted potentially useful components of their BWC that they rarely use: “You can log on to the website to review your own footage, but I rarely do that.” Well-designed BWC trainings can introduce officers to BWCs and convey the purpose and benefits of the technological capabilities (Thayer & Teachout, 1995), making it more likely that officers take advantage of these features (Machin & Fogarty, 2003).

I-O psychologists can also provide expertise to ensure police supervisors and instructors are well trained to deliver meaningful and effective performance feedback based on BWC footage. Although police supervisors we spoke with noted that they use BWC footage to provide both positive and corrective feedback, some officers felt as if the footage was primarily used for corrective feedback. Theory on effective performance feedback is well developed (e.g., DeNisi & Kluger, 2000; Northcraft *et al.*, 2011), and I-O psychologists can help to make sure police supervisors deliver feedback that is timely and specific and corrects undesirable behaviors while reinforcing desirable behaviors.

Human factor design

I-O psychologists can also contribute to the effective integration of BWCs into policing practice by lending expertise related to human factor design. In a recent review of technology theory in organizational psychology, Landers and Marin (2021) conveyed the importance of considering technologies as a collection of design choices, each with their own potential effects and boundary conditions. Our conversations with officers revealed how seemingly small technological design choices such as on-switch size, power cord placement, and battery life have substantial effects on the usability of the technology for police officers. I-O psychologists have long viewed jobs through a prism of as individual tasks and contextual design elements, and as they increasingly move toward the technology-as-designed paradigm that Landers and Marin call for, they will be well positioned to assist in the design and implementation of BWCs in police organizations.

Data analysis

Finally, I-O psychologists can lend their data analytic expertise to help maximize the benefits of BWCs for police organizations. BWCs are a rich source of video and audio data that have the potential to help agencies identify antecedents and mitigators of police violence (Willits & Makin, 2018). For example, BWC footage could be analyzed to identify and differentiate specific positive (e.g., de-escalation) and negative (e.g., excessive force) policing behaviors. These results could be used to develop or validate a comprehensive model of police officer performance. Such a model could be used to guide the selection of predictors of positive and negative officer behaviors and to conduct studies to test predictive validity. Most police agencies lack the resources needed to undertake these types of projects. I-O psychologists can make a significant contribution by partnering with law enforcement agencies to analyze and produce insights from BWC data in ways that are theory driven, generalizable, and can effectively inform policy.

Conclusion

We agree with Dhanani et al. that there must be meaningful changes to law enforcement to put an end to a pattern of racialized police violence. Our conversations with police officers revealed that they too share this goal. We view the integration of advanced technologies such as BWCs into policing practices as having significant potential to promote positive policing and reduce police violence. I-O psychologists have a clear expertise and skillset to help police organizations implement BWCs and other advanced technologies in ways that can promote meaningful change in law enforcement.

References

- Aguinis, H., & Kraiger, K. (2009) Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, *60*, 451–474. <https://doi.org/10.1146/annurev.psych.60.110707.163505>
- Bisbey, T. M., Grossman, R., Pantan, K., Coultas, C. W., & Salas, E. (2021) Design, delivery, evaluation, and transfer of effective training systems. In G. Salvendy & W. Karwowski (Eds.), *Handbook of human factors and ergonomics* (1st ed., pp. 414–433). Wiley. <https://doi.org/10.1002/9781119636113.ch16>
- Dahl, Y., Alsos, O. A., & Svanæs, D. (2010) Fidelity considerations for simulation-based usability assessments of mobile ICT for hospitals. *International Journal of Human-Computer Interaction*, *26*(5), 445–476. <https://doi.org/10.1080/10447311003719938>
- DeNisi, A. S., & Kluger, A. N. (2000) Feedback effectiveness: Can 360-degree appraisals be improved? *Academy of Management Perspectives*, *14*(1), 129–139. <https://doi.org/10.5465/ame.2000.2909845>
- Dhanani, L. Y., Wiese, C. W., Brooks, L., & Beckle, K. (2022) Reckoning with racialized police violence: The role of I-O psychology. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, *15*(4), 554–577.
- Gaub, J. E., & White, M. D. (2020) Open to interpretation: Confronting the challenges of understanding the current state of body-worn camera research. *American Journal of Criminal Justice*, *45*(5), 899–913. <https://doi.org/10.1007/s12103-020-09518-4>

- Jennings, W. G., Fridell, L. A., & Lynch, M. D. (2014) Cops and cameras: Officer perceptions of the use of body-worn cameras in law enforcement. *Journal of Criminal Justice*, *42*(6), 549–556. <https://doi.org/10.1016/j.jcrimjus.2014.09.008>
- Landers, R. N., & Marin, S. (2021) Theory and technology in organizational psychology: A review of technology integration paradigms and their effects on the validity of theory. *Annual Review of Organizational Psychology and Organizational Behavior*, *8*(1), 235–258. <https://doi.org/10.1146/annurev-orgpsych-012420-060843>
- Lawshe, N. L., Burruss, G. W., Giblin, M. J., & Schafer, J. A. (2019) Behind the lens: Police attitudes toward body-worn cameras and organizational justice. *Journal of Crime and Justice*, *42*(1), 78–97. <https://doi.org/10.1080/0735648X.2018.1554839>
- Liu, D., Macchiarella, N. D., & Vincenzi, D. A. (2008) Simulation fidelity. In D. A. Vincenzi, J. A. Wise, M. Mouloua, & P. A. Hancock (Eds.), *Human Factors in simulation and training* (pp. 61–74). CRC Press. <https://doi.org/10.1201/9781420072846.ch4>
- Lum, C., Koper, C. S., Wilson, D. B., Stoltz, M., Goodier, M., Eggins, E., Higginson, A., & Mazerolle, L. (2020) Body-worn cameras' effects on police officers and citizen behavior: A systematic review. *Campbell Systematic Reviews*, *16*(3), Article number: e1112.
- Lum, C., Stoltz, M., Koper, C. S., & Scherer, J. A. (2019) Research on body-worn cameras: What we know, what we need to know. *Criminology & Public Policy*, *18*(1), 93–118. <https://doi.org/10.1111/1745-9133.12412>
- Machin, M. A., & Fogarty, G. J. (2003) Perceptions of training-related factors and personal variables as predictors of transfer implementation intentions. *Journal of Business and Psychology*, *18*(1), 51–71. <https://doi.org/10.1023/A:1025082920860>
- Northcraft, G. B., Schmidt, A. M., & Ashford, S. J. (2011) Feedback and the rationing of time and effort among competing tasks. *Journal of Applied Psychology*, *96*(5), 1076–1086. <https://doi.org/10.1037/a0023221>
- Posthuma, R. A., Charles Champion, M., & Champion, M. A. (2018) A taxonomic foundation for evidence-based research on employee performance management. *European Journal of Work and Organizational Psychology*, *27*(2), 168–187. <https://doi.org/10.1080/1359432X.2018.1438411>
- Ravid, D. M., Tomczak, D. L., White, J. C., & Behrend, T. S. (2020) EPM 20/20: A review, framework, and research agenda for electronic performance monitoring. *Journal of Management*, *46*(1), 100–126. <https://doi.org/10.1177/0149206319869435>
- Ravid, D. M., White, J. C., Tomczak, D. L., Miles, A. F., & Behrend, T. S. (2022) A meta-analysis of the effects of electronic performance monitoring on work outcomes. *Personnel Psychology*. <https://doi.org/10.1111/peps.12514>
- Salas, E., Martin, L., & Flin, R. (2016) *Decision-making under stress: Emerging themes and applications*. Routledge. <https://doi.org/10.4324/9781315258409>
- Salas, E., Wildman, J., & Piccolo, R. (2009) Using simulation-based training to enhance management education. *Academy of Management Learning and Education*, *8*(4), 559–573. <https://doi.org/10.5465/AMLE.2009.47785474>
- Schleicher, D. J., Baumann, H. M., Sullivan, D. W., Levy, P. E., Hargrove, D. C., & Barros-Rivera, B. A. (2018) Putting the system into performance management systems: A review and agenda for performance management research. *Journal of Management*, *44*(6), 2209–2245. <https://doi.org/10.1177/0149206318755303>
- Stanton, J. M. (2000) Traditional and electronic monitoring from an organizational justice perspective. *Journal of Business and Psychology*, *15*(1), 129–147. <https://doi.org/10.1023/A:1007775020214>
- Thayer, P., & Teachout, M. S. (1995) *A climate for transfer model*. AL/HR-TP-1995-0035, Texas: Brooks Air Force Base.
- Tomczak, D. L., Lanzo, L. A., & Aguinis, H. (2018) Evidence-based recommendations for employee performance monitoring. *Business Horizons*, *61*(2), 251–259. <https://doi.org/10.1016/j.bushor.2017.11.006>
- Williams, Jr., Morgan C., Weil, N., Rasich, E. A., Ludwig, J., Chang, H., & Egrari, S. (2021) *Body-worn cameras in policing: Benefits and costs* (Working Paper No. 28622; Working Paper Series). National Bureau of Economic Research. <https://doi.org/10.3386/w28622>
- Willits, D. W., & Makin, D. A. (2018) Show me what happened: Analyzing use of force through analysis of body-worn camera footage. *Journal of Research in Crime and Delinquency*, *55*(1), 51–77. <https://doi.org/10.1177/0022427817701257>

Cite this article: Ravid, DM., Pitcher, BD., Alge, BJ., and Behrend, TS. (2022). Body-worn camera technologies can promote positive policing. *Industrial and Organizational Psychology* *15*, 612–616. <https://doi.org/10.1017/iop.2022.79>