

# Research and Evidence-Based Policing for Police Officer Receptivity

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**Abstract:-** This paper provides a contextual understanding of police officers and civilian receptivity to research and evidence-based policing (EBP). It focuses on how officers defined and understand the concept of (EBP). The context driving these definitions (including political pressures, professionalisation and the rise of police-academic collaborations). The history of policing is littered with reform programmes, which aim to improve effectiveness, efficiency and legitimacy. What does research mean to police officers in terms of 'hierarchies' and a 'ladder of evidence. It is argued that future studies of the police officer and civilian staff receptivity to research and EBP are crucial as receptivity influences the application of research and willingness to incorporate an evidence base into policing practice. Evidence-based policing (EBP) are popular and enduring reform effort, which has generated significant research and practitioner attention. In light of defunding the police movement, we must consider what police reform could and potentially should look like. Some, for example, have called for a reduced police footprint in marginalized communities through reallocating police funding toward preventative services for a myriad of social issues. However, drawing on Bayley's (1994) *Police for the Future*, we show that a dilemma arises concerning police involvement in these issues the police cannot be solely relied upon to address all social issues, but they cannot be fully absolved of the responsibility either. As such, further drawing on Bayley's (1994) thoughts for police reform, we instead argue for the adoption of evidence-based policing as a more fruitful driver of meaningful, long-term police reform as it not only enables the police to identify practices that are effective or even harmful but it also can be used as means for police accountability.

**Keywords:-** Evidence-Based Policing, Evidence-based practice; Policing.

## I. INTRODUCTION

Evidenced based policing (EBP), defined as creating, reviewing and using the best available evidence to inform police policies, practices and decisions (College of Policing What Works Centre, n.d.). The case for EBP is well made and includes better understanding of modern policing problems (Knutsson and Tompson, 2017; Lum and Koper, 2017); application of the most effective solutions especially in times of financial austerity and diminishing resources (Weisburd and Neyroud, 2013), as well as helping to transform policing into a more legitimate and respected profession (Sherman, 2015). Whilst the value of EBP per se is now widely accepted, (Knutsson and Tompsin, 2017) claims about what constitutes 'best' evidence remains a

matter of dispute (Laycock, 2012; Lum and Kennedy, 2012). Because evidence-based policing is a decision-making perspective, not a panacea. It is grounded in the idea that policies and practices should be supported by scientifically rigorous evidence and analytics; that research is not ignored; and that research at least becomes a part of the conversation about what to do about reducing crime, increasing legitimacy, and addressing internal problems. These nuances provide flexibility in thinking about the role that research and science should play in policing (Lum, Koper and Telep, 2012:63). Evidence in evidence-based policing is not limited exclusively to findings from randomized experiments, and can include a variety of approaches with a common emphasis on policing practice being guided by science and empiricism, rather than anecdotes, untested traditions, or hunches (Telep, 2018:01). In addition to police practice being guided by research, evidence-based policing emphasizes police departments consistently evaluating their practices. This requires a strong emphasis on analysis and data to guide decision-making.

## II. WHAT IS EVIDENCE-BASED POLICING (EBP)

Evidence-based policing is a law-enforcement perspective and philosophy that implicates the use of research, evaluation, analysis, and scientific processes in law-enforcement decision-making (Lum, Telep, Koper, and Grieco, 2012: 1). Sherman (1998:3-4) introduces and defines EBP as the use of the best research on the outcomes of police work to implement guidelines and evaluate agencies, units and officers. Put more simply, evidence-based policing uses research to guide practice and evaluate practices. Sherman (2012a) states that the key to EBP is the scientific testing of ideas and innovations rather than just trying them and judging them by instinct. He states that in many police organisations new ideas are tried but never tested so that police leaders and practitioners do not know if an idea has truly worked or not (Sherman 2011a; 2012a).

Lum, Telep, Koper and Grieco, (2012) point out that evidence-based policing using research and scientific processes to inform policy decisions is a complex approach to policing that involves various challenges. Eyben (2013) explains that evidence-based approaches are likely to represent *Value for Money* in the police and public sector (Stanko 2009; Greene 2014) as it is concerned with actually achieving maximum economy, efficiency and effectiveness of resources (Campbell Collaboration 2009). This is a view shared by Nutley, Powell, and Davies,(2013), who have pointed out that although calls for better evidence in developing and delivering public services are not new, they have become more urgent due to the cuts. They go on to explain that there is a need to ensure that the scarce funds that are available need to be allocated in a more cost-

effective way (Wain and Murray, 2011). As Marston & Watts (2003:149) also point out that funding of public services is becoming increasingly linked to outcomes and that in that environment “efficiency becomes the primary political value”, and as a result, this provides a fertile ground for an evidence-based discourse.

Ultimately EBP is about using the best available research to find out what works and then using these tactics, policies or operations that have been thoroughly evaluated in everyday police work (Murray, 2011). However, an evidence-based approach requires at least (1) an attempt to use tactics which reflect principles of effective crime prevention (Lum et al., 2011) and (2) that research and analysis are a ‘part of the conversation about what to do about reducing crime, increasing legitimacy, and addressing internal problems’ (Lum et al., 2012:62). In turn, because of its focus on justifying interventions through some objective measuring tool (e.g. research, science, evaluation, and analysis), evidence-based policing has also become intertwined with the contemporary fiscal crises in policing, regarded as an approach that might help police do more with less by assessing the cost effectiveness of police activity.

Evidence-based practice is largely positivistic and focuses on scientific evidence that will produce ‘universal truths’ (Petersen and Olsson, 2015:1582).

Evidence-based policing means that research, evaluation, analysis and scientific processes should have a “seat at the table” in law enforcement decision-making about tactics, strategies and policies. Further, we define evidence-based policing as not just about the process or products of evaluating police practices, but also about the translation of that knowledge into digestible and useable forms and the institutionalization of that knowledge into practice and policing systems (Lum and Koper, 2017:2).

“Police practices should be based on scientific evidence about what works best”. EBP consists of an increasing emphasis on the ‘users’ or ‘consumers’ of research (Sherman, 2003: 6). In this sense, EBP acts as a ‘motor’ working as an “engine” for change and improvement in the realm of policing (Innes, 2010: 128). Notable examples of EBP in the US include research on restrictions on police shootings (Fyfe, 1982) and the use of ‘hot spots’ to target US police resources in particular areas suffering from small-scale crime (Sherman et al., 1989).

Building on Sherman’s discussion of Evidence-based policing (EBP), Lum and Koper (2015:5) further argue that we should take note of three distinctions highlighting the difficulty in EBP’s fulfillment:

- EBP is a ‘decision-making perspective, not a panacea.
- It is ‘grounded in the idea that policies and practices should be supported by research evidence and analytics, not blindly determined by them.
- That research is ‘not ignored and it at least becomes a part of the conversation on what to do about reducing crime, increasing legitimacy or addressing internal problems.

Sherman has since elaborated his definition of EBP as: "a decision-making process that uses reliable, unbiased, quantitative evidence on prediction and prevention as a primary criterion for setting goals, choosing priorities, making policies, making decisions, managing compliance, assessing results and improving policies" (Sherman, 2009:21).

### III. EVIDENCE POLICING ADVANTAGES

As Lum and colleagues (2012) point out, the goal is to bring research into the conversation regarding how the police allocate their crime control resources, not to make research the only concern of the police. While police should devote as many resources as possible to evidence-based strategies and should avoid strategies with evidence of significant backfire effects, police agencies cannot divorce themselves entirely from the political environments in which they exist.

The second principle is that there is a hierarchy of evidence. Randomized experiments are at the top of the hierarchy because they have the highest level of internal validity and allow for causal statements about treatment (Cook & Campbell, 1979, Weisburd, 2003). A doctor’s clinical experience in a particular case is also on the hierarchy, although it appears at the bottom. This is an important reminder that while basing police practice completely on officer experience while ignoring research evidence threatens police effectiveness and efficiency, police experience also cannot be completely ignored in crafting policy and practice (Moore, 2006). These principles are important to review here, as a reminder that while evidence-based policing is intended to make research play a more important role in police practice, there is no expectation that research will ever be the only factor guiding police efforts to reduce crime.

Eyben (2013) explains that evidence-based approaches are likely to represent *Value for Money* in the police and public sector (Stanko, 2009; Greene 2014) as it is concerned with actually achieving maximum economy, efficiency and effectiveness of resources (Campbell Collaboration 2009). This is a view shared by Nutley et al (2013), who have pointed out that although calls for better evidence in developing and delivering public services are not new, they have become more urgent due to the cuts. They go on to explain that there is a need to ensure that the scarce funds that are available need to be allocated in a more cost effective way (see also Wain & Murray 2011). As Marston & Watts (2003:149) also point out that funding of public services is becoming increasingly linked to outcomes and that in that environment “efficiency becomes the primary political value”, and as a result this provides a fertile ground for an evidence-based discourse.

Of course if we are making efficiency savings by using EBP to determine what works and doing it, the corollary also holds. We can make efficiency savings by using EBP to determine what doesn’t work and *not* doing it (Campbell Collaboration, 2009). This is key because the police have often relied on (or reverted back to) old established police

tactics which, as Fyfe (2013) reveals, plays little part in either tackling crime or reducing the fear of crime. However, it is not just cost savings (efficiency and economy) that an Evidence-Based approach can promote. Effectiveness is another of the drivers of modern public service management as the phrase *what works* tends to suggest (Sanderson, 2002; Eyben, 2013).

Kahneman (2011) in a wide range of endeavors 9 things institutions can do to institutionalize research evidence in ways that foster more fairness and effectiveness in democratic policing:

- The evidence base for police decisions has grown enormously since 1975.
- Use of that evidence lags behind the knowledge, but use has also grown.
- Most police practices, despite their enormous cost, are still untested.
- Targeting and testing require highly reliable measures of crime and harm.
- Crime rates and counts are by themselves misleading; a crime harm index offers far better evidence to guide police decisions.
- Police in 2012 used evidence on targeting much more widely than evidence from testing.
- Research on tracking police outputs remains largely descriptive and incomplete, with great room for using new technologies to improve the quality of evidence.
- More use of evidence can increase police legitimacy, both internal and external.
- The State Boards of Police Officer Standards and Training in the United States and the College of Policing in the United Kingdom will be key institutions in making policing more effective, along with the practitioner-led Society for Evidence-Based Policing.

#### IV. THE RISE OF EVIDENCE FOR POLICE DECISION MAKING

(Saunders (1970) saw policing become a matter of national politics in unprecedented ways. The different responses of police in each country helped build a special intellectual relationship that was conceptually far deeper than the military collaboration of World War II. One continuing theme has been that “they do policing better” on the other side.

#### V. SETTING THE STAGE

What replaced that strategy was not a coherent new theory. Only in retrospect can we use the triple-T framework of targeting, testing, and tracking to make sense of what emerged. The multi-centered work of examining current practices, designing innovations, and evaluating new programs produced something that scholars now call “emergence,” the confluence of properties arising from a combination of elements not found in any one of the elements (Johnson, 2001). The essential new property is the capacity to lead police organizations with dynamic evidence rather than static doctrine. That, in turn, opened the door to considering the implications of basic research provided by an earlier generation of thinkers. The most important basic

research documented the existence of police discretion to choose different strategies rather than being handcuffed by the three Rs. Most notably, Reiss’s (1971) conception of police work as divided between proactive and reactive discretion stimulated much creative thinking. These insights expanded the concept of police discretion from the level of case-by-case to agency-by-agency decision-making and helped to set the stage for the emergence of triple-T. But that new, evidence-based strategy took almost four decades to emerge from the accumulation of new research evidence. What happened was a process of “presumption” (Tapscott and Williams 2006) in which the producers of elements of the triple-T strategy were simultaneously its consumers.

#### VI. TESTING

The three-Rs strategy was intellectually discredited after three major efforts were made to assess the effects of key elements.

- **Random Patrol:** The Police Foundation’s Kansas City Preventive Patrol Experiment (Kelling et al., 1974) launched the rise of evidence-based policing. The first attempt to undertake a scientifically controlled test of the effects of patrol staffing levels proved that bold experiments were possible in policing. The experimental design of withdrawing patrols from five patrol beats (and doubling it in five others) was stunning and unprecedented. That the “sky did not fall” made the world safe for further bold experiments. The reported conclusion that the frequency of police patrols did not affect crime opened many minds to think more critically about police strategy. The experiment's leadership by a police chief who was subsequently appointed FBI director also suggested that research, even with negative results, could be good for police career advancement. Nonetheless, the conclusion that random patrol did not work was widely accepted. Tens of thousands of police officers lost their jobs in the aftermath of the study, which came coincidentally just before a financial crisis in many US cities. None of that stopped the widespread use of random patrol. But it did help drive a research agenda seeking alternative police strategies.
- **Rapid response:** The theory that marginally faster response times would catch and deter more criminals was effectively falsified by a National Institute of Justice–funded research project led by staff of the Kansas City Police Department (1977). The study reported that it was necessary to divide crimes into victim-offender “involvement” crimes (e.g., robbery, assault, rape) and after-the-crime “discovery” crimes (e.g., burglary, car theft). It then focused response time analysis on involvement crimes, with “response time” including three time periods: crime occurrence to calling the police (“reporting time”), police receipt of call to dispatch (“dispatch time”), and “travel time” of police from receipt of dispatch to arrival at the scene. . Using systematic observation methods and interviews of victims, the Kansas City study found that there was no correlation between response-related arrest probability and reporting time once the reporting time exceeded 9 minutes. The average reporting time for involvement crimes was 41

minutes (Kansas City Police Department 1977, vol. 2, pp. 23, 39).

- **Reactive investigations:** The view that detectives “solve” crimes that are reported to them were strongly rejected by another National Institute of Justice (NIJ) project, this one conducted by the RAND Corporation (Greenwood and Petersilia 1975). This report examined the value detectives add to the information that was in the record at the end of a preliminary investigation by the first responders to a crime, usually uniformed patrol officers. The conclusion was that detective’s rarely uncovered new evidence that made a difference in solving the crime contrary to a century of detective fiction. Here again, the evidence is thin with the conclusion. An experiment comparing cases prosecuted without detective work to cases prosecuted after detective work would be a strong test of the “no-effect” hypothesis. But what mattered was that yet another sacred cow was wounded. For many police leaders, this completed the well-justified execution of the three-Rs strategy, which legitimated trying alternatives.

These three studies created a strong appetite for more experiments and support for funding them from influential scholars. Franklin E. Zimring, James Q. Wilson, Albert J. Reiss Jr., and others shaped several National Academy of Science reports recommending more NIJ funding for randomized experiments (Zimring 1976; White and Krislov 1977). These reports led to NIJ funding streams for most of the more than 100 tests of police practices listed online by Lum, Koper, and Telep (2010), many of which were funded in 1983–89 by James K. Stewart, the only NIJ director to have served as an operational police officer and leader.

## VII. CONCLUSION

Evidence Base Policing means that we need to take a thorough, robust and analytical approach to policing problems because we need to use both the scientific process and its results to help make decisions. We need to use existing research and develop new evidence, to apply rigorous scientific methods and conduct experiments. It requires us to translate and convert research processes and the results of research into everyday practice.

## REFERENCES

- [1.] Ayling, J. Grabosky, P. & Shearing, C. 2009. Lengthening the Arm of the Law: Enhancing Police Resources in the 21st Century. Cambridge: Cambridge University Press.
- [2.] Bayley, David H. 1994. Police for the Future. New York, NY: Oxford University Press.
- [3.] Bueermann, J. 2012. Being smart on crime with evidence-based policing. *National Institute of Justice Journal* 269:12–15.
- [4.] Campbell Collaboration. 2009. *What helps? What Harms? Based on what Evidence? Systematic reviews of the effects of interventions in education, crime and justice, and social welfare, to promote evidence-based decision-making* Oslo, Norway. The Campbell Collaboration.
- [5.] Cook, Thomas D & Campbell, Donald T. 1979. Quasi-experimentation: Design & analysis issues for field settings. Houghton Mifflin Company: Boston.
- [6.] Cordner, G. & White, S. 2010. ‘The Evolving Relationship between Police Research and Police Practice’, *Police Practice and Research: An International Journal*, 11(2): 90–94.
- [7.] Cordner, G. 2020. A practical guide to evidence policing: Baltimore Police Department. Published by the National Institute of Justice, U.S. Department of Justice. The full guidebook is available at <https://nij.ojp.gov/library/publications/evidence-based-policing-45-small-bytes>
- [8.] evidence-based-policing-45-small-bytes
- [9.] Cynthia Lum & Christopher, S. Koper, 2017. Evidence-based policing: translating research into practice. Oxford, Oxford University Press, 2017, 348 pp. ISBN 978-0198719946.
- [10.] Eyben, R. 2013. *Uncovering the Politics of ‘Evidence’ and ‘Results. A Framing Paper for Development Practitioners*. Politics of Evidence Conference; Core Conference Paper. Big Push Forward.
- [11.] Fyfe, J. J. (1982b). Administrative interventions on police shooting discretion: An empirical examination. In J. J. Fyfe (Ed.), *Readings on police use of deadly force* (pp. 258–281). Washington, DC: Police Foundation.
- [12.] Fyfe, N. 2017. Evidence based policing. Policing 2026 Evidence Review Prepared by the Scottish Institute for Policing Research (pp9-20). Accessed at: [http://www.sipr.ac.uk/downloads/Policing\\_2026\\_Evidence\\_Review.pdf](http://www.sipr.ac.uk/downloads/Policing_2026_Evidence_Review.pdf).
- [13.] Fyfe, N. R. & Wilson, P. 2012. ‘Knowledge Exchange and Police Practice: Broadening and Deepening the Debate Around Researcher-Practitioner Collaborations’, *Police Practice and Research: An International Journal*, 13(4): 306–314.
- [14.] Gray, M. Joy, E. Plath, D. & Webb, S. A. 2015. ‘What Supports and Impedes Evidence-Based Practice Implementation. A Survey of Australian Social Workers.’ *British Journal of Social Work*, 45: 667–684.
- [15.] Greene, J. R. 2014. New directions in policing: balancing prediction and meaning in police research. *Justice Quarterly* 31(2): 193–228.
- [16.] Huey, L., & Mitchell, R. J. 2019. An introduction. In R. J. Mitchell & L. Huey (Eds.), *Evidence based policing. An introduction* (pp. 3–14). Policy Press.
- [17.] Hough, M. 2010. Gold standard or fool’s gold. The pursuit of certainty in experimental criminology. *Criminology and Criminal Justice* 10(1):11–22.
- [18.] Hough, M. 2011. Criminology and the role of experimental research. In: Bosworth, M, Hoyle, C (eds) *What is Criminology*. Oxford: Oxford University Press, 198–210.
- [19.] Huey, L. & Mitchell, R. J. 2019. An introduction. In R. J. Mitchell & L. Huey (Eds.).
- [20.] Innes, M. 2010. ‘A “Mirror” and a “Motor”’: Researching and Reforming Policing in an age of austerity.’ *Policing: A Journal of Policy and Practice*, 4(2): 127-134.

- [21.] Jaschke/ H-G, Bjørge, T, del Barrio, F, Kwanten, C, Mawby, T & Pagan, M. 2007. Perspectives of police science in Europe. Final report. Centre for European Policing (Cepol). Available at: <https://www.cepol.europa.eu/sites/default/files/96607-0255>.
- [22.] Johnson, Steven Berlin. 2001. *Emergence: The Connected Lives of Ants, Brains, Cities, and Software*. New York: Scribners.
- [23.] Johnston, L. & Shearing, C. 2009. 'From a "Dialogue of the Deaf" to a "Dialogue of Listening": Towards a New Methodology of Policing Research and Practice', *Police Practice a Research: An International Journal*, 10(5-6): 415–422.
- [24.] Kansas City Police Department. 1977. *Response Time Analysis: Executive Summary*. Kansas City: Kansas City Police Department.
- [25.] Kahneman, D. 2011. *Thinking, Fast and Slow*. New York: Farrar, Straus & Giroux.
- [26.] Kelling, George L., Antony Pate, Duane Dieckman, & Charles E. Brown. 1974. *The Kansas City Preventive Patrol Experiment: A Summary Report*. Washington, DC: Police Foundation
- [27.] Knutsson, J & Tompson, K. 2017. *Advances in Evidence Based Policing*. London. Routledge. ISBN: 978-1-1369873-4. ISBN: 978-0-367-226657. ISBN: 978-1-315-51829-9 (ebook) 23.Pages, Evidence based policing. An introduction (pp. 3–14). Policy Press.
- [28.] La Vigne, N. G. 2022. Fits and starts: Criminology's influence on policing policy and practice. In E. L. Piza & B. C. Welsh (Eds.). *The globalization of evidence-based policing: Innovations in bridging the research-practice divide* (pp. 53–72).
- [29.] Laycock, G 2012. Happy birthday Policing 6(2):101–107.
- [30.] Laycock, G. (2012a). 'Happy Birthday' in Policing, Vol. 6, No.2, Pages 101-107.
- [31.] Lum, Cynthia, Christopher S. Koper, & Cody D. Telep. 2010. "The Evidence-Based Policing Matrix." *Journal of Experimental Criminology* 7:3–26.
- [32.] Lum, C. & Koper, C. 2017. *Evidence-based policing: Translating research into practice*. Oxford, Oxford University, pp. 3-4.
- [33.] Lum, C.2011. 'On The Pushback to Evidence-Based Policing', in the Center for Evidence-Based Crime Policy Bi-Annual Newsletter, Issue 5, January 2011, Pages 6-7. Fairfax VA: George Mason University.
- [34.] Lum, C. Koper, C. 2014. Evidence-based policing. In: Bruinsma, G. Weisburd, D. (eds) *The encyclopedia of criminology and criminal justice*, New York, NY: Springer-Verlag, pp. 1426–1437.
- [35.] Lum, C. Telep, C. W. Koper, C. S. & Grieco, J. 2012. 'Receptivity to Research in Policing.' *Justice Research and Policy*, 14(1): 61-95.
- [36.] Lumsden, K. & Goode, J. 2016. Policing research and the rise of the 'evidence-base': police officer and staff understandings of research, its implementation and 'what works'. *Sociology*, 52(4), pp. 813-829.
- [37.] Marston, G. & Watts, R. 2003. 'Tampering With the Evidence: A Critical Appraisal of Evidence Based Policy Making', in *The Drawing Board: An Australian Review of Public Affairs*. Vol. 3, No. 3, Pages 143-163.
- [38.] Moore, M. H. 2006. Improving police through expertise, experience, and experiments. In Weisburd, D., Braga, A. A. (Eds.), *Police innovation: Contrasting perspectives* (pp. 322-338). New York, NY: Cambridge University Press.
- [39.] Murray, A.2011. 'Grounded Force', in *Police Review*, 10th June 2011 Edition, Pages 20-21.
- [40.] Murji, K. 2010. 'Introduction: Academic-Police Collaborations — Beyond "Two Worlds" ', *Policing: A Journal of Policy and Practice*, 4(2): 92–94.
- [41.] Neyroud, P. 2009. Squaring the circles: research, evidence, policy-making, and police improvement in England and Wales. *Police practice and research: an international journal*, 10(5-6): 437-449.
- [42.] Nutley, S., Powell, A. & Davies,H.2013. *What Counts of Good Evidence? Provocation Paper for the Alliance for Useful Evidence*. London: Alliance for Useful Evidence.
- [43.] Petersen, A. C, &Olsson, N J. I. 2015. Calling evidence-based practice into question: acknowledging phronetic knowledge in social work. *British Journal of Social Work* 45(5): 1581-97.
- [44.] Ponsaers, P. Boekbespreking Van Dijk, A., Hoogewoning, F. & Punch, M. (2016). What matters in policing? Change, values and leadership in turbulent times. Bristol: Policy Press. In Janssen, J., Bisschop, L., van Solinge, T., De Baets, Ph. (eds.). *Themanummer Groene Criminologie en Veiligheidszorg, Cahiers Politiestudies*, n38, 2015/4, Antwerpen / Apeldoorn: Maklu, 215-219.
- [45.] Reiss, Albert J., Jr. 1971. *The Police and the Public*. New Haven, CT: Yale University Press.
- [46.] Rojek, J. Alpert, G. & Smith, H. 2012. 'The Utilization of Research by the Police.' *Police Practice and Research: An International Journal* 13(4): 329–341.
- [47.] Sackett, D. L. Rosenberg, W. M. C. Muir Gray, J. A., Haynes, R. B., & Richardson, W. S. (1996, January 13). Evidence based medicine: What it is and what it isn't [Electronic version]. *British Medical Journal*, 312, 71–72. Retrieved July 17, 2022, from [www.bmj.com/cgi/content/full/312/7023/71?ijkey=JflK2VHyVI2F6](http://www.bmj.com/cgi/content/full/312/7023/71?ijkey=JflK2VHyVI2F6).
- [48.] Saunders, Charles. 1970. *Upgrading the American Police: Education and Training for Better Law Enforcement*. Washington, DC: Brookings Institution
- [49.] Scott Eacott, Gabriele Lakomski, & Colin W. Evers, 2017. *Questioning Leadership: New Directions For Educational Organization*(Routledge) and Eacott, S. (2016). *Methodological notes on the study of educational leadership relationally* *Journal of Educational Administration and Foundations*, 25(2), 3-14.
- [50.] Sherman, L. W. 2003. 'Misleading Evidence and Evidence-Led Policy: Making Social Science More Experimental.' *Annals of the American Academy of Social and Political Science*, 589: 6-19.
- [51.] Sherman, L. W. 2011. Police and crime control. In M. Tonry (Ed.), *The Oxford handbook of crime and*

- criminal justice (pp. 509–537). Oxford University Press.
- [52.] Sherman, L.W. (2012a). *A People's Revolution is Under Way in the Fight Against Crime*. Telegraph Online. Downloaded from: <http://www.telegraph.co.uk/news/uknews/law-and-order/9492386/A-peoples-revolution-is-under-way-in-the-fight-against-crime.html> [Accessed 11/10/2012].
- [54.] Sherman, L. W. 2013. 'The Rise of Evidence-Based Policing: Targeting, Testing, and Tracking.' *Crime and Justice*, 42(1): 377-451.
- [55.] Sherman, L. W. 2015. A tipping point for "totally evidenced policing": Ten ideas for building an evidence-based police agency. *International Criminal Justice Review*, 25, 11–29.
- [56.] Sherman, L. W. 2015. A tipping point for "totally evidenced policing" ten ideas for building an evidence-based police agency. *International criminal justice review*, 25(1): 11-29.
- [57.] Sherman, L. W. Gartin, P. R. & Buerger. M. E. 1989. 'Hot Spots of Predatory Crime: Routine Activities and the Criminology of Place.' *Criminology*, 27: 27-55.
- [58.] Sparrow, M. 2011. *Governing Science*. Harvard Kennedy School Program in Criminal Justice Policy and Management. Available at: <https://www.publicsafety.gc.ca/lbrr/archives/cnmcs-plcng/cn32545-eng.pdf> (accessed, 20 July 2022).
- [59.] Stanko, E. A. 2009. 'Improving Policing Through Research', in *Policing*, Vol. 3, No. 4, Pages 306-309.
- [60.] Stone, C. Travis, C. 2011. *Towards a new professionalism in policing*. National Institute of Justice.
- [61.] Telep, C. W. 2018. *Evidence-Base Policing*. <https://doi.org/10.1093/obo/97801953>
- [62.] Telep, C. W. & Bottema, A. J. 2020. Adopt evidence-based policing. In C. M. Katz & E. R. Maguire (Eds.), *Transforming the police: Thirteen key reforms* (pp. 9–25). Waveland Press.
- [63.] Thacher, D. 2001. *Policing is not a treatment: alternatives to the medical model of police research*. *Journal of Research in Crime and Delinquency* 38(4):387–415.
- [64.] Thacher, David. (2001a), "Equity and Community Policing: A New View of Community Partnerships." *Criminal Justice Ethics* 20 (1):3-16.
- [65.] Wain, N. & Murray, A. 2011. 'Gathering Evidence', in *Police Professional*, 24th March 2011 Edition, Pages 13-14.
- [66.] Weisburd, D. & Neyroud, P. 2013. *Police science: Toward a new paradigm*. *Australasian policing*, 5(2), 13.
- [67.] Weisburd, D. Mastrofski, S. D. McNally, A. M. Greenspan, R. & Willis, J. J. 2003. *Reforming to preserve: Compstat and strategic problem solving in American policing*. *Criminology and Public Policy*, 23), 421–456.
- [68.] Weisburd, David & Cynthia Lum. 2005. *The diffusion of computerized crime mapping in policing: Linking research and practice*. *Police Practice and Research: An International Journal* 6: 419–434.
- [69.] Wilson, James Q. 1968. *Varieties of Police Behavior*. Cambridge, MA: Harvard University Press.
- [70.] White, Susan O., and Samuel Krislov. 1977. *Understanding Crime: An Evaluation of the National Institute of Law Enforcement and Criminal Justice*. Washington, DC: National Academy of Sciences.
- [71.] Zimring, Franklin E. 1976. "Field Experiments in General Deterrence: Preferring the Tortoise to the Hare." *Evaluation* 3:132–35.