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ABSTRACT

Research conducted in the United States (U.S.) suggests that many police professionals are unaware of, or resistant to, empirical research, and see little value in adopting evidence-based approaches for tackling policing issues. To determine whether similar views are held by Canadian police professionals, 598 police professionals (civilians and officers) from seven police services across Canada were surveyed. The survey was designed by Lum and Telep (n.d. *Officer receptivity survey on evidence-based policing*. Fairfax, VA: Center for Evidence-Based Crime Policy, George Mason University) to determine respondents' knowledge of, and support for, evidence-based policing (EBP). Using their survey allowed us to compare our results to the data they collected in the U.S. Although Canadian respondents had similar concerns regarding EBP as those in the U.S., in several ways, Canadian police professionals were more open to the idea of EBP. The results are encouraging, but still suggest a lack of buy-in from some police professionals in certain regards. Potential reasons for the cross-national discrepancies, and the consequences of the findings, are discussed.

Introduction

Operating expenditures for police services in Canada have risen relatively steadily over the last decade (Hutchins 2014). In 2012, total expenditures for police services (including all municipal, provincial, and federal agencies) in Canada reached nearly 14 billion dollars (Mazowita and Greenland 2016). Not surprisingly, it has been argued that funding for police services has been exhausted, and more efficient ways of doing things are required (Public Safety Canada 2013). During the 'Summit on the Economics of Policing,' stakeholders developed a framework that attempted to balance public expectations of policing with fiscal restraints (Public Safety Canada; PSC 2013). Key to the framework was the need to focus on 'smart policing strategies' underpinned by empirical research:

> 'Relying on scientific evidence to determine what works in policing, what policies and practices are effective, and which ones might do harm is critical in order to be effective and to use public funds more efficiently, judiciously, and to avoid unintended consequences or 'cures that harm'. (PSC 2013, p. 11)

Sound and replicable evaluations of common policing strategies can likely improve the efficacy of contemporary practices. However, research conducted in the United States (U.S.) suggests that many police professionals are unaware of, or resistant to, empirical research, and see little value in

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adopting evidence-based approaches for tackling policing issues. In one of the only studies to survey patrol officers, Telep and Lum (2014) found that these individuals tended to value experience over research and were less willing to conduct evaluations of police practices that required rigorous methodology (e.g. like randomised controlled trials [RCTs]). Moreover, although certain differences were observed between the three agencies sampled, police professionals generally used few tools to learn about research. Most respondents did not regularly read policing magazines or academic journals, nor did they turn to organisations outside their own to acquire research.

To date, it remains unclear if the opinions regarding openness to science and collaboration are replicable with Canadian police professionals, and to what extent Canadian police services have embraced evidence-based policing (EBP). If Canadians do hold similar opinions to their counterparts in the U.S., then greater attention must be paid to the pragmatic value of empirical research conducted by academics. To investigate Canadian police professionals' openness to research, and their use of research in decision-making, Telep and Lum's (2014) study was replicated with police professionals (civilians and officers) from seven services across the country. The survey used was adopted with permission from Lum and Telep (n.d.), which allowed for between-nation comparisons. The survey measures receptivity to EBP in a variety of ways, including participants': (a) knowledge about the efficacy of various policing strategies, (b) beliefs about research as tool to facilitate understanding, (c) openness to research in practice, and (d) the importance of training and/or education to policing.

Defining EBP

Stemming largely from the work of Lawrence Sherman, EBP has long been understood as a process of determining 'what works' in policing (Sherman 1998), and using that knowledge to shape best practice (Sherman 1998, Bullock and Tilley 2009, Lum and Koper 2015). Sherman (1998) argues that police practice ought to be based on scientific evidence; this would clarify the extent to which policing programmes are effective (i.e. provide expected returns) and are therefore a worthwhile investment (or not). The adoption by some police services (mostly in the United Kingdom [U.K.]) of a three-tiered process, referred to as 'the triple T approach,' has helped facilitate EBP (Sherman 2013). Using this approach, a policing problem is first identified or 'targeted.' For example, a police service may decide that their resources are being overwhelmed with mental health related calls for service (see Cotton and Coleman 2010). Then, a strategy is implemented to remedy the issue, and the strategy is assessed, or 'tested,' to determine if it is having the desired effect (Sherman 2013). It has been suggested that measures of efficacy during this testing phase take into consideration both how well a strategy works (e.g. to reduce crime), as well as the cost of employing it (e.g. reduction in crimes per cost unit; Heaton and Tong 2016). Lastly, the strategy is monitored or 'tracked' over time to ensure it remains effective (Sherman 2013). Sherman (2013) notes that, because agency needs change over time and greater efficiencies are always desired, working strategies may require updates. Moreover, persistent tracking ensures that strategies continue to be implemented appropriately (much like in the field of health care, where the importance of treatment fidelity to maintain the reliability and validity of a strategy has been well-established; e.g. Borrelli 2011). If a strategy is not consistently delivered the way it was intended to be implemented, it becomes unclear if the strategy itself is inept, or whether there are simply issues with the way the strategy is being applied.

The central premise of EBP – to use scientific evidence to produce universal truths (Petersen and Olsson 2015) and develop principles that ultimately inform decisions about practice (Avby et al. 2014) – is consistent with what often occurs in the discipline of medicine (Cochrane 1972), and more recently, education, management, and social care (Lumsden 2016). As in these other disciplines, EBP is a decision-making strategy:

> 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. (Lum et al. 2012, p. 62)

However, the definition of EBP has raised a number of concerns, and with its recent proliferation,[1] has been revised accordingly.

Criticisms of EBP

At least three core issues related to the constitution of EBP have been discussed; these include: (1) the privileging of certain methodologies (e.g. Tilley 2009); (2) the belief that scientific inquiry will devalue police experience (Huey and Ricciardelli 2016); and (3) barriers to research, including problems mobilising key findings (e.g. Bullock and Tilley 2009). The first issue pertains to the notion that RCTs are the 'gold standard' to obtain evidence of efficacy (e.g. Stewart-Brown et al. 2011, Sullivan 2011). Tilley (2009) argues that relying on RCTs to evaluate programmes in the criminal justice policy and practice area is problematic given how diverse and fluctuating the groups under study often are. Similarly, Fyfe and Wilson (2012) note that a variety of methodologies must be considered in order to get a full understanding of the issue under study. As such, EBP advocates have recently recommended that various study designs be considered, and that research methods be selected that are best suited to answering the question of what works in a given situation, with RCTS representing just one possible option (Huey and Ricciardelli 2016). Moreover, arguments have been made that research is warranted, not only to evaluate the effect of policing interventions, but also to better understand policing issues more generally, including their cause (College of Policing 2017); this latter issue likely cannot be studied through the use of RCTs.

Another concern that has been raised about EBP is the misconception that empirical investigation into police practices depreciates practitioner knowledge and/or experience (Sherman 2015). On the contrary, most EBP advocates promote the integration of police practitioners into the research process, where experience is viewed as a vital component (e.g. Bradley and Nixon 2009). Indeed, if research fails to align with issues faced by a police service, and thus lacks operational relevancy, even the most rigorous study can be discounted by those it aims to serve. The aim of EBP is therefore to promote research that is important to police services, academics, and the public (while recognising there may be competing underlying interests). In fact, public support, increased government funding for police-academic partnerships, and recognition of the benefits accrued from police services adopting an evidence-based approach to their work, resulted in the development of the College of Policing – a professional body that helps inform police practices and ensure consistency across police services in the U.K. (Lumsden 2016).

Lastly, as in other domains, the dissemination of empirical research into the hands of consumers who can apply it has become a hot button topic. For research to be used, it must be accessible and understandable (Bennell and Blaskovits in press). Advocates of the knowledge mobilisation movement argue that research loses value when it simply languishes within 'think tanks;' hence the new emphasis on open science (e.g. Cozzarelli 2005). Telep and Lum (2014) found, for example, that most police professionals turn to practitioner-oriented magazines, rather than academic journals, to stay informed. Magazines may not only be more accessible, but the language used in magazine articles may make them easier to understand. Recently, there has been some recognition that the academic jargon used in empirical research articles can limit comprehension of that research – particularly discussions of complex statistical tests (Duxbury 2016). The inclusion of effect sizes (or the use of a standard unit of measurement), for instance, could improve understanding, as might greater emphasis on the implications of the results. Therefore, the goal of EBP is not meant to facilitate police research simply for the sake of it, but to ensure it reaches the audience it was intended for.

Receptivity to EBP

Although EBP is arguably good-intentioned, the research to date suggests that there has been mixed responses to EBP by police professionals. Some studies suggest that police professionals are relatively open to research and appreciate (at least objectively) its value. For example, Rojek et al. (2012)

surveyed executives from 849 police services across the U.S. and found that nearly 85% of them had read practitioner-oriented magazines to learn about research findings. In fact, nearly all of the executives used research to inform policy (~90%). In a smaller scale study surveying 45 police chiefs and sheriffs in Oregon, Telep and Winegar (2016) found that the majority of respondents were familiar with EBP and felt research was important. Most participants (65%) were also open to using research and partnering with other agencies and researchers, as demonstrated by their agreement with the statement, 'Collaboration with researchers is necessary to improve an agency's ability to reduce crime.'

Similar findings have been observed in the U.K. Palmer (2011), for example, surveyed high ranking police personnel (Inspectors) in the Greater Manchester Police, and found that they too tried to stay informed about research. They were most likely to read government publications, particularly those from the Home Office. Palmer also asked participants about their willingness to conduct research using various methods. He found that, generally, respondents were willing to examine pre–post crime data (i.e. to determine if meaningful differences were observed after the implementation of an intervention). Moreover, Palmer found that reading about research predicted support of small RCTs as a research methodology. Likewise, Hunter et al. (2015) found that their sample of U.K. mid-to-upper level officers were accepting of research. Most reported that research was important in decision-making and that they had used research in some capacity to help understand a crime problem in the last year.

All of the studies cited above surveyed high ranking police officials, and reported generally positive findings (i.e. an openness to EBP). However, as mentioned, in one of the few studies to survey patrol officers, Telep and Lum (2014) found some resistance to EBP. In their study, approximately 960 officers and civilians from three U.S. police services were asked about their knowledge of (and exposure to) empirical research and EBP, their views toward crime analysts and researchers, and their openness to using and conducting empirical research to inform police practice. Although certain differences were observed between services, overall, police professionals used few tools to learn about research. Most respondents did not regularly read policing magazines or academic journals, nor did they turn to organisations outside their own to acquire research. Furthermore, Telep and Lum found that police professionals tended to value experience over research and were less willing to conduct evaluations of police practices that required rigorous methodology (e.g. RCTs). The findings suggest that rank-and-file officers, as well as civilians, may be less open and receptive to research compared to the higher-ranking individuals surveyed in other studies.

EBP in Canada

Generally speaking, EBP has been slow to catch on in Canada compared to the U.S. or U.K. (Huey and Ricciardelli 2016). Griffiths (2014) argues that a lack of funding has limited research capacity in Canada: 'People tend to gravitate to areas where they can get funding and as there is little funding support for policing research, there are few people currently producing consistent work' (p. 12). In contrast, the U.S. government invested heavily in criminal justice research in the 1990s (Skogan and Frydl 2004), and has continued to do so for certain areas of interest (e.g. former president Barack Obama contributed 20 million dollars to support the Body Worn Camera Pilot Program; U.S. Department of Justice 2015). In addition, unlike the U.K., where networks of practitioner-academic collaborations have been formed, researchers often have difficulty accessing Canadian police data (Leuprecht 2014). Several federal summits were held in Canada where policymakers acknowledged such constraints (e.g. House Standing Committee on Public Safety and National Security 2014), and since these summits, significant improvement has been seen with respect to funding for police research (Griffiths 2014) and access to police data (House Standing Committee on Public Safety and National Security 2014, Huey and Ricciardelli 2016). In 2015, the Canadian Society of Evidence Based Policing (CAN-SEBP) was formed, which has also facilitated research capacity by

educating police services about EBP, fostering academic-police partnerships, informing researchers of funding opportunities, and disseminating policing research across the country (CAN-SEBP 2015).

Nevertheless, given the slow uptake of EBP in Canada, and the mixed receptivity to EBP by police services in the U.S. (e.g. Rojek *et al.* 2012, Telep and Lum 2014, Telep and Winegar 2016), it is possible that there may be some resistance to the concept in Canada. To date, there has been no known attempt made at measuring receptivity to EBP in Canada. The current study thus aimed to replicate Telep and Lum's (2014) study with Canadian police professionals so that we can better understand the views of these individuals toward EBP. Such research is important for a number of reasons. As Lumsden (2016) notes ' … studies of police officer receptivity to research and EBP are crucial as receptivity influences the application of research and willingness to incorporate an evidence-base into policing practice' (p. 158). Moreover, considering the current replication crisis that is occurring within the social sciences (e.g. Open Science Collaboration 2015), replication studies are, in and of themselves, extremely valuable. Indeed, for EBP to have the impact that EBP advocates hope for, police services must have a solid base of replicable evidence to rely on.

Method

Participants

In total, 598 police professionals, from seven different police services across Canada, participated in the study. Services from the east to west coast, as well as central Canada, were represented, including: British Columbia (B.C.; $n = 23$), Alberta ($n = 105$), Saskatchewan ($n = 40$), Manitoba ($n = 160$), Ontario ($n = 74$), Nova Scotia ($n = 24$), and Prince Edward Island (P.E.I.; $n = 2$).[2,3] However, while P.E.I. did approve and distribute the survey, the extremely low response rate prevented their inclusion in the analyses. Thus, between-province differences are only presented for six services. As is typical in online survey research generally (e.g. Sheehan 2001), and police survey research specifically (e.g. Jamel *et al.* 2008), the response rate in this study was low (<10% in all services).

Across all services, approximately 74.4% ($n = 261$) of the sample was male, and the remaining 25.6% ($n = 90$) was female.[4] Participants ranged in age from 22 to 62. The majority of participants were between 41 and 50 years old (37.3%, $n = 126$), with an average age of 42. Nearly all participants (82.4%, $n = 307$) reported that they were Caucasian/White. Both police officers (81.5%, $n = 282$) and civilian members (18.5%, $n = 64$) of services were surveyed. Of the surveyed police officers, most were Constables (34.7%, $n = 130$). Less than half of the respondents indicated that they were in a supervisory position (42.7%, $n = 150$); of those that were, most directly supervised between 1 to 10 others (15.9%, $n = 92$). Approximately 57.3% ($n = 201$) of the respondents indicated that they did not supervise anyone. Most participants reported that they had more than 10 years' experience in law enforcement (39.8%, $n = 252$), suggesting that they were relatively settled in their career.

In terms of education and training, 41.1% ($n = 144$) of the respondents reported that their highest level of education obtained was a bachelor's degree. Others reported having a college degree (22%, $n = 77$), or to have completed some college, but not have a degree (21.1%, $n = 74$). Few had only a high school diploma (6.3%, $n = 22$), or, alternatively, had completed a graduate degree such as a master's (6.3%, $n = 22$), professional (e.g. law degree, MBA; 2.9%, $n = 10$), or doctoral degree (.3%, $n = 1$). Participants were also asked if they had received any specialised training outside the department. Most had not received a professional certificate outside the department (82.3%, $n = 492$), nor had they been extensively trained in a dedicated area within the department (73.9%, $n = 442$). Only 2.3% ($n = 14$) had crime analysis certification, and 6.5% ($n = 39$) had received computer training and/or certification.

Given that the current study aimed to replicate Telep and Lum's (2014) study in a Canadian policing context, it is important to note how the demographic features of the two samples differed. First, Telep and Lum (2014) surveyed three police agencies, and obtained approximately 960 responses. Therefore, while the current study sampled more police services, it had fewer participants. Secondly,

consistent with Telep and Lum, most participants were police officers. However, civilian members were also included in the sample Telep and Lum collected from the Richmond, Virginia Police Department (RPD) and from the Roanoke County Police Department (RCPD). Since so few studies have assessed the opinions of civilian members towards EBP (Telep and Lum 2014), and those that have find little difference relative to police officers (e.g. McCarty and Skogan 2013), officers and civilians were combined in all the analyses conducted by Telep and Lum (2014). In the current study, the pattern of results for police officers and civilian members were also similar on nearly all questions. Therefore, like Telep and Lum, the responses for the two groups were combined to maximise sample size. On the two questions where the pattern between the groups differed, the results are presented separately. Similarly, as Telep and Lum presented differences in opinion across the three agencies sampled, differences between the six Canadian police services are highlighted when appropriate.

Measures

Lum and Telep's (n.d.) survey consists of five sections, inclusive of 32 questions, related to: (a) knowledge about the efficacy of various policing strategies, (b) beliefs about research as a tool to facilitate understanding, (c) openness to research in practice, (d) importance of training and/or education, and (e) demographic characteristics. The survey questions are mainly quantitative and ask participants to provide ratings on a four-point scale (ranging from 'very effective' to 'not effective;' 'often' to 'not at all;' or 'very willing' to 'not willing'), or check off their answer(s) from a list provided (with the option to expound on their answer[s] if necessary). The current study used the same survey, with slight modifications to ensure all the questions were applicable to a Canadian policing audience.

Specifically, in a question which asked participants to indicate from which source(s) they had read an article or feature from, five well-known Canadian-based journals and magazines were added as options (e.g. *Canadian Police Chief*, *Canadian Journal of Criminology and Criminal Justice*). Similarly, six Canadian organisations were added as options to a question regarding the provision of information about particular tactics or strategies (e.g. Public Safety Canada, Royal Canadian Mounted Police, Canadian Association of Chiefs of Police). A question related to the efficacy of 'legitimacy policing' was removed, and four other strategies were added that were arguably more suitable for a Canadian context (e.g. hub models of policing).[5,6] Rank options were also adjusted (e.g. from 'Patrol Officer' to 'Constable'), the terminology regarding education was changed (e.g. from 'associate's degree' to 'college degree'), and three open-ended questions were added to obtain additional, nuanced information about certain topics (e.g. 'In your view, how successful has your department been in implementing new policing strategies in the past?'); these open-ended questions are not examined in the current study. Lastly, one police service requested the modification of three additional questions that were incompatible with their labour policies. As these revisions were not significant to our results, their service received an amended version of the survey.[7]

Procedure

An email invite was sent to police leaders serving seven municipal or regional police services stationed in seven different Canadian provinces. The invite included an official letter addressed to the police leader describing the study. A link to the survey was included for review so that any initial concerns could be remedied. Once a police service agreed to participate, they distributed a pre-drafted email to all employees (civilian and officer) that explained the goals of the study, the anonymity and confidentiality of their responses, and which provided them access to the survey. Individuals interested in participating clicked a link, which led them to an online version of the survey hosted by Qualtrics© software. Follow up emails were sent prior to the survey being discontinued. The release date of the surveys varied across participating services, but the last survey remained active until February 15, 2017. Individuals were informed that they could skip questions they were

not comfortable with or withdraw entirely. Their participation was voluntary and they were not compensated in any way. The protocol was approved by the Carleton University Ethics Committee for Psychological Research (REB #104661).

Results

Telep and Lum (2014) reported the frequencies for the various questions asked, emphasising how the majority of participants responded to each one. The descriptive analysis conducted by Telep and Lum was replicated on the Canadian data, and similarities and differences between the samples from the two countries are discussed herein.

Knowledge of and exposure to empirical research and EBP

To determine the extent to which police professionals were familiar with EBP, respondents were first asked to simply indicate whether they had ever heard of the term.[8] In Telep and Lum's (2014) study, 48.4% of those in the RCPD reported that they had heard of EBP, whereas a lesser number of individuals in the two largest agencies, RPD (27.8%) and SPD (25.1%), were familiar with the term. Comparatively, in all the Canadian police services sampled, well over half of respondents reported that they had heard of EBP ($n = 391$, 68.2%). High levels of familiarity with the term were observed in the Nova Scotia ($n = 21$, 87.5%) and Manitoba-based services ($n = 118$, 76.6%) in particular. Interestingly, conversely to Telep and Lum's findings, the police services in Nova Scotia and Manitoba were two of the largest services sampled ($N = 720$ and $N = 1950$, respectively). Approximately 68.4% ($n = 26$) of respondents in Saskatchewan, 66.7% ($n = 70$) in Alberta, 60.9% ($n = 14$) in B.C., and 56.2% ($n = 41$) in Ontario, were also aware of EBP.

The next question in the survey listed popular journals and magazines that police professionals might consult to enhance their understanding about the efficacy of certain policing strategies. Participants were asked to check off which source(s) they had read an article or feature from in the last six months. One journal and two key magazines that had been included in Telep and Lum's (2014) survey were included in the current survey (the others were replaced with Canadian-specific content). Consistent with Telep and Lum's samples, the majority of Canadian participants indicated that they had not read any material (36.6%, $n = 102$), or read material from 'other' sources not listed (25.4%, $n = 71$).[9] Overall, a smaller number of police professionals in Canada, relative to those in Telep and Lum's (2014) samples, read the magazines: *The Police Chief* (16.8%, $n = 47$) and the *FBI Law Enforcement Bulletin* (11.5%, $n = 32$; see Table 1). Interestingly though, despite a remarkably smaller sample size, more than double the number of Canadian respondents indicated that they had read the academic journal, *Criminology*, compared to those in the American-based agencies ($n = 27$ versus $n = 11$).

Participants were also asked to indicate whether, in the last six months, they had read any information provided by a variety of internal and external organisations regarding the effectiveness of policing strategies. Several key differences were noted and are highlighted in Table 2. Importantly, most participants in Telep and Lum's (2014) study indicated that they had read information about

Table 1. A comparison of Canadian participants' responses regarding which journals or magazines they had read in the past 6 months relative to Telep and Lum's (2014) participants.

| | Blaskovits *et al.* | | Telep and Lum (2014) | |
| | Canada | SPD | RPD | RCPD |
Source	n (%)	n (%)	n (%)	n (%)
None of the Above	102 (36.6)	402 (76.9)	216 (63)	57 (60.6)
Other	71 (25.4)	73 (14)	36 (10.5)	13 (13.8)
The Police Chief	47 (16.8)	18 (3.4)	52 (15.2)	18 (19.1)
FBI Law Enforcement Bulletin	32 (11.5)	32 (6.1)	52 (15.2)	16 (17)
Criminology	27 (9.7)	4 (0.8)	7 (2)	0

Note: $N = 279$ Canadian respondents across seven agencies spanning seven provinces; $N = 927$ in Telep and Lum's (2014) sample.
SPD = Sacramento Police Department; RPD = Richmond Police Department; RCPD = Roanoke County Police Department.

the efficacy of policing strategies from internal sources provided by their own agency ($n = 432$). Alternatively, approximately 6.3% ($n = 21$) of Canadian police professionals read information provided by their own agency. Instead, the most common response in the current study was the U.S.-based Police Executive Research Forum (PERF; 22.2%, $n = 74$).[10] PERF is described as,

> … an independent research organization that focuses on critical issues in policing … PERF has identified best practices on fundamental issues such as reducing police use of force; developing community policing and problem-oriented policing; using technologies to deliver police services to the community; and evaluating crime reduction strategies. (PERF, n.d., para. 1)

Nearly triple the number of Canadian respondents, compared to the American-based respondents, read information provided by The Police Foundation ($n = 64$ versus $n = 23$, respectively). Like the PERF, The Police Foundation is a U.S.-based independent organisation, which aims to improve policing through inquiries and research, and disseminate their findings through various projects, conferences, publications, events, and media outlets (The Police Foundation 2004–2017). A large number of Telep and Lum's (2014) participants indicated that they had not read information provided by any of the organisations outlined ($n = 411$); only seven participants across all seven police services in Canada reported the same.

Next, Telep and Lum (2014) asked participants how effective they believed various policing strategies to be in reducing crime and disorder. As research has evaluated such strategies, they were able to determine whether participants' views were consistent with the evidence. Overall, police professionals in the RCPD and RPD agreed that hot spots policing was either a very effective or effective strategy (see Table 3); this was also the case for Canadian respondents. Such results are encouraging given that research has found hot spots policing useful for targeting offending (and ultimately reducing crime and/or disorder; Braga *et al*. 2014). In the SPD, most participants rated problem-oriented policing favourably, which is also in line with research indicating that it is an effective strategy for reducing crime (Weisburd *et al*. 2010). However, most participants from the SPD did not believe that hot spots policing was effective, and many in the RCPD (36.9%, $n = 31$) and Canada (41.1%, $n = 173$) felt rapid response to 911 calls was effective (despite research suggesting that it is not; Spelman and Brown 1984, Telep and Weisburd 2012). In addition, participants across all agencies (including police services in Canada) rated community policing favourably. Like rapid response policing, the efficacy of community-oriented policing to reduce crime and disorder is unconvincing. Gill *et al*. (2014) conducted a systematic review of 25 studies containing 65

Table 2. A comparison of Canadian participants' responses regarding whether, in the last six months, they read any information provided by the following organizations about the effectiveness of tactics or strategies, relative to Telep and Lum's (2014) participants.

| | Blaskovits *et al*. Canada | Telep and Lum (2014) | | |
| | | SPD | RPD | RCPD |
Source	n (%)	n (%)	n (%)	n (%)
PERF	74 (22.2)	9 (1.7)	10 (2.9)	9 (9.6)
The Police Foundation	64 (19.2)	10 (1.9)	11 (3.2)	2 (2.1)
NIJ	44 (13.2)	9 (1.7)	25 (7.3)	13 (13.8)
BJA	38 (11.4)	8 (1.5)	13 (3.8)	9 (9.6)
A Library Database	38 (11.4)	1 (0.2)	7 (2)	2 (2.1)
Own agency	21 (6.3)	241 (46.1)	160 (46.6)	31 (33)
BJS	17 (5.1)	5 (1)	15 (4.4)	2 (2.1)
IACP	13 (3.9)	20 (3.8)	33 (9.6)	16 (17)
OJP	8 (2.4)	3 (0.6)	6 (1.7)	2 (2.1)
None of the above	7 (2.1)	236 (45.1)	133 (38.8)	42 (44.7)
Other	5 (1.5)	38 (7.3)	16 (4.7)	4 (4.3)
A University	4 (1.2)	13 (2.5)	28 (5.8)	5 (5.3)

Note: $N = 333$ Canadian respondents across seven agencies spanning seven provinces; $N = 924$ in Telep and Lum's (2014) sample. SPD = Sacramento Police Department; RPD = Richmond Police Department; RCPD = Roanoke County Police Department. PERF = Police Executive Research Forum; NIJ = National Institute of Justice; BJA = Bureau of Justice Assistance; BJS = Bureau of Justice Statistics; IACP = International Association of Chiefs of Police; OJP = Office of Justice Programs.

Table 3. A comparison of Canadian participants' views on the efficacy of various strategies for reducing crime and disorder relative to Telep and Lum's (2014) participants.

Strategy	Very Effective n (%)	Effective n (%)	Somewhat Effective n (%)	Not Effective n (%)
Canada				
Random Preventative Patrol	28 (6.7)	111 (26.6)	163 (39)	73 (17.5)
Hot Spots Policing	82 (19.3)	220 (51.9)	98 (23.1)	9 (2.1)
Community-Oriented Policing	73 (17.2)	184 (43.3)	129 (30.4)	33 (7.8)
Problem-Oriented Policing	58 (13.7)	222 (52.5)	109 (25.8)	8 (1.9)
Rapid Response to 911 Calls	89 (21.1)	173 (41.1)	111 (26.4)	41 (9.7)
D.A.R.E.	11 (2.6)	62 (14.6)	173 (40.8)	138 (32.5)
SPD				
Random Preventative Patrol	44 (8.8)	167 (33.3)	201 (40)	41 (8.2)
Hot Spots Policing	17 (3.5)	83 (16.9)	202 (41.2)	146 (29.8)
Community-Oriented Policing	123 (24.3)	268 (53)	109 (21.5)	6 (1.2)
Problem-Oriented Policing	171 (33.9)	277 (54.9)	49 (9.7)	7 (1.4)
Rapid Response to 911 Calls	112 (22.1)	214 (42.2)	139 (27.4)	34 (6.7)
D.A.R.E.	10 (2)	70 (13.9)	267 (53)	148 (29.4)
RPD				
Random Preventative Patrol	43 (13.3)	100 (31)	121 (37.5)	22 (6.8)
Hot Spots Policing	77 (23.8)	139 (43)	77 (23.8)	14 (4.3)
Community-Oriented Policing	77 (23.9)	118 (36.6)	94 (29.2)	30 (9.3)
Problem-Oriented Policing	61 (18.9)	149 (46.3)	86 (26.7)	11 (3.4)
Rapid Response to 911 Calls	81 (25)	111 (34.3)	101 (31.2)	16 (4.9)
D.A.R.E.	18 (5.6)	65 (20.2)	153 (47.5)	76 (23.6)
RCPD				
Random Preventative Patrol	7 (8.3)	17 (18.1)	42 (50)	13 (15.5)
Hot Spots Policing	24 (28.6)	44 (52.4)	12 (14.3)	2 (2.4)
Community-Oriented Policing	21 (25)	40 (47.6)	19 (22.6)	3 (3.6)
Problem-Oriented Policing	20 (24.1)	38 (45.8)	11 (13.3)	3 (3.6)
Rapid Response to 911 Calls	21 (25)	31 (36.9)	20 (23.8)	9 (10.7)
D.A.R.E.	6 (7.1)	21 (25)	33 (39.3)	24 (28.6)

Note: N = 375–419 Canadian respondents across seven agencies spanning seven provinces depending on the strategy; N = 83–507 in Telep and Lum's (2014) samples depending on the strategy. SPD = Sacramento Police Department; RPD = Richmond Police Department; RCPD = Roanoke County Police Department. D.A.R.E. = Drug Abuse Resistance Education.

tests that measured pre–post changes following the implementation of a community-oriented policing model. They found that, while community-oriented models of policing improve citizen satisfaction, as well as perceptions of disorder and legitimacy, its effect on crime is negligible.

In contrast to findings related to the effective policing strategies, both Canadian and U.S. respondents were fairly consistent (across agencies) in terms of which strategies they believed to be least effective. Police professionals in all three samples in Telep and Lum's (2014) study, as well as those police professionals surveyed in Canada, rated the Drug Abuse Resistance Education (D.A.R.E.) programme as ineffective. Respondent views of D.A.R.E. are in line with research evidence that indicates negligible success with D.A.R.E. West and O'Neal's (2004) meta-analysis examined 11 studies that reported pre–post assessments of key D.A.R.E. outcomes (e.g. alcohol, drug, and/or tobacco use). The overall weighted effect size was small and non-significant (Cohen's $d = .02$), suggesting that D.A.R.E. results in no meaningful difference in outcomes. A substantial number of participants in Canada and the RCPD also rated random preventative patrol as ineffective (17.5, $n = 73$ and 15.5%, $n = 13$, respectively). Like rapid response to 911 calls, random preventative patrol is considered a traditional, standard model of police practice, and it absorbs a lot of officer time (Telep and Weisburd 2012). However, it too appears to be an ineffective deterrent, and does little to reduce crime and victimisation (Kelling *et al.* 1974).

Views toward crime analysts and researchers

Since the use of research is likely to indicate a predilection toward EBP, participants were asked how often they used material produced by crime analysts or researchers in their daily practice. In Canada,

most participants said that they 'sometimes' use research material (31.9%, *n* = 122; see Table 4). However, a reasonably large proportion of individuals also reported using research 'often' (28.8%, *n* = 110). A similar trend was observed in the RPD where most participants used research in their daily work 'sometimes' (30%, *n* = 97), but a relatively large cohort also used it 'often' (29.1%, *n* = 94). The pattern was reversed for the RCPD where slightly more participants reported that they 'often' used research material (45.2%, *n* = 38), whereas a slightly smaller amount used it 'sometimes' (35.7%, *n* = 30). Only respondents from the SPD were less inclined to use research. The majority of those from Sacramento used research material 'rarely' (41.2%, *n* = 212), with only 7.2% (*n* = 37) of the sample reporting that they used it 'often.'

Interestingly, in the Canadian sample, a noticeable difference between civilian members and police officers was observed. A total of 64 civilians responded to how often they use material produced by crime analysts, and of that, more than one quarter (33.3%; *n* = 19) said 'not at all.' Similarly, 29.8% (*n* = 17) of civilians indicated that they used such material 'rarely.' The pattern of responses for civilian members is in direct contrast to that for police officers, where, of the 282 respondents, approximately 70% (*n* = 188) used material produced by crime analysts either 'often' or 'sometimes' in their daily work.[11]

Participants were also asked about the extent to which they found material and data produced by crime analysts or researchers working in their department useful. Interestingly, notably more respondents from SPD – who reported using research the least often – said that information from research was 'very useful' (25.1%). Only 7.7% of those from the RPD and 6.1% of those from the RCPD rated it the same. In fact, it was individuals from the RPD who were most likely to view the utility of research poorly, with nearly 20% of respondents rating research information as 'not at all useful.' The RPD were more apt to believe research was useless despite having greater exposure to it (i.e. respondents from the RPD were more likely to have read various journals and/or magazines compared to those from the SPD [recall Table 1]). In Canada, the majority of participants believed the materials produced by crime analysts or researchers were 'somewhat useful' (42%, *n* = 167), or even 'very useful' (33.2%, *n* = 132). However, there were some between-province differences observed; specifically, participants from the Nova Scotia (58.3%, *n* = 14) and B.C. (34.8%, *n* = 8) based police services found the research information produced from their departments 'very useful.' Respondents from Saskatchewan, on the other hand, were most likely to rate the information as 'marginally' or 'not at all' useful (25.7%, *n* = 19).

Openness to using and conducting empirical research

In order to determine the importance that participants place on ' … conducting research and using scientific evidence to guide daily practice,' respondents were asked about the appropriate balance between scientific knowledge and personal experience in decision-making (Telep and Lum 2014, p. 14). Participants across both Canada and the U.S. agencies all agreed that experience should play a much larger role (75%) compared to scientific knowledge (25%; see Table 5). Interestingly though, Canadian respondents were more likely to advocate for a 50/50 split between scientific

Table 4. A comparison of Canadian participants' responses to how often they use materials produced by crime analysts in their daily work relative to Telep and Lum's (2014) participants.

| | Blaskovits *et al.* | Telep and Lum (2014) | | |
| | Canada | SPD | RPD | RCPD |
Response	*n* (%)	*n* (%)	*n* (%)	*n* (%)
Often	110 (28.8)	37 (7.2)	94 (29.1)	38 (45.2)
Sometimes	122 (31.9)	157 (30.5)	97 (30)	30 (35.7)
Rarely	100 (26.2)	212 (41.2)	83 (25.7)	12 (14.3)
Not at all	50 (13.1)	108 (21)	49 (15.2)	4 (4.8)

Note: *N* = 382 Canadian respondents across seven agencies spanning seven provinces; *N* = 921 in Telep and Lum's (2014) sample.
SPD = Sacramento Police Department; RPD = Richmond Police Department; RCPD = Roanoke County Police Department.

knowledge and personal experience, relative to the three U.S. agencies. Further analyses of the Canadian data revealed that most civilian participants selected a 50/50 split (53.2%; $n = 33$), whereas many of the police officers (49.1%, $n = 138$) said that experience should be most important (75%), and scientific knowledge should make some contribution (25%). In Telep and Lum's sample, some participants from the RCPD felt that experience and research should make an equal contribution (27.8%, $n = 22$), but their rate was lower than in Canada (35.5%, $n = 126$). More participants in Canada also believed that scientific knowledge (75%) should even take precedence over experience (25%) in daily decision making (6.5%, $n = 23$); however, this cohort was small.

Consistent with Telep and Lum's (2014) findings, the majority of Canadian respondents 'strongly agreed' or 'agreed' that collaboration with researchers is necessary for agencies to improve their ability to reduce crime (84.9%, $n = 316$). However, once again, slightly more Canadian participants responded positively to collaborating with researchers, relative to the U.S. sample (~70%). Relatedly, nearly all respondents in both Canada (97.9%, $n = 366$) and the U.S. (~ 96.9%) agreed that they would be willing to try new tactics or strategies regardless of whether they were different than those they were currently using. Therefore, it appears that, despite beliefs in the value of personal experience, police professionals recognise the importance of collaborating with researchers, and are open to trying different tactics – perhaps those which are supported by empirical evidence.

In an attempt to explore police professionals' willingness to actually evaluate, or support evaluations of policing strategies, participants were asked about the extent to which they would engage in various actions to test whether a particular strategy was effective. Participants were asked if they would be willing to identify the top 20 areas where a problem exists, toss a coin to assign 10 areas to receive a potential problem-solving tactic and 10 areas to carry on as usual, and compare them. In both Canada and the U.S., most participants were either 'quite' or 'somewhat willing' to implement this type of small randomised experiment (see Table 6). Few were 'very willing' to implement one, and a sizable cohort was 'not willing' to at all. In fact, in Canada, 40.7% ($n = 142$) of respondents were 'not willing' to undertake a small randomised trial; this result mirrored that of the RPD (42.8%, $n = 133$) and the RCPD (38.5%, $n = 30$). Those from the SPD, on the other hand, were more willing to engage in the method – only 28% ($n = 144$) of the sample was 'not willing' to consider a randomised experiment.

In Canada, participants were more accepting of a before/after design to evaluate the efficacy of a strategy. More specifically, participants were asked if they would be willing to use data before the police implemented a strategy and compare it to data collected after the strategy was up and running. Approximately 84.5% ($n = 295$) of respondents were 'quite' or 'very willing' to try the before/after approach; only 2.9% ($n = 10$) were 'not willing' to consider it. Similarly, in Telep and Lum's (2014) study, more than 63% of respondents from every agency were either 'quite' or 'very willing' to implement a before/after approach. In fact, in the RCPD, 100% of participants were open to the approach. The notable difference in participants' willingness to support the less rigorous before/after design relative to the randomised trial suggests that police professionals may be more receptive to research that limits interference with current practice as much as possible.

Table 5. A comparison of Canadian participants' responses to what they think the balance should be between the use of scientific research and personal experience in day-to-day decision making relative to Telep and Lum's (2014) participants.

| | Blaskovits et al. | | Telep and Lum (2014) | |
| | Canada | SPD | RPD | RCPD |
Response	n (%)	n (%)	n (%)	n (%)
Experience 90% scientific knowledge 10%	37 (10.4)	128 (24.8)	79 (25.8)	12 (15.2)
Experience 75%, scientific knowledge 25%	164 (46.2)	291 (56.3)	158 (51.6)	44 (55.7)
Experience 50%, scientific knowledge 50%	126 (35.5)	88 (17)	62 (20.3)	22 (27.8)
Scientific knowledge 75%, experience 25%	23 (6.5)	10 (1.9)	3 (1)	1 (1.3)
Scientific knowledge 90%, experience 10%	5 (1.4)	0	5 (1.2)	0

Note: $N = 355$ Canadian respondents across seven agencies spanning seven provinces; $N = 902$ in Telep and Lum's (2014) sample.
SPD = Sacramento Police Department; RPD = Richmond Police Department; RCPD = Roanoke County Police Department.

Table 6. A comparison of Canadian participants and Telep and Lum's (2014) participants' responses to how willing they would be to take various actions to test whether a particular tactic the police were currently using was effective.

Action	Very Willing n (%)	Quite Willing n (%)	Somewhat Willing n (%)	Not Willing n (%)
Canada				
Small Randomised Trial	30 (8.6)	85 (24.4)	92 (26.4)	142 (40.7)
Use Before/After Data	162 (46.4)	133 (38.1)	44 (12.6)	10 (2.9)
Approach a Researcher to Help	78 (22.2)	112 (31.9)	115 (32.8)	46 (13.1)
Seek Assistance in the Organisation	96 (27.4)	170 (48.6)	67 (19.1)	17 (4.9)
SPD				
Small Randomised Trial	45 (8.7)	143 (27.8)	183 (35.5)	144 (28)
Use Before/After Data	109 (21.2)	216 (42.1)	161 (31.4)	27 (5.3)
Approach a Researcher to Help	27 (5.2)	87 (16.6)	232 (44.4)	163 (31.2)
Seek Assistance in the Organisation	65 (12.7)	189 (37.1)	205 (40.2)	51 (10)
RPD				
Small Randomised Trial	24 (7.7)	65 (20.9)	89 (28.6)	133 (42.8)
Use Before/After Data	75 (24.1)	128 (41.2)	87 (28)	21 (6.8)
Approach a Researcher to Help	23 (7.5)	77 (25)	138 (44.8)	70 (22.7)
Seek Assistance in the Organisation	49 (16)	145 (47.2)	90 (29.3)	23 (7.5)
RCPD				
Small Randomised Trial	6 (7.7)	18 (23.1)	24 (30.8)	30 (38.5)
Use Before/After Data	38 (48.7)	31 (39.7)	9 (11.5)	0
Approach a Researcher to Help	11 (14.1)	31 (39.7)	22 (28.2)	14 (17.9)
Seek Assistance in the Organisation	20 (25.6)	37 (47.4)	17 (21.8)	4 (5.1)

Note: N = 355 Canadian respondents across seven agencies spanning seven provinces; N = 902 in Telep and Lum's (2014) sample.
SPD = Sacramento Police Department; RPD = Richmond Police Department; RCPD = Roanoke County Police Department.

Lastly, participants were asked if they would be willing to approach a researcher from a university or organisation to help evaluate a strategy of interest. To get a sense of how comfortable respondents were with external versus internal researchers, participants were also asked about their willingness to seek assistance from within their organisation to create an evaluation method acceptable to their particular agency. The findings in Canada revealed that, generally, participants felt most comfortable seeking assistance within their organisation. All but 17 (4.9%) individuals were either 'very,' 'quite,' or 'somewhat willing' to seek assistance internally. However, nearly 87% were also willing (to some extent) to approach an external researcher for help. Similar results emerged from Telep and Lum's (2014) survey, and the pattern was the same across all three agencies: Few participants responded that they were 'not willing' to seek assistance within their organisation, while more responded that they were 'not willing' to approach an external researcher. However, the number of participants who were 'not willing' to consider approaching a researcher from a university or organisation in the Canadian sample (13.1%, n = 46) was less than that observed in all three of Telep and Lum's samples.

Discussion

To date, no known research has examined the extent to which Canadian police professionals are knowledgeable about policing research, and amenable to incorporating such research into their daily practices. The current study aimed to fill this gap in the literature by replicating Telep and Lum's (2014) survey research conducted with U.S. police officers and civilians, in a Canadian policing context. Three key areas were targeted by the survey we conducted: (1) police professionals' knowledge of, and exposure to, research, (2) views toward researchers, and (3) openness to using research to guide policing and conducting research for this purpose. Below, we discuss some of the major findings to emerge from our survey.

Knowledge of and exposure to empirical research and EBP

Overall, findings from the survey indicated that Canadian participants were relatively well-informed about EBP. Their knowledge of, and exposure to, research was illustrated by the high rates of

familiarity with the term 'evidence-based policing,' and their consumption of information from independent sources (i.e. generated external to their organisation). Although there was some overlap in the familiarity with research shown by the Canadian and American respondents, the Canadian police professionals appeared more likely to seek out academically-oriented research, as was demonstrated by their greater likelihood to read peer-reviewed journals (e.g. *Criminology*) and attain information from organisations such as PERF and The Police Foundation.

What might explain these results? In their study, Telep and Lum (2014) suggested that members of the RCPD may have been most familiar with EBP because, at the time the survey was distributed, they had a progressive chief who actively advocated for research. Given the notably higher rates of individuals reporting awareness of EBP in the Canadian survey, and the greater tendency for Canadian police professionals to seek out research that may assist them with their duties, it is possible that Canadian chiefs, and/or the Canadian police organisations sampled, were more progressive than those in the U.S. While it is difficult to speak to this issue directly based solely on the results from our survey, the media seems to insinuate that Canadian police agencies are indeed the forward-thinking neighbour (e.g. Blais 2015, Parent 2016, Wilfrid Laurier University 2018). On the other hand, the cross-country differences in the survey results may just be representative of the diffusion of EBP into mainstream policing since Telep and Lum's original publication four years ago.

Familiarity with EBP is a positive sign, especially in Canada where police research has been relatively scarce up until recently (Huey and Ricciardelli 2016). However, it is important to note that simple awareness of EBP does not ensure a conceptual understanding of it. Lumsden (2016) explored officer and staff definitions of EBP, and found that EBP was often likened to a 'buzzword' that may involve 'theory testing' to save money and address demand. In the current study, if participants indicated that they had heard of the term EBP, then they were re-directed to define it in their own words. Given the complexities in how EBP was defined (described above), this topic has been explored qualitatively in a separate paper (Huey *et al*. in press).

Canadian participants' views on the efficacy of various strategies to reduce crime were also generally consistent with the literature. However, there were some potentially important discrepancies between individuals' beliefs and related research findings. For example, recall that research has shown negligible reductions in crime based on rapid response to 911 calls (Weisburd and Eck 2004, Moskos 2007, Telep and Weisburd 2012). Nevertheless, more than half of the participants in the Canadian-based police services viewed the rapid response protocol as effective or even very effective for reducing crime and disorder. Similarly, in Telep and Lum's (2014) study, rapid response was highly regarded by those from the SPD and RCPD, where upwards of 60% of participants believed in the efficacy of the tactic.

Although it could be argued that the high value ascribed to 911 responding (and other ineffective policing strategies) indicates a desire to maintain traditional 'ways of doing things' (e.g. Taylor and Boba 2011), police professionals do appear willing in other contexts to acknowledge the utility of new strategies. A recent study by Jenkins (2016), for example, investigated 227 officers' opinions of certain policing tactics, namely broken windows and community problem-solving. Interestingly, officers considered the more innovative strategies, such as crime mapping, as very important. Therefore, the inconsistencies between the respondent's views on certain tactics and research trends may truly indicate a gap in knowledge and/or lack of exposure to the research related to it, rather than simply a resistance to change or to be open-minded.

Since police professionals in Canada appear aware of EBP, a lack of knowledge about the effectiveness of specific policing strategies could also be a consequence of the way certain topics have been disseminated by researchers and/or research organisations. For example, the degree to which research on policing strategies is made accessible (e.g. outside academic journals) and easily understandable (e.g. using less academic jargon) may impact who knows about the strategies, or how much they understand the effectiveness of those strategies (e.g. Engel and Whalen 2010). While most Canadian respondents did draw on information provided by various organisations, such as PERF, the majority of respondents (in both Canada and the U.S.) reported that they had not read

any of the magazines or journals outlined in the survey. Thus, to the extent that important information about policing strategies (e.g. like evidence that they are effective or ineffective) is included in academic journals, this information has no way of impacting how the police view these strategies (Bennell and Blaskovits in press).

Sharing information in alternate forms to peer-reviews articles, and writing about research in an accessible fashion, might promote knowledge of research that would otherwise be overlooked by police professionals (Bennell and Blaskovits in press). Police professionals might not, for instance, have the time to devote to lengthy and/or complex papers found in academic journals; however, they might benefit from blasts of information included on a website or sent out through emails, or from shorter summaries of research included in trade magazines. For academic researchers, who are the ones often responsible for examining the effectiveness of police strategies, being cognisant of the conduit used to share research and the need to clearly communicate research is important if they want it to have an impact on police professionals' awareness and understanding of certain topics (e.g. the efficacy of rapidly responding to 911 calls). As such, we recommend that academics consider publishing summaries of their peer-reviewed research using other outlets (e.g. trade magazines and/or websites), and that policing organisations (e.g. PERF) inform the policing community of academic research in a way that will resonate with that community (as they often do already).

Views toward crime analysts and researchers

The second key area that was investigated to determine police professionals' receptivity to research related to their views toward crime analysts and researchers. In Canada, respondents found the information produced by analysts and researchers generally useful and they used research at least sometimes in their daily work. In the U.S., there were mixed findings across the agencies sampled by Telep and Lum (2014), with professionals in some agencies reportedly using research material often (i.e. RCPD), whereas others used it much more rarely (i.e. SPD). Telep and Lum argue that the variability that was observed highlights the importance of educating police professionals about what crime analysts actually do and the operational utility of materials they can produce. In their words, '[this] might be beneficial in increasing officer-analyst interaction and ensuring that officers are basing strategies and tactics on the best possible data and analysis' (Telep and Lum 2014, p. 18).

Interestingly, as noted in the Results section, Canadian civilians and officers differed in the extent to which they used research – officers appeared more apt to integrate research into their daily practice relative to civilians. Material produced by crime analysts is often developed specifically to improve front-line police work and meant to be actionable. Officers tend to be the ones who put research into action (since they are the ones on the front-line). Since most of the police officers in the sample were Constables, it is possible that they (in comparison to their civilian colleagues) were in a position to apply research findings (e.g. regarding hot spots) regularly. It may also be the case that the police officers we sampled, being middle-aged (on average), were involved in research because they were currently serving in an administrative position (given their experience). The civilian members, on the other hand, may be more involved in the human resources side of policing, and thus would require less from crime analysts or researchers. However, this is only conjecture at this point; additional information would be required about each group before any firm conclusions can be made.

Openness to using and conducting empirical research

The final section of the survey aimed to investigate participants' openness to using and conducting research. Canadian respondents appeared to value scientific knowledge and were particularly amenable to incorporating it into practice. For instance, most participants in the current study supported collaborating with researchers, agreeing that it was necessary to improve their ability to reduce crime. As mentioned, professional bodies like CAN-SEBP are helping to facilitate police research by

connecting practitioners with academics. In the U.K., these partnerships have advanced EBP considerably (e.g. Huey and Ricciardelli 2016, Lumsden and Goode 2016). The knowledge that the majority of those sampled feel favourably about collaboration is crucial to expand EBP in Canada as well. Research by Fyfe and Wilson (2012), Fleming (2012), and Wood et al. (2008), among others (e.g. Sullivan et al. 2013), aim to better understand how to maintain such collaborations (by engaging in action participatory research, for instance).

Also encouraging were findings suggesting that almost all participants across the police services surveyed in Canada were willing to try new policing tactics even if they were different from current practice. The respondents were also willing, for the most part, to use various methods to evaluate the effectiveness of a policing tactic (e.g. compare data before an intervention was introduced to data collected after implementation). Greater reluctance though was observed when participants were asked about more rigorous approaches to evaluation, such as randomised trials. It is unclear why more reluctance was observed by police professionals when asked about RCTs. It may have to do with the potential disruption to regular operations should a project utilising an RCT-type design be implemented, or it could be because these methods require greater organisational resources. However, if the type of methodology was contextualised (i.e. it was necessary to answer an important question that a police service was interested in), then more buy-in may be observed. Nevertheless, as argued above, a favourable response to other methodology (like pre–post) is positive, given the need and utility of such studies in Canada (and abroad; e.g. Huey and Ricciardelli 2016).

Similar patterns of findings were observed in Telep and Lum's (2014) study, as respondents in all three U.S.-based agencies were willing to try new tactics and engage in various evaluation methods to achieve a better understanding of those tactics that are in current use. Canadian respondents just appeared *more* open to using and conducting research in practice. For example, although most participants sampled in both countries valued personal experience over scientific knowledge, markedly more Canadians believed that there should be an equal contribution of both to police decision-making. It is unclear why Canadian police professionals appear more receptive to research relative to those sampled by Telep and Lum. It is possible that, like certain agencies in Telep and Lum's study, the leadership in the Canadian police services that were sampled may encourage open-mindedness to research among their membership and/or a more progressive style of policing. Alternatively, it could be that different educational entrance requirements into some police agencies in Canada (as compared to the U.S.) contributed to greater receptivity. Indeed, Telep (2017) surveyed nearly 1,000 officers in four U.S. agencies and found that awareness of EBP and willingness to work with researchers was significantly influenced by education.

Limitations and future directions

In addition to several limitations related to the survey itself, which were outlined by Telep and Lum (2014; e.g. the survey fails to ask about the extent to which research is currently being utilised by agencies), the current study must also be qualified. First, Telep and Lum's sample was considerably larger than the Canadian sample. The differential sample sizes may have occurred due to the recruitment methods utilised. While Telep and Lum recruited many of their participants during roll call, the process to recruit police professionals in Canada was more restrictive, depending as it did on the police services themselves distributing the call for participants via their intranet. A mass call to participate in an online survey is arguably easier to ignore than one presented while awaiting roll call. Moreover, several of the Canadian services voiced concerns about the likelihood of low response rates due to survey fatigue (police professionals in some of the services were receiving numerous survey requests).

Second, there was a high rate of missing data for certain questions included on the Canadian survey (and perhaps the U.S. survey). This may limit how representative the responses are for these questions. For example, nearly half (55.8%) of all Canadian participants did not answer the question that asked about which organisations they acquired information from. While missing

data on this question is likely an indication that the listed sources are not accessed by the partici-pants, there is no way of knowing this for sure. Thus, caution needs to be used when interpreting results where large amounts of missing data are present.

Third, unlike Telep and Lum (2014), who were able to discuss potential reasons for the differences observed between the agencies in their study, this type of detail was not available to explain differ-ences among the Canadian-based police services (nor would the small samples sizes associated with some of the Canadian services permit such cross-service comparisons). For the most part, the same pattern of results was seen across the Canadian services, which allowed them to be aggregated. However, when the results did vary, it was not known whether they occurred because of leadership influences, organisational policies, different policing models, jurisdiction-specific challenges, or internal capacities for crime analysis and/or research. The lack of detailed, local knowledge also made it difficult to postulate about Canadian-U.S. differences in the survey results, such as the greater awareness of, and openness to, research observed in the Canadian sample. Future qualitative research that can focus on these specific issues would be valuable.

Finally, it may also be argued that discussing the current replication as a comparison of 'American versus Canadian' police receptivity to EBP is problematic in and of itself. One cannot necessarily assume that both samples are representative of policing samples in the countries from which they are taken. Telep and Lum (2014) note that the three agencies in their study cannot be broadly gen-eralised to the entirety of the U.S., especially considering the number and diversity of police agencies in the U.S., and the same can be said of the Canadian survey. Furthermore, it is important to note that the two studies were not compared statistically. Therefore, it remains unclear if any of the juxtaposed frequencies are significantly different from one another. The notion that Canadian respondents appear more receptive to EBP relative to their counterparts in the U.S., even when just compared to Telep and Lum's samples, requires additional exploration.

Conclusion

Researchers are increasingly conducting applied policing research to facilitate the movement towards EBP. However, this research can only have its intended impact if police professionals have access to it, understand it, and are open to using it in their daily work. The current study suggests that, overall, police professionals are often amenable to EBP – this appears to be particularly true of Canadian police professionals – but concerns remain. For example, across the U.S. and Canada, police professionals are not accessing the resources where the majority of policing research is pub-lished (i.e. peer-reviewed journals). In addition, discrepancies still exist between police professionals' beliefs about the efficacy of traditional policing strategies and research related to their effectiveness. Moreover, there appears to be some reluctance on the part of police professionals in both countries to use certain evaluation methodologies. Thus, EBP advocates still have more work to do. Future efforts by these advocates will have to include a greater focus on conducting high quality 'actionable' research on topics of relevance to the police community, clearly communicating the value of that research (including the potential practical implications of the research), and getting that research into the hands of the people that matter – the officers who implement policing strategies and the executives who are responsible for leading these officers.

Notes

1. Indeed, currently, there are four Societies of Evidence Based Policing, comprised of over 5,000 members, across the U.K., Canada, the U.S., and Australia-New Zealand. These societies produce and disseminate research, act as a resource for police practitioners, and advocate for evidence-based decision-making to better inform policies and practices. There are also two, recently established, peer-reviewed journals dedicated to publishing articles related to targeting, testing, and tracking police practices as well (*The Cambridge Journal of Evidence Based Policing* and *Police Science*).
2. To ensure anonymity, participating police services they are only referred to by their province of origin.

3. Police professionals in Quebec were not included in the study due to language barriers (i.e. Quebec is predominantly French speaking); the data is thus limited to only English speaking and bilingual participants.

4. Because not all participants chose to answer all the questions, the category breakdowns may not add to the total ($N = 598$).

5. The changes followed consultation with a large Canadian police organisation that did not participate in the current study.

6. Hub models are ' … a form of community mobilization that brings together various social service resources to address the needs of high risk individuals within the community' (Public Safety Canada 2015, p. 6).

7. Only options which could be directly compared to those in Telep and Lum's (2014) paper are referred to throughout this paper. Responses specific to Canadian respondents only are not discussed in the current paper (e.g. the number of participants that chose the 'Royal Canadian Mounted Police' as their answer for the question 'In the last six months, have you read any formal or written information provided by the following organisations specifically about the effectiveness of particular tactics or strategies?' is disregarded). Readers can contact the first author for this information if they are interested.

8. It is important to note that all questions were voluntary and, as such, there was a high percent of missing data for some of the questions. Given the small sample sizes acquired from certain services, the data was combined and is presented in aggregate form (i.e. as an overall 'Canada' variable). Only when the pattern of results varied notably by province, are the results described individually.

9. Of the five sources included in Telep and Lum's (2014) paper, most Canadian police professionals selected 'None of the Above' or 'Other.' However, relative to all the sources (a possible nine sources including those that were only relevant for Canadian respondents), most Canadian respondents indicated that they read *Blue Line* (58%, $n = 347$) and/or policeone.com (22.9%, $n = 137$). *Blue Line* is a practitioner-oriented magazine and policeone.com is a practitioner-oriented website.

10. Of the 12 categories included in Telep and Lum's (2014) paper, most Canadian police professionals selected 'PERF' or 'The Police Foundation' (both U.S. based organisations) However, relative to all the sources (a possible 16 categories including those that were only relevant for Canadian respondents), most Canadian respondents indicated that they read information provided by The Department of Justice Canada (46.2%, $n = 276$) and/or the U.S. COPS Office/Centre for Problem-Oriented Policing (19.6%, $n = 117$).

11. Recall that officers and civilians were combined in all the analyses conducted by Telep and Lum (2014), so potential differences between these groups in the U.S. sample is unknown.

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