What are the impacts of body-worn cameras (BWCs) on officer and citizen behaviors?

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Body-worn cameras’ effects on police officers and citizen behavior: A systematic review

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1 | PLAIN LANGUAGE SUMMARY

1.1 | Body-worn cameras (BWCs) do not have clear or consistent effects on most officer or citizen behaviors, but different practices need further evaluation.

Law enforcement agencies have rarely adopted BWCs in the last decade with the hope that they might improve police conduct, accountability, and transparency, especially regarding use of force.

Overall, there remains substantial uncertainty about whether BWCs can reduce officer use of force, but the variation in effects suggests there may be conditions in which BWCs could be effective. BWCs also do not seem to affect other police and citizen behaviors in a consistent manner, including officers’ self-initiated activities or arrest behaviors, dispatched calls for service, or assaults and resistance against police officers. BWCs can reduce the number of citizen complaints against police officers, but it is unclear whether this finding signals an improvement in the quality of police-citizen interactions or a change in reporting.

Research has not directly addressed whether BWCs can strengthen police accountability systems or police-citizen relationships.

1.2 | What is the aim of this review?

The last decade has been marked by the rapid adoption of BWCs by the police and a growing body of evaluation research on the technology’s effects. Spurred on by high profile officer-involved shootings and protests, many citizens and community groups have supported the adoption of BWCs, hoping that this technology will deter police misconduct, better capture on- and off-duty events, and increase police accountability and transparency.

At the same time, some police officers and community members have expressed concerns that BWCs might encourage citizens, from reporting crimes or cause officers to pull back on preventative or proactive activities that may help prevent offending. This Campbell

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“Body-worn cameras’ effects on police officers and citizen behavior: A Systematic review”
BWC Adoption and Expectations
Questions about BWCs

- Can BWCs reduce use of force?
- Can BWCs improve police-citizen relationships?
- Can BWCs reduce criminal justice disparity?
- Can BWCs increase police accountability?
- Will BWCs make officers more legalistic?
- Will BWCs cause officers to be less proactive?
- Will BWCs make people reluctant to report crime?
- Will BWCs reduce citizen willingness to cooperate?
- Will BWCs increase citizen compliance to police?
- Will BWCs reduce assaults against police officers?
- Do citizens support BWCs? What about officers? Variations?
There has been an exponential growth of empirical BWC research.

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Trayvon Martin</td>
<td>Feb 2012</td>
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<tr>
<td>Michael Brown</td>
<td>Aug 2014</td>
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<tr>
<td>Freddie Gray</td>
<td>Apr 2015</td>
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<tr>
<td>SEPT 2013 (WHITE, 2014)</td>
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<tr>
<td>NOV 2015 (LUM ET AL., 2015)</td>
<td>14 Studies</td>
</tr>
<tr>
<td>JUN 2018 (LUM ET AL., 2019)</td>
<td>70 Studies</td>
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Impacts on Officer and Citizen Behaviors

- **Officer behavior**
  - Complaints against officers
  - Officer Use of Force
  - Arrest and Citation Behavior
  - Proactive activities (traffic stops, SQF, other proactive activities)
  - Incident reports written
  - Response time, time spent on scene

- **Citizen behavior**
  - Dispatched calls for service
  - Assaults on officers/officer injuries
  - Resistance against officers
30 Studies Analyzed
116 Effects* Calculated

1. Randomized controlled experiment OR quasi-experiment with a valid comparison condition.
2. Non-experimental time series if have at least 24 months OR 50 time points pre-treatment (rule relaxed if comparison included)
3. BWC use by law enforcement only (not by courts)
4. Officer or citizen BEHAVIOR (not attitudes)

*Relative Incident Rate Ratio (RIRR) effect sizes calculated
Data Collected from each Study

- **BWC implementation**
  where, when, how, why, who

- **Research design features**
  design type, sample, units of allocation and analysis, power analysis

- **Risks of Bias**
  sample selection, randomization process, attrition, contamination, missingness, outcome measurement, reporting

- **Moderators of interest**
  Study design, unit of analysis, agency context, adoption year, discretion in BWC use, contamination, fidelity, researcher group

- **Outcomes and effects for each outcome**
Results
"BWCs do not have consistent or clear effects on officer use of force. However..."

26 studies measured this effect.
RIRR=.932, NOT SIGNIFICANT, heterogeneous distribution
“BWCs can reduce complaints against officers, but it isn’t clear why.”

22 studies measured this effect.
RIRR=.834, SIGNIFICANT: 16.6% relative reduction
"We are uncertain whether BWCs increase or decrease assaults, resistance, or injuries against officers."

15 studies measured this effect. RIRR=1.148, NOT SIGNIFICANT, heterogeneous distribution
“It does not appear that BWCs make officers more legalistic and increase their use of arrest.”

13 studies measured this effect.
RIRR=.961, NOT SIGNIFICANT, heterogeneous distribution
“BWCs do not appear to cause a Ferguson Effect, or a pull back on general proactive behaviors.”

8 studies measured this effect.
RIRR=1.038, NOT SIGNIFICANT, heterogeneous distribution
“Nor do BWCs seem to impact specific proactive behaviors like traffic or pedestrian stops.”

Traffic: 5 Studies, RIRR=.950, NOT SIGNIFICANT, heterogeneous distribution

Pedestrian: 4 Studies, RIRR=.880, NOT SIGNIFICANT, heterogeneous distribution
Other findings

- **Other outcomes** – too few studies to draw conclusions.

- **Sensitivity analyses** – no major changes in findings when removing unusual studies.

- **Moderator analysis** – what if...? – research design, unit of treatment, agency context, year of adoption, level of discretion, compliance with study, contamination, research group
What does this all mean for police and communities?
The Impact of Body-Worn Cameras on Officer and Citizen Behaviors

A Campbell Systematic Review

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