When it Comes to Implementing New Policing Strategies and Programs, are Police Agencies 'Targeting, Testing, and Tracking'?

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Abstract

Some researchers suggest that police professionals see little value in adopting evidence based approaches to tackle policing challenges. To examine police receptivity to research, 586 Canadian police professionals from 7 agencies were surveyed. We explore responses to one particular survey question, which caused respondents to reflect on whether their agencies enact evidence based policing (EBP) principles in daily operations; specifically, the principles of targeting, testing, and tracking the implementation of new policing strategies. Positive and negative views were expressed by respondents in relation to their agency's ability to identify high priority policing problems (targeting) and to implement and test strategies for fixing these problems (testing). However, views were overwhelmingly negative when respondents reflected on how well their agency's track the effectiveness of policing strategies over time. The results underline challenges associated with the adoption of EBP and highlight areas for improvement in agencies that wish to rely on EBP practices and policies.

Keywords: police, evidence based policing, program evaluation, target, test, track

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> "There are two ways for police to find out whether a specific police practice is effective. One is to have someone look for relevant evidence in the growing police research repositories… the other is for police to conduct tests in their own agencies" (Sherman, 2013, p. 431).

The past few years have witnessed the rise of the evidence based policing (EBP) paradigm, both within academia and across policing. Currently, there are four Societies of Evidence Based Policing (in the United Kingdom [U.K.], the United States [U.S.], Canada, and Australia-New Zealand), there are EBP-themed annual conferences, workshops, courses, programs, newsletters, and soon, there will be two new EBP journals.[1] Collectively, the Societies have almost 5,000 members from across the ranks of policing. All of this, taken together, would seem to suggest that EBP is being widely adopted. However, research by U.S. scholars reveals that in that country, when officers are specifically asked about their receptivity to policing research, many remain uninterested and continue to see little value in adopting research-based approaches for policing issues (Lum, Telep, Koper, & Grieco, 2012; Telep & Lum, 2014). Such findings indicate that adoption of EBP may not be nearly as widespread as some indicators would suggest.

[1] The journal *Police Science*, published by the Australia-New Zealand Society of Evidence Based Policing began in 2016. A second journal, based at the Institute of Criminology at the University of Cambridge, will release an inaugural issue in 2017.

There are, of course, other ways to explore receptivity to EBP that can tell us something significant about not only individual attitudes towards research, but also the extent to which agencies as a whole embody or enact EBP principles in their daily operations. One way to evaluate what we might term 'meaningful adoption' of EBP would be to examine whether police agencies engage in research-informed decision-making that follows Sherman's (2013) 'Triple-T approach.' Why this particular evaluation criteria? As Sherman (2013) himself has argued, the EBP approach is grounded in the 3Ts of *targeting*, *testing*, and *tracking.* These 3Ts, as we discuss in further detail shortly, correspond to key phases of strategy development, implementation, and long-term evaluation; phases which can provide appropriate targets, methodologically sound data, and research-based feedback upon which to make informed decisions, thus making or breaking the potential success of a new strategy or program. Evidence of the use of this approach would seem to indicate some level of commitment to EBP, we suggest, rather than the adoption of EBP as solely a rhetorical strategy (Saunders, 1999).

The present paper explores the extent to which Canadian police agencies employ the principles of targeting, testing, and tracking in implementing new strategies. To examine this issue, we draw on an analysis of comments (n = 353) made by survey participants in response to an open-ended question. The survey was sent to all police and civilian members within seven municipal or regional police agencies in seven Canadian provinces. The question posed to respondents was: 'In your view, how successful has your department been in implementing new policing strategies in the past?' As we discuss, survey answers revealed a wealth of information with regards to how well the agencies surveyed appear to be doing in employing targeting, testing, and tracking in their implementation and evaluation of new strategies. As we explain in

the concluding section, the findings from this study have much to tell us about the extent to which some police agencies are receptive to, understand, and/or employ basic principles of EBP.

Police Strategies and the Triple-T Approach

EBP is an approach that focuses on generating quality research to answer the question 'what works?' in relation to policing strategies, policies, and/or programs. In contrast to other forms of policing research, EBP researchers and practitioners focus equal attention on the methods used to conduct research as on its subsequent adoption by police agencies, policy-makers, and other criminal justice actors. The concept of creating a methodologically sound 'evidence base' upon which police and researchers can draw was imported into the policing field by Lawrence Sherman (1998), who had observed the rise of the evidence based medicine movement and its emphasis on employing rigorous scientific research. Drawing on years of testing policing innovations, Sherman was keenly aware that many policing strategies had been built on un-tested assumptions (including individual or cumulative experience, anecdote, and so on), with the result that many agencies had squandered resources on strategies for which there was little, if any, evidence that they worked. Currently, when attempts *are* made by police services to identify a problem, implement a solution and evaluate its effectiveness, these attempts are often not rigorously tested (Sherman, 2013). Problems also arise when some aspect of the implementation or evaluation fails due to one or more of a myriad of reasons (Schafer, 2003; Skogan, 2008; Drover & Ariel, 2015).

We are not alone in observing that policing evaluations frequently fail or produce lackluster results. The policing research literature is full of problems identified by researchers. For example, various reliability issues can confound a study's results. Among these are problems with 'implementation fidelity,' wherein study participants deliberately or inadvertently fail to

follow protocols intended to protect against 'treatment contamination' (Sorg, Wood, Groff, & Ratcliffe, 2014). Poor quality implementation can not only skew individual results, but may also reduce the potential for significant positive effects of even those strategies deemed to work well elsewhere (Slothower, Sherman, & Neyroud, 2015). Worse yet, inappropriate targets, as well as sloppy implementation, can, in some instances, produce backfire effects that worsen existing problems (ibid.).

Even if all implementations and evaluations were conducted in sound fashion, there is always the potential for problems with respect to 'treatment decay,' when strategies and programs that were initially deemed effective begin to show diminished results over time (Sherman et al., 1995). Such changes are often a result of shifts in resource allocation, institutional priorities and funding, or other issues that can have deleterious effects on the ability to maintain long-term program fidelity (Fameega, Hinckle, & Weisburd, 2017). It has been suggested by Neyroud and Weisburd (2014) that many of these and other related issues stem from a failure of police agencies to 'take ownership' of police science, a problem that EBP attempts to address through collaborative relations between police and researchers and the development of new tools and educational materials that can be used by police practitioners to understand and assess research and its utility for police operations (see for example, Johnson, Tilley, & Bowers, 2015; Lum et al., 2012).

To assist both police practitioners and researchers in conceptualizing how research can best be used to test the effectiveness and efficiency of policing strategies, Sherman (2013) drew again on his own experiences of observing evaluation work in practice to formulate what he terms the 'Triple-T' approach. In short, the 3 T's are:

Targeting – the identification of a high priority policing problem (i.e., a place, crime pattern, type of offense);

Testing – implementation of a strategy to fix the problem, which is simultaneously tested through rigorous scientific research to ensure the strategy had the desired effect (such as crime reduction, increased arrests, improvement in community satisfaction); and,

Tracking – once in place, a solution should be tracked over time to ensure it continues to work as desired. If not, then adjustments should be made, and those adjustments evaluated and tracked over time.

As Sherman (2013) describes it, the Triple-T approach, which emerged inductively through years of trial and error by police agencies rather than as a deliberate research strategy, is the backbone of EBP: "The growing adoption of those three principles has given shape to what is increasingly called evidence-based policing…" (ibid, p. 383). Police leaders who previously may have relied on notoriously unreliable 'gut feelings' or 'years of experience,' are increasingly able to draw instead on valid and reliable data to inform decision-making.

The question with which researchers have recently begun to grapple is: Are police actually receptive to using the principles of EBP in their operational environment? (see Lum et al., 2012; Telep & Lum, 2014). Certainly, the rise of Societies of EBP in the U.K., U.S., Canada, and Australia and New Zealand would suggest so, as would the proliferation of EBP research networks, courses, workshops, and articles. However, these phenomena tell us little about the extent to which operational decision-making actually embodies the principles of EBP – a key indicator of meaningful adoption. One way to test this would be, of course, to explore whether police agencies employ targeting, testing, and tracking in their approach to implementing

strategies to combat crime, social disorder, and other problems. The goal of the present paper is to begin this exploration using data drawn from a survey of Canadian police agencies.

Method

This paper is informed by analysis of answers (n = 353) to an open-ended question appended to a survey conducted on police receptivity to empirical research. Our original goal was to replicate Telep and Lum's (2014) receptivity research using Canadian respondents. To that end, we used a slightly modified version of the Telep and Lum survey. In addition to several minor changes that are discussed in more detail below, we made three slightly more significant changes at the request of one of our team members, who is well versed in the change management literature more commonly found within the field of organizational studies. We included three open-ended questions intended to help us more fully unpack possible causes for the willingness or unwillingness to be open to research and innovation. One of those questions was: 'In your view, how successful has your department been in implementing new policing strategies in the past?' Answers to this question were intended to offer insights into how past experiences with successful or failed policing models or strategy implementations might influence current willingness to be open to new ideas offered through empirical research[2] (see Reichers, Wanous, & Austin, 1997; Schneider, Brief, & Guzzo, 1996). In conducting an initial coding of participant answers, we realized that respondent comments also offered insights into causes for both the success and failure of strategy implementation, and the extent to which Canadian police agencies employ some version of Sherman's (2013) Triple-T approach.

Recruitment

[2] This topic is the subject of another paper from this research and not the focus of the current study.

The Telep and Lum (2014) study upon which we modeled our efforts drew on a sample of officers from three city police agencies that were fairly matched in terms of composition and city characteristics. These researchers were fortunate in that they were able to achieve a high response rate at one of their sites because the survey was conducted during in-service training. Their response rates were lower when subsequent agencies were surveyed online (or at roll calls in combination with online). Given the fact that the online version of their survey generated fewer responses, we opted to increase the number of police services surveyed to seven.

Police leaders at seven municipal or regional police agencies across seven Canadian provinces were approached by email and asked if their agency would participate in the survey. Participation was encouraged by sending out an internal email to all employees (civilian and sworn) describing the survey, its goals, and how to access it. Participants were also assured in this email that their responses to the survey would be anonymous. Follow up emails were also sent prior to the survey being discontinued.

Data collection

As may be recalled, the Telep and Lum (2014) survey consisted of five parts covering respondent demographics, as well as such topics as officer's knowledge of policing evaluation research and evidence based policing and openness to science and innovation. In our version, several questions were adapted so that they were applicable to a Canadian policing audience: (1) well known Canadian-based journals and magazines were added as options to a question which asked participants to indicate from which source(s) they had read an article or feature from, (2) various Canadian agencies were added as options to a question regarding the provision of information about particular tactics or strategies, (3) a question related to the efficacy of "legitimacy policing" was removed, and four other strategies were added that were arguably

more appropriate for a Canadian context,[3] (4) policing rank options were adjusted, and (5) education terminology was changed (e.g., from "associate's degree" to "college degree").

Once an agency agreed to participate, personnel at each site reviewed the questions and provided advice on any concerns or possible changes.[4] Two of the services required further modifications. In one case, this was to accommodate a different rank structure. In another, the questions had been sent to the relevant police association, which wanted one of the questions struck and another question slightly modified. As these revisions were not significant to our results, we made the requested changes for the version of the survey that was made available to their personnel. In total, we ended up with 3 versions of the survey, with all versions including the open-ended questions.

The release date of the surveys varied across participating agencies, and the last survey remained active until February 15, 2017. Respondents were advised that they would remain anonymous, details of their survey would not be shared with their employer, and that they could skip any questions they wished. In total, 586 individuals completed the survey. Of these, 353 (see Table 1 below) answered open-ended question 1: ''In your view, how successful has your department been in implementing new policing strategies in the past?' It is the analysis of the responses to this question that is discussed below.

Data analysis

After the survey data was entered into Statistical Package for the Social Sciences (SPSS v 24), another version was created in Excel and sent to one of the team members for an initial, inductive coding of the open-ended questions. To code responses to the question that informs this paper, open coding was used. Drawing on Glaser's (1978) concept-indicator model, we

[3] The changes followed consultation with a large Canadian police organization.
[4] We note that the questionnaire and protocols were vetted first by a University Research Ethics Board.

identified regularly occurring concepts by looking for words and phrases that function as indicators for that concept. In coding question 1, it became obvious that three of the most frequently occurring concepts within the data – 'targeting,' 'testing,' and 'tracking' – are the same key concepts that form the basis of Sherman's (2013) Triple-T approach for implementing policing interventions.

Armed with the results of this initial coding, we then returned to the data and employed a more focused coding approach. This allowed us to draw connections between the main concepts identified and related sub-concepts, which in turn helped us to illuminate our participants' views on how, when, where, and why policing strategies fail. Once the second coding was complete, the results of both were independently verified by another team member as a check against possible errors. A third team member also reviewed the manuscript to ensure all figures reported were accurate.

Results

As a link to our survey was sent to all police agency employees, our respondents included both sworn officers (n = 276) and civilian employees (n = 64) (see Table 1). Some of the latter, we note, indicated they had previously been a sworn officer before rejoining a police agency post-retirement; however, for the purposes of clarity, these individuals were added to the civilian employee pool. We note that fifteen participants (n = 15) chose not to answer the question. Respondents were typically male (n = 231), seventy-seven (n = 77) self-identified as female, and forty-five (n = 45) did not provide their gender. Participant ages ranged from 22 to 62, with an average age of 52. As with other demographic questions, some respondents did not provide their age (n = 54).

Table 1

Breakdown of Respondents - Sworn Law Enforcement Officers and Civilian Members by Province

Province	Sworn Law Enforcement Officer *n* (%)	Civilian Member *n* (%)
Alberta	85 (82.5)	18 (17.5)
British Columbia	19 (82.6)	4 (17.4)
Manitoba	80 (83.3)	16 (16.7)
Nova Scotia	20 (87)	3 (13)
Ontario	54 (74)	19 (26)
Prince Edward Island	1 (50)	1 (50)
Saskatchewan	17 (85)	3 (15)

Note. $N = 340$[5]

Respondents were also asked about their total number of years of experience in policing. Answers ranged from less than one year to 41.5 years (this was an individual who had retired after 35 years of service and then re-joined as a civilian employee). The average number of total years of experience was eighteen. Two additional questions focused on rank or occupational role (for civilians). As with other survey questions, we received a diverse set of responses. Most ranks within a police agency were represented, including senior officers. Most police officer participants, however, were Constables ($n = 107$). This was not entirely unexpected given that the Constable rank makes up most of a police agency's work force. Civilian employees included planners, supervisors, and managers, as well as intelligence, policy, and crime analysts.

Before moving on to analyze respondent answers in greater detail, we want to briefly present the initial results regarding how successful participants perceived their police agency's to be in implementing new strategies. Responses to this question indicated that the majority of participants felt their police agency met with limited success in implementing new strategies ($n = 158$), whereas ninety-seven participants ($n = 97$) felt their police agency was generally successful. A further seventy-two respondents ($n = 72$) were of the view their agency was generally unsuccessful and twenty-six respondents ($n = 26$) were unsure or undecided. We were

[5] Not all respondents provided information about their occupation/rank.

fortunate that in answering this question, most participants provided sufficient details to justify their view, and, in some cases, we received highly detailed answers. When analyzed carefully using a thematic approach, we were able to cluster answers into three main categories – using the codes of 'targeting,' 'testing,' and tracking' – which allowed us, in turn, to better understand why participants held the views expressed regarding the relative success or failure of their police agency to implement new strategies.

Targeting

Of the three categories – targeting, testing, and tracking – we received the fewest comments in relation to targeting. The comments we did receive were easily grouped into two categories: Those from respondents who saw their agency as successful in implementing new strategies and identified targeting methods as a significant factor, and, conversely, those who saw their agency as unsuccessful and cited a lack of targeting as a cause (or inappropriate means to target). We could also delineate from the data what factors participants believe contribute to success or failure with respect to targeting.

For those who viewed their agency as successful at implementing valuable new policing strategies, a commonly cited factor was a willingness to draw on statistical data and complex crime analytics to target issues and develop strategies. As one participant observed of his agency, "They pride themselves on being inventive and creative in addressing crime. They use police analytics to record statistics and deploy resources according to the needs of the communities." Another observed, "I think we are successful in implementing new strategies," citing the fact there is "crime analysis and intelligence sharing like never before and soooooo valuable." An officer in this same agency stated his agency had been "very successful." To illustrate this point, he noted, "I have personally made arrests acting on data received through our strategic policing

initiative which uses intel and crime statistics that generate 'hot spots' so we can better allocate our resources." Similarly, an officer in another agency wrote, "I believe our department is mindful of statistical and empirical data encouraging the use of particular strategies and discouraging the use of others and does try to implement the best strategies to the best of the department's ability."

Police agencies that were deemed 'successful' by respondents also evidenced another characteristic, one that is a staple feature of EBP: A willingness to value the experiences of members and to solicit their input in identifying and targeting problems (Sherman, 2013). As one participant noted of her agency, they are "fairly successful," because "the Department actively seeks new ideas from members and evaluate[s] their success and implementation." The result: "Not all ideas are likely to work but the appetite and encouragement to submit a new strategy opens members to provide ideas as well as ensures that members out on the street are always focused on applying new techniques to deal with a problem, hence think outside of the box."

Conversely, lack of member input in targeting problems was seen as an impediment to successful targeting and strategy implementation. One officer explained this issue and its ramifications very succinctly when he said of his department: "Well intentioned but with little involvement from the 'boots on the ground' officers involved in front-line policing. This creates many logistical issues as those making the decisions are often 10-15 years removed from what actually occurs at street level. This in turn creates resistance or frustration from front-line officers as responsibilities are added on top of responsibilities." This view was echoed by an officer in another agency: "The front line is seldom consulted."

Other issues were also raised in relation to targeting that might explain why some participants felt their agency's were not always or generally successful. One officer cited

resistance to new ideas among senior leaders as a critical factor. According to this respondent, it was not simply that his agency failed to identify targets, but that when information was made available to them about how to target problems and implement appropriate strategies – for example, through hot spot analyses – they ignored the data and chose not to "support this initiative despite peer reviewed research, as well as demonstration pilot projects that showed this worked in reducing crime, victimization and calls for service." Another respondent stated his agency was "fairly good in implementing strategies," but raised an important issue in querying whether the targets of those strategies were appropriate: "The question, of course, is whether we are focusing on the right things." Someone else was fairly clear in identifying the causes of targeting failures: "Most new strategies appear to be in 'knee-jerk' relation [sic] to past failures. Most ideas tend to limit liability and cost, but does not address the crime and best ways to combat the crime." And yet another pointed to his agency's reliance on adopting "flavour of the month" solutions popular within policing circles, rather than on using crime analysis to drive the identification of appropriate targets. As a result, he suggested, "ultimately police fall back on what strategies they know best."

Testing

In relation to testing – that is implementing an intervention and then evaluating its effects in relation to the selected target(s) – the comments revealed mixed results. Some respondents felt their agency was effective at successfully implementing and evaluating new strategies. For example, one participant felt that "a majority of the new strategies used have been implemented effectively." Another observed that their agency had moved towards becoming a "data driven environment," and thus her agency had become "very" effective in relation to testing new strategies. An individual at this same agency concurred, noting the adoption of intelligence-led

policing, which, “although it took a number of years to gain traction…has proven to be very effective.” As can be seen from these examples, most positive comments in this category were not highly detailed. However, two respondents did provide some explanation for their belief that their agency had been “quite effective” and “fairly successful” respectively, in implementing and evaluating new strategies. One identified effectiveness in this area in terms of not only success in implementation, but, perhaps more importantly, as having “learned from the implementation processes.” The second observed that while historically, “one of the biggest challenges we have in policing is measuring success of new strategies,” he felt the recent addition of a Research Coordinator would “allow us to determine exactly what the results mean.”

In the main, most of the comments received were negative. Problems identified in relation to testing fell within two general categories: Failure to implement a planned change and failure to adequately evaluate the results of an intervention. In relation to the former, an officer stated his agency was open to change, but that “the follow through of implementing them is a challenge.” The reason cited was “lack of compliance for new programs” among patrol officers. Compliance at the district level was also cited by another participant as a reason behind implementation failures: “Strategies are not applied consistently between districts. Each commander of a district has different priorities and as such these strategies are applied differently.” “A glaring disconnect between the high-level management and the frontline staff” was cited as the cause behind the failure of a significant project mounted by a police agency. Neither side could agree on “how to properly implement the strategy.” One officer used the word, “horrible,” to describe how an “intelligence led policing model crumbled quickly” within his agency. According to this respondent, the agency had failed to collect the data necessary to make the model work. As he described it, “the service lacked intelligence,” and when they did

acquire intelligence, failed to put it "to use." Another simply stated, "they have tried but the implementation has failed miserably."

Less frequently, respondents cited failures in the evaluation of a new strategy as an issue. One officer described his agency as being "effective" in implementing strategies, but observed that instituting change can quickly be "a detriment" to long-term success if the change is not properly tested. Someone else similarly expressed concerns over how quickly new strategies could move from a trial to full-blown implementation without "being fully vetted or tested." In some agencies, participants observed that new strategies were not evaluated at all – that is, using any type of standardized methods or tools. As she explained, "These new strategies are often not thoroughly researched. There are no standard definitions or processes being used and no tools in place to measure success/failures of these strategies." As a result, she stated, "when we say a strategy is successful our assertion is always anecdotal." A further concern identified is whether resulting research actually influences decision-making. An officer noted his agency did evaluate new strategies, but that senior leaders did not always pay attention to the results in their decision-making. As this individual put it, "They are willing to try new things and implement but it's not given up on even though the people implementing it state it is not working."

Tracking

In a recent discussion of the challenges police agencies face in implementing evidence-based strategies, Peter Neyroud (personal communication, July 10, 2016) observed that most challenges related to targeting and testing can be overcome to some degree; however, problems associated with tracking remain particularly difficult to ameliorate. In essence, once a new strategy or other intervention is implemented and tested, it is not unusual for a police agency to stop monitoring its operation. Thus, the extent to which a strategy is effective over the long-term

becomes a matter of anecdote. As Neyroud states, "…the skill of evidence-based leadership is to understand the context and be able to adapt and implement EBP ideas," including understanding the causes of shifts in effects over time, and making adaptions to those strategies where positive effects seem to be waning. Given the known challenges associated with tracking, it is perhaps not surprising that this is the area in which we received the bulk of negative reviews on police performance related to the Triple-T approach.

To be clear, criticisms of an agency's performance on tracking were not universal. We did receive one positive comment from a respondent who observed that at her agency, strategies are not only "tracked," but the service "keeps us up to date" on how effective a given strategy is. Much more commonly, though, we received responses such as this one:

> I believe that my Police Department has been pro-active in implementing new policing strategies (Intelligence led Policing, Proactive targeting of areas and persons, etc.) however I feel that they have abandoned the principles of these strategies too quickly if they were not immediately as effective as hoped or because of man-power shortages. I believe a lot of the strategies are worthwhile and could have been effective if they had been given more time to work before being abandoned.

Others similarly observed that once the effects of a strategy appeared to wane, or were not as immediately 'effective as hoped,' rather than re-testing the strategy and/or making suitable modifications, they were discarded. Some felt that abandoned strategies were a matter of interest diminishing among senior officers or the result of 'champions' being transferred or leaving an agency.

Amongst the criticisms raised, we also received many comments from individuals who noted that once a pilot project had been completed and deemed a 'success,' no measures and processes were established to evaluate long-term performance. For example, one respondent stated his agency was "not that successful in the long term," because "we are good at moving on to try new stuff but not that good at staying committed to anything long enough to see if it is truly successful or not." Another stated, "auditing or assessment of past or currently implemented programs has been limited to my knowledge." Some felt that lack of tracking was a resource issue: "My department has been receptive to new strategies and pilot projects, but lacks the administrative capacity to administer new programs and track results on a large scale." Another cited outdated information technology and software as a barrier to effective long-term tracking. As a result of these and other issues, the bulk of officers who addressed tracking issues in their comments felt that while their agency had been successful at implementing strategies, "the long-term effectiveness is questionable." This sentiment is perhaps best illustrated in the following comment: "Successful in implementation, not as successful in the strategies being effective."

Conclusion

Despite the valuable insights gained through the survey responses, numerous limitations with our study must be recognized. First, as is typical in survey research (e.g., Sheehan, 2001), the response rate to our survey was relatively low. This issue, combined with the fact that only seven police agencies were surveyed, means that we cannot know whether the views expressed by our respondents generalize to other Canadian police professionals or agencies (or even to the agencies represented by our participants). A second limitation relates to the relatively low rate of participation by civilian members (less than 15% of the sample). This prevented us from being

able to conduct any meaningful comparative analyses with sworn officers. Third, because the survey question we examined did not explicitly ask respondents to reflect on their agency's ability to target, test, and track new policing strategies, their responses might underestimate the challenges associated with these EBP principles. On the other hand, like any voluntary survey research, self-selection may have occurred in our study, leading to negatively biased responses (e.g., disgruntled individuals may have had more to say). Finally, it is of course possible that the views expressed by our participants are not correct (e.g., due to lack of information); in other words, just because a respondent claimed their agency does not appropriately target, test, or track implemented strategies, this does not make the statement true. Of course, such a situation would likely speak to other potential problems in the respondent's agency, such as ineffective communication between those responsible for implementing or evaluating programs and front-line officers.

Notwithstanding these limitations, our analysis has demonstrated that police professionals in Canada have differing views when they reflect on how their own agencies adopt key principles of EBP; specifically, targeting, testing, and tracking the implementation of new policing strategies. Many views voiced by our participants were positive, especially in relation to identifying high priority policing problems (targeting), and implementing and testing strategies for fixing these problems (testing). These views can be built on by the participating police agencies to further EBP in their organizations. However, important criticisms were also highlighted by our analysis, in terms of targeting and testing, but most notably in relation to tracking implemented strategies over time and making any necessary adjustments to those strategies. If the negative views voiced by our respondents do accurately portray the situation in Canadian police agencies, it will be difficult for these agencies to effectively determine 'what

works' in relation to policing strategies, policies, and/or programs. That being said, the key barriers or challenges to the 3 T's that were identified in this paper are not insurmountable. The challenges articulated by our respondents provide a clear road map for some of the issues that need to be resolved if agencies wish to effectively employ the basic principles of EBP.

Fortunately, police agencies in Canada and elsewhere have an increasing array of resources upon which to call should they wish to implement evidence-based decision-making within their organizations and require external advice and assistance. Canadian police agencies are served by the Canadian Society of Evidence Based Policing; a free, voluntary research network that provides access to applied policing researchers through a host of tools and media (including a new ResFinder application), as well as a wealth of free resources (videos, blogs, papers, regional workshops, podcasts and apps) and a 'matchmaking service' that assists police agencies in locating both expertise and funding opportunities. Through the federation of International Societies of Evidence Based Policing, police in Canada and elsewhere also have access to expertise and resources in the U.K., the U.S., and Australia and New Zealand, much of which is entirely free. All of these resources, both individually and in combination, can not only help agencies ensure they are properly 'targeting,' 'testing,' and 'tracking,' but generate new evidence-based ideas and programs of research to assist in the task of creating sound policing policies, programs, and practices.

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