CRIMINOLOGY
RESEARCH GRANT

Evidence-based policing: A survey of attitudes in two Australian police agencies

Adrian Cherney, Emma Antrobus, Sarah Bennett, Bevan Murphy and Mike Newman

Report to the Criminology Research Advisory Council
Grant: CRG 07/16–17

July 2019

This project was supported by a Criminology Research Grant.
The views expressed are the responsibility of the author and are not necessarily those of the Council.

Published by the Australian Institute of Criminology
GPO Box 1936 Canberra ACT 2601
Tel: (02) 6268 7166
Email: front.desk@aic.gov.au
Website: crg.aic.gov.au

ISBN 978 1 925304 04 6 (Online)

This research was supported by a Criminology Research Grant. The views expressed are those of the author and do not necessarily reflect the position of the Criminology Research Advisory Council or the Australian Government.

This report was reviewed through a double-blind peer review process.

Edited and typeset by the Australian Institute of Criminology.

Contents

Figures

Tables

Acknowledgements

This research was funded through a Criminology Research Grant (CRG 07/16–17) and a University of Queensland Collaboration and Industry Engagement Fund – FirstLink.

Abstract

Evidence-based policing (EBP) is a perspective that advocates the use of scientific processes in police decision-making. Central to EBP is the use of research evidence to direct police decisions. This report examines results from a survey of officers in the Queensland Police Service (QPS) and the Western Australia Police (WAPol) on the uptake of and receptiveness towards EBP research. Surveys were distributed via email to all 6,632 WAPol officers from constable to commander and to all 322 commissioned officers in the QPS. In total, the WAPol survey received 1,209 useable responses, representing an overall response rate of 18 percent. The survey of QPS officers, ranging from inspectors to senior executives, resulted in 117 useable responses, representing an overall response rate of 41 percent. The results across each jurisdiction are separately examined to identify factors related to the perceived value and usefulness of academic and internal research, and individual and organisational barriers to the use of EBP research. Attitudes towards the use of experimentation, associated risks and the use of randomised control trials are examined. Analysis also identifies whether leadership and EBP workshops influence the adoption of evidence-based practices. Lessons for the adoption of EBP approaches are identified.

Aim and introduction

Evidence-based policing (EBP) is a perspective that advocates the use of scientific processes in police decision-making (Lum et al. 2012). Central to EBP is the use of research evidence to direct police decisions. EBP requires police to become consumers of research and to use various scientific methodologies (eg quantitative and qualitative data collection methods and randomised control trials) to test and guide their responses to crime (Sherman 2015; Stanko & Dawson 2016). EBP requires police to have access to translatable research (in particular academic research) that provides insights into how police should respond to the most demanding problems that cause harm to the community (Sherman 2007). EBP is recognised as the future of policing, allowing police to move beyond strategies based on anecdotes or personal preferences (Sherman 1998).

EBP has become a global movement with various professional organisations emerging around the world (eg Australia and New Zealand Society of Evidence Based Policing and the UK Society of Evidence Based Policing). Police agencies in the United Kingdom and the United States have adopted programs of experimentation and training to instil evidence-based approaches in their organisations (Sherman 2015; Stanko & Dawson 2016). However, support for EBP has not been universal, with some arguing it should not trump the use of craft knowledge in police work (eg Willis & Mastrofski 2014). Scholars argue there is still much to be done to bring EBP to the forefront of policing (Bayley 1994; Telep & Lum 2014). Advocates argue that one of the most important steps in moving forward with EBP is to better understand the views of police towards EBP and their receptivity to the use of empirical research in police decision-making (Lum 2009; Rojek, Martin & Alpert 2015; Stanko & Dawson 2016; Telep & Lum 2014).

Even advocates of EBP recognise that its uptake has not been uniform or wholesale (Lum & Koper 2014; Sherman 2015; Stanko & Dawson 2016). No police agency has become totally evidence based (Sherman 2015). Australian police agencies, such as the Western Australia Police (WAPol) and the Queensland Police Service (QPS), which have championed EBP, have faced various challenges (Rojek, Martin & Alpert 2015). Obtaining scientific research capable of penetrating police practices has for some time been recognised as almost impossible (Bayley 1994).

Lum and colleagues (2012) state that research into the translation of EBP into practice and also into police officers' receptivity towards the use of research in their decision-making is required. They argue that, without an understanding of these issues, the full potential of EBP will not be realised. Sherman (2015) concedes that while police and academics have invested heavily in conducting randomised control trials, there is much less research on how organisational behaviour influences police decisions to seek out evidence. This study aims to examine this issue.

Adopting an evidence-based approach to policing is not straightforward. There is no consensus or clear understanding how it should be facilitated organisationally or applied across different operational areas, which hampers its adoption (Stanko & Dawson 2016). To develop this understanding, this report examines the following questions:

- In what ways has EBP been adopted by Australian police agencies?
- What conditions and circumstances support and hinder the uptake of research evidence in police decision-making?
- How can EBP be facilitated and fostered within Australian police agencies?

To answer these questions, an examination of the receptiveness towards and uptake of EBP in WAPol and the QPS was undertaken. Researchers from the University of Queensland's School of Social Science developed a survey in partnership with members of WAPol's Evidence Based Policing Division and QPS. The survey asked about a range of factors relating to EBP, individual receptiveness to research and scientific processes, organisational context and demographics.

Aligning with the priorities of each of the policing agencies, a different sampling strategy was taken for WAPol and QPS. WAPol was interested in gaining an overarching snapshot of the agency's views and thus sent the survey invitation to all officers in the organisation. QPS was interested in a more targeted approach focused on the leadership of the organisation, who might be more familiar with research, and therefore only commissioned officers (ie all officers ranked inspector or above) were invited to participate.

This study explores the benefits and challenges of organisational strategies for implementing EBP. As standalone studies of EBP, the surveys provide valuable feedback on facilitators of and barriers to EBP for WAPol and QPS respectively. The study therefore examines these two organisations' results separately and it is not the intent of this report to compare the organisations directly.

Method

Surveys were developed and tailored to each organisation in partnership with WAPol's Evidence Based Policing Division and QPS's Research Committee respectively. They included a range of items on evidence-based policing and policy research. Items were sourced and/or adapted from sources including: Lum et al. (2012); Cherney and McGee (2011); Bradford et al. (2014); Darroch and Mazerolle (2013); and Head, Boreham and Cherney (2011). The following sections describe the distribution and composition of the surveys.

Survey composition

As part of the survey, respondents were asked to nominate the three operational areas that placed the greatest demands on police in relation to costs and harms to the community. A series of questions was asked as to whether WAPol had adequately invested in EBP research on these nominated operational areas and if they thought EBP research was applicable. Questions were also asked about individual receptiveness to the use of research, preferred sources of information, receptiveness towards and understanding of scientific processes (eg the use of randomised control trials) and the degree of importance accorded to research-based knowledge compared to craft knowledge. Further questions examined the broader organisational context, such as whether evidence-based research was valued by colleagues, opportunities available to access research, priorities that drive broader operational decision-making (eg budgetary, political), incentives to adopt EBP and whether trial and error (a key scientific process) was valued and promoted by senior police. Finally, demographic questions were included.

The survey employed an existing validated scale—namely, the research utilisation scale (see Cherney & McGee 2011)—that examined the degree to which police receive, read and apply research in their decision-making. An overall 'organisational context' scale was also developed from nine leadership statements that examined such fields as communication, receptiveness to change, encouragement, support and fairness. Survey data were collected via an online platform (Qualtrics), which allowed the data to be transferred to a format suitable for use in statistical software. Data were analysed using SPSS version 24® (IBM Corp., Armonk, NY, USA).

Survey distribution

Western Australia Police

The WAPol survey was distributed electronically (via an email from the Police Commissioner) to all 6,632 WAPol officers from constable to commander (Western Australia Police 2016). The survey was completed online anonymously and consisted of 30 questions with an anticipated completion time of 20 minutes. Two emails were circulated to every WAPol officer, the first in April 2017 and the second in May 2017. In total, 1,472 responses were collected, representing an overall response rate of 22 percent. However, 263 responses were blank and were therefore deleted, resulting in a final useable sample size of 1,209 and an adjusted response rate of 18 percent. A further 131 officers completed 15 or fewer survey questions (less than 10% of the survey). These cases were retained in the following analysis for completeness. However, removing these incomplete responses would leave a final adjusted response rate of 16 percent.

Queensland Police Service

The QPS survey was distributed electronically (via an email from the Police Commissioner) to the 322 commissioned officers within the QPS (Queensland Police Service 2016). The survey was completed anonymously online and consisted of 30 questions with an anticipated completion time of 20 minutes. Participants ranged from members of the senior executive to police inspectors. These ranks were targeted to ensure the survey captured senior police with key operational decision-making powers and who would potentially have more engagement with EBP research compared to lower ranked police. In total, 133 responses were collected, representing an overall response rate of 41 percent. However, 16 responses were blank and were therefore deleted. This resulted in a final useable sample of 117 and an adjusted response rate of 36 percent.

Limitations

The relatively low survey response rate may call into question whether the samples were representative of either the two police agencies or the broader Australian policing community. For example, there may have been a selection bias in which people who held strong views for or against EBP were particularly motivated to complete the survey. However, similar response rates are common in the policing literature (eg Antrobus et al. 2014; Mazerolle et al. 2012).

Results: Western Australia Police

Summary

This section describes results of a survey of WAPol officers conducted in April and May 2017. The survey was distributed to 6,632 WAPol officers. An 18 percent response rate was achieved, giving a sample size of 1,209, including commissioned officers (*n*=54), sergeants (*n*=356) and constables (*n*=483).

WAPol has invested in increasing employees' knowledge of the key concepts and benefits of EBP. Results from the survey found:

- Participants who had attended an EBP workshop were more likely to view academic research as being useful than those who had not attended a workshop.
- Officers' preference for police decision-making to be based on personal experience and scientific knowledge was relatively balanced, leaning slightly towards a greater reliance on scientific knowledge, with only eight percent reporting a heavily craft dependent decision-making approach.
- Research methods identified as being important to police decision-making included a mixture of so-called 'gold standard' evidence-based approaches (randomised control trials), as well as case studies and interviews.
- While there was a high degree of awareness of the evidence for a variety of policing strategies throughout the organisation (54%–99%), there was lower awareness of 'pulling levers interventions' and 'procedural justice policing' strategies—strategies for which there is a high degree of academic evidence (see, for example, Campbell library: https://campbellcollaboration.org/library.html).
- While respondents indicated that they understood EBP research, few (7%) agreed they had adapted or applied this research to inform their decision-making.

- The top four policing areas that were identified as placing the greatest demands on WAPol were domestic and family violence, alcohol/drug fuelled violence, drug-related crimes, and general duties/frontline policing, with approximately one-third of officers rating these areas as somewhat or completely evidence-based.

In relation to WAPol's aim to test and evaluate old and new practices and strategies, the survey found:

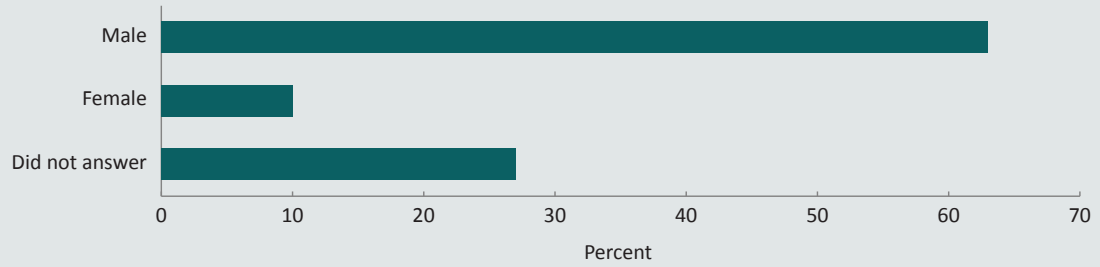
- Eighty-five percent of participants were very/extremely willing to try a new tactic to solve a current problem, and participants were willing to bear a range of risks when trying a new tactic.
- Willingness to take risks depended on rank, with lower ranked officers willing to take on more risk. Higher ranked officers were more concerned with political risks than those of lower ranks.
- Eighty percent of participants did not agree that risk taking was encouraged in WAPol without fear of punishment for mistakes.
- The results of the survey also identified potential barriers to officers readily implementing EBP:
- The most important barrier identified to the application of EBP research was the lack of time to engage with EBP research and implement its ideas.
- Officers who perceived individual barriers to the use of research evidence to be high tended to view the organisation as less supportive of EBP.
- Two-thirds of participants thought that senior managers did not listen to their views.
- Participants reported that they had limited opportunities to build relationships with researchers outside the police service. This may explain the lower levels of trust and usefulness accorded to research produced by academics, with differences in perceptions based on rank.
- Police uninterested in attending an EBP workshop placed less importance on using research methods to inform a specific practice or decision.

Detailed findings

Officer demographics and background information

Of the 1,209 participants, 762 (63%) were male and 124 (10%) were female. Another 323 participants (27%) did not provide their gender (see Figure 1). By way of comparison, the Western Australia Police Annual report (2016) reported a 77 percent male and 23 percent female population. In the present survey, discounting missing values, the sample was 86 percent male and 14 percent female.

Figure 1: WA: Survey participants by gender (%)

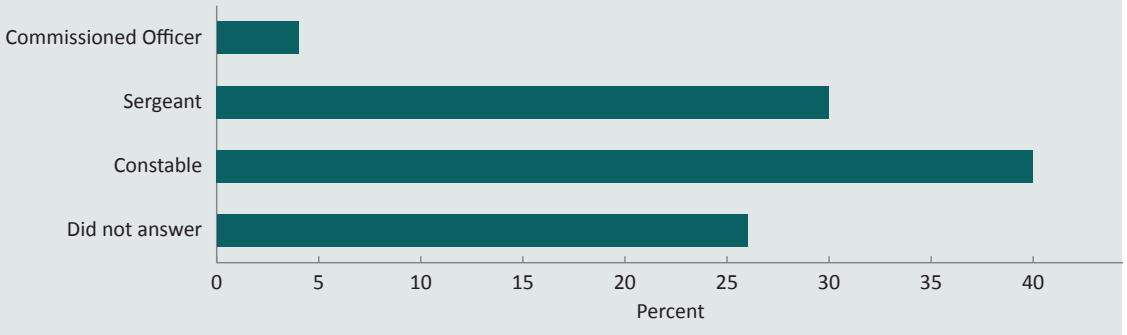


When comparing the age distribution, approximately 14 percent of participants were 39 years of age or younger. Twenty-nine percent were aged between 40 and 49 and 22 percent were 50 years or over (see Table 1). As can be seen in Figure 2, the ranks of the participants included commissioned officers (*n*=54), sergeants (*n*=356) and constables (*n*=483).

Table 1: WA: Survey participants by age group

Age	*n*	%
18–24 years	17	1.41
25–29 years	64	5.29
30–34 years	92	7.61
35–39 years	114	9.43
40–44 years	167	13.81
45–49 years	189	15.63
50–54 years	165	13.65
55–60 years	95	7.86
Did not answer	306	25.31

Figure 2: WA: Survey participants by rank (%)



The current working areas of participants spanned metropolitan, regional and frontline areas, with regional WA (19%) being the most represented and frontline support (3%) being the least represented. A large percentage (20%) listed their area as 'other' and a further 26 percent did not assign a working area (see Table 2).

Table 2: WA: Survey participants by current work area

Current work area	*n*	%
Metropolitan—North West	101	8.35
Metropolitan—Central	123	10.17
Metropolitan—South East	87	7.20
Metropolitan—South	79	6.53
Regional WA	224	18.53
Frontline Support	34	2.81
Other	247	20.43
Did not answer	314	25.97

Table 3 highlights the distribution of the length of service of the participants. Service length was generally well dispersed, with approximately 27 percent of participants having less than 10 years service, 37 percent between 11 and 30 years service and 11 percent over 30 years service. The minimum length of time was less than one year and the maximum length of service was 43 years.

Table 3: WA: Survey participants by length of service

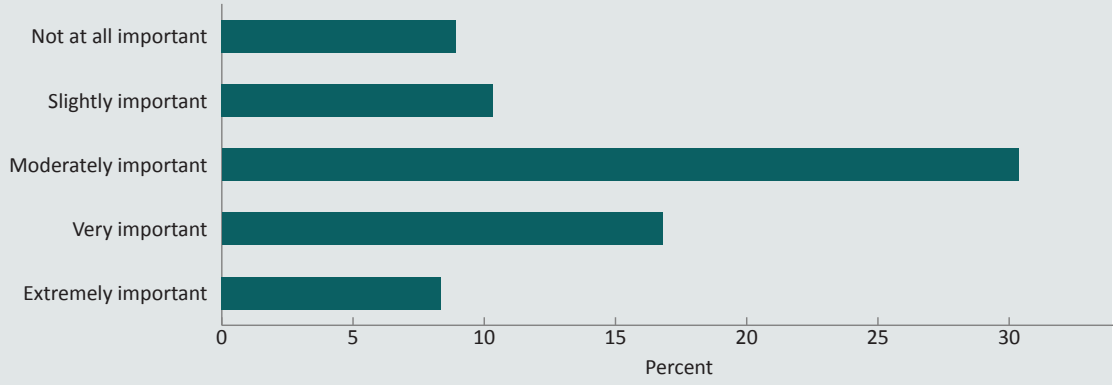
Length of service	*n*	%
Less than 6 years	156	12.90
6–10 years	166	13.73
11–15 years	120	9.93
16–20 years	93	7.69
21–25 years	104	8.60
26–30 years	127	10.50
31–35 years	85	7.03
36–40 years	37	3.06
41–45 years	9	0.74
Did not answer	312	25.81

On examination of education level, 14 percent of participants reported their highest educational achievement being a postgraduate qualification and 16 percent reported having completed a university/college degree. A further 27 percent reported the completion of a trade/technical certificate or diploma (see Table 4).

Table 4: WA: Survey participants by education level		
Education	***n***	**%**
Postgraduate education	170	14.06
University/college degree	195	16.13
Trade/technical certificate or diploma	321	26.55
Completed Year 12	171	14.14
Completed Year 10	43	3.56
Primary school	1	0.08
No schooling	1	0.08
Did not answer	307	25.39

In addition to the education level obtained, the survey was interested in participants' thoughts on the importance of pursuing higher education as a police officer. Scores ranged from 1 ('not at all important') to 5 ('extremely important'). Twenty-five percent of participants viewed higher education as either 'extremely important' or 'very important'. A further 30 percent believed it to be 'moderately important' and nine percent did not view higher education as important at all (see Figure 3).

Figure 3: WA: Survey participants by perceived importance of higher education for police officers (%) (*n*=904)

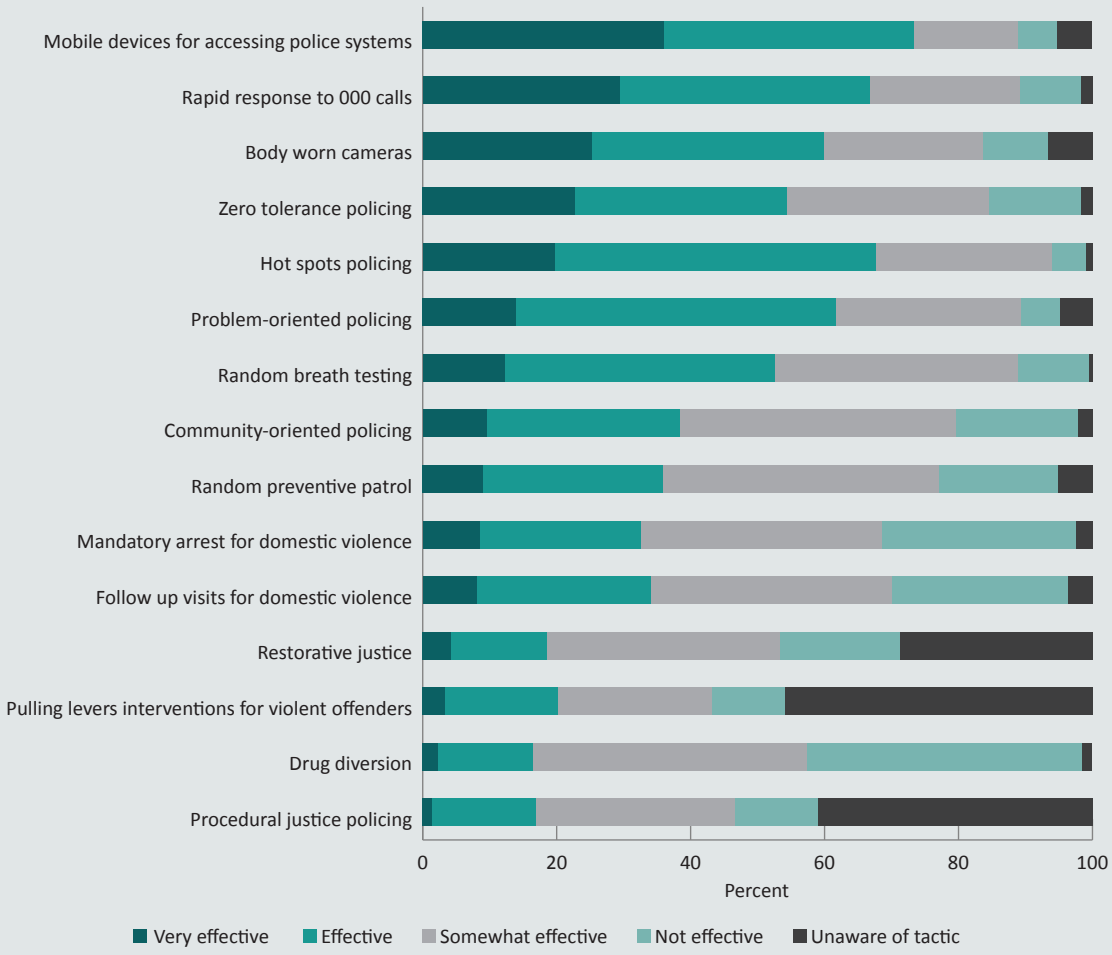


Knowledge of research findings on effective practices

The first question in the survey asked about participants' thoughts on the effectiveness of a variety of police strategies for reducing crime and disorder. Scores ranged from 1 ('not effective') to 4 ('very effective'). Participants were also given the option of specifying if they were unaware of the police tactic. Participants believed that mobile devices for accessing police systems were either 'very effective' (36%) or an 'effective' strategy (37%).

Rapid response to 000 calls was also believed to be an effective strategy (29% of participants selecting 'very effective' and 37% selecting 'effective'). Alternatively, 41 percent of participants believed drug diversion was 'not effective' as a police strategy. Twenty-nine percent reported that mandatory arrest for domestic violence was 'not effective' and 26 percent reported follow-up visits for domestic violence were 'not effective'. Figure 4 presents the percentage breakdown of the perceived effectiveness of strategies.

Figure 4: WA: Perceived effectiveness of police strategies (%) (*n*=1,203 to 1,206)



Large proportions of participants were unaware of the strategies of 'pulling levers interventions for violent offenders' (46%), 'procedural justice policing' (41%) and 'restorative justice' (29%). These three strategies were examined in greater detail by comparing 'aware' and 'unaware' participants on a range of demographic and attitudinal variables (see Table 5). In general, participants who were unaware of these strategies were significantly younger, had been working for WAPol for significantly less time, placed significantly less importance on academic sources and were more likely to be in lower police ranks.

Table 5: WA: Demographic and attitudinal comparison of participants who were aware and unaware of selected police strategies

Pulling levers interventions for violent offenders	Aware of tactic Mean *(SD)*	Unaware of tactic Mean *(SD)*	*t (df)*	*d*
n	651	553		
Age[a]	5.58 (1.75)	4.88 (1.82)	5.85 (900)***	0.39
Length of service[b]	18.84 (11.38)	15.51 (10.14)	4.57 (894)***	0.31
Educational achievement[c]	5.38 (1.15)	5.20 (1.11)	2.35 (899)*	0.16
Information importance – university researchers[d]	2.90 (1.07)	2.88 (1.04)	0.38 (1,053)	0.02
Information importance – academic source[e]	3.03 (1.00)	2.83 (1.03)	3.09 (1,053)**	0.19
Current rank[f]	1.60 (0.64)	1.41 (0.55)	4.71 (890)***	0.32
Procedural justice policing				
n	710	494		
Age[a]	5.43 (1.81)	5.01 (1.80)	3.39 (900)***	0.23
Length of service[b]	18.06 (11.07)	16.27 (10.72)	2.38 (894)*	0.16
Educational achievement[c]	5.34 (1.14)	5.23 (1.13)	1.40 (899)	0.10
Information importance – university researchers[d]	2.90 (1.07)	2.87 (1.03)	0.54 (1,053)	0.03
Information importance – academic source[e]	3.00 (1.00)	2.85 (1.04)	2.31 (1,053)*	0.15
Current rank[f]	1.54 (0.62)	1.48 (0.60)	1.37 (890)	0.09
Restorative justice				
n	859	345		
Age[a]	5.47 (1.73)	4.74 (1.92)	5.41 (900)***	0.41
Length of service[b]	18.10 (11.19)	15.37 (10.07)	3.33 (894)***	0.25
Educational achievement[c]	5.41 (1.13)	4.98 (1.10)	5.14 (899)***	0.39
Information importance – university researchers[d]	2.94 (1.04)	2.77 (1.08)	2.34 (1,053)*	0.16
Information importance – academic source[e]	3.03 (1.00)	2.70 (1.03)	4.83 (1,053)***	0.33
Current rank[f]	1.58 (0.63)	1.35 (0.51)	4.89 (890)***	0.37

***statistically significant at $p<0.001$, **statistically significant at $p<0.01$, *statistically significant at $p<0.05$

a: Age categories: 1=18–24 years to 8=55–60 years

b: Length of service: continuous—0 years to 43 years

c: Educational achievement categories: 1=no school to 7=postgraduate education

d: Information importance – university researchers categories: 1=very unimportant to 5=very important

e: Information importance – academic source categories: 1=Very unimportant to 5=Very important

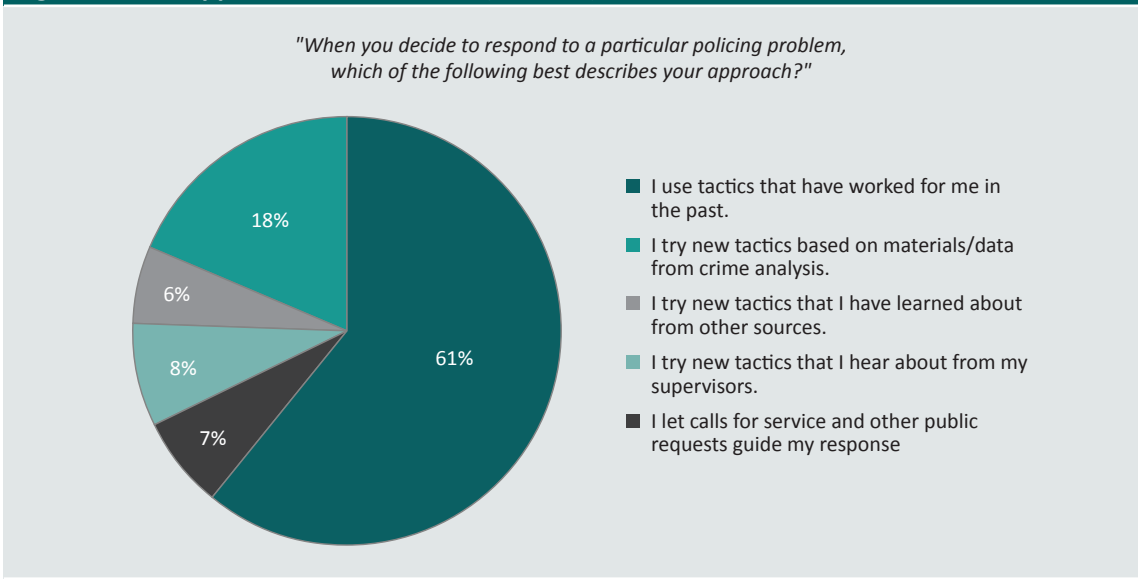
f: Current rank categories: 1=constable to 3=commissioned officer

Note: Asterisks represent a significant difference (tested using independent samples *t*-tests) between 'Aware' and 'Unaware' participants on specified demographics and attitudes to academic sources

Approach to new tactics

When participants were asked about their approach when deciding how to respond to a particular policing problem, a large percentage (61%) reported that they use tactics that have worked in the past (see Figure 5). Eighteen percent reported that they try new tactics based on materials or data from crime analysis. Eight percent try new tactics that they have heard about from their supervisors. Seven percent let calls for service and other public requests guide their tactic. Finally, six percent try new tactics based on other sources. These other sources included academic sources or research (1.7%), other organisations (such as the Australian Institute of Police Management; 0.5%), colleagues (1.8%) or the internet (0.6%).

Figure 5: WA: Approach to new tactics (*n*=1,071)

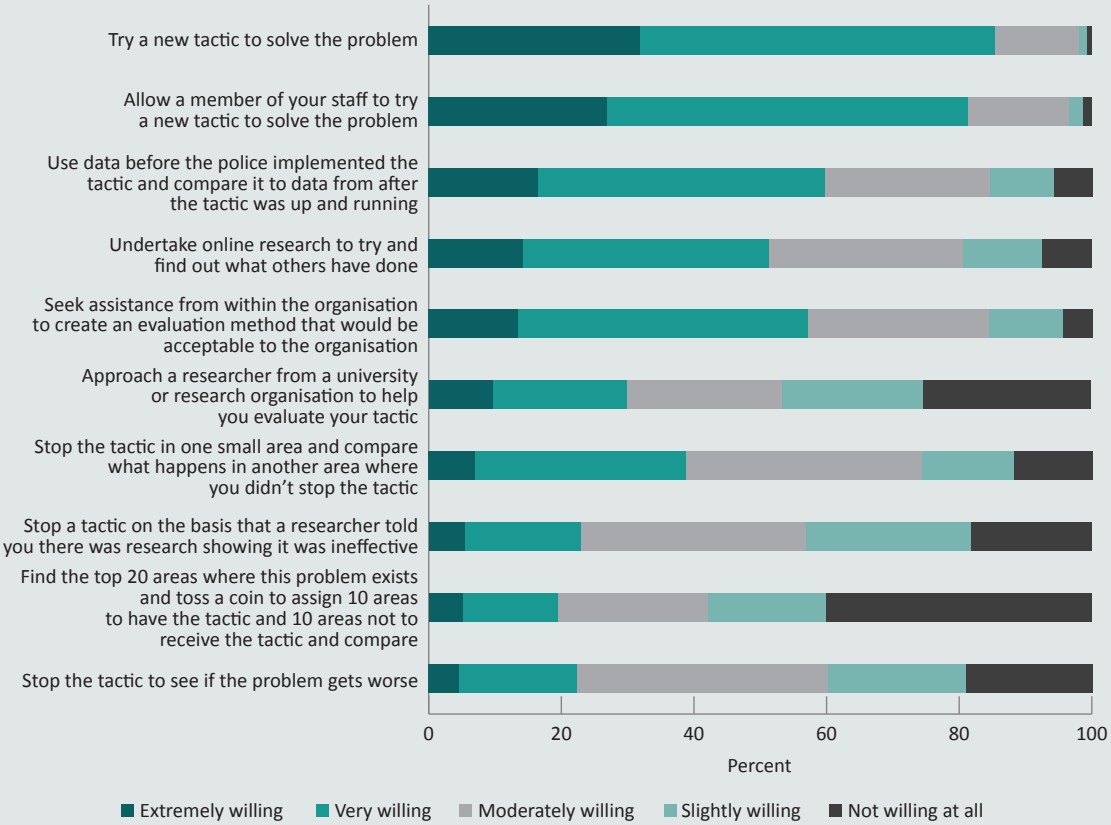


Willingness to test whether a tactic is effective

Participants were asked how willing they would be to take a variety of actions to test whether a current police tactic was effective. Scores ranged from 1 ('not willing at all') to 5 ('extremely willing'). Eighty-five percent of participants were either 'very willing' or 'extremely willing' to try a new tactic to solve a current problem. Eighty-one percent were either 'very willing' or 'extremely willing' to allow a member of their staff to try a new tactic to solve a policing problem. Sixty percent were either 'very willing' or 'extremely willing' to use data before the police implemented the tactic and compare it to data from after the tactic was up and running. For most other scenarios, participants were 'moderately willing' to test whether the tactic was effective (means ranged from 2.67 to 3.55). The scenario that participants were least willing to try was finding the top 20 areas where the problem existed, using the toss of a coin to select 10 areas where a new tactic would be implemented and 10 areas where it would not, and comparing the outcomes—that is, procedures similar to the use of randomised control trials. Fifty-eight percent were either 'slightly willing' or 'not willing at all' to try this.

Figure 6 presents the percentage breakdown of participants' willingness to test tactics. It appeared that participants were quite averse to approaching a researcher from a university or research organisation to help them evaluate their tactic (25% of participants reported that they were 'not willing at all' to do this). Eighteen percent of participants were also 'not willing at all' to stop a tactic based on a researcher highlighting that the tactic was ineffective.

Figure 6: WA: Willingness to test tactics for effectiveness (%) (*n*=1,072 to 1,076)

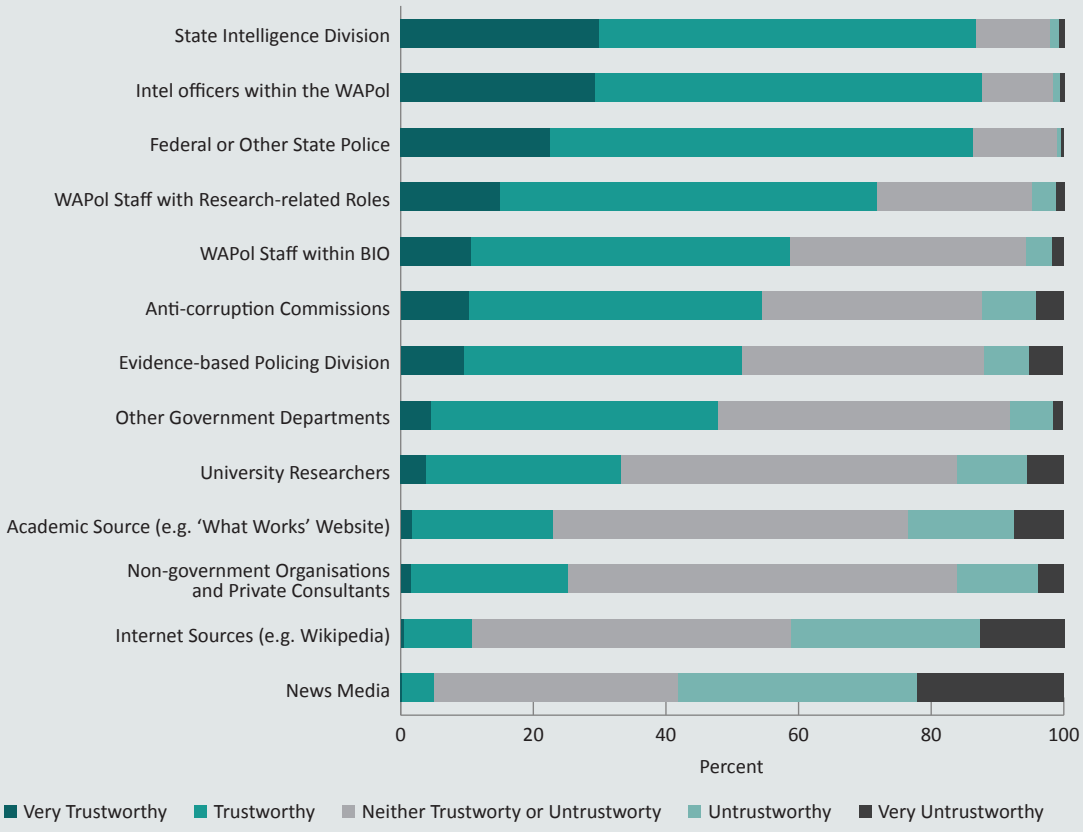


Trust in different sources of information

Participants were asked to rate the level of trust they held in the information available from a variety of sources to inform their day-to-day operational decision-making. Scores ranged from 1 ('very untrustworthy') to 5 ('very trustworthy'). The most trusted information source was the State Intelligence Division (30% reporting 'very trustworthy' and 57% reporting 'trustworthy'). Trust in information from intelligence officers within WAPol closely followed (29% reporting 'very trustworthy' and 58% reporting 'trustworthy'). Participants also rated information from federal or other state police as trustworthy (23% reporting 'very trustworthy' and 64% reporting 'trustworthy').

The Evidence Based Policing Division was ranked approximately in the middle of all sources (mean (*M*)=3.44, standard deviation (*SD*)=0.94), with 10 percent of participants reporting it was 'very trustworthy' and 42 percent 'trustworthy'. The information source considered the least trustworthy was news media (22% reporting it was 'very untrustworthy'). Internet sources (13% 'very untrustworthy') and academic sources (8% 'very untrustworthy') were also considered of low trustworthiness. Figure 7 presents the percentage breakdown of the reported trustworthiness of information sources examined.

Figure 7: WA: Perceived trustworthiness of various information sources (%) (*n*=1,037 to 1,040)



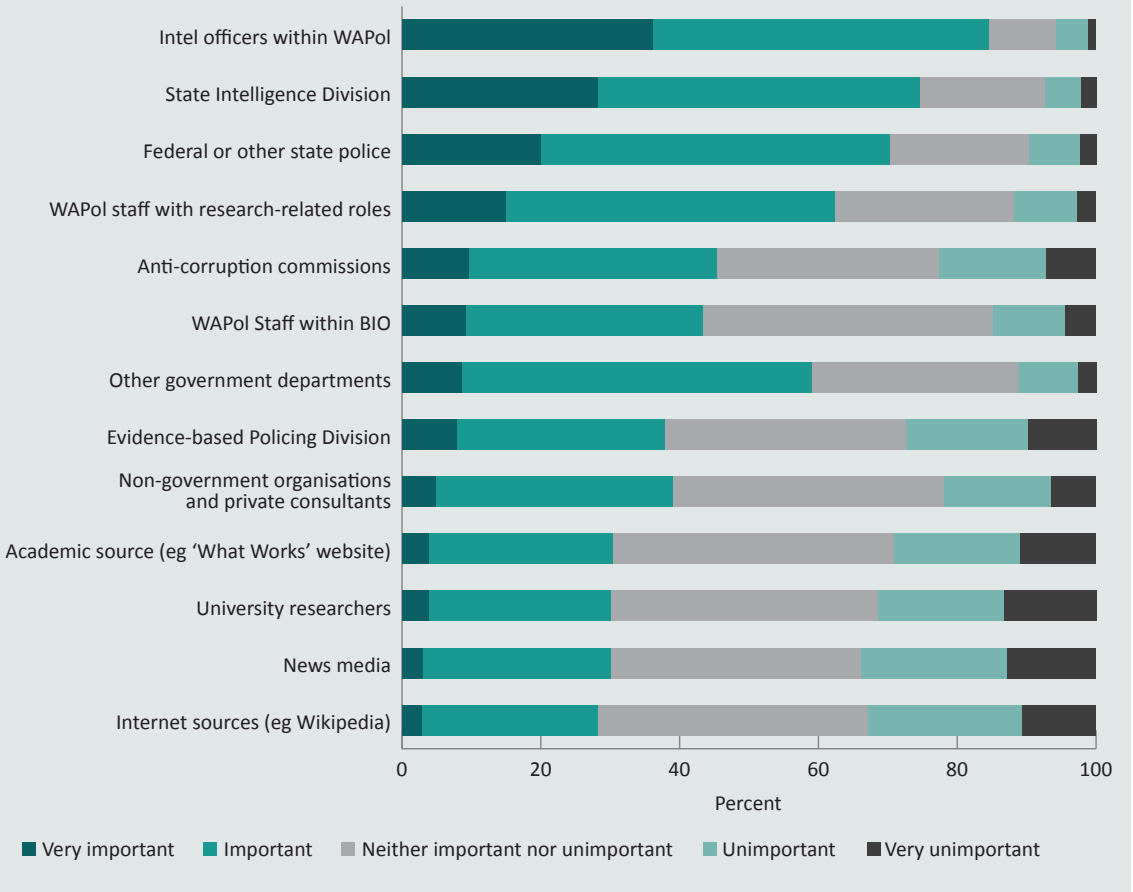
Understanding of research and receptiveness to EBP

Importance of different information sources to inform decision-making

The survey also examined the perceived importance of various information sources. Participants were asked to rate the level of importance they placed on the information available from a variety of sources to inform their day-to-day operational decision-making. Scores ranged from 1 ('very unimportant') to 5 ('very important'). Information from intelligence officers within WAPol had the highest level of importance for participants (36% describing it as 'very important' and 48% 'important').

Participants also rated as important information from the State Intelligence Division (28% 'very important' and 47% 'important') and from federal or other state police (20% 'very important' and 50% 'important'). The Evidence Based Policing Division was ranked approximately in the middle of all sources (*M*=3.08, *SD*=1.08) with eight percent reporting it was 'very important' and 30 percent 'important'. Information sources considered of low importance included academic researchers (13% 'very unimportant' and 18% 'unimportant'), news media (13% 'very unimportant' and 21% 'unimportant') and internet sources (11% 'very unimportant' and 22% 'unimportant'). Figure 8 presents the percentage breakdown of the perceived importance of the information sources examined.

Figure 8: WA: Perceived importance of various information sources (%) (*n*=1,055 to 1,058)



Note: BIO=Business Intelligence Office (now called BIA: Business Intelligence and Analytics)

Pearson product-moment correlation coefficients were computed to assess the relationship between participants' level of trust in each of the information sources listed in Figure 7 and the perceived level of importance of those sources (Figure 8). In each instance, a significant positive correlation was found between the two variables examined. That is, as trust in the source increased, so too did the perceived importance of that information source. For example, as trust in the Evidence Based Policing Division increased, so too did the perceived importance of information from the Evidence Based Policing Division ($r(1,037)=0.69$, $p<0.001$). These correlations ranged in size from 0.46 to 0.69.

A one-way analysis of variance (ANOVA) was performed to examine whether there were significant differences between ranks in whether the Evidence Based Policing Division was seen as a trustworthy and important source of information. The ANOVA revealed no significant differences between ranks for trustworthiness (see Figure 9). The ANOVA revealed significant differences between ranks for ratings of importance of information ($F(2,890)=4.03$, $p=0.018$, $\eta^2=0.01$); therefore, follow-up tests were conducted to explore where these differences lay. (Bonferroni adjustment was used to control for type 1 error.) As can be seen in Figure 10, commissioned officers considered information from the Evidence Based Policing Division more important than did sergeants ($p=0.027$) and constables ($p=0.014$).

Figure 9: WA: Mean level of trust in information from the Evidence Based Policing Division by rank

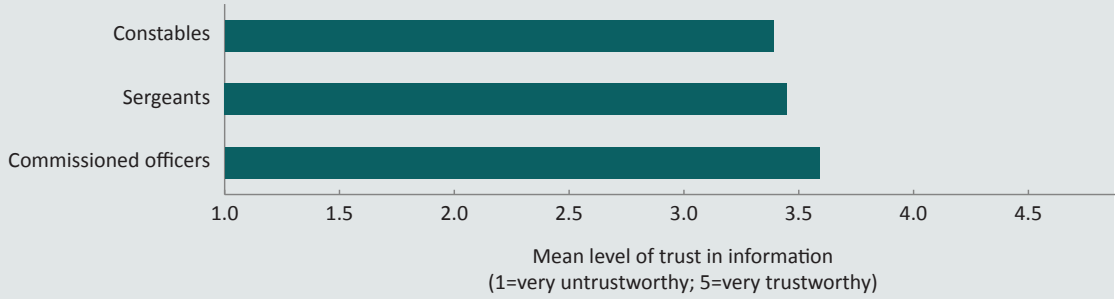
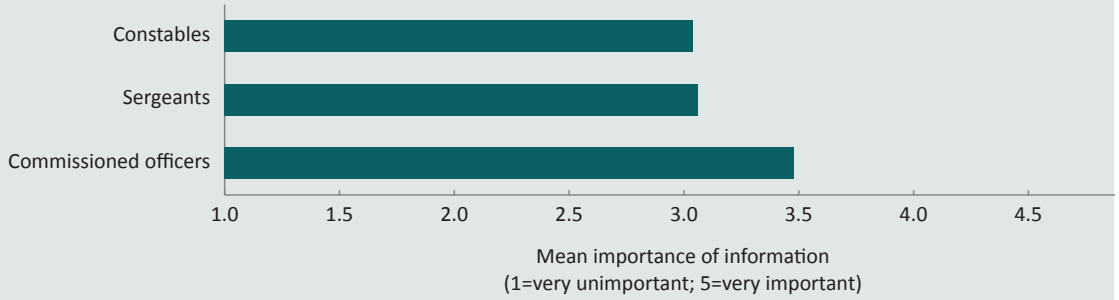


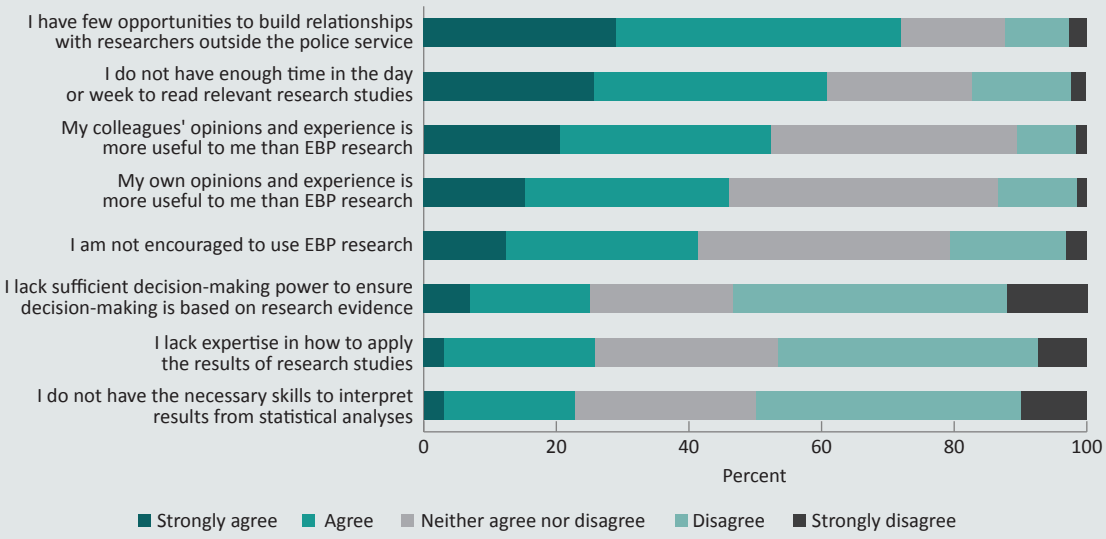
Figure 10: WA: Mean perceived importance of information from the Evidence Based Policing Division by rank



Participants were asked about barriers that inhibited them from accessing and using EBP research in their day-to-day operational decision-making. They were asked to rate the extent of their agreement with a variety of statements. Scores ranged from 1 ('strongly disagree') to 5 ('strongly agree'). Participants reported that they had limited opportunities to build relationships with researchers outside the police service (72% either 'agreeing' or 'strongly agreeing' with the statement). Participants also reported having limited time in the day or week to read relevant research studies (61% either 'agreeing' or 'strongly agreeing' with the statement). A belief that colleagues' opinions and experience were more useful than EBP research was also evident (52% either 'agreeing' or 'strongly agreeing' with the statement).

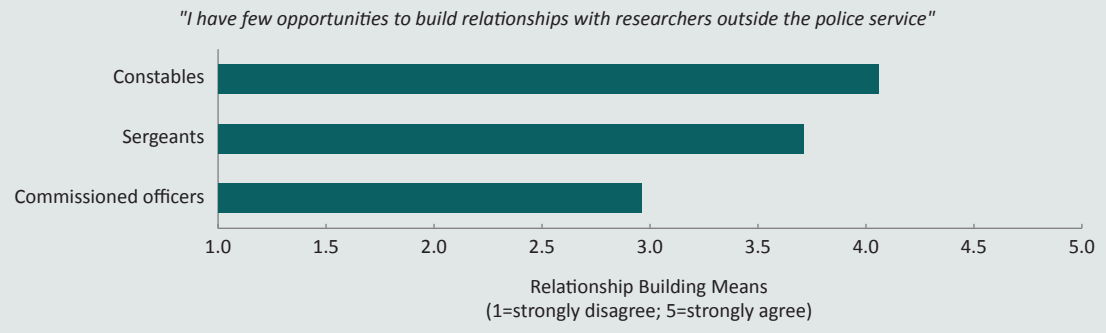
Figure 11 presents the percentage breakdown of the reported agreement with the statements examined. Fifty-three percent of participants felt that they had sufficient decision-making power to ensure decisions were based on research evidence (disagreeing with the statement that they lacked this power). Likewise, 50 percent felt that they had the skills needed to interpret results from statistical analyses, and 47 percent felt that they had the expertise to apply the results of research studies.

Figure 11: WA: Individual barriers to using research evidence (%) (*n*=1,030)



To examine whether there were significant differences between ranks with regard to opportunities to build relationships with researchers, a one-way ANOVA was performed ($F(2,889)=35.06$, $p<0.001$, $\eta^2=0.07$). There were significant differences between ranks in opportunities for relationship building with researchers. Follow-up tests were then conducted to explore where these differences lay. (Bonferroni adjustment was used to control for type 1 error.) Significant differences were found between mean scores for commissioned officers and sergeants ($p<0.001$), between commissioned officers and constables ($p<0.001$) and between sergeants and constables ($p<0.001$). As can be seen in Figure 12, commissioned officers reported having greater opportunities to build relationships with researchers than did sergeants and constables.

Figure 12: WA: Opportunities to build relationships with researchers by rank (*n*=1,030)



Risk acceptance

Using a sliding scale from 0 (low risk) to 100 (high risk), participants were asked what level and types of risk they would be willing to accept when trying a new tactic to solve a police problem. The types of risk with highest acceptance were political risk (*M*=62.86, *SD*=27.10), closely followed by cost/financial risk (*M*=61.48, *SD*=23.69). Risk to officer safety (*M*=19.29, *SD*=26.83) and risk to community safety (*M*=24.99, *SD*=23.47) were the least acceptable risks (see Figure 13).

Figure 13: WA: Risk acceptance by type of risk (*n*=997 to 1,009)

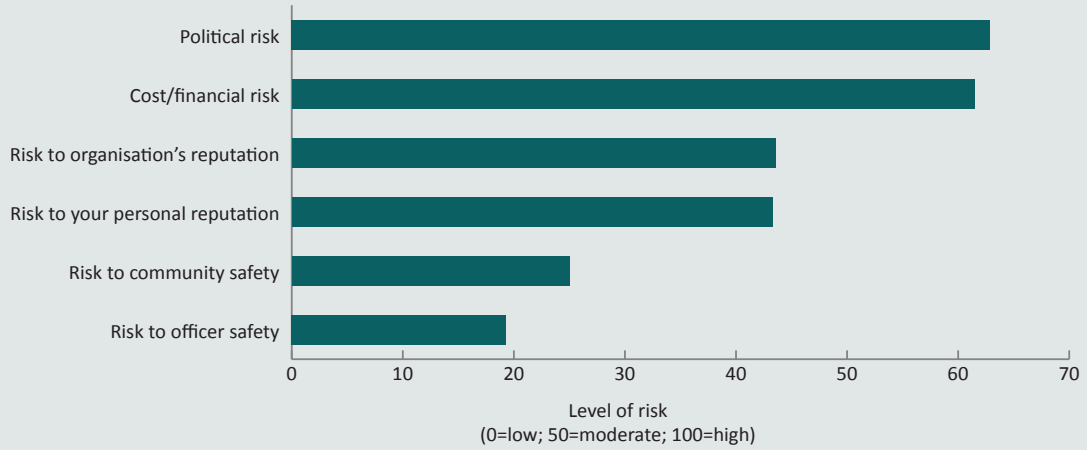
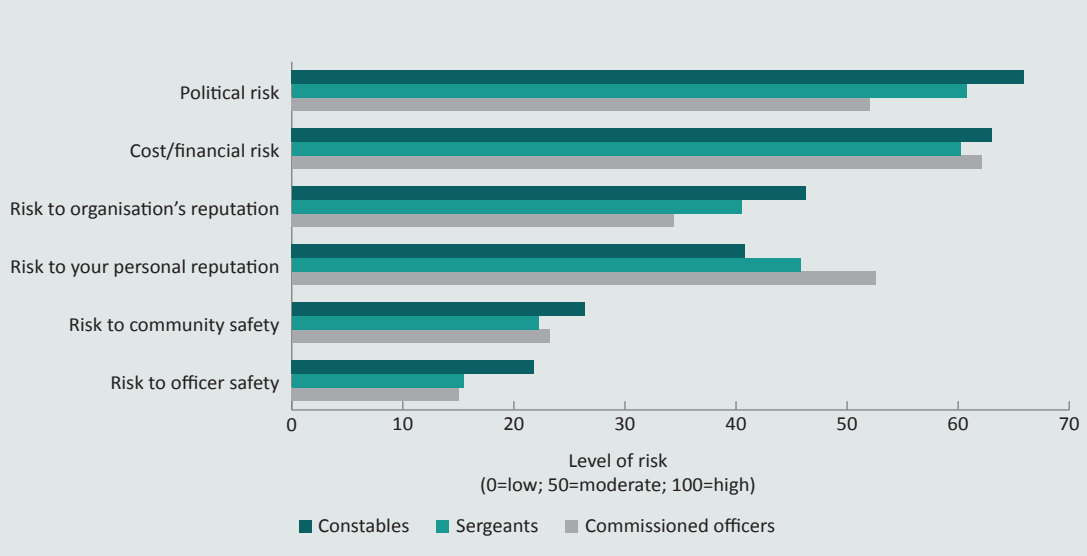


Figure 14 presents the mean level of risk participants of different ranks were willing to accept. Constables reported that they would be prepared to accept a higher level of risk across all types of risk other than 'risk to your personal reputation', which commissioned officers were most willing to accept (*M*=52.57, *SD*=23.66).

Figure 14: WA: Risk acceptance by rank and type of risk (*n*=997 to 1,009)

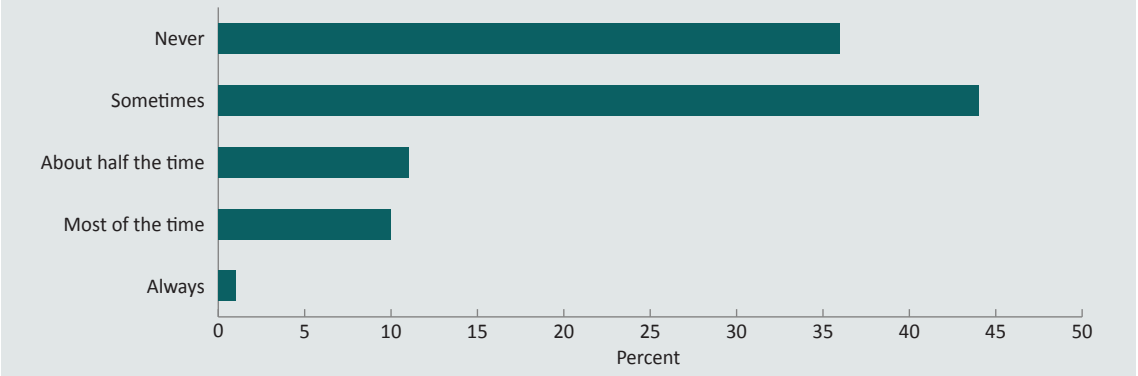


To examine whether there were significant differences between ranks in relation to the tolerance of specific risks, one-way ANOVAs were performed. There was no significant difference between ranks for 'cost/financial risk' ($F(2,876)=1.46$, $p=0.233$, $\eta^2<0.01$). However, for all other domains there was a significant difference found in the level of accepted risk between the ranks (Fs>3.34, ps<0.036, η^2s>0.007). Follow-up tests were then conducted to explore where these differences lay. (Bonferroni adjustment was used to control for type 1 error.) For the 'political risk' domain, constables were more likely to take a risk than either commissioned officers ($p<0.001$) or sergeants ($p=0.018$). For 'risk to the organisation's reputation', constables were more likely to take a risk than commissioned officers ($p=0.006$) or sergeants ($p=0.007$). For 'risk to your personal reputation', commissioned officers were more likely to take a risk than constables ($p=0.02$). For the 'risk to community safety' and 'risk to officer safety' domains, constables were more likely to take a risk than sergeants ($p=0.033$ and $p=0.002$, respectively). The sample size for commissioned officers ($n=54$) was relatively low. This may explain why no significant difference was detected between commissioned officers and constables, whereas there was between sergeants and constables (each of these had a larger sample size: $n=354$ and $n=475$, respectively).

How often research is used

Question 8 of the survey examined how often participants used EBP research in the prior 12 months to inform their decision-making. Scores ranged from 1 ('never') to 5 ('always'). The category 'sometimes' was the most frequently reported (44%), closely followed by 'never' (36%). Eleven percent of participants reported using EBP research 'about half of the time' (see Figure 15). A one-way ANOVA was performed to examine if there were significant differences between ranks with regard to research usage, with no significant differences between ranks found ($F(2,886)=1.70$, $p=0.157$, $\eta^2<0.01$).

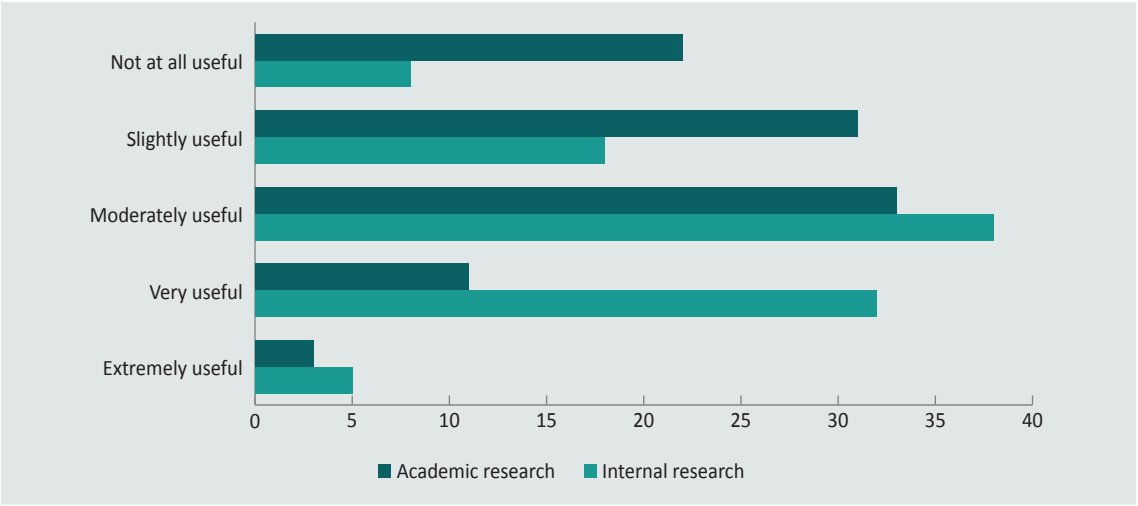
Figure 15: WA: Frequency of using EBP research (%) (n=1,014)



Perceived usefulness of academic and internal research

Thirty-three percent of participants indicated that they found academic research into police tactics to be 'moderately useful', 31 percent suggested it was 'slightly useful' and 22 percent indicated that it was 'not at all useful'. By way of contrast, 32 percent of participants indicated that they found internal police research (research conducted by the police organisation) to be 'very useful', 38 percent 'moderately useful' and only eight percent 'not at all useful' (see Figure 16).

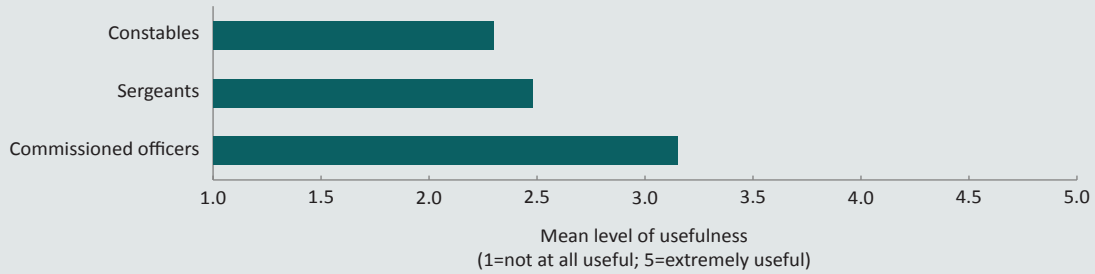
Figure 16: WA: Perceived usefulness of academic and internal research (%) (*n*=1,017 to 1,018)



A Pearson product-moment correlation coefficient was computed to assess the relationship between participants' attitudes to the usefulness of research conducted by academics and research conducted by the police agency. There was a positive correlation between the two variables ($r(1017)=0.39$, $p<0.001$). That is, participants who believed academic research to be useful also tended to find internal research useful. A paired-samples *t*-test was conducted to compare the usefulness of academic research versus internal research. There was a significant difference in the scores for internal research ($M=3.08$, $SD=0.99$) and academic research ($M=2.42$, $SD=1.03$); $t(1,016)=19.06$, $p<0.001$, $d=0.66$. In summary, internal police research was believed to be more useful than academic research.

A one-way ANOVA was performed to examine whether there were significant differences between ranks in the perceived usefulness of academic research. The ANOVA revealed significant differences between ranks ($F(2,888)=17.80$, $p<0.001$, $\eta^2=0.04$); therefore, follow-up tests were conducted to explore where these differences lay. (Bonferroni adjustment was used to control for type 1 error.) Significant differences were found between mean scores for commissioned officers and sergeants ($p<0.001$), between commissioned officers and constables ($p<0.001$), and between sergeants and constables ($p<0.036$). As can be seen in Figure 17, commissioned officers considered academic research to be more useful than did sergeants and constables.

Figure 17: WA: Perceived usefulness of academic research, by rank (*n*=1,018)

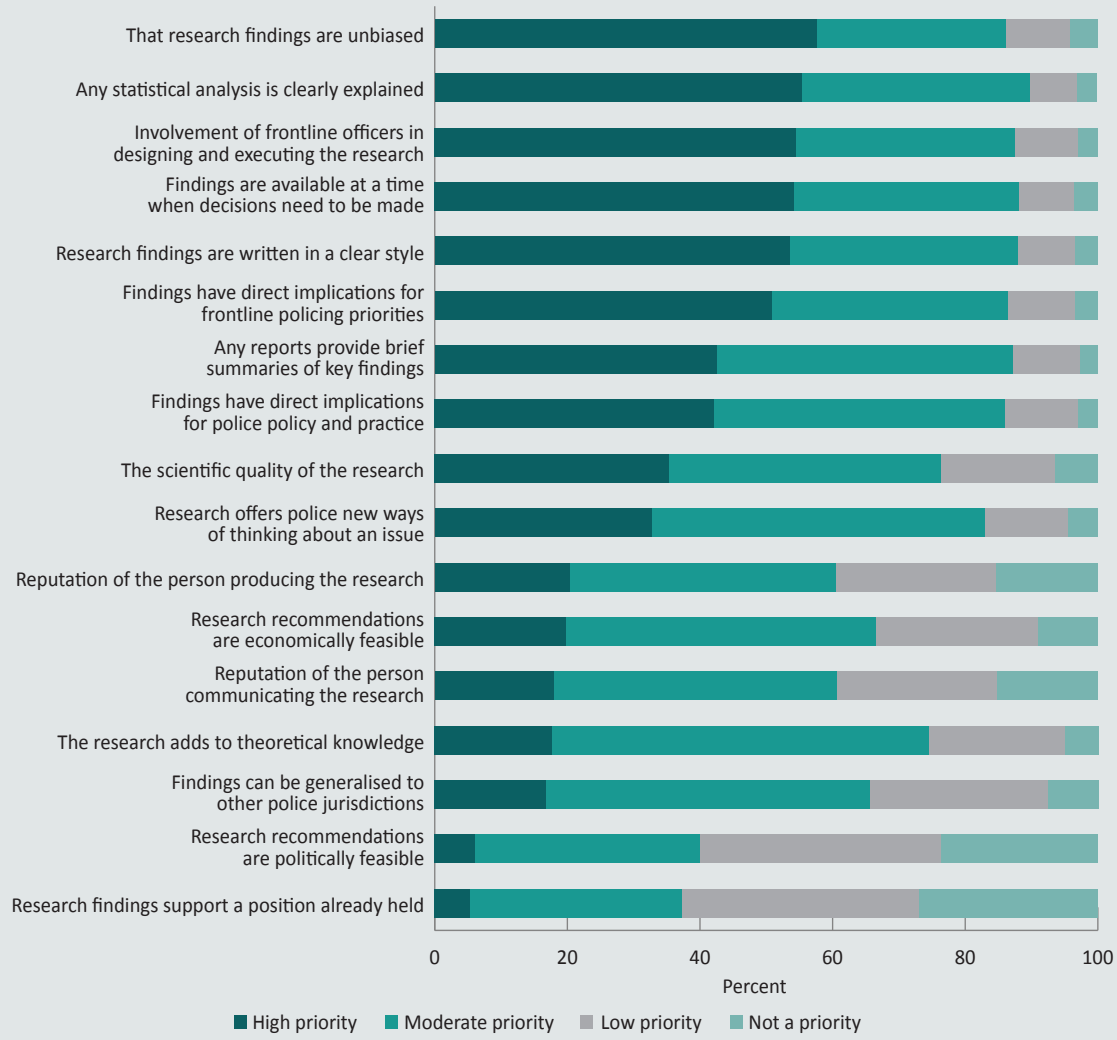


A one-way ANOVA was performed to examine whether there were significant differences between ranks in the perceived usefulness of internal research. The ANOVA revealed no significant differences between ranks ($F(2,889)<1$, $p=0.487$, $\eta^2<0.01$).

Factors judged as important in using research

Participants were asked about various factors influencing whether or not they decide to use EBP research and what priority each of those factors should be given. Scores ranged from 1 ('not a priority') to 4 ('high priority'). Several factors were rated as having moderate to high priority (see Figure 18). These factors included 'research findings are unbiased' (58% reporting 'high priority' and 29% reporting 'moderate priority'), 'any statistical analysis is clearly explained' (55% 'high priority' and 35% 'moderate priority'), 'involvement of frontline officers in designing and executing the research' (55% 'high priority' and 33% 'moderate priority') and 'findings are available at a time when decisions need to be made' (54% 'high priority' and 34% 'moderate priority'). Factors of lower priority included 'research findings support a position already held' (27% reporting 'not a priority' and 36% reporting 'low priority'), 'research recommendations are politically feasible' (24% 'not a priority' and 36% 'low priority'), 'reputation of the person communicating the research' (15% 'not a priority' and 24% 'low priority') and 'reputation of the person producing the research' (15% 'not a priority' and 24% 'low priority').

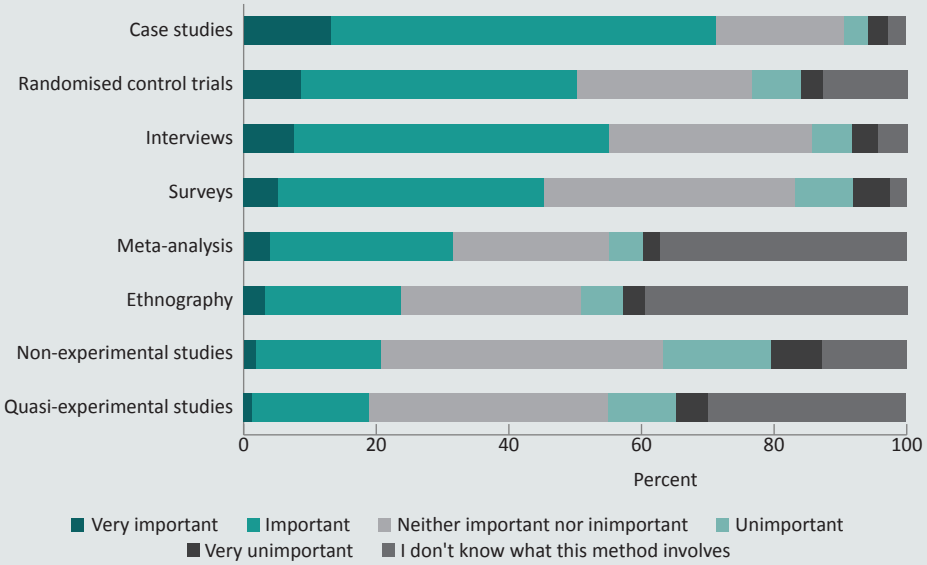
Figure 18: WA: Factors influencing whether research is used (%) (*n*=966 to 969)



Perceived importance of various research methods

Participants were asked what level of importance they would place on eight different research methods to inform a specific practice or decision they may make. Scores ranged from 1 ('very unimportant') to 5 ('very important'). Participants also had the option of indicating they did not know what the research method involved. As can be seen in Figure 19, the research method with the highest level of perceived importance was case studies, with 71 percent of participants considering them either 'important' (58%) or 'very important' (13%). Interviews (55%), randomised control trials (50%) and surveys (45%) were also judged to be 'important' or 'very important'. The two methods rated as the least important were non-experimental studies (24% selecting 'unimportant' or 'very unimportant') and quasi-experimental studies (15% selecting 'unimportant' or 'very unimportant'). Forty percent of participants responded that they did not know what ethnography involved, 37 percent were unsure what meta-analysis involved and 30 percent were uncertain about quasi-experimental studies.

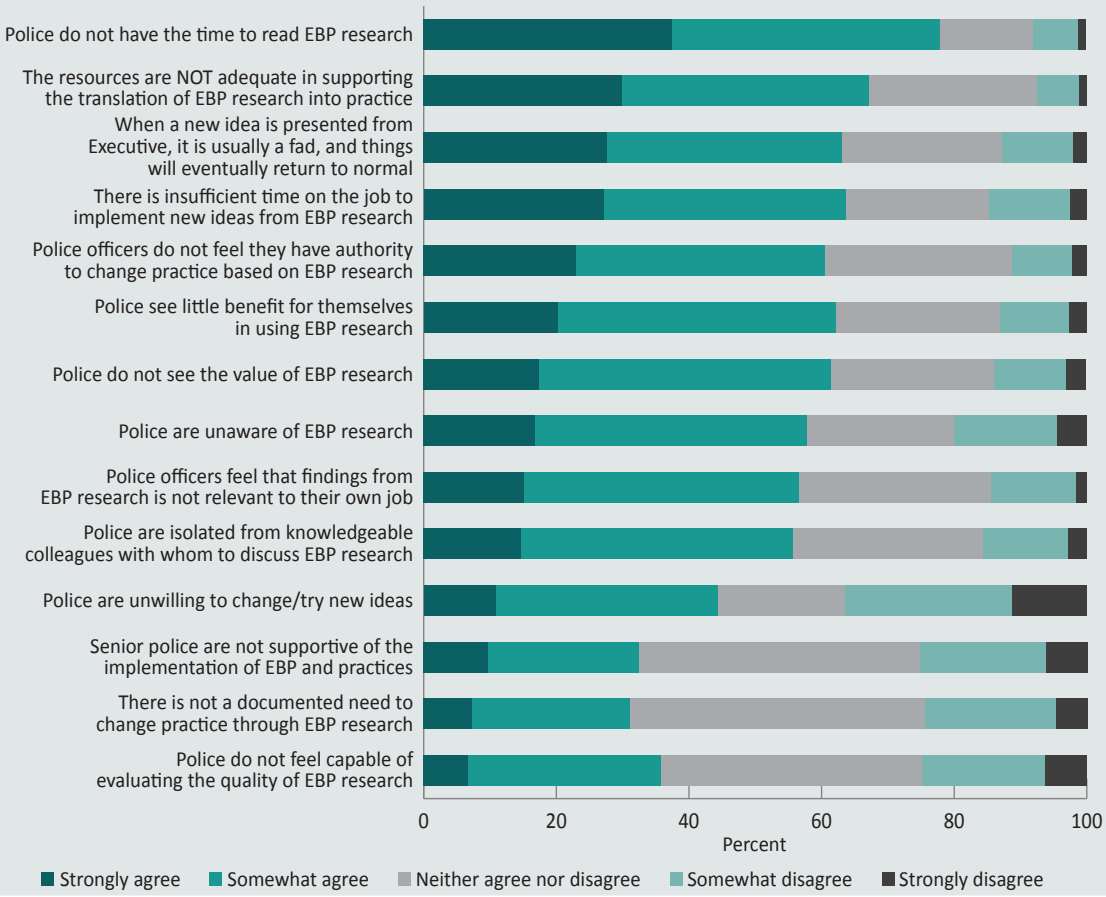
Figure 19: WA: Perceived importance of various research methods (%) (*n*=950 to 952)



Organisational barriers to the use of evidence

Participants were presented with several statements referring to organisational barriers to the more widespread use of EBP research. They were then asked to think about WAPol and rate the extent of their agreement with each statement. Scores ranged from 1 ('strongly disagree') to 5 ('strongly agree'). It was clear that participants believed that they did not have enough time to read EBP research (78% selecting either 'strongly' or 'somewhat' agree), or to implement EBP ideas (64% selecting either 'strongly' or 'somewhat' agree). Concerningly, two-thirds of participants believed that resources were not adequate to support the translation of EBP research into practice (67% selecting either 'strongly' or 'somewhat' agree). Figure 20 presents the percentage breakdown of the reported agreement with the statements examined. Twenty-eight percent 'strongly agreed' and 36 percent 'somewhat agreed' that new ideas from the executive were often a fad and things would return to normal in due course. Despite this finding, a sizable portion of participants did not think they were averse to new ideas or change, with 37 percent disagreeing that police are unwilling to change/try new ideas—though a similar portion (44%) agreed that this was true. Twenty-five percent also disagreed with the statement that 'police do not feel capable of evaluating the quality of EBP research'.

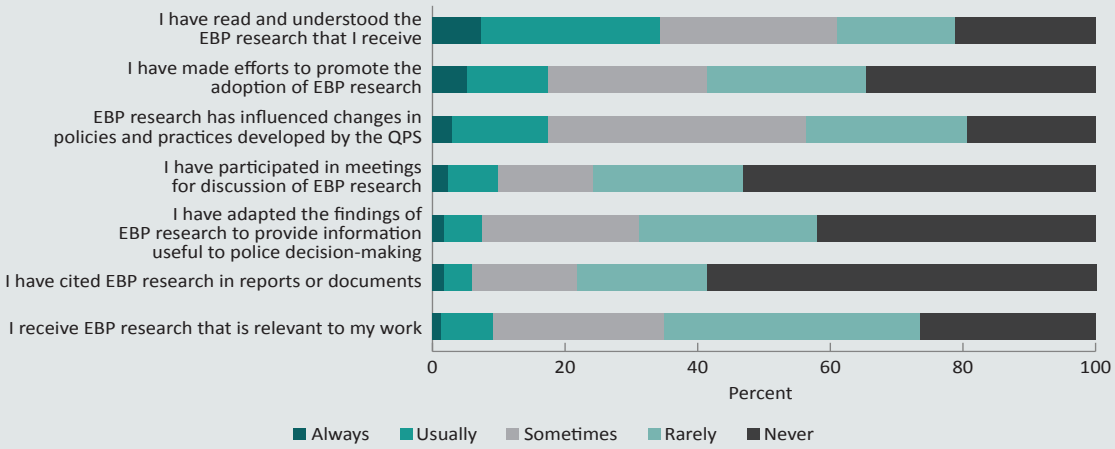
Figure 20: WA: Organisational barriers to the use of research evidence (%) (*n*=920 to 923)



How research is used

Participants were asked to draw on their experience and respond to a variety of statements relating to the use of EBP research. Scores ranged from 1 ('never') to 5 ('always'). Thirty-four percent reported that they either 'always' or 'usually' read and understood the EBP research they received. However, only seven percent reported that they either 'always' or 'usually' adapted the findings of EBP research to provide information useful to police decision-making. Despite this low uptake of EBP findings, 18 percent reported that EBP research had either 'always' or 'usually' influenced changes in policies and practices. Interestingly, 53 percent of participants stated that they had 'never' participated in meetings discussing EBP research. Thirty-five percent also stated that they had 'never' made an effort to promote the adoption of EBP research (see Figure 21).

Figure 21: WA: How research is used (%) (*n*=905 to 910)



The statements examined were based on the ladder of research utilisation (Cherney & McGee 2011; Landry, Amara & Lamari 2001). Table 6 shows the different stages of knowledge utilisation, the corresponding survey statements and the proportion who achieved each stage (as measured by the percentage of participants who selected 'always' or 'usually'). As can be seen, stage 2 (cognition) had the highest reported level of achievement at 34 percent, followed by stage 4 (effort) and stage 5 (influence), both at 17 percent.

Table 6: WA: Stages of knowledge utilisation among participants

Stages of knowledge utilisation		Survey statements	'Always' and 'usually' responses (%)
Stage 1	Transmission	I have participated in meetings for discussion of EBP research.	9.0
		I receive EBP research that is relevant to my work.	9.0
Stage 2	Cognition	I have read and understood the EBP research that I receive	34.3
Stage 3	Reference	I have cited EBP research in reports or documents	5.9
Stage 4	Effort	I have made efforts to promote the adoption of EBP research	17.3
Stage 5	Influence	EBP research has influenced changes in policies and practices developed by the WAP for the better	17.4
Stage 6	Application	I have adapted the findings of EBP research to provide information useful to police decision-making	7.4

Operational priorities

Participants were asked to list the three operational areas they thought placed the greatest demands on WAPol in relation to costs and harms to the community. Participants were asked to list these operational areas in order of importance, with the first being the most important area. Two figures have been prepared from the data. In the first (Figure 22), the three operational areas were combined to obtain an overall list of the areas chosen by participants, regardless of the order of importance. Fifty-two percent of participants (*n*=915) indicated that domestic and family violence was one of the top three areas placing demands on WAPol. This was followed closely by alcohol/drug fuelled violence, listed by 45 percent of participants. Drug related crimes and general duties/frontline policing were also commonly reported as being demanding operational areas (31% and 30%, respectively).

In the second figure (Figure 23), participants' responses were weighted according to their order of importance. To do this, 10 points were allocated to each percentage for the highest level of importance, five points were allocated to each percentage for the second highest level of importance and three points were allocated to each percentage for the least important level. Responses were then combined and plotted in Figure 23. Comparing the figures reveals similar patterns.

Figure 22: WA: Operational areas placing the greatest demands on WAPol (unranked) (*n*=915)

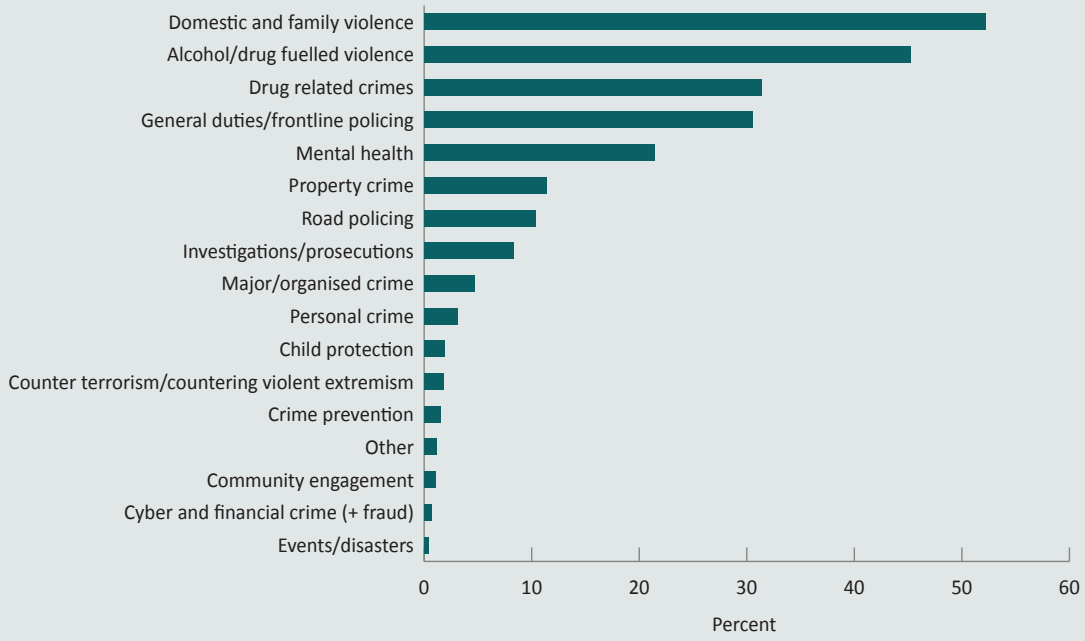
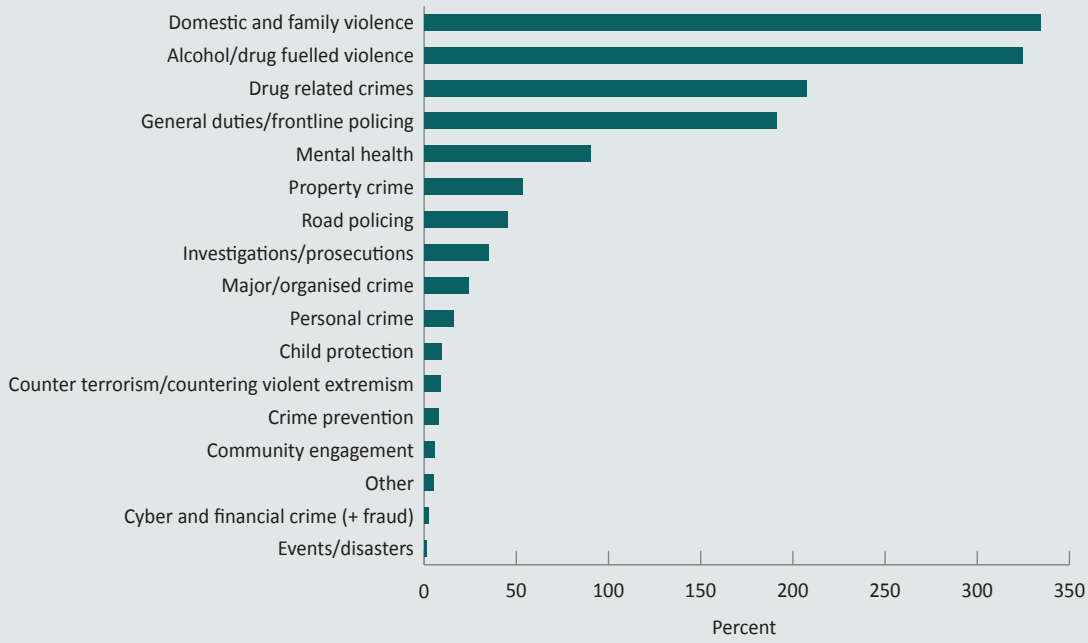
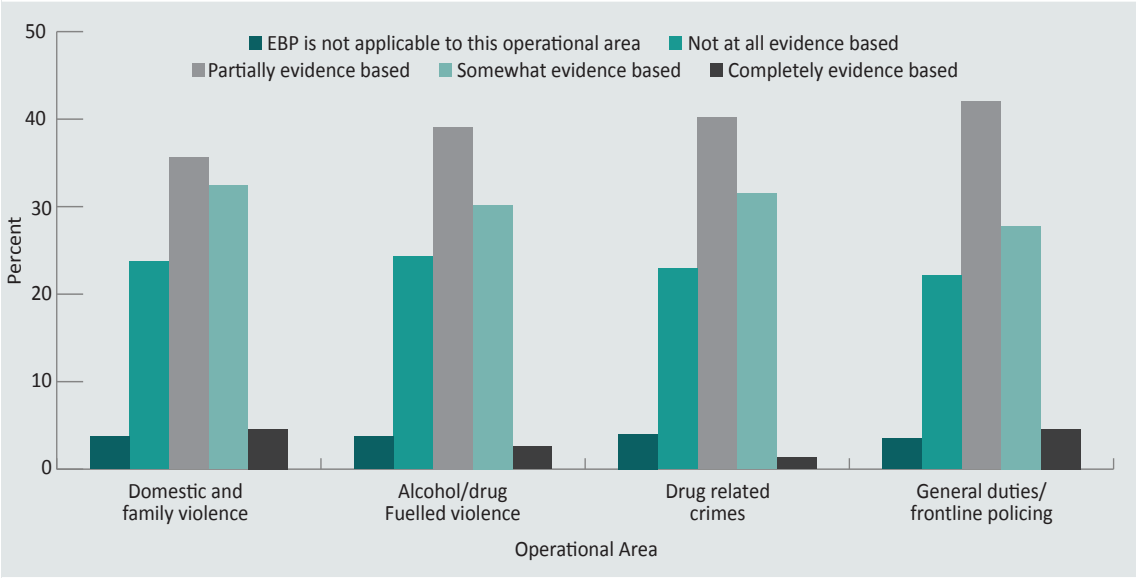


Figure 23: WA: Operational areas placing greatest demands on WAPol (ranked) (*n*=915)



For each operational area selected, participants were asked to report the extent to which they thought current practices used by WAPol were evidence based. Scores ranged from 1 ('EBP is not applicable to this operational area') to 5 ('Completely evidence-based'). The top four operational areas presented in Figure 22 and Figure 23 were examined. As can be seen in Figure 24, participants' responses tended to fall in the range of 'not at all evidence-based' to 'somewhat evidence-based'. More specifically, for the operational area of domestic and family violence, five percent of participants believed that current practices were 'completely evidence-based' and 32 percent believed they were 'somewhat evidence-based'. For the operational area of alcohol/drug fuelled violence, three percent of participants believed that current practices were 'completely evidence-based' and 30 percent believed they were 'somewhat evidence-based'. For the operational area of drug related crimes, one percent of participants believed that current practices were 'completely evidence-based' and 32 percent believed they were 'somewhat evidence-based'. For the operational area of general duties/ frontline policing, five percent of participants believed that current practices were 'completely evidence-based' and 28 percent believed they were 'somewhat evidence-based'.

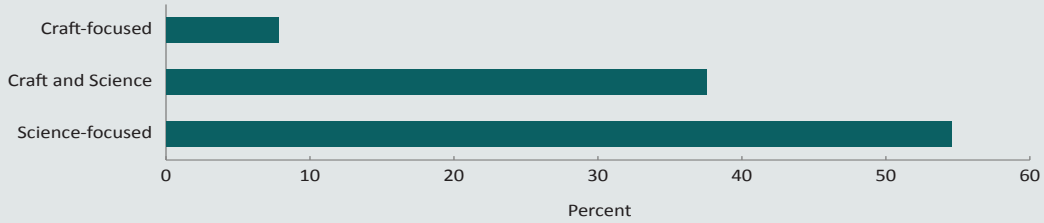
Figure 24: WA: Evidence-based practices in the top four operational areas (*n*=367 to 624)



Craft versus science

Participants were asked to indicate whether day-to-day decision-making should be based on personal experience (craft) or scientific knowledge (science). Two sliding scales were presented for participants to mark the percentage that personal experience and scientific knowledge should contribute to police decision-making, adding to a total of 100 percent. Higher percentages reflected higher importance. Participants' ratings were classified into three categories: those that were more 'science-focused' (ratings of 0–33% for craft, and 67–100% for science), those that were relatively evenly balanced between craft and science (ratings of 34–66% for each) and those that were more 'craft-focused' (ratings of 67–100% for craft and 0–33% for science). As can be seen in Figure 25, 38 percent of participants reported believing craft and science were of relatively similar importance. Eight percent reported a more craft-focused approach, and 55 percent reported a more science-focused approach.

Figure 25: WA: Personal experience (craft) versus scientific knowledge (science) (*n*=905)

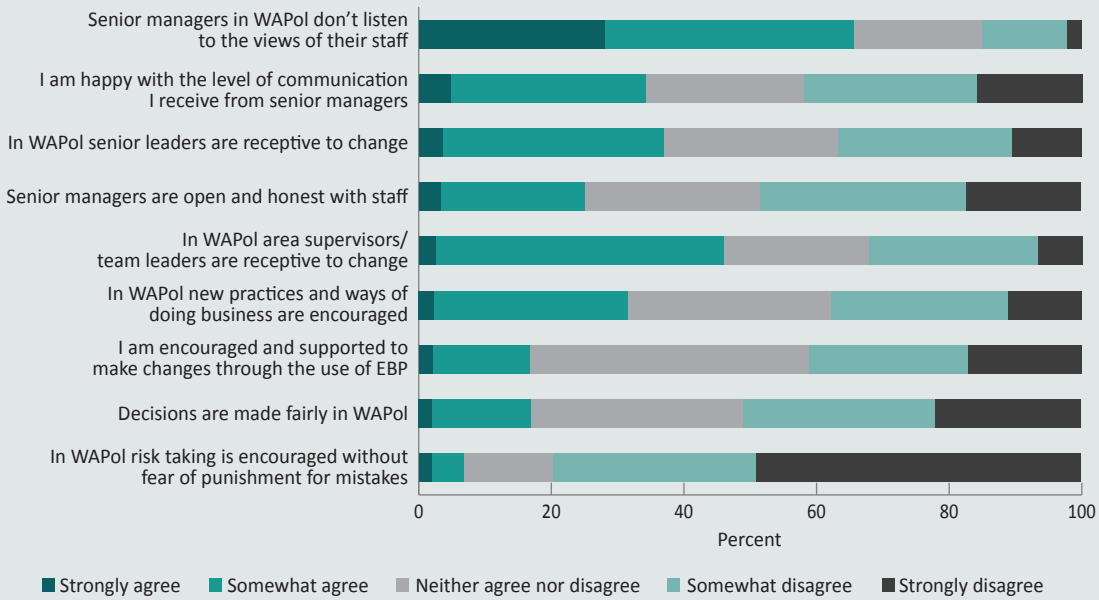


Broader organisational context

Leadership style

Participants were presented with several statements referring to leadership in WAPol and asked to rate the extent of their agreement with each statement. Scores ranged from 1 ('strongly disagree') to 5 ('strongly agree'). As can be seen in Figure 26, 28 percent of participants 'strongly agreed' that senior managers do not listen to the views of their staff. A further 38 percent indicated that they 'somewhat agreed' with this statement. Less than three percent of participants 'strongly agreed' that supervisors and team leaders were receptive to change. However, the category of 'somewhat agreed' was selected substantially more at 44 percent. When presented with the statement 'risk taking is encouraged without fear of punishment for mistakes', 49 percent indicated that they 'strongly disagreed' and a further 31 percent 'somewhat disagreed'.

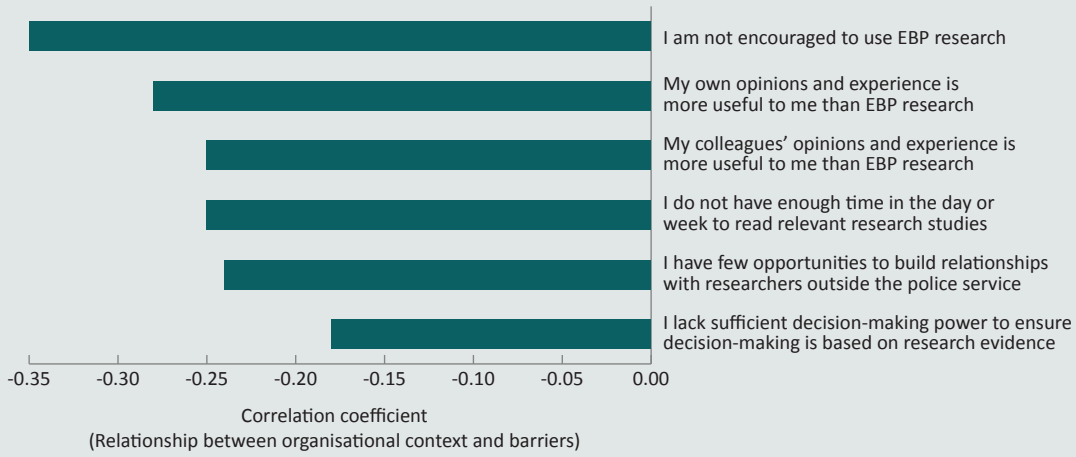
Figure 26: WA: Leadership style (%) (*n*=893 to 897)



To examine relationships with other items in this report, an overall 'organisational context' scale was developed by averaging responses to the nine leadership statements presented in Figure 26. The item 'Senior managers in WAPol don't listen to the views of their staff' was reverse coded before scale creation. (Cronbach's alpha=0.86. The Cronbach alpha score indicates the reliability of the scale being assessed. Alpha scores lower than 0.5 are considered to be weak, whereas those between 0.6 and 0.8 are considered to be acceptable and those greater than 0.8 are considered extremely strong.)

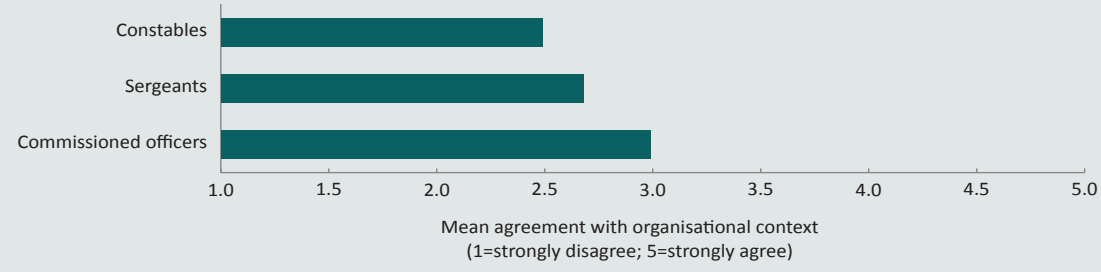
Pearson product-moment correlation coefficients were computed to assess the relationship between the organisational context scale and individual barriers to using EBP (see Figure 27). For each of the following, a significant negative correlation was found between the organisational context scale and particular barriers to the use of EBP. The greater the perceived barrier, the less favourably the organisational context was rated. For instance, participants who viewed the leadership style in WAPol as fair, honest and receptive to change were more likely to believe they had sufficient power to ensure decision-making was based on research evidence (see Figure 11).

Figure 27: WA: Relationship between organisational context and individual barriers to using EBP



A one-way ANOVA was performed using the organisational context scale to investigate whether there were significant differences between ranks. The ANOVA revealed significant differences between ranks, ($F(2,884)=14.97$, $p<0.001$, $\eta^2=0.03$), so follow-up tests were conducted. (Bonferroni adjustment was used to control for type 1 error.) Significant differences were found between mean scores for commissioned officers and sergeants ($p=0.010$), between commissioned officers and constables ($p<0.001$) and between sergeants and constables ($p<0.001$). As can be seen in Figure 28, commissioned officers reported more favourable assessments of the organisational context than did sergeants and constables.

Figure 28: WA: Agreement with leadership statements, by rank



Attendance at evidence-based policing workshops

As can be seen in Table 7, 19 percent of participants reported that they had attended an EBP workshop. A further 37 percent said that they were interested in attending an EBP workshop. A relatively large percentage of participants (54%) reported that they had not attended an EBP workshop and 25 percent indicated that they were not interested in attending an EBP workshop.

Table 7: WA: EBP workshop attendance

		n	%
Have you ever attended an EBP workshop?	Yes	229	18.90
	No	650	53.80
	Unsure	23	1.90
	Did not answer	307	25.40
Are you interested in attending an EBP workshop?	Yes	452	37.40
	No	303	25.10
	Unsure	146	12.10
	Did not answer	308	25.50

Further analysis was conducted on those participants who indicated interest or otherwise in attending an EBP workshop. Independent samples *t*-tests were used to compare 'interested' versus 'not interested' participants on a range of attitudinal variables (see Table 8 and Figure 29). The participants who were not interested in attending an EBP workshop were significantly less likely to place importance in research methods to inform a specific practice or decision.

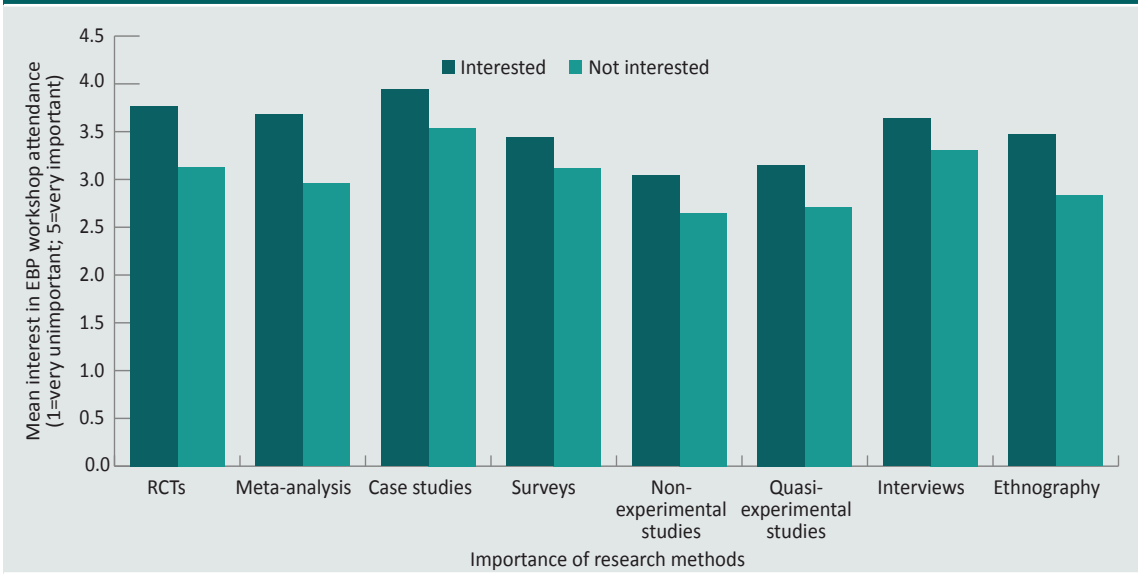
Table 8: WA: Attitudinal comparisons of participants who were interested in attending an EBP workshop versus those not interested

Importance of research methods	Interested Mean (*SD*) (*n*=452)	Not interested Mean (*SD*) (*n*=303)	*t (df)*	*d*
Randomised control trials	3.77 (0.81)	3.13 (1.05)	8.68 (655)***	0.70
Meta-analysis	3.68 (0.75)	2.96 (1.00)	8.98 (473)***	0.85
Case studies	3.94 (0.74)	3.54 (0.98)	6.23 (725)***	0.47
Surveys	3.44 (0.86)	3.12 (1.03)	4.42 (724)***	0.34
Non-experimental studies	3.04 (0.87)	2.65 (1.00)	5.22 (650)***	0.42
Quasi-experimental studies	3.15 (0.85)	2.71 (0.92)	5.62 (524)***	0.51
Interviews	3.64 (0.85)	3.31 (0.98)	4.81 (714)***	0.37
Ethnography	3.47 (0.83)	2.83 (0.95)	7.52 (450)***	0.73

***statistically significant at $p<0.001$

Note: Importance categories: 1=very unimportant to 5=very important. Asterisks represent a statistically significant difference (tested using independent samples *t*-tests) between 'Interested' and 'Not interested' participants on specified research methods

Figure 29: WA: Mean interest in EBP workshop attendance by perceived importance of research methods



Note: RTCs=randomised control trials

In addition, analysis was conducted to compare those participants who indicated that they had attended an EBP workshop versus those who had not. Independent samples *t*-tests were used to compare participants who had 'attended' versus 'not attended' in relation to the perceived usefulness of academic and internal research. It was found that participants who had attended an EBP workshop were significantly more likely to judge academic research as useful than those who had not attended a workshop, $t(874)=5.27$, $p<0.001$, $d=0.41$. There was no significant difference found between participants who had attended an EBP workshop and those who had not with regard to the perceived usefulness of internal research.

Western Australia Police: Key findings

The current survey was distributed to 6,632 WAPol officers. An 18 percent response rate was achieved with a sample size of 1,209. Of this sample, 63 percent were male and 10 percent were female. The rank of the participants included commissioned officers ($n=54$), sergeants ($n=356$) and constables ($n=483$). Thirty-two percent were from metropolitan areas and 19 percent were from regional Western Australia. Service length was well dispersed, with 27 percent of participants having less than 10 years service, 37 percent between 11 and 30 years service and 11 percent over 30 years service. Thirty percent reported having completed a university/college degree or postgraduate qualification. A further 27 percent reported the completion of a trade/technical certificate or diploma. Twenty-five percent of participants viewed higher education as either 'extremely important' or 'very important' and 30 percent believed it to be 'moderately important'.

When questioned about the effectiveness of a variety of police strategies for reducing crime and disorder, 73 percent of participants believed that mobile devices for accessing police systems were either 'very effective' or 'effective'. Rapid response to 000 calls was also believed to be quite effective (66% of participants selecting 'very effective' or 'effective'). Alternatively, 41 percent of participants believed drug diversion was 'not effective' as a police strategy. A substantial proportion of participants were unaware of the 'pulling levers interventions for violent offenders' strategy (46%) and 'procedural justice policing' (41%). In general, participants who were unaware of these strategies were younger, had been working for WAPol for less time, placed less importance on academic sources and were more likely to be in lower police ranks.

When participants were asked about their approach when deciding how to respond to a particular policing problem, 61 percent reported that they used tactics that had worked from them in the past. Participants were asked how willing they would be to take a variety of actions to test whether a current police tactic was effective. Eighty-five percent of participants were either 'very willing' or 'extremely willing' to try a new tactic to solve a current problem. Eighty-one percent were either 'very willing' or 'extremely willing' to allow a member of their staff to try a new tactic to solve a problem. Participants were quite averse to approaching a researcher from a university or research organisation to help them evaluate their tactic (25% of participants reported that they were 'not willing at all' to undertake this option). Eighteen percent of participants were also 'not willing at all' to stop a tactic based on a researcher highlighting the tactic was ineffective.

The most trusted information sources used to inform day-to-day operational decision-making were the State Intelligence Division, intelligence officers within WAPol, and federal or other state police (87% rated these sources 'very trustworthy' or 'trustworthy'). Similarly, information from these three sources was considered the most important. Commissioned officers reported placing higher importance on information from the Evidence Based Policing Division than did sergeants and constables.

When asked about accessing and using EBP research in day-to-day operational decision-making, 72 percent of participants reported that they had limited opportunities to build relationships with researchers outside the police service. Further analysis revealed that commissioned officers reported having greater opportunities to build relationships with researchers than did sergeants and constables. Sixty-one percent of participants also reported having limited time to read available research studies. Fifty-two percent believed that colleagues' opinions and experience was more useful than EBP research.

Participants were asked what level of risk they would be willing to accept when trying a new tactic to solve a problem. Political risk closely followed by cost/financial risk were the most acceptable risks. Risk to officer safety and risk to community safety were the least acceptable risks. Constables reported that they would be prepared to accept a higher level of risk, with the exception of 'risk to your personal reputation'.

The survey examined how often participants reported using EBP research in the last 12 months to inform their decision-making. Forty-four percent of participants indicated they had 'sometimes' used EBP research, closely followed by 'never' (36%). Eleven percent of participants reported using EBP research 'about half of the time'. No differences were found between ranks.

Thirty-three percent of participants indicated that they found academic research on police tactics to be 'moderately useful', 31 percent suggested it was 'slightly useful' and 22 percent indicated that it was 'not at all useful'. In contrast, 32 percent of participants indicated that they found internal police research to be 'very useful', 38 percent suggested it was 'moderately useful' and only eight percent indicated that it was 'not at all useful'. Further analysis found a belief that internal police research was more useful than academic research. It was also revealed that as belief in the usefulness of academic research increased, so too did belief in the usefulness of research conducted internally by police. Commissioned officers reported perceiving academic research to be more useful than sergeants and constables did.

Participants were asked what factors should be given priority when deciding whether to use EBP research. Some factors of high priority included 'research findings are unbiased' (58% reporting 'high priority'), 'any statistical analysis is clearly explained' (55% reporting 'high priority'), 'involvement of frontline officers in designing and executing the research' (55% reporting 'high priority') and 'findings are available at a time when decisions need to be made' (54% reporting 'high priority').

Eight different research methods were presented and participants were asked what level of importance they would place on each to inform a specific practice or decision. The research method with the highest level of importance was case studies, with 71 percent of participants rating it as either 'important' or 'very important'. Interviews (55%), randomised control trials (50%) and surveys (45%) also ranked highly. Forty percent of participants did not know what was involved with ethnography, 37 percent were unsure what meta-analysis involved and 30 percent were uncertain about quasi-experimental studies.

Seventy-eight percent of participants reported that they did not have enough time to read EBP research and 64 percent indicated they did not have the time to implement EBP ideas. Sixty-seven percent also believed that resources were not adequate to support the translation of EBP research into practice. Thirty-four percent reported that they either 'always' or 'usually' read and understood the EBP research they received. However, only seven percent reported that they either 'always' or 'usually' adapted the findings of EBP research for implementation. Fifty-three percent of participants also stated that they had 'never' participated in EBP research meetings.

Participants were asked to list the three operational areas they thought placed the greatest demands on WAPol in relation to costs and harms to the community. Fifty-two percent of participants ranked domestic and family violence as the top area. Alcohol/drug fuelled violence followed, with 45 percent of participants ranking it highly. Drug related crimes and general duties/frontline policing were also commonly reported (31% and 30%, respectively) as demanding operational areas.

Participants were asked whether they believed that personal experience (craft) or scientific knowledge (science) should be used in day-to-day decision-making. Thirty-eight percent of participants reported a balanced use of craft and science. Eight percent reported a more craft-focused approach and 55 percent reported a more science-focused approach.

Participants were presented with several statements relating to leadership in WAPol. Sixty-six percent of participants either 'somewhat' or 'strongly agreed' that senior managers do not listen to the views of their staff. Forty-four percent of participants 'somewhat agreed' that supervisors/team leaders were receptive to change. A resounding 80 percent either 'somewhat disagreed' or 'strongly disagreed' that risk taking is encouraged without fear of punishment for mistakes. Further analysis found that the greater the perceived individual barriers to the use of research evidence, the less favourably the organisational context was rated. It was also found that commissioned officers reported stronger agreement with the style of organisational leadership in WAPol than did sergeants and constables.

Fifty-four percent of participants indicated that they had not previously attended an EBP workshop. Twenty-five percent suggested that they were not interested in attending an EBP workshop. Further analysis revealed that those uninterested in attending an EBP workshop placed less importance on research methods to inform a specific practice or decision. It was also found that participants who had attended an EBP workshop were more likely to view academic research as being useful than those who had not attended a workshop.

Results: Queensland Police Service

Summary

This section describes the results of a survey of QPS members conducted in February and March 2017. The survey was distributed to 322 QPS officers via email list for inspector rank and above. A 36 percent response rate was achieved, producing a sample size of 117. The ranks of the participants included senior executive (*n*=1), superintendent/chief superintendent (*n*=18), inspector (*n*=71), senior sergeant (*n*=3), QPS administration staff (*n*=1) and other (*n*=1). As the distribution list was for commissioned officers, it is believed that responses in the latter three categories represent officers and others acting in commissioned officer roles.

QPS has invested in increasing employees' knowledge of the key concepts and benefits of EBP. The survey found:

- Officers' preference for police decision-making to be based on personal experience and scientific knowledge was relatively balanced or leaning towards a greater reliance on scientific knowledge, with only 17 percent reporting a heavily craft dependent decision-making approach.
- Research methods identified as having a high level of importance to police decision-making were a mixture of so called 'gold standard' evidence-based approaches (randomised control trials), as well as case studies and interviews.
- While there was a high degree of awareness of the evidence for a variety of policing strategies throughout the organisation (65%–99%), there was lower awareness of 'pulling levers interventions' and 'procedural justice policing' strategies—strategies around which there is a high degree of academic evidence (see, for example, Campbell library: https://campbellcollaboration.org/library.html).
- While 62 percent of participants indicated that they understood EBP research, a smaller proportion (22%) said they adapted or applied this research to inform their decision-making.

- The top four policing areas that were identified as placing the greatest demands on the QPS included domestic and family violence, general duties/frontline policing, drug related crimes and road policing, with approximately one-third of officers rating each of these areas as somewhat or completely evidence based.

In relation to the QPS evaluating old and new practices and strategies, the survey found:

- Ninety-one percent of participants were very/extremely willing to try a new tactic to solve a current problem, and participants were willing to bear a range of risks when trying a new tactic.
- Sixty percent of participants did not agree that risk taking is encouraged in QPS without fear of punishment for mistakes.

The results of the survey also identified potential barriers and facilitators to officers' readily implementing EBP.

- The most important barriers identified to the use of EBP research were inadequate resources to support the translation of EBP research into practice and a lack of time to engage with EBP research and implement its ideas.
- Organisational support for EBP research was judged as less favourable when individual barriers to the use of research evidence were perceived to be high.
- Seventy-three percent of participants indicated they were happy with the level of communication they receive from senior managers. Sixty-four percent agreed that senior managers are receptive to change.
- Participants reported that they had limited opportunities to build relationships with researchers outside the police service.
- Participants who had attended an EBP workshop were more likely to use EBP research than those who had not attended a workshop. They were also more likely to attribute effectiveness to hot spot policing, procedural justice policing and random breath testing than were those who had not attended.

In addition, officers who had attended EBP workshops were more likely to:

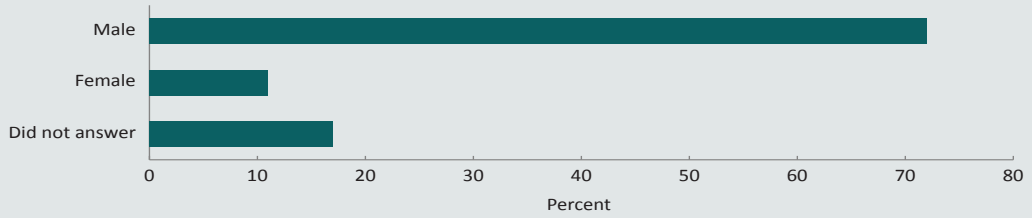
- use data before the police implemented a tactic and compare it to data from after the tactic was up and running;
- approach a researcher from a university or research organisation to help evaluate a tactic; and
- undertake online research to try and find out what others have done.

Detailed findings

Officer demographics and background information

Of the 117 participants, 84 (72%) were male and 13 (11%) were female. Twenty participants (17%) did not provide their gender (see Figure 30). By way of comparison, the Queensland Police Service's (2016) *Annual statistical review 2015–16* reported that, in 2016, 92 percent of commissioned officers were male and eight percent were female. In the current survey, if missing values are subtracted, the adjusted sample is 87 percent male and 13 percent female.

Figure 30: Qld: Survey participants by gender (%)

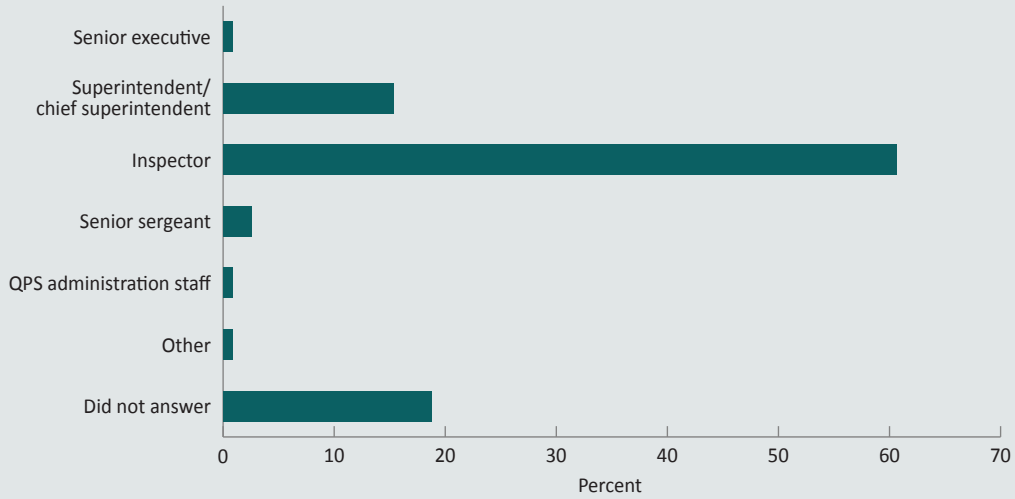


When comparing the age distribution, approximately two percent of participants were 39 years of age or younger. Twenty-nine percent were aged between 40 and 49 and 53 percent were 50 years or over (see Table 9). As can be seen in Figure 31, the rank of the participants included senior executive (*n*=1), superintendent/chief superintendent (*n*=18), inspector (*n*=71), senior sergeant (*n*=3), QPS administration staff (*n*=1) and other (*n*=1). The sample was limited by having a poor representation of senior executive officers.

Table 9: Qld: Survey participants by age group

Age	*n*	%
<35 years	1	0.85
35–39 years	1	0.85
40–44 years	5	4.27
45–49 years	29	24.79
50–54 years	45	38.46
55–60 years	17	14.53
Did not answer	19	16.24

Figure 31: Qld: Survey participants by rank (%)



The current working areas of participants spanned 16 different regions. State Crime Command (8%) and People Capability Command (8%) were the most represented. A large percentage (21%) did not indicate a working area (see Table 10).

Table 10: Qld: Survey participants by current work area

Current work area	*n*	%
State Crime Command	9	7.69
People Capability Command	9	7.69
Southern Region	8	6.84
Organisational Capability Command	8	6.84
South Eastern Region	7	5.98
Brisbane Region	7	5.98
Ethical Standards Command	7	5.98
Northern Region	5	4.27
Central Region	5	4.27
Intelligence, Counter-Terrorism and Major Events Command	5	4.27
Operations Support Command	5	4.27
Community Contact Command	4	3.42
Commonwealth Games Group	4	3.42
Crime Corruption Commission Police Group	3	2.56
Road Policing Command	2	1.71
Legal Division	1	0.85
Other	4	3.42
Did not answer	24	20.51

Table 11 highlights the participants' length of service. Approximately three percent of participants had less than 20 years service, 43 percent had between 21 and 30 years service and 36 percent had over 30 years service. The minimum length of time was six years and the maximum length of service was 42 years.

Table 11: Qld: Survey participants by length of service

Length of service	*n*	%
Less than 6 years	0	0
6–10 years	1	0.85
11–15 years	1	0.85
16–20 years	1	0.85
21–25 years	8	6.84
26–30 years	42	35.90
31–35 years	29	24.79
36+ years	13	11.11
Did not answer	22	18.80

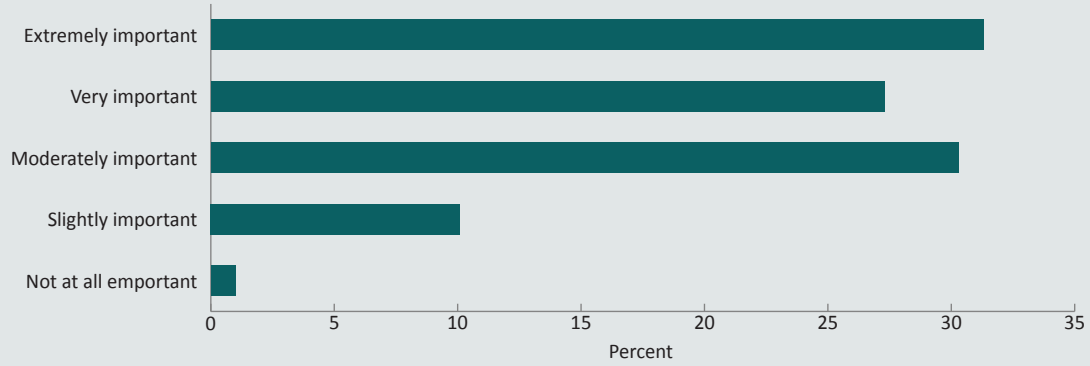
On examination of education level, 57 percent of participants reported their highest educational achievement being a postgraduate qualification and 15 percent reported having completed a university/college degree. A further six percent reported completing a trade/technical certificate or diploma (see Table 12).

Table 12: Qld: Survey participants by education level

Education	*n*	%
Postgraduate education	67	57.26
University/college degree	17	14.53
Trade/technical certificate or diploma	7	5.98
Completed Year 12	4	3.42
Completed Year 10	2	1.71
No schooling	2	1.71
Did not answer	18	15.38

In addition to the education level obtained, the current survey was interested in participants' thoughts on the importance of pursuing higher education as a police officer. Scores ranged from 1 ('not at all important') to 5 ('extremely important'). Fifty-nine percent of participants viewed higher education as either 'extremely important' or 'very important'. A further 30 percent believed it to be 'moderately important' and 10 percent viewed it as slightly important. Only one percent did not view higher education as important at all (see Figure 32).

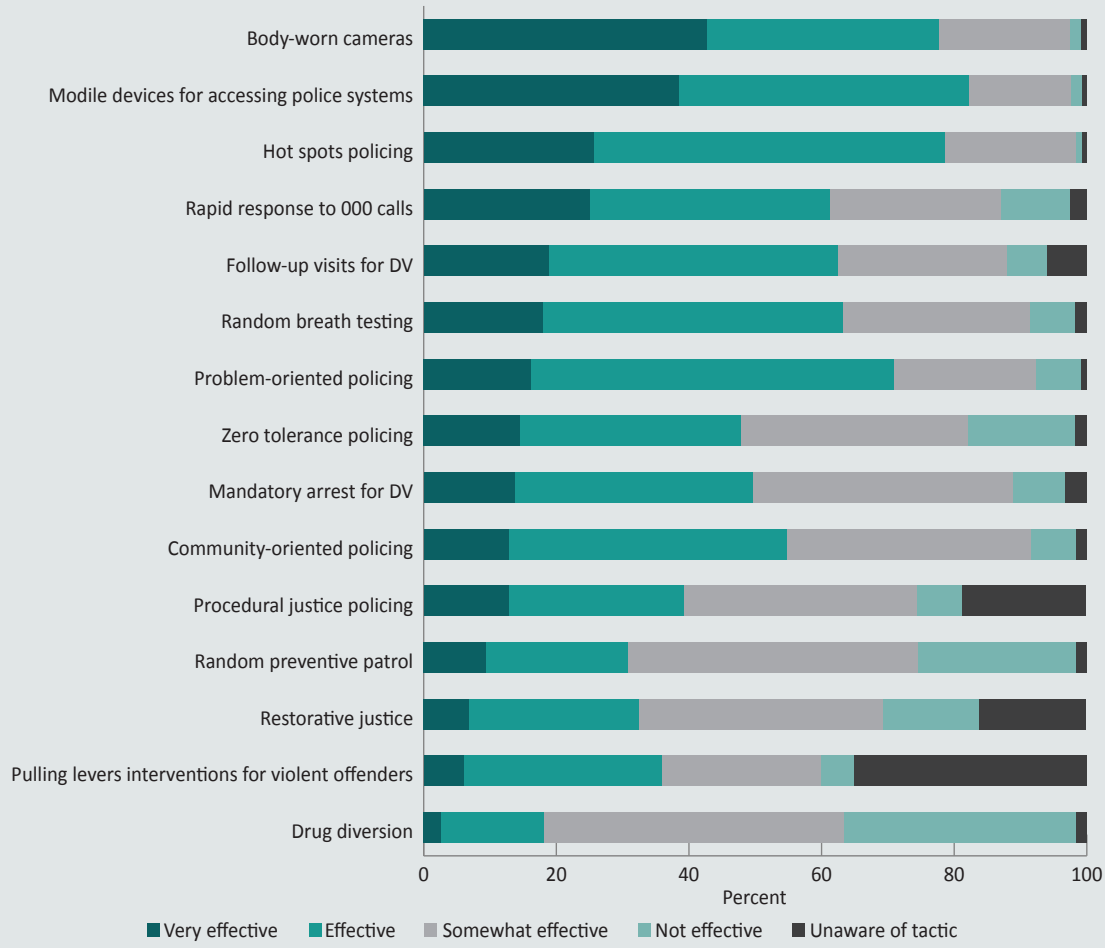
Figure 32: Qld: Survey participants by perceived importance of higher education for police officers (*n*=99)



Knowledge of research findings on effective practices

The first question in the survey asked about participants' thoughts on the effectiveness of a variety of police strategies for reducing crime and disorder. Scores ranged from 1 ('not effective') to 4 ('very effective'). Participants were also given the option of specifying if they were unaware of the police tactic. Participants believed that body-worn cameras were either 'very effective' (43%) or an 'effective' strategy (35%). Mobile devices for accessing police systems were also considered either 'very effective' (39%) or an 'effective' strategy (44%). Hot spots policing was also believed to be quite an effective strategy (26% of participants selecting 'very effective' and 53% selecting 'effective'). Alternatively, 35 percent of participants believed drug diversion was 'not effective' as a police strategy. Twenty-four percent reported that random preventive patrol was 'not effective' and 16 percent reported zero tolerance policing was 'not effective'. Figure 33 presents the percentage breakdown of strategy effectiveness. The least well known tactics were 'pulling levers interventions for violent offenders' (35% unaware), 'procedural justice policing' (19% unaware) and 'restorative justice' (16% unaware).

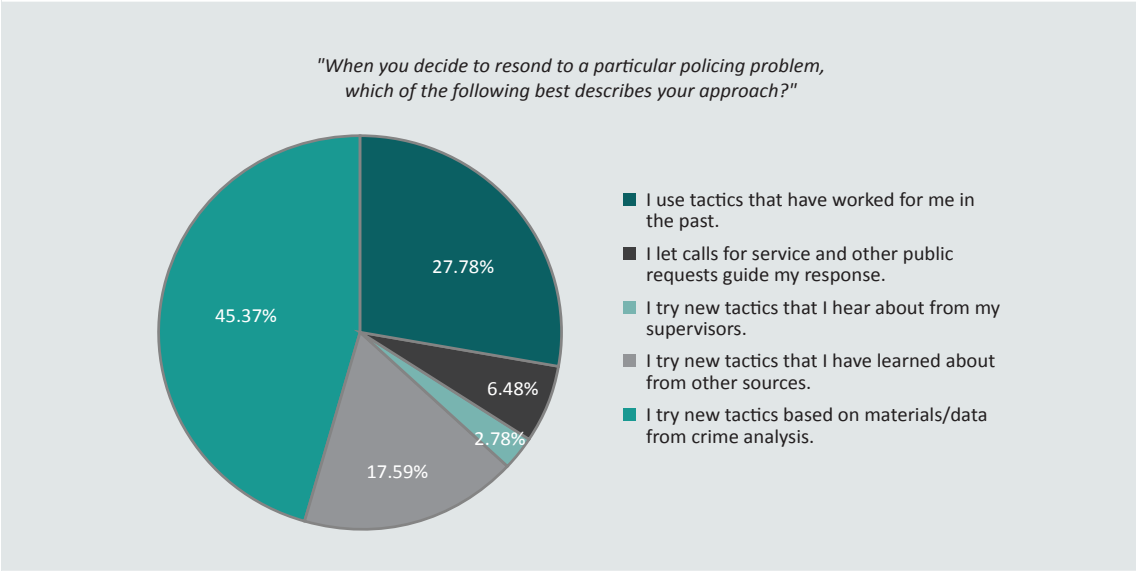
Figure 33: Qld: Perceived effectiveness of police strategies (%) (*n*=116 to 117)



Approach to new tactics

Participants were asked what they base their decision-making on when deciding how to respond to a particular policing problem (see Figure 34). A large percentage (45%) reported that they try new tactics based on materials/data from crime analysis. Twenty-eight percent reported that they use tactics that have worked in the past. Six percent let calls for service and other public requests guide their decision-making. Three percent reported trying new tactics that they have heard about from their supervisors. Finally, 18 percent try new tactics based on other sources. These other sources included academic sources or research (9%), other organisations (such as the Australian Institute of Police Management; 4%), colleagues (3%) or miscellaneous (2%).

Figure 34: Qld: Approach to new tactics (*n*=108)

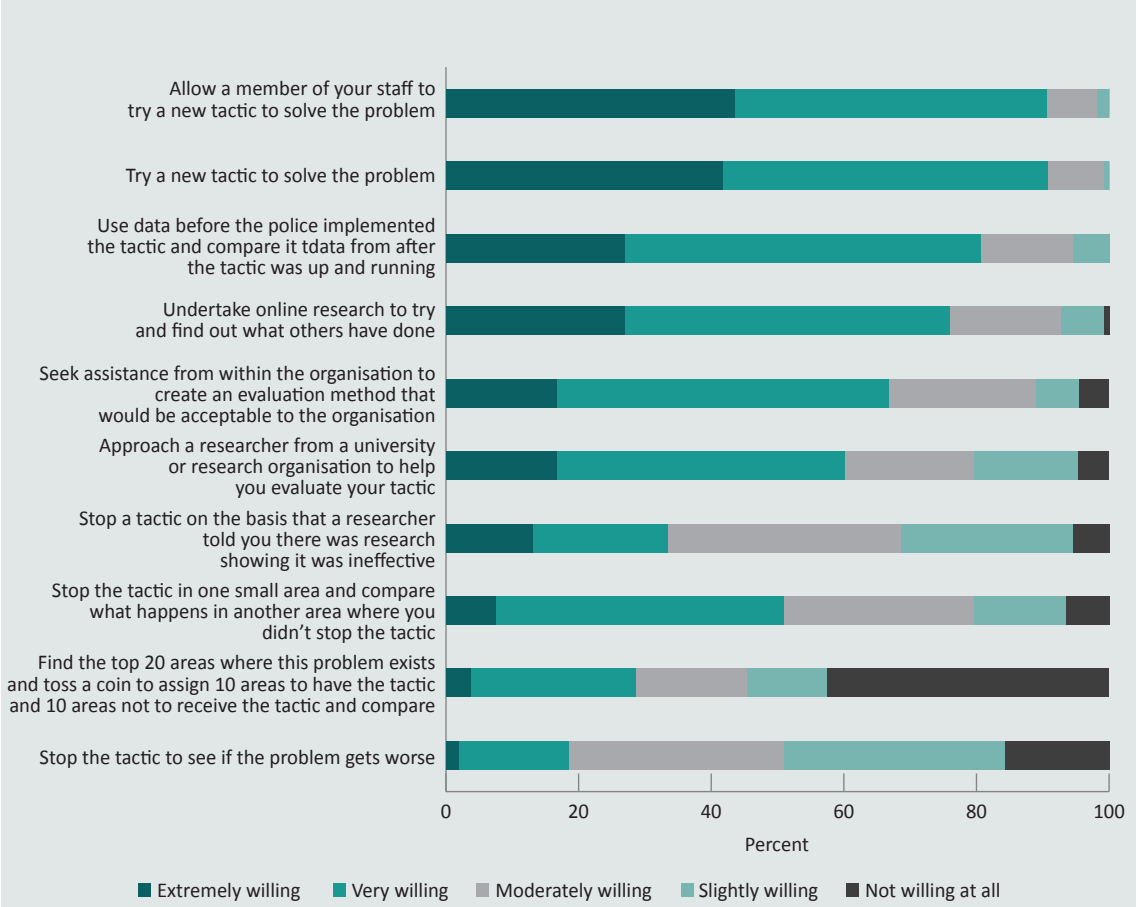


Willingness to test whether a tactic is effective

Participants were asked how willing they would be to take a variety of actions to test whether a particular police tactic was effective. Scores ranged from 1 ('not willing at all') to 5 ('extremely willing'). Ninety-one percent were either 'very willing' or 'extremely willing' to allow a member of their staff to try a new tactic to solve a problem. The same proportion of participants were either 'very willing' or 'extremely willing' to try a new tactic. Eighty-one percent were either 'very willing' or 'extremely willing' to use data before the police implemented a tactic and compare it to data from after the tactic was up and running. For most other scenarios, participants were 'moderately willing' to test whether a tactic was effective (means ranged from 3.94 to 2.56). The scenario that participants were least willing to test was finding the top 20 areas where the problem existed, using the toss of a coin to select 10 areas where the new tactic would be implemented and 10 where it would not and comparing the outcomes (43% were 'not willing at all' to try this option). In other words, participants were reluctant to use methods used in randomised control trials to test whether a tactic was effective.

Figure 35 presents the percentage breakdown of participants' willingness to test tactics. Forty-nine percent of participants were either 'not willing at all' or only 'slightly willing' to stop the tactic to see if the problem gets worse. Thirty-two percent of participants were either 'not willing at all' or only 'slightly willing' to stop a tactic based on a researcher highlighting research indicating that the tactic was ineffective.

Figure 35: Qld: Willingness to test tactics for effectiveness (%) (*n*=108)

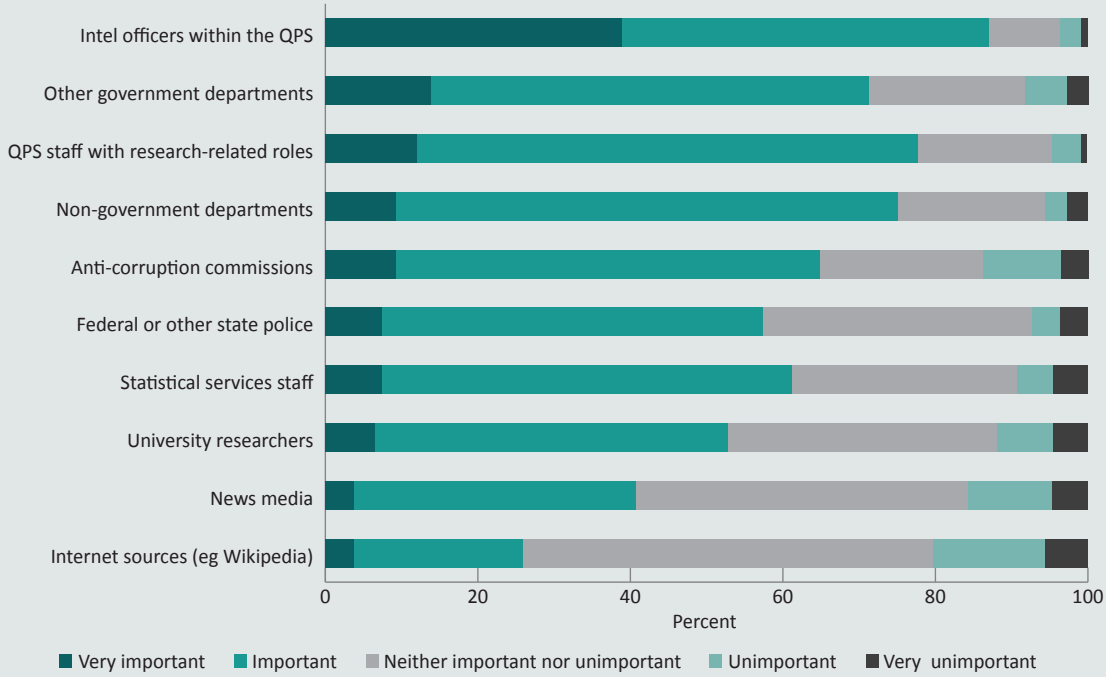


Understanding of research and receptiveness to EBP

Importance of different information sources to inform decision-making

The survey examined the perceived importance of different information sources. Participants were asked to rate the level of importance they placed on information from a variety of sources to inform their day-to-day operational decision-making. Scores ranged from 1 ('very unimportant') to 5 ('very important'). Information from intelligence officers within the QPS was considered the most important (39% reporting 'very important' and 48% 'important'). Participants also placed importance on information from other government departments (14% reporting 'very important' and 57% 'important') and QPS staff with research-related roles (12% reporting 'very important' and 66% reporting 'important'). Information from university researchers had importance ratings of seven percent 'very important' and 46 percent 'important'. Information sources considered of lower importance included internet sources (6% 'very unimportant' and 15% 'unimportant') and news media (5% 'very unimportant' and 11% 'unimportant'). Figure 36 presents the percentage breakdown of the reported importance of information sources examined.

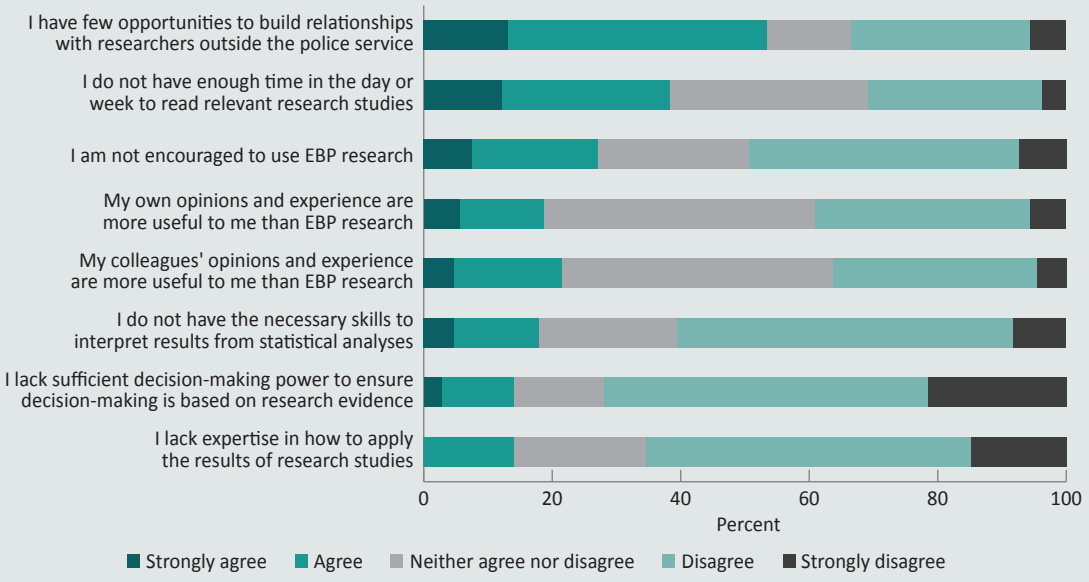
Figure 36: Qld: Perceived importance of various information sources (%) (*n*=108)



Individual barriers to the use of evidence

Participants were asked about barriers that inhibited them from accessing and using EBP research in their day-to-day operational decision-making. They were asked to rate the extent of their agreement with a variety of statements. Scores ranged from 1 ('strongly disagree') to 5 ('strongly agree'). Participants reported that they had limited opportunities to build relationships with researchers outside the police service (53% either 'agreeing' or 'strongly agreeing' with the statement). Participants also reported having limited time in the day or week to read relevant research studies (38% either 'agreeing' or 'strongly agreeing' with the statement). Twenty-seven percent either 'agreed' or 'strongly agreed' that they are not encouraged to use EBP research. Figure 37 presents the percentage breakdown of the reported agreement with the statements examined. Seventy-two percent of participants felt that they had sufficient decision-making power to ensure decision-making is based on research evidence (disagreeing with the statement that they lacked this power). Sixty-five percent felt that they had the expertise to apply the results of research studies, and 61 percent felt that they had the necessary skills to interpret results from statistical analyses. Thus, a large percentage of the sample did feel confident in their ability to apply and interpret forms of EBP research.

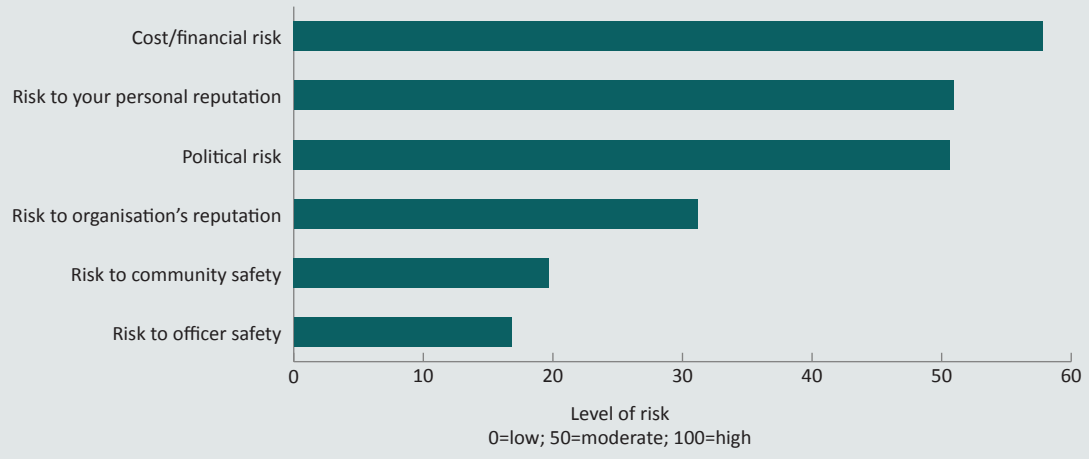
Figure 37: Qld: Individual barriers to using research evidence (%) (*n*=107)



Risk acceptance

Using a sliding scale from 0 (low risk) to 100 (high risk), participants were asked what level and types of risk they would be willing to accept when trying a new tactic to solve a police problem. Cost/financial risk (*M*=57.84, *SD*=21.39) was the type of risk with the highest acceptance. Risk to personal reputation (*M*=50.92, *SD*=26.74) and political risk (*M*=50.63, *SD*=26.00) followed next. Risk to officer safety (*M*=16.79, *SD*=20.01) and risk to community safety (*M*=19.68, *SD*=20.07) were the least acceptable risks (see Figure 38).

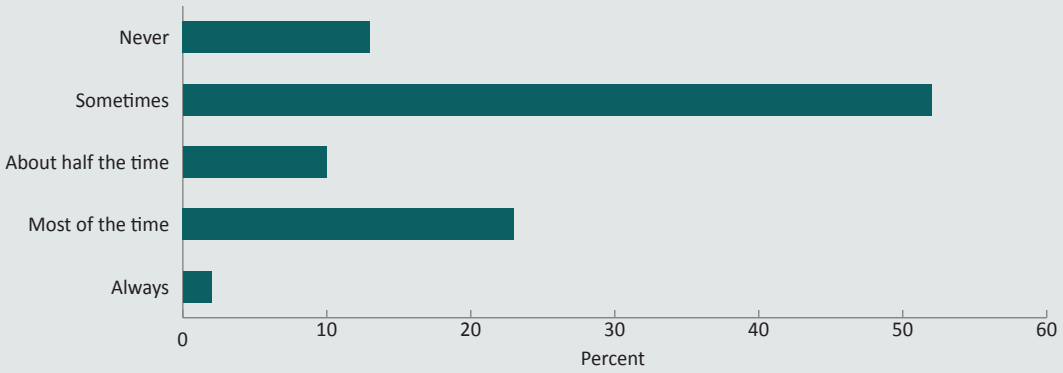
Figure 38: Qld: Risk acceptance by type of risk (*n*=104 to 105)



How often research is used

Question 11 of the survey examined how often EBP research was used in the prior 12 months to inform decision-making. Scores ranged from 1 ('never') to 5 ('always'). It was found that on average participants used EBP research approximately half of the time (*M*=2.48, *SD*=1.05). The category 'sometimes' was the most commonly selected, with 52 percent of participants indicating this level of use. Twenty-three percent of participants indicated that they used EBP research 'most of the time' (see Figure 39).

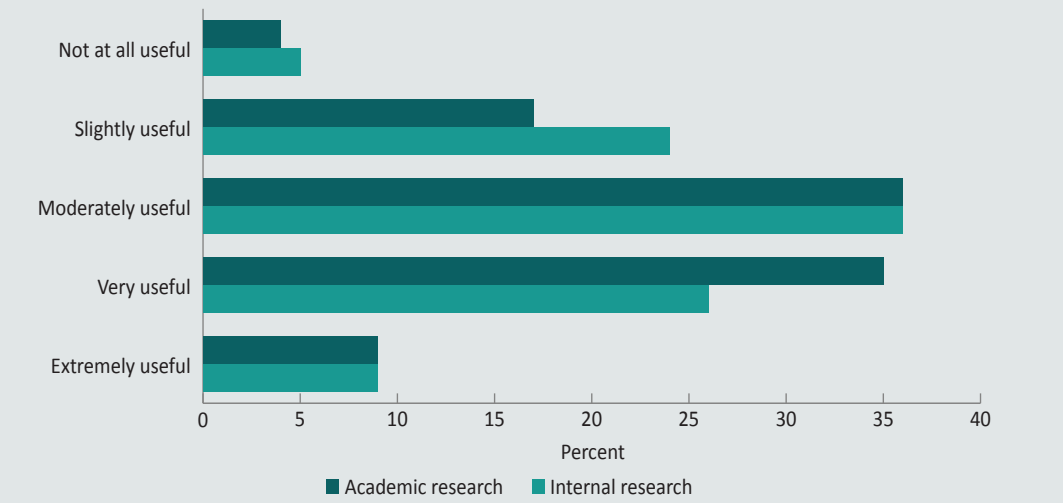
Figure 39: Qld: Frequency of using EBP research (%) (*n*=105)



Perceived usefulness of academic and internal research

Twenty-six percent of participants found academic research on police tactics to be 'very useful', whereas 36 percent found academic research to be 'moderately useful' and only five percent indicated that it was 'not at all useful'. By way of contrast, 35 percent indicated that they found internal police research (research conducted internally by the police organisation) to be 'very useful' and 36 percent 'moderately useful'. Only four percent indicated that it was 'not at all useful' (see Figure 40).

Figure 40: Qld: Perceived usefulness of academic and internal research (%) (*n*=106)



A Pearson product-moment correlation coefficient was computed to assess the relationship between participants' attitudes to the usefulness of research conducted by academics regarding police tactics and research conducted by the police. There was a positive correlation between the two variables, $r(106)=0.45$, $p<0.001$. That is, participants who found academic research useful also tended to believe in the usefulness of research conducted internally by police. A paired-samples *t*-test was conducted to compare the usefulness of academic research versus internal research. There was no significant difference in the scores for internal research ($M=3.27$, $SD=0.97$) and academic research ($M=3.12$, $SD=1.03$); $t(105)=1.48$, $p=0.142$, $d=0.15$). In other words, internal police research was not perceived to be any more useful than academic research.

Pearson product-moment correlation coefficients were computed to assess the relationship between participants' attitudes to the usefulness of academic research and their thoughts on the effectiveness of a variety of police strategies for reducing crime. Seven significant positive correlations were found such that as participants' attitudes to the usefulness of academic research increased, so did their perceptions of the effectiveness of the following strategies:

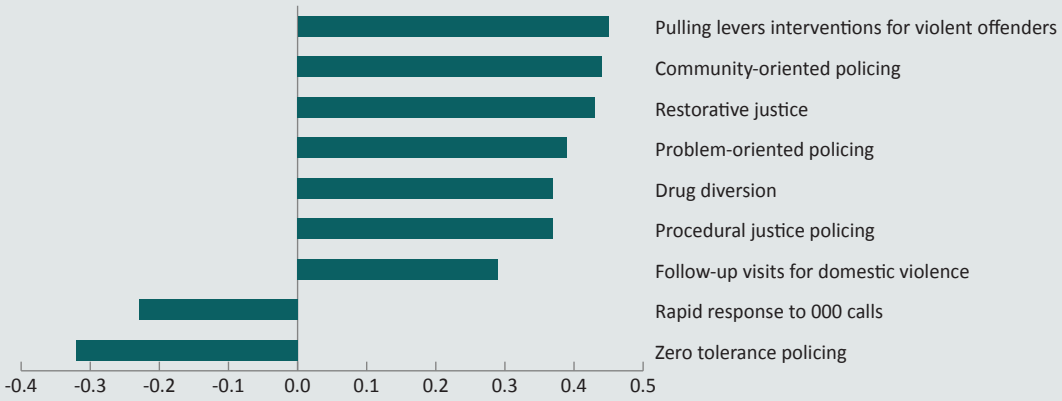
- 'Pulling levers' interventions for violent offenders, $r(106)=0.45$, $p<0.001$;
- Community-oriented policing, $r(106)=0.44$, $p<0.001$;
- Restorative justice, $r(106)=0.43$, $p<0.001$;
- Problem-oriented policing, $r(106)=0.39$, $p<0.001$;
- Drug diversion, $r(106)=0.37$, $p<0.001$;
- Procedural justice policing, $r(106)=0.37$, $p<0.001$; and
- Follow-up visits for domestic violence, $r(106)=0.29$, $p<0.01$.

Two negative correlations were also found. As participants' attitudes to the usefulness of academic research increased, the less effective they perceived the following strategies to be:

- Zero tolerance policing, $r(106)=-0.32$, $p<0.001$
- Rapid response to 000 calls, $r(106)=-0.23$, $p<0.05$.

These results indicate that the more useful participants consider academic research to be, the more effective they rate strategies supported by evidence, and the less effective they tend to rate strategies that do not have much evidence behind them (see Figure 41).

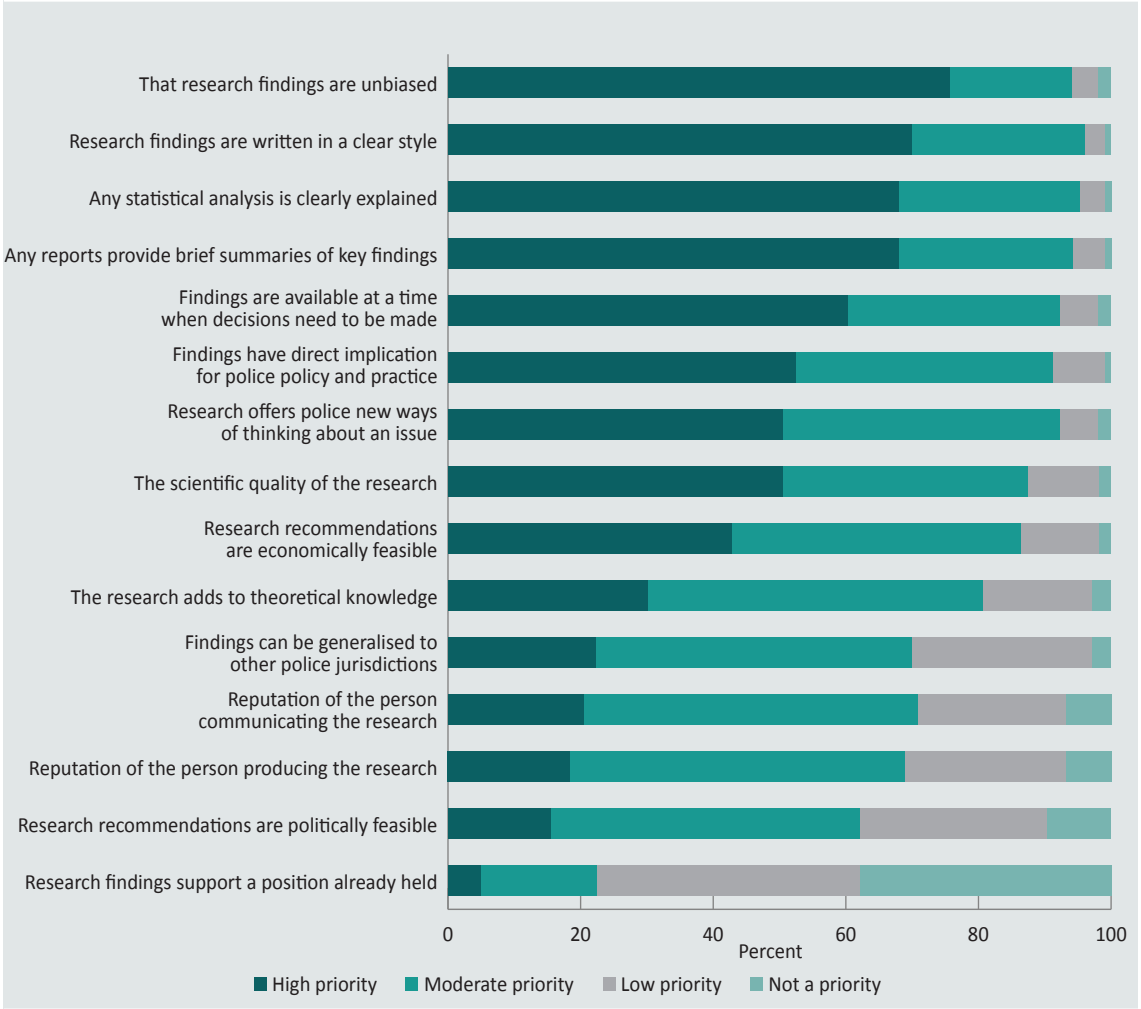
Figure 41: Qld: Perceived usefulness of academic research and perceived effectiveness of police strategies (*n*=68 to 105)



Factors judged as important in using research

Participants were asked about various factors influencing whether they decide to use EBP research. Scores ranged from 1 ('not a priority') to 4 ('high priority'). Several factors were rated as having moderate to high priority (see Figure 42). Some of these factors included 'research findings are unbiased' (76% reporting 'high priority' and 18% 'moderate priority'), 'research findings are written in a clear style' (70% 'high priority' and 26% 'moderate priority'), 'any statistical analysis is clearly explained' (68% 'high priority' and 27% 'moderate priority') and 'any reports provide brief summaries of key findings' (68% 'high priority' and 26% 'moderate priority'). Factors of lower priority included 'research findings support a position already held' (40% 'not a priority' and 40% 'low priority'), 'research recommendations are politically feasible' (10% 'not a priority' and 28% 'low priority'), 'reputation of the person producing the research' (7% 'not a priority' and 24% 'low priority') and 'reputation of the person communicating the research' (7% 'not a priority' and 22% 'low priority').

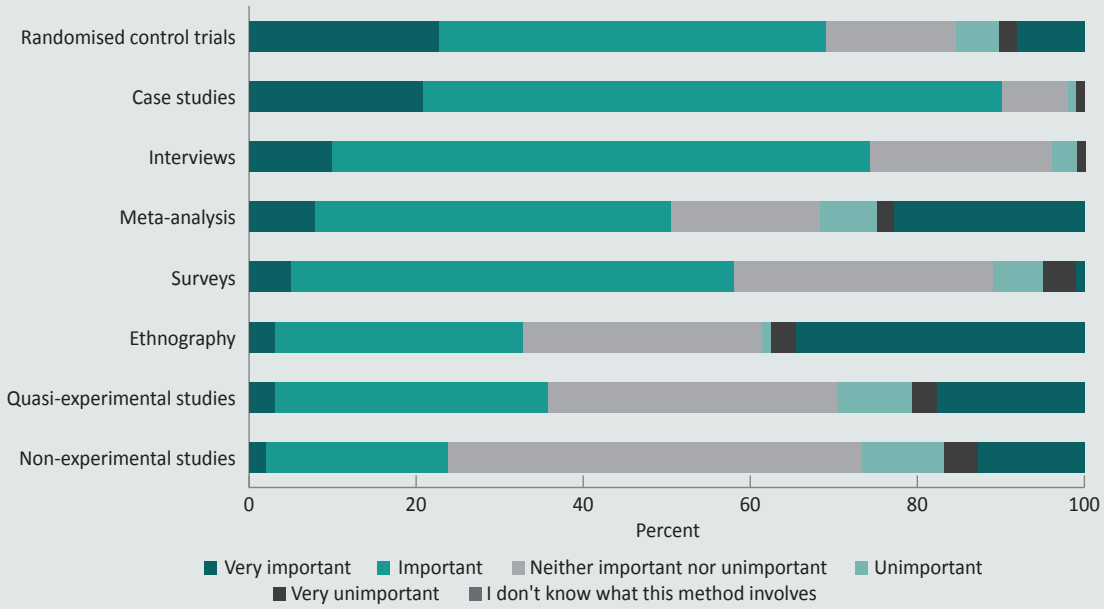
Figure 42: Qld: Factors influencing whether research is used (%) (*n*=103)



Perceived importance of various research methods

Participants were asked what level of importance they would place on eight different research methods to inform a specific practice or decision. Scores ranged from 1 ('very unimportant') to 5 ('very important'). Participants also had the option of indicating they did not know what the research method involved. As can be seen in Figure 43, the research method with the highest level of importance was randomised control trials, with 23 percent of participants considering this method 'very important' and 46 percent 'important'. Case studies followed closely, with 21 percent selecting 'very important' and 69 percent 'important'. Interviews (74%) and meta-analysis (51%) also ranked highly, with participants judging them to be either 'important' or 'very important'. The two methods rated as the least important were non-experimental studies (14% 'unimportant' or 'very unimportant') and quasi-experimental studies (12% 'unimportant' or 'very unimportant'). Thirty-five percent of participants responded that they did not know what ethnography involved, 23 were unsure what meta-analysis involved and 18 percent were uncertain about quasi-experimental studies.

Figure 43: Qld: Perceived importance of various research methods (%) (*n*=97 to 101)



Pearson product-moment correlation coefficients were computed to assess the relationship between the importance participants placed on each of the eight research methods listed in Figure 43 and their willingness to undertake a randomised control trial to test a new tactic—that is, 'Find the top 20 areas where this problem exists and toss a coin to select 10 areas where the tactic will be implemented and 10 areas where it will not and compare'. Significant positive correlations were found between three research methods and willingness to conduct a randomised control trial:

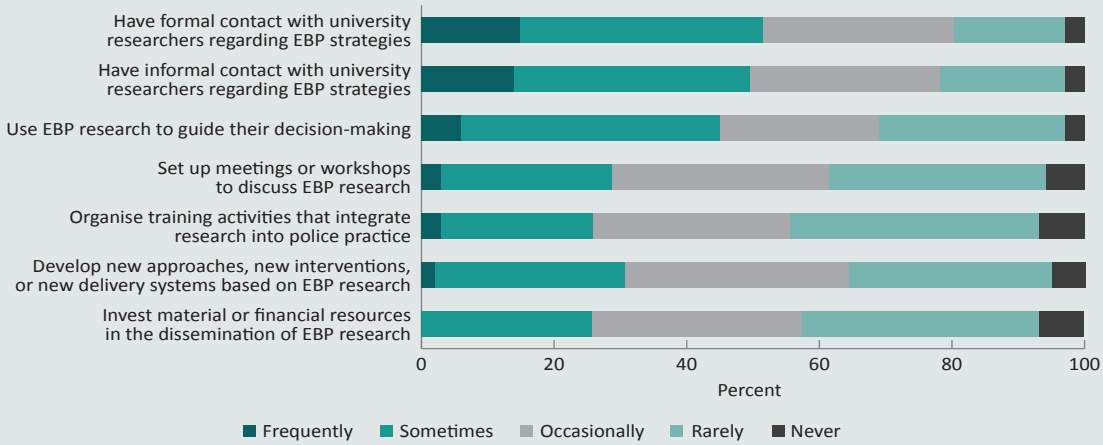
- Randomised control trials, $r(89)=0.310$, $p<0.01$;
- Meta-analysis, $r(78)=0.276$, $p<0.05$; and
- Quasi-experimental studies, $r(83)=0.273$, $p<0.05$.

These findings reveal that as the perceived importance of these research methods increased, so did willingness to test a police tactic by undertaking a randomised control trial.

Police engagement in evidence-based activities

Participants were asked how often they thought police agencies in Australia engaged in a variety of evidence-based activities. Scores ranged from 1 ('never') to 5 ('frequently'). The activity rated as having the highest frequency was 'having formal contact with university researchers regarding EBP strategies' (15% selecting 'frequently' and 37% 'sometimes'). 'Having informal contact with university researchers regarding EBP strategies' was also thought to occur frequently (14% selecting 'frequently' and 36% selecting 'sometimes'). The two activities rated as having the lowest frequency were 'investing material or financial resources in the dissemination of EBP research' (7% selecting 'never' and 36% 'rarely') and 'organising training activities which integrate research into police practice' (7% selecting 'never' and 38% 'rarely').

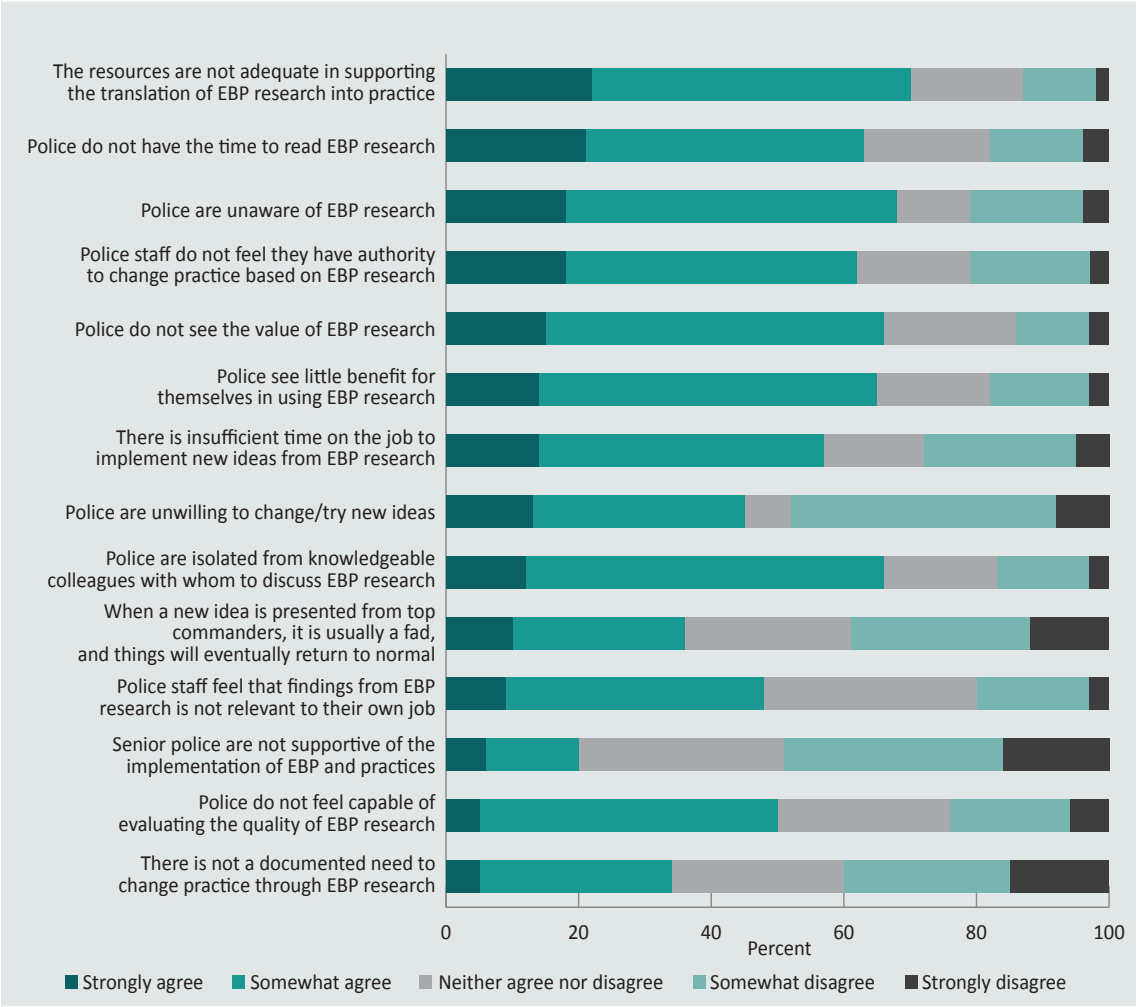
Figure 44: Qld: Frequency of evidence-based activities (%) (*n*=100 to 101)



Organisational barriers to the use of evidence

Participants were presented with several statements referring to organisational barriers to the more widespread use of EBP research. They were then asked to think about the QPS and rate the extent of their agreement with each statement. Scores ranged from 1 ('strongly disagree') to 5 ('strongly agree'). Participants believed that resources were not adequate to support the translation of EBP research into practice (70% selecting either 'strongly' or 'somewhat' agree). Many participants also reported they do not have enough time to read EBP research (63% selecting either 'strongly' or 'somewhat' agree). The statement 'Police are unaware of EBP research' received high agreement (68% selecting either 'strongly' or 'somewhat' agree). Additionally, there was the belief that police officers do not have the authority to change practice based on EBP research (62% selecting either 'strongly' or 'somewhat' agree). Figure 45 presents the percentage breakdown of the reported agreement with the statements examined. Forty-nine percent of participants disagreed that senior police are not supportive of the implementation of EBP and its practices. Forty-eight percent disagreed that police are unwilling to change or try new ideas. Thirty-nine percent also disagreed that when a new idea comes from top commanders, it is usually a fad with business returning to normal in due course.

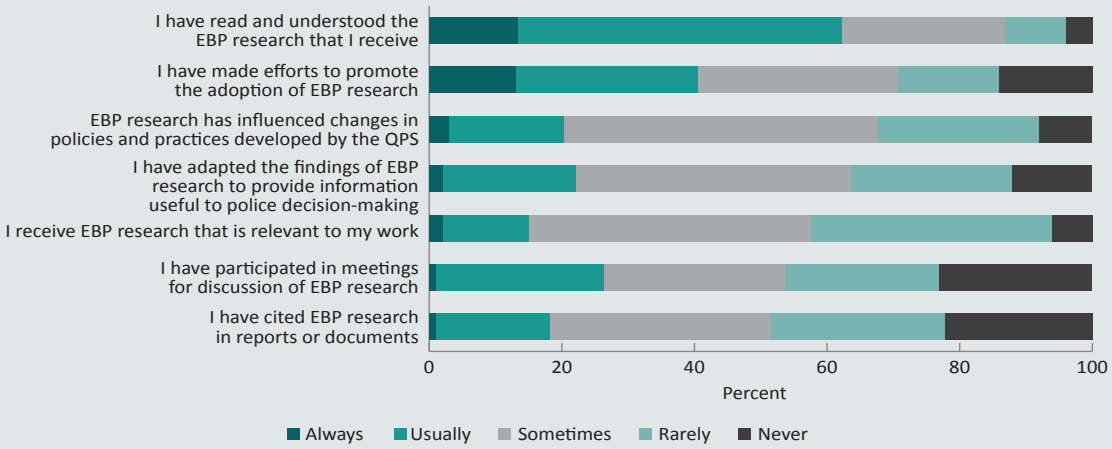
Figure 45: Qld: Organisational barriers to the use of research evidence (%) (*n*=100)



How research is used

Participants were asked to draw on their experience and respond to a variety of statements relating to the use of research. Scores ranged from 1 ('never') to 5 ('always'). Sixty-two percent reported that they either 'always' or 'usually' read and understood the EBP research that they received. Forty percent reported that they either 'always' or 'usually' made efforts to promote the adoption of EBP research. Nearly half reported that they 'rarely' or 'never' cited EBP research in reports or documents or participated in meetings discussing EBP research (see Figure 46).

Figure 46: Qld: How research is used (%) (*n*=98 to 99)



The statements examined were based on the ladder of research utilisation (Cherney & McGee 2011; Landry, Amara & Lamari 2001). Table 13 shows the different stages of research utilisation, the corresponding survey statements and the level at which they were achieved (measured as the proportion of participants who selected as 'always' or 'usually'). As can be seen, stage 2 (cognition) was the level most often achieved, at 62 percent, followed by stage 4 (effort; 40%) and stage 1 (transmission; 26%).

Table 13: Qld: Stages of knowledge utilisation among participants

Stages of knowledge utilisation		Survey statements	'Always' and 'usually' responses (%)
Stage 1	Transmission	I have participated in meetings for discussion of EBP research.	26.3
		I receive EBP research that is relevant to my work.	15.1
Stage 2	Cognition	I have read and understood the EBP research that I receive	62.3
Stage 3	Reference	I have cited EBP research in reports or documents	18.2
Stage 4	Effort	I have made efforts to promote the adoption of EBP research	40.4
Stage 5	Influence	EBP research has influenced changes in policies and practices developed by the QPS	20.2
Stage 6	Application	I have adapted the findings of EBP research to provide information useful to police decision-making	22.2

Operational priorities

Participants were asked to list the three operational areas they thought placed the greatest demands on the QPS in relation to costs and harms to the community. Open-ended responses were then coded into 18 themes (as shown in Figures 47 and 48 below). Participants were asked to list these operational areas in order of importance, with the first being the most important area. Two figures have been prepared from the data. In the first (Figure 47), the three operational areas were combined to create an overall list of the areas chosen by participants, regardless of the order of importance. Fifty percent of participants (*n*=117) indicated that domestic and family violence was one of the three most demanding operational areas. This was followed by general duties/frontline policing, listed by 38 percent of participants. Drug related crimes and road policing were also commonly reported as demanding operational areas (36% and 35%, respectively).

In the second figure (Figure 48), participants' responses were weighted according to their order of importance. To do this, 10 points were allocated to each percentage for the highest level of importance, 5 points were allocated to each percentage for the second highest level of importance and 3 points were allocated to each percentage for the least important level. Responses were then combined and plotted in Figure 48. Comparing the figures reveals similar patterns of priorities, with the top seven responses being the same.

Figure 47: Qld: Operational areas placing the greatest demands on QPS (unranked) (*n*=117)

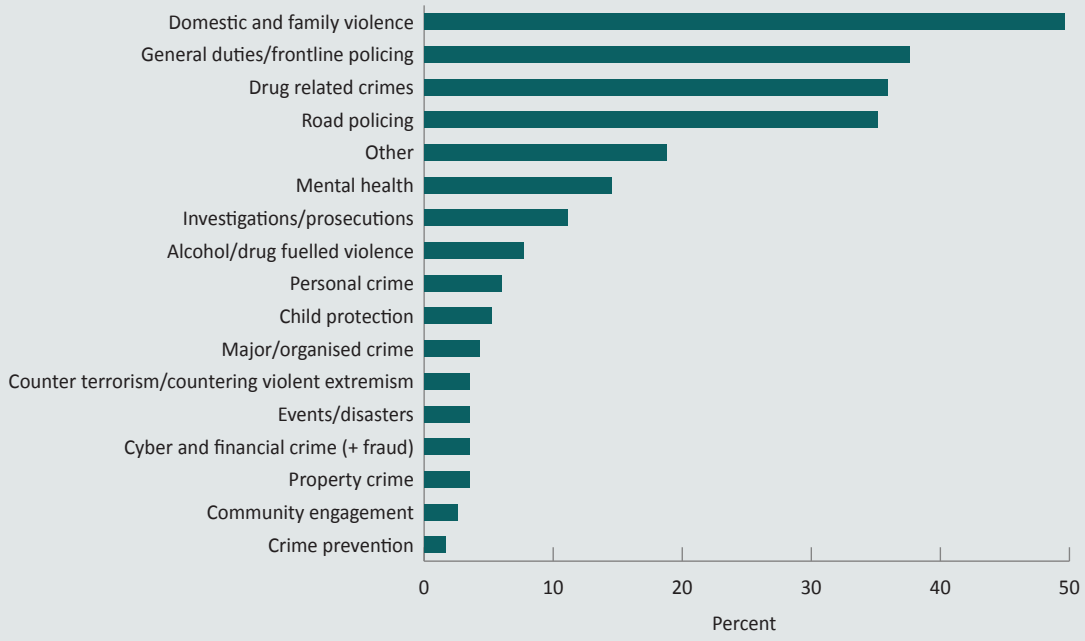
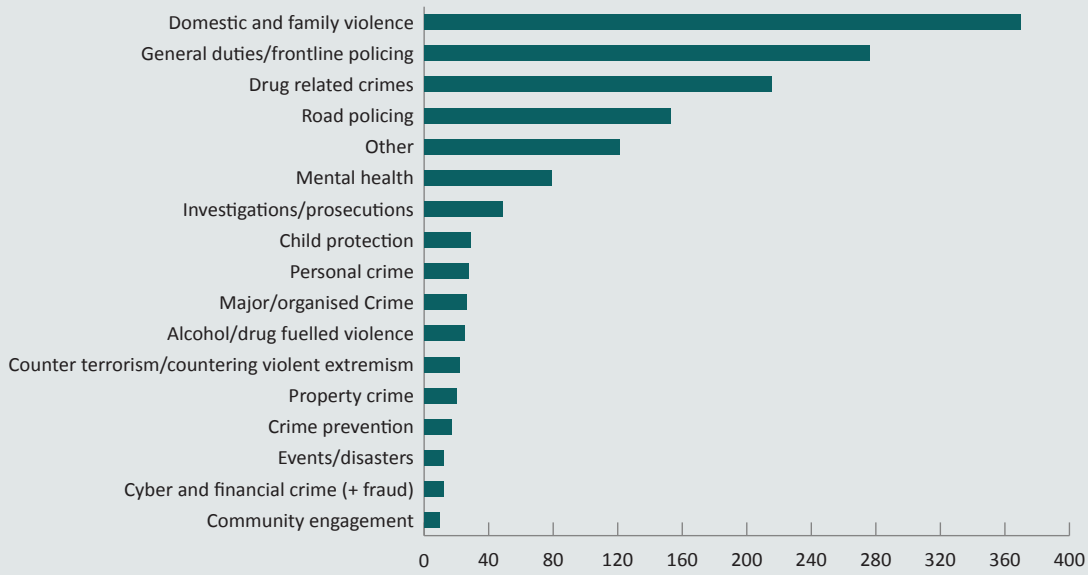


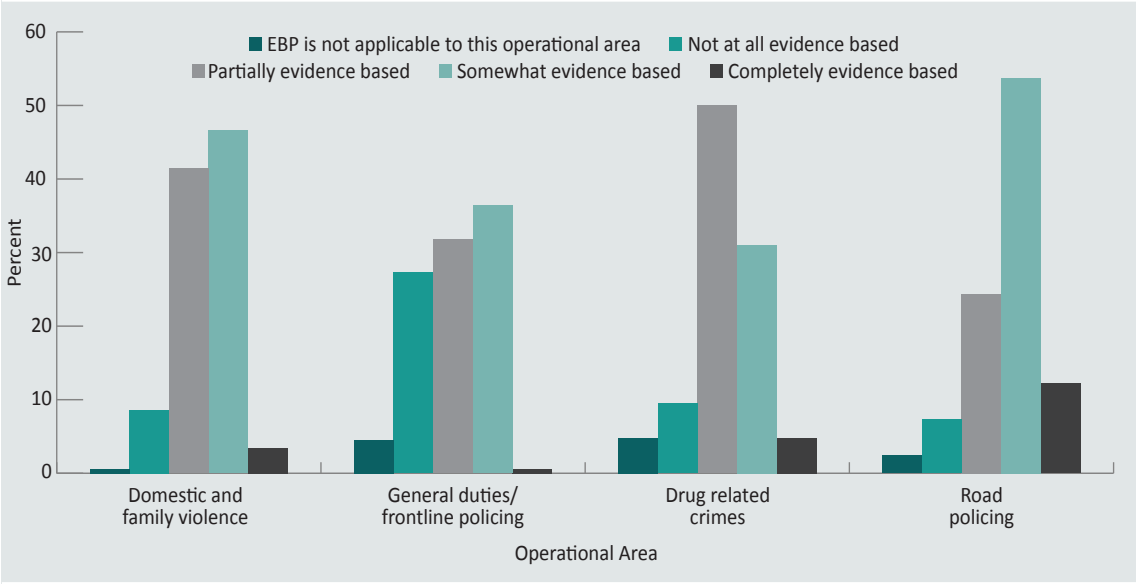
Figure 48: Qld: Operational areas placing the greatest demands on QPS (ranked) (*n*=117)



For each operational area selected, participants were asked to report the extent to which they thought current practices used by the QPS were evidence based. Scores ranged from 1 ('EBP is not applicable to this operational area') to 5 ('completely evidence-based'). The top four operational areas presented in Figure 47 and Figure 48 were examined. As can be seen in Figure 49, the most popular responses selected by participants were 'partially evidence-based' and 'somewhat evidence-based'.

More specifically, for the operational area of domestic and family violence, 47 percent of participants believed that current practices were 'somewhat evidence-based', 41 percent believed they were 'partially evidence-based' and only three percent believed that current practices were 'completely evidence-based'. For the operational area of general duties/ frontline policing, almost no-one believed that current practices were 'completely evidence-based'. Responses were relatively evenly spread between 'not at all evidence-based', 'partially evidence-based' and 'somewhat evidence-based' (27%, 32% and 36% respectively). For the operational area of drug related crimes, five percent of participants believed that current practices were 'completely evidence-based', 31 percent believed they were 'somewhat evidence-based' and 50 percent believed they were 'partially evidence-based'. The operational area of road policing had the highest level of evidence-based practices, with 12 percent of respondents identifying it as 'completely evidence-based' and 54 percent regarding it as 'somewhat evidence-based'.

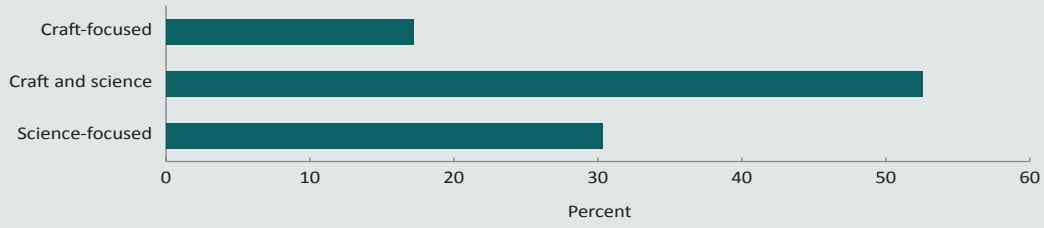
Figure 49: Qld: Evidence-based practices in the top four operational areas (*n*=41 to 58)



Craft versus science

Participants were asked to indicate whether day-to-day decision-making should be based on personal experience (craft) or scientific knowledge (science). Two sliding scales were presented for participants to mark the percentage that personal experience and scientific knowledge should contribute to police decision-making, adding to a total of 100 percent. Higher percentages reflected higher importance. Participants' ratings were classified into three categories: those that were more 'science-focused' (ratings of 0–33% for craft and 67–100% for science), those that were relatively evenly balanced between craft and science (ratings of 34–66% for each) and those that were more 'craft-focused' (ratings of 67–100% for craft and 0–33% for science). As can be seen in Figure 50, 53 percent of participants reported believing craft and science were of similar importance. Seventeen percent reported a more craft-focused approach and 30 percent reported a more science-focused approach.

Figure 50: Qld: Personal experience (craft) versus scientific knowledge (science) (*n*=99)

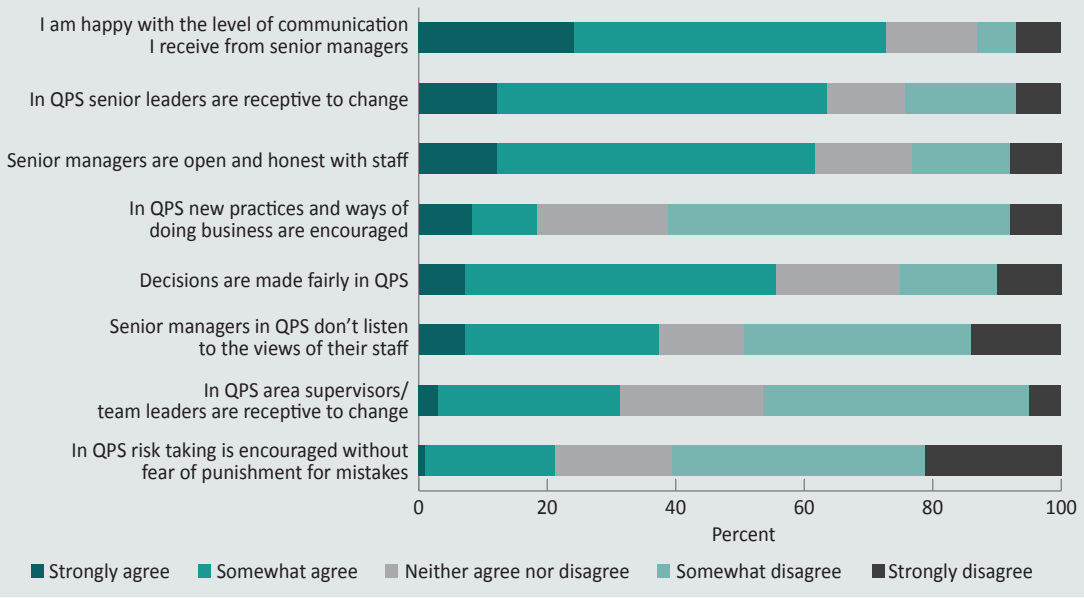


Broader organisational context

Leadership style

Participants were presented with several statements referring to leadership within the QPS and asked to rate the extent of their agreement with each statement. Scores ranged from 1 ('strongly disagree') to 5 ('strongly agree'). As can be seen in Figure 51, 24 percent of participants 'strongly agreed' that they are happy with the level of communication they receive from senior managers. A further 49 percent indicated that they 'somewhat agreed' with this statement. Sixty-four percent of participants either 'strongly agreed' or 'somewhat agreed' that senior QPS leaders are receptive to change. Sixty-two percent either 'strongly agreed' or 'somewhat agreed' that senior managers are open and honest with staff. When presented with the statement 'Risk taking is encouraged without fear of punishment for mistakes', 21 percent indicated that they 'strongly disagreed' and a further 39 percent 'somewhat disagreed'. Fifty percent disagreed that senior QPS managers do not listen to the views of their staff.

Figure 51: Qld: Leadership style (%) (*n*=98 to 99)



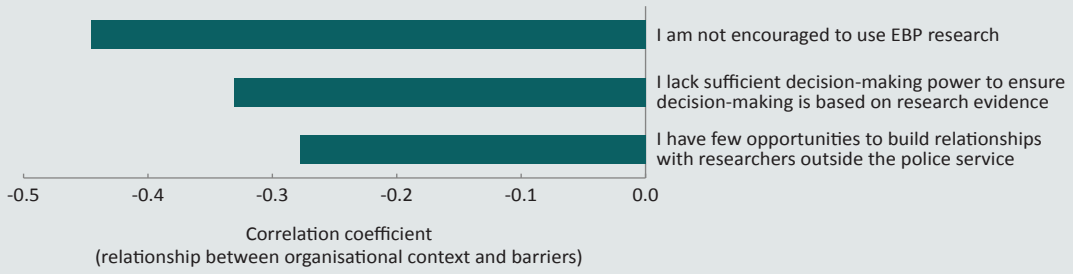
To examine relationships with other items in this report, an overall 'organisational context' scale was developed by averaging responses to the eight leadership statements presented in Figure 51. The item 'Senior managers in the QPS don't listen to the views of their staff' was reverse coded before scale creation. (Cronbach's alpha=0.88. The Cronbach alpha score indicates the reliability of the scale being assessed. Alpha scores lower than 0.5 are considered to be weak, whereas those between 0.6 and 0.8 are considered to be acceptable, and those greater than 0.8 are considered extremely strong.)

Pearson product-moment correlation coefficients were computed to assess the relationship between the organisational context scale and individual barriers to EBP. Three significant negative correlations were found between the organisational context scale and particular barriers to the use of EBP:

- as agreement (ie satisfaction) with the organisational leadership style increased, agreement with the statement 'I am not encouraged to use EBP research' decreased;
- as agreement with the organisational leadership style increased, agreement with the statement 'I lack sufficient decision-making power to ensure decision-making is based on research evidence' decreased; and
- as agreement with the organisational leadership style increased, agreement with the statement 'I have few opportunities to build relationships with researchers outside the police service' decreased.

These results suggest that the less favourably the organisational context was rated, the greater the barriers were perceived to be. In other words, the more satisfied participants were with the leadership style, the more likely they were to feel that they could use EBP research.

Figure 52: Qld: Relationship between organisational context and individual barriers to using EBP



Attendance at evidence-based policing workshops

As can be seen in Table 14, 45 percent of participants reported having attended an EBP workshop. A further 66 percent said that they were interested in attending an EBP workshop. Thirty-eight percent of participants reported that they had not attended an EBP workshop and nine percent indicated that they were not interested in attending an EBP workshop.

Table 14: Qld: EBP workshop attendance

		n	%
Have you ever attended an EBP workshop?	Yes	53	45.3
	No	44	37.6
	Unsure	1	0.9
	Did not answer	19	16.2
Are you interested in attending an EBP workshop?	Yes	77	65.8
	No	11	9.4
	Unsure	9	7.7
	Did not answer	20	17.1

Further analysis was conducted on those participants who were and were not interested in attending an EBP workshop. Independent samples *t*-tests were used to compare 'interested' versus 'not interested' participants on a range of attitudinal variables (see Table 15 and Figure 53). Those participants who were 'unsure' or who did not answer were included in the 'not interested' category. As can be seen, participants who were not interested in attending an EBP workshop were significantly less likely to place importance on particular research methods (with the exception of interviews, ethnography and non-experimental studies) to inform a specific practice or decision. Uninterested participants were also less likely to consider academic research to be useful.

Table 15: Qld: Attitudinal comparisons of participants who were interested in attending an EBP workshop versus those not interested

	Interested Mean (*SD*)	*n*	Not interested Mean (*SD*)	*n*	*t (df)*	*d*
Importance of research methods[a]						
Randomised control trials	4.09 (0.75)	71	3.17 (1.15)	18	4.12 (87)***	1.09
Meta-analysis	3.72 (0.72)	64	3.14 (1.35)	14	2.26 (6976)*	0.67
Case studies	4.17 (0.62)	77	3.79 (0.66)	24	2.58 (99)*	0.60
Surveys	3.62 (0.75)	76	3.09(1.04)	23	2.71 (97)**	0.65
Non-experimental studies	3.13 (0.78)	69	2.95 (0.85)	19	0.89 (86) ns	0.23
Quasi-experimental studies	3.41 (0.76)	66	2.82 (1.02)	17	2.63 (81)**	0.71
Interviews	3.79 (0.68)	77	3.79 (0.78)	24	0.01 (99) ns	<0.01
Ethnography	3.51 (0.72)	55	3.09 (1.14)	11	1.59 (64) ns	0.52
Usefulness of research[b]						
Academic research	3.35 (0.90)	77	2.52 (1.12)	29	3.97 (104)***	0.86
Internal research	3.34 (0.93)	77	3.10 (1.08)	29	1.11 (104) ns	0.24

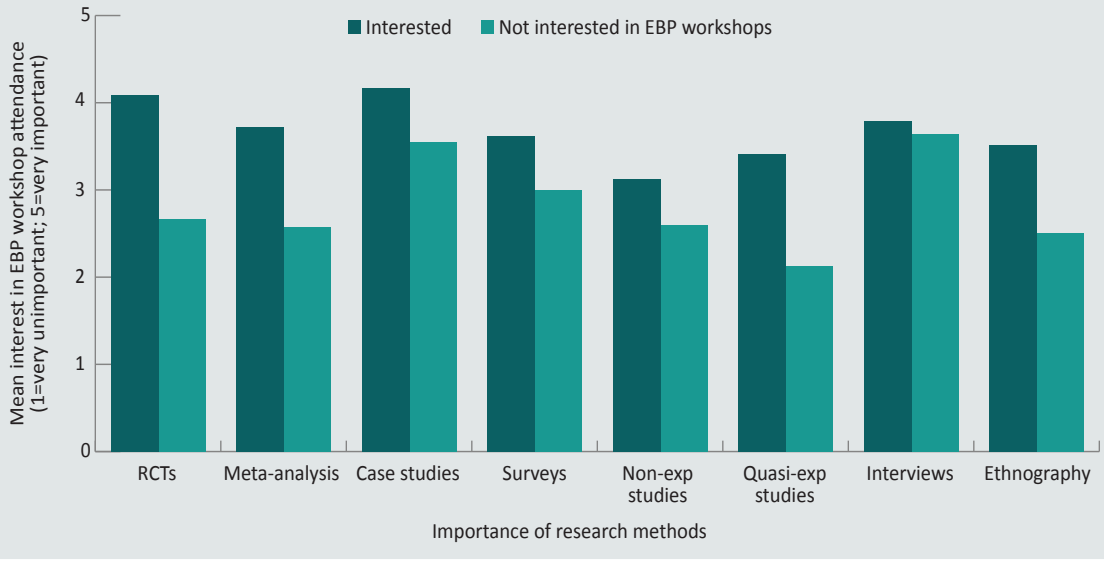
***statistically significant at $p<0.001$; **statistically significant at $p<0.01$; *statistically significant at $p<0.05$

a: Importance categories: 1=very unimportant to 5=very important

b: Usefulness categories: 1=not at all useful to 5=extremely useful

Note: Asterisks represent a statistically significant difference (tested using independent samples *t*-tests) between 'Interested' and 'Not interested' participants on specified variables; ns=not significant

Figure 53: Qld: Mean interest in EBP workshop attendance by perceived importance of research methods



Note: RCTs=randomised control trials

In addition, analysis was conducted on those participants indicating that they had attended an EBP workshop versus those who had not. Independent samples *t*-tests were used to compare participants who had and had not attended a workshop in relation to a range of attitudinal variables (see Table 16). No significant differences were found between participants who had attended an EBP workshop and those who had not with regards to the perceived importance of research methods, the perceived usefulness of internal or academic research, or the types of information sources regarded as important.

A significant difference was found for the research utilisation scale—that is, those participants who had attended an EBP workshop were more likely to report using EBP research than those who had not attended a workshop. With regards to whether police judged certain strategies as effective, participants who had attended an EBP workshop were significantly more likely than those who had not to believe in the effectiveness of the strategies of hot spot policing, procedural justice policing and random breath testing. No significant differences were found for the other police strategies examined.

Three significant differences were found between those who had and had not attended a workshop in their willingness to test police tactics. The following approaches were more likely to be adopted by those who had attended an EBP workshop than those who had not:

- use data from before the police implemented the tactic and compare it to data from after the tactic was up and running;
- approach a researcher from a university or research organisation to help you evaluate your tactic; and
- undertake online research to try and find out what others have done.

No significant differences were found for the other approaches examined.

Table 16: Qld: Attitudinal comparisons of participants who had attended an EBP workshop versus those who had not

	Attended Mean (*SD*)	*n*	Not attended Mean (*SD*)	*n*	*t (df)*	*d*
Importance of research methods[a]						
Randomised control trials	4.04 (0.99)	52	3.70 (0.73)	33	1.71 (83) ns	0.38
Meta-analysis	3.61 (0.95)	46	3.61 (0.74)	28	0.01 (72) ns	<0.01
Case studies	4.08 (0.76)	53	4.09 (0.52)	44	0.12 (95) ns	0.02
Surveys	3.56 (0.90)	52	3.49 (0.74)	43	0.41 (93) ns	0.08
Non-experimental studies	3.04 (0.89)	49	3.14 (0.69)	35	0.57 (82) ns	0.13
Quasi-experimental studies	3.34 (0.94)	47	3.22 (0.71)	32	0.62 (77) ns	0.14
Interviews	3.74 (0.76)	53	3.84 (0.65)	44	0.72 (95) ns	0.15
Ethnography	3.44 (0.94)	39	3.38 (0.58)	24	0.29 (61) ns	0.07
Usefulness of research[b]						
Academic research	3.25 (1.02)	53	2.93 (1.00)	44	1.52 (95) ns	0.31
Internal research	3.42 (0.93)	53	3.05 (1.01)	44	1.88 (95) ns	0.38
Research utilisation scale[c]	3.12 (0.70)	53	2.51 (0.84)	44	3.89 (95)***	0.79
Strategy effectiveness[d]						
Hot spots policing	3.23 (0.61)	53	2.77 (0.72)	43	3.39 (94)***	0.70
Procedural justice policing	2.73 (0.99)	45	2.30 (0.68)	33	2.15 (76)*	0.49
Random breath testing	2.94 (0.77)	53	2.51 (0.88)	43	2.56 (94)*	0.53
Willingness to test tactics[e]						
Use data before the police implemented the tactic and compare it to data from after the tactic was up and running.	4.23 (0.67)	53	3.89 (0.75)	44	2.35 (95)*	0.48
Approach a researcher from a university or research organisation to help you evaluate your tactic.	3.76 (1.02)	53	3.27 (1.17)	44	2.17 (95)*	0.44
Undertake online research to try and find out what others have done.	4.19 (0.68)	53	3.68 (1.01)	44	2.95 (95)**	0.60

***statistically significant at $p<0.001$; **statistically significant at $p<0.01$; *statistically significant at $p<0.05$

a: Importance categories: 1=very unimportant to 5=very important

b: Usefulness categories: 1=not at all useful to 5=extremely useful

c: This scale was developed from the seven statements presented in Figure 48. Cronbach's alpha=0.90

d: Effectiveness categories: 1=not effective to 4=very effective

e: Willingness categories: 1=not willing at all to 5=extremely willing

Note: Asterisks represent a statistically significant difference (tested using independent samples *t*-tests) between 'Attended' and 'Not attended' participants on specified variables; ns=not significant

Queensland Police Service: Key findings

The current survey was distributed to 322 QPS officers. A 36 percent response rate was achieved, resulting in a sample size of 117. Of this sample, 72 percent were male and 11 percent were female. The ranks of the participants included senior executive (*n*=1), superintendent/chief superintendent (*n*=18), inspector (*n*=71), senior sergeant (*n*=3) and QPS administration staff (*n*=1). The current working areas of participants spanned 16 different regions. Approximately three percent of participants had less than 20 years service, 43 percent had between 21 and 30 years service and 36 percent had over 30 years service. Fifty-seven percent of participants reported having a postgraduate qualification and 15 percent reported having a university/college degree. A further six percent reported the completion of a trade/technical certificate or diploma. Fifty-nine percent of participants viewed higher education as either 'extremely important' or 'very important' and 30 percent believed it to be 'moderately important'.

When questioned on the effectiveness of a variety of police strategies for reducing crime and disorder, 78 percent of participants believed that body-worn cameras were either 'very effective' or 'effective'. Mobile devices for accessing police systems were also believed to be quite effective (83% of participants selecting 'very effective' or 'effective'). About a third of participants (35%) believed drug diversion was 'not effective' as a police strategy. Substantial proportions of participants were unaware of the strategies of 'pulling levers interventions for violent offenders' (35%) and 'procedural justice policing' (19%). The only significant difference between those who were and were not aware of these strategies was age ('unaware' participants were younger).

When participants were asked about their approach when deciding how to respond to a particular policing problem, 45 percent reported that they try new tactics based on materials/data from crime analysis. Participants were asked how willing they would be to take a variety of actions to test whether a current police tactic was effective. Ninety-one percent of participants were either 'very willing' or 'extremely willing' to try a new tactic to solve a current problem. Eighty-one percent were either 'very willing' or 'extremely willing' to assess data before the police implemented the tactic and compare it to data from after the tactic was up and running. However, 43 percent of participants were not willing to conduct a randomised control trial (ie finding the top 20 areas where the problem existed, tossing a coin to select 10 areas where a new tactic would be implemented and 10 where it would not and comparing outcomes). This is despite participants placing a high level of importance on randomised control trials (see below). Thirty-two percent of participants were either 'not willing at all' or only 'slightly willing' to stop a tactic based on a researcher highlighting the tactic was ineffective.

The most highly regarded information source was QPS intelligence officers (39% reporting 'very important' and 48% 'important'). Participants also placed importance on information from other government departments (14% reporting 'very important' and 57% 'important') and QPS staff with research-related roles (12% reporting 'very important' and 66% 'important').

In relation to accessing and using EBP research in day-to-day operational decision-making, 53 percent of participants reported that they had limited opportunities to build relationships with researchers outside the police service. Thirty-eight percent of participants also reported having limited time to read available research studies. Twenty-seven percent believed that they were not encouraged to use EBP research.

Participants were asked what level of risk they would be willing to accept when trying a new tactic to solve a crime problem. Cost/financial risk, followed by risk to one's personal reputation and political risk, were the most acceptable types of risk. Risk to officer safety and risk to community safety were the least acceptable risks.

When queried about the use of EBP research in the past 12 months to inform decision-making, 23 percent indicated that they used EBP research 'most of the time'. A further 52 percent of participants indicated they had 'sometimes' used EBP research. Twenty-six percent of participants found academic research on police tactics to be 'very useful' and 36 percent 'moderately useful'. Thirty-five percent found internal police research on tactics to be 'very useful' and 36 percent 'moderately useful'. As belief in the usefulness of academic research increased, so too did belief in the usefulness of internal research. Internal police research was not perceived to be any more useful than academic research.

When it came to decisions to use EBP research, participants were asked what factors should be given priority. Several factors were rated as having high priority, including 'research findings are unbiased' (76% reporting 'high priority'), 'research findings are written in a clear style' (70% reporting 'high priority'), 'any statistical analysis is clearly explained' (68% reporting 'high priority') and 'any reports provide brief summaries of key findings' (68% reporting 'high priority').

Eight different research methods were presented and participants were asked what level of importance they would place on each to inform a specific practice or decision. The research method with the highest level of importance was randomised control trials, with 23 percent of participants regarding them as 'very important' and 46 percent 'important'. Case studies closely followed, with 21 percent considering them 'very important' and 69 percent 'important'. Interviews and meta-analysis also ranked highly. Thirty-five percent of participants did not know what was involved with ethnography, 23 percent were unsure what meta-analysis involved and 18 percent were uncertain about quasi-experimental studies.

When it came to general assessments on the uptake of EBP approaches by police agencies across Australia, the activity rated as having the highest level of engagement was 'formal contact with university researchers' (52% reporting that this occurs either 'frequently' or 'sometimes'). 'Informal contact with university researchers' was also rated as having high frequency (50% selecting either 'frequently' or 'sometimes').

Seventy percent of QPS participants agreed that resources are not adequate to support the translation of EBP research into practice. Sixty-three percent reported that they do not have enough time to read EBP research. Sixty-eight percent agreed that police are unaware of EBP research. Additionally, respondents believed that police officers do not have the authority to change practice based on EBP research (62% agreeing with this statement). However, the same proportion (62%) reported that they either 'always' or 'usually' read and understood the EBP research they received. Forty percent also reported that they 'always' or 'usually' made efforts to promote the adoption of EBP research.

Participants were asked to list the three operational areas they thought placed the greatest demands on the QPS in relation to costs and harms to the community. Fifty percent of participants ranked domestic and family violence as the top area. General duties/frontline policing followed, with 38 percent of participants ranking it highly. Drug related crimes and road policing were also commonly reported (36% and 35%, respectively) as demanding operational areas. For the top operational area, domestic and family violence, 47 percent of participants believed that current practices were 'somewhat evidence-based', 41 percent believed they were 'partially evidence-based' and only three percent of participants believed that current practices were 'completely evidence-based'. Road policing in the QPS was judged as being the most evidence based, with 12 percent of participants assessing it as 'completely evidence-based' and 54 percent assessing it as 'somewhat evidence-based'.

Participants were asked to indicate whether they believed personal experience (craft) or scientific knowledge (science) should be used in day-to-day decision-making. Fifty-three percent of participants reported a balanced use of craft and science. Seventeen percent reported a more craft-focused approach and 30 percent reported a more science-focused approach.

Participants were presented with several statements referring to leadership in the QPS. Twenty-four percent 'strongly agreed' that they are happy with the level of communication they receive from senior managers. A further 49 percent indicated that they 'somewhat agreed' with this statement. Sixty-four percent of participants either 'strongly agreed' or 'somewhat agreed' that senior QPS leaders are receptive to change. Sixty-two percent either 'strongly agreed' or 'somewhat agreed' that senior managers are open and honest with staff. Sixty percent disagreed that risk taking is encouraged without fear of punishment for mistakes.

Forty-five percent of participants reported having attended an EBP workshop. Sixty-six percent indicated they were interested in attending an EBP workshop in the future. Nine percent indicated that they were not interested in attending an EBP workshop. Further analysis revealed that those uninterested in attending an EBP workshop placed less importance on research methods to inform a specific practice or decision and were less likely to regard academic research as useful. However, analysis indicated a significant relationship between attending an EBP workshop and the use and application of evidence-based approaches.

Implications and conclusions

This project aimed to understand the adoption of EBP within Australian police agencies. The use of research evidence to drive police decision-making will be influenced by police attitudes towards the usefulness of research and evidence-based principles. These results provide insight into the attitudes that police within two Australian jurisdictions have towards key principles of EBP and their practical application, as well as how organisational factors influence the use of EBP within police agencies.

The states of Queensland and Western Australia present ideal cases in that they have actively and publicly progressed an EBP agenda, albeit via different organisational strategies. As part of their respective strategic plans, both QPS and WAPol acknowledge the importance of EBP. Specifically, the QPS aspires to promote 'a culture of continuous improvement founded on evidence-based policing' (Queensland Police Service 2017, para 5). Likewise, WAPol's Frontline 2020 reform states: 'Increasingly, WA Police will be engaging a more scientific approach as part of its Evidence Based Policing Project' (Western Australia Police Force 2017, para 5). This reform resulted in WAPol becoming in 2015 the 'the first jurisdiction in the country to establish an evidence-based policing unit to test the assumptions behind traditional police operations and bring in a more scientific approach' (Easton 2016, para 1). Both agencies profess to be evidence based, so exploring the dissemination and use of EBP in these agencies is of interest. This research explored some of the facilitators of, and barriers, to EBP in police agencies where leadership support for EBP is high. The findings of this research can therefore inform other agencies in their understanding of how the adoption of EBP can be promoted and facilitated.

Priority areas

Through surveys with officers in WAPol and QPS, key EBP principles were investigated. Officers were asked about their understanding of how different types of research are valued and understood. The reported willingness of officers to use such research was also examined to provide a general picture of how widespread the dissemination and adoption of EBP has been in these agencies. Respondents were asked about the policing areas that placed the greatest demands on police resources and their perspectives on the evidence-based nature of these areas.

WAPol and QPS noted similar priority areas placing demands on their resources and similar perceptions of evidence-based practice. Priority and resource heavy policing areas included domestic and family violence, alcohol and drug related issues, and general duties/frontline policing. In relation to how evidence based responses to these problems were, many QPS officers noted that current practices were only 'somewhat evidence-based', with only three percent believing they were 'completely evidence-based'. In Queensland, road policing was considered the most evidence-based area. This may be because QPS has been involved in a number of research projects in the road policing space, such as the landmark randomised control trial, the Queensland Community Engagement Trial (see, for example, Mazerolle et al. 2012).

Academic research, research methods and risk in operational decision-making

Understanding the value of academic research is arguably a key indicator that an agency is 'evidence based'. An awareness of the usefulness of academic research suggests that officers value independent research evidence within their operational area. However, officer attitudes towards the usefulness of police research and academic research were linked—that is, the more that officers believed in the usefulness of research conducted internally by police, the more useful they considered academic research to be. In WAPol, commissioned officers perceived academic research to be more useful than did sergeants and constables, indicating those with greater decision-making powers may be more likely to use research evidence.

Understanding how much officers value research over and above personal experience in the operational environment of policing can provide further insight into the uptake of EBP. It is generally recognised that academic researchers tend to be more concerned about measurement issues and designing studies with high internal validity, whereas police officers tend to focus more on personal experiences (Telep & Lum 2014). However, the survey results provide a somewhat contrasting view. The results indicate that the majority of QPS officers preferred a balanced use of their experience (the 'craft' of policing) and science in their day-to-day decision-making, with more officers preferring a science-focused approach than a craft-focused approach. The WAPol survey, however, indicated that the majority of officers had a more science-focused approach, with fewer than 10 percent of officers favouring a craft-based approach. The inclusion of frontline officers as well as commissioned officers in the WAPol survey cannot be dismissed as a potential explanation for the differences in these findings. However, it may also reflect WAPol's organisational focus on EBP, demonstrated through the Frontline 2020 initiative and the establishment of a dedicated EBP unit. This shows that one of the broader outcomes of EBP—to shift police towards more scientific processes in their decision-making—seems to be achieving at least some recognition among police in Australia. The real proof that EBP is being implemented, though, is in the decisions police make about how to respond to crime.

Hence, when WAPol participants were asked about their approach when deciding how to respond to a particular policing problem, 61 percent reported that they use tactics that have worked for them in the past, while only 28 percent of QPS officers took this approach. The majority of QPS participants instead opted to try new tactics based on crime analysis (45%) or tactics they had learned about from other sources (18%). Although over 90 percent of officers in each agency were willing to try new tactics, there was a general unwillingness to conduct a randomised control trial. Further, WAPol officers were largely unwilling to approach external researchers to help them evaluate their tactic or stop a tactic based on a researcher indicating it was ineffective. QPS officers were more willing to approach researchers, but they too were often unwilling to stop tactics on the basis of researchers' advice. While the rhetoric about EBP might be evident, the willingness to experiment and try new approaches is less pronounced.

Despite suggestions that police in general are relatively risk-averse (eg Heaton 2010), officers were willing to accept a moderate level of risk (excluding risks to officer and community safety) to try new tactics to solve problems. In WAPol, where comparisons could be made across ranks, constables were generally prepared to accept a higher level of risk than more senior officers. However, as these types of decisions are rarely made at the constable level, the higher degree of reluctance from senior officers may indicate concerns about the risks presented when new tactics are applied based on research rather than operational practice. The majority of officers reported that risk taking without fear of punishment for mistakes was not encouraged. Given EBP often requires trying new approaches, risk taking is an essential feature. Therefore, if police feel they are not able to take risks without fear of being punished, innovation is unlikely to be encouraged.

Receptivity to research

In the survey, officers were presented with a list of research methods (eg interviews, randomised control trials, meta-analyses and ethnographies) and asked to note how important they felt the methodology was in informing specific police practices or decisions. A relatively large proportion of officers (approximately 20–40%) in both agencies noted that they were not familiar with methods such as ethnographies, meta-analysis or quasi-experimental studies. Randomised control trials were rated as an important or very important method by a large proportion of officers in QPS (69%) and WAPol (50%). Interestingly, case studies were the most widely recognised method for informing decision-making in both agencies (71% WAPol; 80% QPS), suggesting a greater familiarity with or application of such methods.

The academic literature on 'what works' in policing has grown rapidly since the 1970s. This literature suggests that a number of police strategies for reducing crime and disorder are effective, whereas a number of other strategies (particularly those linked to the 'standard' reactive model of policing) are less effective (see, for example, Telep & Weisburd 2012; Weisburd & Eck 2004). Various summaries of the research evidence on these strategies exist, many of which were developed specifically for police themselves (eg the UK College of Policing's What Works Crime Reduction toolkit, the US National Institute of Justice's Crime

Solutions website, and the Campbell Collaboration plain language summaries of crime and justice systematic reviews). Thus, it was important to examine whether this information has permeated through police organisations.

Strategies typically noted in the literature as not being effective, such as rapid responses to calls for service (Telep & Weisburd 2012), were believed to be effective by approximately two-thirds of officers in both agencies (perhaps reflecting the general community's expectations regarding this type of service). There was also widespread belief that new technologies, such as mobile devices and body-worn cameras, were effective, despite their only recently being subject to any rigorous evaluation (see, for example, Ariel et al. 2016; Lum et al. 2015).

A number of tactics which appear in the literature to be promising, and which have been subject to testing via randomised control trials, were unfamiliar to a large proportion of officers—for example, 'pulling levers interventions' and procedural justice policing (National Academies of Sciences, Engineering, and Medicine 2018). Almost half of WAPol participants and 20 to 35 percent of QPS participants, particularly those in the lower ranks, were not familiar with these strategies. It is possible that these officers are aware of these tactics but, due to their limited exposure to academic research in general, did not recognise the academic terminology used to describe them, but this cannot be examined here. In examining this further, participants who were unaware of these strategies were generally younger and lower in rank, had been working in the police for less time, and placed less importance on academic sources. This points to the potential need to educate junior officers about EBP and the insights academic research can provide.

Research evidence comes in many different forms. Officers rated the importance of different sources of information (some of which tend to be heavily research based, others less so). WAPol officers were also asked about their levels of trust in these information sources. The highest levels of importance were placed on information from internal or other policing agency sources (particularly intelligence officers), with academic sources such as university researchers rated amongst the lowest in importance. In WAPol, these sources received similar ratings to news media and internet sources. Commissioned officers in WAPol saw the newly created Evidence Based Policing Division as more important and trustworthy than did more frontline-based officers, although information from this division was seen as less important than information from other WAPol staff with research related roles. This may partly be due to the short amount of time since the division was established in the organisation, which has not yet allowed officers to develop awareness of and trust in the division.

The relatively low levels of importance placed on information coming from university researchers may be related to the lack of opportunities for building relationships with researchers outside the police service. A majority of officers in both agencies noted they had limited opportunities to build these relationships (although commissioned officers reported having greater opportunities to build relationships with researchers than did sergeants and constables). Many officers also noted that they had limited time to read available research studies.

However, perhaps most worrying from an organisational EBP perspective was the fact that a large minority of officers agreed that they 'are not encouraged to use EBP research'. When asked how often they had used EBP research in the past 12 months to inform decision-making, 87 percent of QPS officers reported that they used it at least sometimes; however, approximately one-third of WAPol officers reported that they never used EBP research. Again, this difference may be due at least in part to the different samples—specifically, the fact that only commissioned officers took part in the QPS survey. Nevertheless, for an organisation to become 'totally evidence-based' (Sherman 2015), a culture of using EBP research should be pervasive throughout all levels. While this remains a contentious issue (see, for example, Crawford 2017), including among the survey participants, this result draws attention to some of the key differences that were observed relating to seniority. Those in more senior positions placed greater importance on further education, and respondents who had decision-making powers reported relying more on EBP and drawing on a wider range of resources.

Barriers and facilitators for evidence-based policing

A key and consistent barrier to the adoption of EBP research that was noted is the perception that accessing EBP research is time consuming. Specifically, in the operationally demanding environment of policing, officers reported that they felt they had little time to read and implement EBP ideas. Furthermore, the majority of officers in each agency reported that there were inadequate resources to enable the translation of EBP research into practice, further supporting the notion that police agencies in Australia have not reached the point where EBP is embedded in organisational processes. This requires some level of organisational change. Police across different areas need time and space to access and then discuss the implications of EBP research and how the findings can be adopted in practice.

This organisational change may be linked to leadership. One stark result from the survey of QPS and WAPol is that the more favourably the organisational leadership style was rated by participants, the fewer barriers to the use of EBP research were identified. That is, those who viewed the leadership style as positive reported they were more inclined to use EBP research. This result provides an important lesson in how leadership style is correlated to the adoption of an EBP agenda in police organisations.

A number of priorities for facilitating EBP decision-making were highlighted. Importantly, when deciding whether to use EBP research, both QPS and WAPol officers emphasised that research should principally be unbiased and clearly explained. This suggests that research needs to be accessible to a practitioner audience (Rojek, Martin & Alpert 2015). The fact that officers strongly contend that research should be unbiased supports the premise that the neutrality of research helps to foster its legitimacy among police.

A key facilitator to the uptake of EBP is education. Both agencies surveyed had previously attempted to disseminate the EBP message throughout the organisation by running EBP workshops. (Two of the authors, Emma Antrobus and Sarah Bennett, were involved in running these workshops.) The survey results show that these workshops appear to be effective in encouraging EBP. Specifically, participants who had attended an EBP workshop were more likely to view academic research as being useful and were more likely to use and apply evidence-based approaches than those who had not attended a workshop. Hence, EBP workshop attendance and participation appeared to make a difference.

Limitations

Some limitations to the research design and sample must be acknowledged. Of course, as an exploratory survey, the results do not demonstrate causation on any of the concepts discussed. A key limitation of the survey design is the difference in samples between WAPol and QPS. QPS captured only commissioned officers, whereas the WAPol sample was wider. Questions can be raised about whether the two samples were representative of their organisations or of the broader Australian policing community. On this latter point, although conclusions cannot be drawn about the nature of EBP in other Australian police agencies, these findings provide important insights on the state of EBP in two EBP-receptive Australian policing agencies. This study is therefore useful for understanding the key benefits and challenges of organisational strategies for implementing EBP.

Further, this study leaves questions remaining. For instance, although the findings shed some light on perceptions of barriers to and facilitators of EBP, the study did not examine context specific factors such as the financial investment each organisation made to enable EBP, the political environment, or other broader organisational initiatives that may have influenced the adoption of EBP. More examination of these factors may generate a greater understanding of how EBP was encouraged in these agencies and, importantly, identify barriers that could prevent the application of EBP in other policing organisations.

Conclusion

The field of EBP has grown extensively in recent years, with numerous societies for EBP emerging around the western world, at least partly driven by police themselves, in some cases in partnership with academics. This suggests that a study of police officers' understanding of and receptivity to this approach is a timely contribution to the push towards EBP. The adoption of an EBP agenda is not straightforward, with advocates recognising this fact (Lum 2009). The results of this survey provide insights into the individual and organisational factors that inhibit and facilitate the adoption of EBP, thus highlighting possible ways of influencing its practical application.

References

Antrobus E, Elffers H, White G & Mazerolle L 2014. Nonresponse bias in randomized controlled experiments in criminology: Putting the Queensland Community Engagement Trial (QCET) under a microscope. *Evaluation Review* 37(3–4): 197–212

Ariel B, Sutherland A, Henstock D, Young J, Drover P, Sykes J, Megicks S & Henderson R 2016. Wearing body cameras increases assaults against officers and does not reduce police use of force: Results from a global multi-site experiment. *European Journal of Criminology* 13(6): 744–755

Bayley DH 1994. *Police for the future.* New York: Oxford University Press

Bradford B, Quinton P, Myhill A & Porter G 2014. Why do 'the law' comply? Procedural justice, group identification and officer motivation in police organizations. *European Journal of Criminology* 11(1): 110–131

Brown S 2016. Planning for a tipping-point in EBP. Paper presented to the Australia and New Zealand Society of Evidence-based Policing Conference, Manly, 20–21 April

Cherney A & McGee TR 2011. Utilization of social science research: Results of a pilot study among Australian sociologists and criminologists. *Journal of Sociology* 47(2): 144–162

Crawford A 2017. Research co-production and knowledge mobilisation in policing. *Advances in Evidence-Based Policing* 19: 195

Darroch S & Mazerolle L 2013. Intelligence-led policing: A comparative analysis of organizational factors influencing innovation uptake. *Police Quarterly* 16: 3–37

Easton S 2016. Inside Perth's evidence-based policing unit. *The Mandarin,* 29 September. https://www.themandarin.com.au/70866-targeting-scarce-resources-inside-perths-evidence-based-policing-unit/

Head B, Boreham P & Cherney A 2011. *Policy relevance of social science research: Public service survey.* Australian Research Council Linkage Project on Utilisation of Social Science Research in Policy Development and Program Review. Brisbane: University of Queensland

Heaton R 2010. We could be criticized! Policing and risk aversion. *Policing: A Journal of Policy and Practice* 5(1): 75–86

Landry R, Amara N & Lamari M 2001. Climbing the ladder of research utilization: Evidence from social science research. *Science Communication* 22(4): 396–422

Lum C 2009. *Translating police research into practice.* Ideas in American Policing series no. 11. Washington, DC: Police Foundation

Lum C & Koper CS 2014. Evidence-based policing, in Bruinsma G and Weisburd D (eds), *Encyclopaedia of criminology and criminal justice.* New York: Springer: 1426–1437

Lum C, Koper CS, Merola L, Scherer A & Reioux A 2015. *Existing and ongoing body worn camera research: Knowledge gaps and opportunities.* Fairfax, VA: Center for Evidence-Based Crime Policy, George Mason University

Lum C, Telep CW, Koper CS & Grieco J 2012. Receptivity to research in policing. *Justice Research and Policy* 14(1): 61–95

Mazerolle L, Bennett S, Antrobus E & Eggins E 2012. Procedural justice, routine encounters and citizen perceptions of police: Main findings from the Queensland Community Engagement Trial (QCET). *Journal of Experimental Criminology* 8(4): 343–367

National Academies of Sciences, Engineering, and Medicine 2018, *Proactive policing: Effects on crime and communities.* Washington, DC: National Academies Press. https://doi.org/10.17226/24928

Queensland Police Service 2017. *Queensland Police Service: Research priorities 2017 – 2018.* https://www.police.qld.gov.au/corporatedocs/research/Documents/QPS Research Priorities 2017%20- 2018.pdf

Queensland Police Service 2016. *Annual statistical review 2015/16*. Brisbane: Queensland Police Service

Rojek J, Martin P & Alpert GP 2015. *Developing and maintaining police-researcher partnerships to facilitate research use: A comparative analysis.* New York: Springer

Sherman LW 2015. A tipping point for "totally evidenced policing": Ten ideas for building an evidence-based police agency. *International Criminal Justice Review* 25(1): 11–29

Sherman LW 2007. The power few: Experimental criminology and the reduction of harm. *Journal of Experimental Criminology* 3(4): 299–321

Sherman LW 1998. *Evidence-based policing.* Washington, DC: Police Foundation

Stanko E & Dawson P 2016. *Police use of research evidence: Recommendations for improvement.* Springer International Publishing. DOI: 10.1007/978-3-319-20648-6

Telep CW & Lum C 2014. The receptivity of officers to empirical research and evidence-based policing: An examination of survey data from three agencies. *Police Quarterly* 17(4): 359–385

Telep CW & Weisburd D 2012. What is known about the effectiveness of police practices in reducing crime and disorder? *Police Quarterly* 15(4): 331–357

Weisburd D & Eck JE 2004. What can the police do to reduce crime, disorder, and fear? *Annals of the American Academy of Political and Social Science* 593: 42–65

Western Australia Police Force 2017. *Frontline 2020: Reform program for WA Police*. Perth: Western Australia Police Force. Accessed 9 April 2018: https://www.police.wa.gov.au/About-Us/Our-vision/Frontline-2020

Western Australia Police 2016. *Annual report 2016*. Perth: Western Australia Police. www.police.wa.gov.au/About-Us/Our-agency/Annual-report

Willis JJ & Mastrofski SD 2014. Pulling together: Integrating craft and science. *Policing* 8(4): 321–329

Appendix A: Western Australia codebook

I invite you to participate in this research survey. Your feedback on whether evidence-based policing research can improve the effectiveness of the WAP in the short or long term is important. Your answers are being collected to identify the support that is required to assist police to use evidence-based research.

KARL O'CALLAGHAN APM
COMMISSIONER OF POLICE

INFORMATION ABOUT THIS SURVEY

Researchers from the University of Queensland, in partnership with Queensland Police (QPol), Victoria Police (VicPol) and Western Australia Police (WAPol), are working together to identify how the use of evidence-based policing research can be facilitated across different operational areas. This includes assessing how police feel about the use of evidence-based policing research in police decision-making.

All of your answers are being collected on behalf of the School of Social Science to better identify how evidence can inform police decision-making.

Your responses will remain confidential. Your personal information will **NOT** be disclosed to WAPol or any third party unless required by law.

Your responses will be converted to **de-identified data** and only disseminated in aggregate form to the WAPol or beyond.

How Will You Have Access To The Results?

A published report will be made available to WAPol, which will then be disseminated throughout the service.

Ethical Clearance

This study has been given ethical clearance by the University of Queensland.

This study adheres to the Guidelines of the ethical review process of The University of Queensland and the National Statement on Ethical Conduct in Human Research. Whilst you are free to discuss your participation in this study with project staff [name, phone number and email address redacted], if you would like to speak to an officer of the University not involved in the study, you may contact the Ethics Coordinator on (07) 3365 3924.

HOW TO PARTICIPATE

By pressing the **'NEXT'** button, you consent to participate in this research.

1. You can complete the survey online from……:
2. You can complete the survey now by clicking the "NEXT" button at the bottom of this page

(**Note:** If you start the survey but are unable to complete it in one sitting, you can return to the survey using the same computer and internet browser within one week and pick up the survey where you left off. Please contact Emma Antrobus (e.antrobus@uq.edu.au or (07) 3346 9306) if you have any questions.

Evidence-based Policing in the WAPol

In the following survey, reference will be made to the term **evidence-based policing (EBP)**. In this survey, evidence-based policing refers to the process of using the best research and scientific methods to make decisions in police work, supported by the concept of Triple T – Targeting, Testing and Tracking.

Q1. Below is a list of policing strategies. Indicate next to each strategy whether you think it is very effective, effective, somewhat effective, or not effective for reducing crime and disorder.

(Check the last column if you are unaware of the tactic).

			Not Effective	Somewhat Effective	Effective	Very Effective	Unaware of Tactic		
Q1_1. Random preventive patrol			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.29	n	213	498	323	109	63	[1206]	(3)
Std Dev	0.88	%	17.7	41.3	26.8	9.0	5.2	[100.0]	(0.2)
Q1_2. Hot spots policing			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.83	n	60	318	578	238	12	[1206]	(3)
Std Dev	0.80	%	5.0	26.4	47.9	19.7	1.0	[100.0]	(0.2)
Q1_3. Community-oriented policing			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.30	n	219	496	348	114	28	[1205]	(4)
Std Dev	0.88	%	18.2	41.2	28.9	9.5	2.3	[100.0]	(0.3)
Q1_4. Problem-oriented policing			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.73	n	70	333	574	167	60	[1204]	(5)
Std Dev	0.78	%	5.8	27.7	47.7	13.9	5.0	[100.0]	(0.4)
Q1_5. Rapid response to 000 calls			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.89	n	109	271	449	354	20	[1203]	(6)

			Not Effective	Somewhat Effective	Effective	Very Effective	Unaware of Tactic		
Std Dev	0.94	%	9.1	22.5	37.3	29.4	1.7	[100.0]	(0.5)
Q1_5. Rapid response to 000 calls			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.89	n	109	271	449	354	20	[1203]	(6)
Std Dev	0.94	%	9.1	22.5	37.3	29.4	1.7	[100.0]	(0.5)
Q1_6. Follow up visits for domestic violence			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.16	n	316	435	313	96	44	[1204]	(5)
Std Dev	0.92	%	26.2	36.1	26.0	8.0	3.7	[100.0]	(0.4)
Q1_7. "Pulling levers" interventions for violent offenders			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.23	n	132	277	202	40	553	[1204]	(5)
Std Dev	0.84	%	11.0	23.0	16.8	3.3	45.9	[100.0]	(0.4)
Q1_8. Restorative justice			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.07	n	217	419	172	51	345	[1204]	(5)
Std Dev	0.83	%	18.0	34.8	14.3	4.2	28.7	[100.0]	(0.4)
Q1_9. Mandatory arrest for domestic violence			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.12	n	349	432	290	102	31	[1204]	(5)
Std Dev	0.94	%	29.0	35.9	24.1	8.5	2.6	[100.0]	(0.4)
Q1_10. Zero tolerance policing			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.64	n	166	364	381	273	20	[1204]	(5)
Std Dev	0.99	%	13.8	30.2	31.6	22.7	1.7	[100.0]	(0.4)
Q1_11. Procedural justice policing			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.10	n	149	359	185	17	494	[1204]	(5)
Std Dev	0.75	%	12.4	29.8	15.4	1.4	41.0	[100.0]	(0.4)
Q1_12. Drug diversion			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	1.77	n	496	493	170	28	17	[1204]	(5)
Std Dev	0.78	%	41.2	40.9	14.1	2.3	1.4	[100.0]	(0.4)
Q1_13. RBT			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.54	n	129	436	486	147	6	[1204]	(5)
Std Dev	0.84	%	10.7	36.2	40.4	12.2	0.5	[100.0]	(0.4)
Q1_14. Mobile devices for accessing police systems (e.g., iPads, tablets, etc)			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.10	n	69	188	449	434	64	[1204]	(5)
Std Dev	0.88	%	5.7	15.6	37.3	36.0	5.3	[100.0]	(0.4)
Q1_15. Body worn cameras			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.81	n	117	285	417	303	81	[1203]	(6)
Std Dev	0.95	%	9.7	23.7	34.7	25.2	6.7	[100.0]	(0.5)

Q2. When you decide to respond to a particular policing problem, which BEST describes your approach? (Check only one answer)

		n	Valid %
I use tactics that have worked for me in the past	1	652	60.9
I let calls for service and other public requests guide my response	2	75	7.0
I try new tactics that I hear about from my supervisors	3	84	7.8
I try new tactics that I have learned about from other sources. NAME SOURCE:	4	63	5.9
I try new tactics based on materials/data from crime analysis	5	197	18.4
	Total Valid	[1071]	[100.0]
	Missing Data	(138)	(11.4)

Q3. For each scenario, how willing would you be to take the following actions to test whether a particular tactic the police are currently using is effective?

			Not Willing At All	Slightly Willing	Moderately Willing	Very Willing	Extremely Willing		
Q3_1. Stop the tactic to see if the problem gets worse			1	2	3	4	5	Total Valid	Missing Data
Mean	2.68	n	205	224	408	190	49	[1076]	(133)
Std Dev	1.11	%	19.1	20.8	37.9	17.7	4.6	[100.0]	(11.0)
Q3_2. Stop the tactic in one small area and compare what happens in another area where you didn't stop the tactic			1	2	3	4	5	Total Valid	Missing Data
Mean	3.08	n	127	150	382	340	75	[1074]	(135)
Std Dev	1.10	%	11.8	14.0	35.6	31.7	7.0	[100.0]	(11.2)
Q3_3. Find the top 20 areas where this problem exists and toss a coin to assign 10 areas to have the tactic and 10 areas not to receive the tactic and compare			1	2	3	4	5	Total Valid	Missing Data
Mean	2.27	n	431	192	242	155	55	[1075]	(134)
Std Dev	1.26	%	40.1	17.9	22.5	14.4	5.1	[100.0]	(11.1)
Q3_4. Use data before the police implemented the tactic and compare it to data from after the tactic was up and running			1	2	3	4	5	Total Valid	Missing Data
Mean	3.55	n	62	103	268	464	177	[1074]	(135)
Std Dev	1.06	%	5.8	9.6	25.0	43.2	16.5	[100.0]	(11.2)
Q3_5. Approach a researcher from a university or research organisation to help you evaluate your tactic			1	2	3	4	5	Total Valid	Missing Data
Mean	2.67	n	273	229	250	218	103	[1073]	(136)
Std Dev	1.31	%	25.4	21.3	23.3	20.3	9.6	[100.0]	(11.2)

			Not Willing At All	Slightly Willing	Moderately Willing	Very Willing	Extremely Willing		
Q3_6. Seek assistance from within the organisation to create an evaluation method that would be acceptable to the organisation			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.51	n	48	120	293	468	145	[1074]	(135)
Std Dev	1.01	%	4.5	11.2	27.3	43.6	13.5	[100.0]	(11.2)
Q1_7. "Pulling levers" interventions for violent offenders			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.38	n	82	127	316	397	152	[1074]	(135)
Std Dev	1.10	%	7.6	11.8	29.4	37.0	14.2	[100.0]	(11.2)
Q3_8. Stop a tactic on the basis that a researcher told you there was research showing it was ineffective			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.67	n	195	268	363	189	58	[1073]	(136)
Std Dev	1.12	%	18.2	25.0	33.8	17.6	5.4	[100.0]	(11.2)
Q3_9. Try a new tactic to solve the problem			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	4.14	n	9	12	137	573	342	[1073]	(136)
Std Dev	0.74	%	0.8	1.1	12.8	53.4	31.9	[100.0]	(11.2)
Q3_10. Allow a member of your staff to try a new tactic to solve the problem			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	4.03	n	15	23	164	582	288	[1072]	(137)
Std Dev	0.80	%	1.4	2.1	15.3	54.3	26.9	[100.0]	(11.3)

Q4. What level of importance do you place on the information available from each of the sources listed below to inform your day-to-day operational decision-making?

			Very Unimportant	Unimportant	Neither Important nor Unimportant	Important	Very Important		
Q4_1. Intel officers within the WAP			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	4.14	n	12	49	103	512	382	[1058]	(151)
Std Dev	0.85	%	1.1	4.6	9.7	48.4	36.1	[100.0]	(12.5)
Q4_2. State Intelligence Division			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.93	n	24	55	190	492	297	[1058]	(151)
Std Dev	0.93	%	2.3	5.2	18.0	46.5	28.1	[100.0]	(12.5)
Q4_3. WAPol Staff with research-related roles			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.63	n	28	97	272	503	158	[1058]	(151)
Std Dev	0.94	%	2.6	9.2	25.7	47.5	14.9	[100.0]	(12.5)

			Very Unimportant	Unimportant	Neither Important nor Unimportant	Important	Very Important		
Q4_4. Federal or other state police			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.77	n	25	78	212	532	210	[1057]	(152)
Std Dev	0.93	%	2.4	7.4	20.1	50.3	19.9	[100.0]	(12.6)
Q4_5. Anti-corruption commissions			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.25	n	75	164	337	378	101	[1055]	(154)
Std Dev	1.06	%	7.1	15.5	31.9	35.8	9.6	[100.0]	(12.7)
Q4_6. Other government departments			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.54	n	27	92	314	532	91	[1056]	(153)
Std Dev	0.87	%	2.6	8.7	29.7	50.4	8.6	[100.0]	(12.7)
Q4_7. Non-government organisation's and private consultants			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.16	n	68	163	413	361	51	[1056]	(153)
Std Dev	0.96	%	6.4	15.4	39.1	34.2	4.8	[100.0]	(12.7)
Q4_8. University researchers			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.89	n	141	192	405	278	40	[1056]	(153)
Std Dev	1.06	%	13.4	18.2	38.4	26.3	3.8	[100.0]	(12.7)
Q4_9. News media			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.86	n	136	222	380	286	32	[1056]	(153)
Std Dev	1.05	%	12.9	21.0	36.0	27.1	3.0	[100.0]	(12.7)
Q4_10. Internet sources (e.g. Wikipedia)			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.94	n	116	192	427	281	40	[1056]	(153)
Std Dev	1.02	%	11.0	18.2	40.4	26.6	3.8	[100.0]	(12.7)
Q4_11. Academic Source (e.g. "What Works" website)			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.94	n	116	192	427	281	40	[1056]	(153)
Std Dev	1.02	%	11.0	18.2	40.4	26.6	3.8	[100.0]	(12.7)
Q4_12. WAPol Staff within BIO			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.33	n	47	110	441	360	97	[1055]	(154)
Std Dev	0.94	%	4.5	10.4	41.8	34.1	9.2	[100.0]	(12.7)
Q4_13. Evidence-based Policing Division			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.08	n	104	186	367	317	82	[1056]	(153)
Std Dev	1.08	%	9.8	17.6	34.8	30.0	7.8	[100.0]	(12.7)

Q5. What level of Trust do you place on the information available from each of the sources listed below to inform your day-to-day operational decision-making?

			Very Untrustworthy	Untrustworthy	Neither Trustworthy or Untrustworthy	Trustworthy	Very Trustworthy		
Q5_1. Intel officers within the WAP			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	4.15	n	7	11	111	606	305	[1040]	(169)
Std Dev	0.70	%	0.7	1.1	10.7	58.3	29.3	[100.0]	(14.0)
Q5_2. State Intelligence Division			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	4.14	n	9	13	116	591	311	[1040]	(169)
Std Dev	0.72	%	0.9	1.3	11.2	56.8	29.9	[100.0]	(14.0)
Q5_3. WAPol Staff with research-related roles			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.81	n	13	38	242	590	156	[1039]	(170)
Std Dev	0.78	%	1.3	3.7	23.3	56.8	15.0	[100.0]	(14.1)
Q5_4. Federal or other state police			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	4.07	n	6	6	131	663	234	[1040]	(169)
Std Dev	0.65	%	0.6	0.6	12.6	63.8	22.5	[100.0]	(14.0)
Q5_5. Anti-corruption commissions			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.48	n	44	85	344	461	106	[1040]	(169)
Std Dev	0.93	%	4.2	8.2	33.1	44.3	10.2	[100.0]	(14.0)
Q5_6. Other government departments			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.42	n	16	69	458	449	48	[1040]	(169)
Std Dev	0.75	%	1.5	6.6	44.0	43.2	4.6	[100.0]	(14.0)
Q5_7. Non-government organisation's and private consultants			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.07	n	41	128	609	246	16	[1040]	(169)
Std Dev	0.76	%	3.9	12.3	58.6	23.7	1.5	[100.0]	(14.0)
Q5_8. University researchers			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.15	n	57	111	527	305	40	[1040]	(169)
Std Dev	0.87	%	5.5	10.7	50.7	29.3	3.8	[100.0]	(14.0)
Q5_9. News media			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.25	n	231	374	383	50	2	[1040]	(169)
Std Dev	0.86	%	22.2	36.0	36.8	4.8	0.2	[100.0]	(14.0)
Q5_10. Internet sources (e.g. Wikipedia)			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.57	n	132	297	499	108	4	[1040]	(169)
Std Dev	0.86	%	12.7	28.6	48.0	10.4	0.4	[100.0]	(14.0)
Q5_11. Academic Source (e.g. "What Works" website)			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.94	n	79	165	556	223	17	[1040]	(169)
Std Dev	0.86	%	7.6	15.9	53.5	21.4	1.6	[100.0]	(14.0)

			Very Untrustworthy	Untrustworthy	Neither Trustworthy or Untrustworthy	Trustworthy	Very Trustworthy		
Q5_12. WAPol Staff within BIO			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.62	n	19	41	368	499	110	[1037]	(172)
Std Dev	0.80	%	1.8	4.0	35.5	48.1	10.6	[100.0]	(14.2)
Q5_13. Evidence-based Policing Division			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.44	n	54	71	378	435	99	[1037]	(172)
Std Dev	0.94	%	5.2	6.8	36.5	41.9	9.5	[100.0]	(14.2)

Q6. When it comes to accessing and using evidence-based policing research in your day-to-day operational decision-making, please indicate the extent of your agreement with the following statements:

			Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree		
Q6_1. I do not have the necessary skills to interpret results from statistical analyses			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.66	n	103	411	281	204	31	[1030]	(179)
Std Dev	1.00	%	10.0	39.9	27.3	19.8	3.0	[100.0]	(14.8)
Q6_2. I lack expertise in how to apply the results of research studies			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.75	n	76	404	284	234	32	[1030]	(179)
Std Dev	0.99	%	7.4	39.2	27.6	22.7	3.1	[100.0]	(14.8)
Q6_3. I lack sufficient decision-making power to ensure decision-making is based on research evidence			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.66	n	125	425	223	185	72	[1030]	(179)
Std Dev	1.12	%	12.1	41.3	21.7	18.0	7.0	[100.0]	(14.8)
Q6_4. I do not have enough time in the day or week to read relevant research studies			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.67	n	23	155	225	362	265	[1030]	(179)
Std Dev	1.08	%	2.2	15.0	21.8	35.1	25.7	[100.0]	(14.8)
Q6_5. I am not encouraged to use EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.30	n	33	179	392	298	128	[1030]	(179)
Std Dev	1.00	%	3.2	17.4	38.1	28.9	12.4	[100.0]	(14.8)
Q6_6. I have few opportunities to build relationships with researchers outside the police service			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.86	n	27	100	162	442	299	[1030]	(179)
Std Dev	1.03	%	2.6	9.7	15.7	42.9	29.0	[100.0]	(14.8)

			Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree		
Q6_7. My colleagues' opinions and experience is more useful to me than EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.61	n	16	93	381	329	211	[1030]	(179)
Std Dev	0.96	%	1.6	9.0	37.0	31.9	20.5	[100.0]	(14.8)
Q6_8. My own opinions and experience is more useful to me than EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.46	n	15	124	417	316	158	[1030]	(179)
Std Dev	0.94	%	1.5	12.0	40.5	30.7	15.3	[100.0]	(14.8)

Q7. What level of risk in each of the following domains would you be willing to accept when trying a new tactic to solve a police problem?

(Please slide the scale to the level of risk you would be willing to accept when trying a new tactic).

Q7_1. Cost/financial risk			**0-20**	**21-40**	**41-60**	**61-80**	**81-100**	**Total Valid**	**Missing Data**
Mean	61.48	n	78	108	271	351	195	[1003]	(206)
Std Dev	23.69	%	7.8	10.8	27.1	35.1	19.5	[100.0]	(17.0)
Q7_2. Risk to community safety			**0-20**	**21-40**	**41-60**	**61-80**	**81-100**	**Total Valid**	**Missing Data**
Mean	24.99	n	570	225	116	58	37	[1006]	(203)
Std Dev	23.47	%	56.7	22.5	11.6	5.8	3.7	[100.0]	(16.8)
Q7_3. Political risk			**0-20**	**21-40**	**41-60**	**61-80**	**81-100**	**Total Valid**	**Missing Data**
Mean	62.86	n	94	120	227	272	289	[1002]	(207)
Std Dev	27.10	%	9.4	12.0	22.7	27.2	28.9	[100.0]	(17.1)
Q7_4. Risk to officer safety			**0-20**	**21-40**	**41-60**	**61-80**	**81-100**	**Total Valid**	**Missing Data**
Mean	19.29	n	727	118	60	37	67	[1009]	(200)
Std Dev	26.83	%	72.1	11.8	6.0	3.7	6.7	[100.0]	(16.5)
Q7_5. Risk to the organisation's reputation			**0-20**	**21-40**	**41-60**	**61-80**	**81-100**	**Total Valid**	**Missing Data**
Mean	43.56	n	272	192	261	188	85	[997]	(212)
Std Dev	27.04	%	27.2	19.2	26.1	18.8	8.5	[100.0]	(17.5)
Q7_6. Risk to your personal reputation			**0-20**	**21-40**	**41-60**	**61-80**	**81-100**	**Total Valid**	**Missing Data**
Mean	43.28	n	307	159	221	204	111	[1003]	(206)
Std Dev	30.33	%	30.7	15.9	22.1	20.4	11.1	[100.0]	(17.0)

Q8. In the last 12 months, how often have you used evidence-based policing research to inform your decision-making?

			Never	Sometimes	About Half The Time	Most Of The Time	Always		
			1	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	1.97	n	360	442	106	97	9	[1014]	(195)
Std Dev	0.96	%	35.5	43.6	10.5	9.6	0.9	[100.0]	(16.1)

Q9. To what extent do you find research conducted by academics regarding police tactics useful?

			Not At All Useful	Slightly Useful	Moderately Useful	Very Useful	Extremely Useful		
			1	2	3	4	5	Total Valid	Missing Data
Mean	2.42	n	223	317	335	116	26	[1017]	(192)
Std Dev	1.03	%	21.9	31.2	32.9	11.4	2.6	[100.0]	(15.9)

Q10. To what extent do you find research conducted internally by your organisation regarding police tactics useful?

			Not At All Useful	Slightly Useful	Moderately Useful	Very Useful	Extremely Useful		
			1	2	3	4	5	Total Valid	Missing Data
Mean	3.08	n	76	186	382	325	49	[1018]	(191)
Std Dev	0.99	%	7.5	18.3	37.5	31.9	4.8	[100.0]	(15.8)

Q11. When it comes to the use of EBP research by police, please rate how much of a priority you think each of the following factors should be given:

			Not A Priority	Low Priority	Moderate Priority	High Priority		
Q11_1. The scientific quality of the research			1	2	3	4	Total Valid	Missing Data
Mean	3.05	n	63	167	397	342	[969]	(240)
Std Dev	0.89	%	6.5	17.2	41.0	35.3	[100.0]	(19.9)
Q11_2. That research findings are unbiased			1	2	3	4	Total Valid	Missing Data
Mean	3.39	n	41	94	276	558	[969]	(240)
Std Dev	0.83	%	4.2	9.7	28.5	57.6	[100.0]	(19.9)
Q11_3. Findings are available at a time when decisions need to be made			1	2	3	4	Total Valid	Missing Data
Mean	3.39	n	36	80	328	525	[969]	(240)
Std Dev	0.79	%	3.7	8.3	33.8	54.2	[100.0]	(19.9)
Q11_4. Findings have direct implications for police policy and practice			1	2	3	4	Total Valid	Missing Data
Mean	3.25	n	29	106	425	408	[968]	(241)
Std Dev	0.77	%	3.0	11.0	43.9	42.1	[100.0]	(19.9)
Q11_5. The research adds to theoretical knowledge			1	2	3	4	Total Valid	Missing Data
Mean	2.87	n	49	198	549	171	[967]	(242)
Std Dev	0.75	%	5.1	20.5	56.8	17.7	[100.0]	(20.0)
Q11_6. Research findings are written in a clear style			1	2	3	4	Total Valid	Missing Data
Mean	3.42	n	34	82	334	517	[967]	(242)
Std Dev	0.76	%	3.5	8.5	34.5	53.5	[100.0]	(20.0)
Q11_7. Any statistical analysis is clearly explained			1	2	3	4	Total Valid	Missing Data
Mean	3.42	n	30	68	334	535	[967]	(242)
Std Dev	0.76	%	3.1	7.0	34.5	55.3	[100.0]	(20.0)

			Not A Priority	Low Priority	Moderate Priority	High Priority		
Q11_8. Findings can be generalised to other police jurisdictions			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	2.75	n	73	260	471	162	[966]	(243)
Std Dev	0.82	%	7.6	26.9	48.8	16.8	[100.0]	(20.1)
Q11_9. Any reports provide brief summaries of key findings			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.27	n	27	97	432	411	[967]	(242)
Std Dev	0.75	%	2.8	10.0	44.7	42.5	[100.0]	(20.0)
Q11_10. Research recommendations are economically feasible			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	2.77	n	88	236	452	191	[967]	(242)
Std Dev	0.87	%	9.1	24.4	46.7	19.8	[100.0]	(20.0)
Q11_11. Research findings support a position already held			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	2.15	n	262	344	309	51	[966]	(243)
Std Dev	0.88	%	27.1	35.6	32.0	5.3	[100.0]	(20.1)
Q11_12. Research offers police new ways of thinking about an issue			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.11	n	43	122	485	316	[966]	(243)
Std Dev	0.79	%	4.5	12.6	50.2	32.7	[100.0]	(20.1)
Q11_13. Research recommendations are politically feasible			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	2.22	n	230	350	327	59	[966]	(243)
Std Dev	0.88	%	23.8	36.2	33.9	6.1	[100.0]	(20.1)
Q11_14. Reputation of the person producing the research			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	2.65	n	149	232	388	196	[965]	(244)
Std Dev	0.97	%	15.4	24.0	40.2	20.3	[100.0]	(20.2)
Q11_15. Reputation of the person communicating the research			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	2.63	n	148	232	413	173	[966]	(243)
Std Dev	0.95	%	15.3	24.0	42.8	17.9	[100.0]	(20.1)
Q11_16. Findings have direct implications for frontline policing priorities			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.34	n	33	99	344	491	[967]	(242)
Std Dev	0.80	%	3.4	10.2	35.6	50.8	[100.0]	(20.0)
Q11_17. Involvement of frontline officers in designing and executing the research			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.39	n	30	91	319	528	[968]	(241)
Std Dev	0.78	%	3.1	9.4	33.0	54.5	[100.0]	(19.9)

Q12. What level of importance would you place on the following research methods to inform a specific practice or decision you might take? (Please select the last column if you do not know what the method involves).

			Very Unimportant	Unimportant	Neither Important nor Unimportant	Important	Very Important	I Don't Know What This Method Involves		
Q12_1. Randomised control trials			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	3.52	n	31	71	250	396	83	121	[831]	(257)
Std Dev	0.92	%	3.7	8.5	30.1	47.7	10.0	10.0	[100.0]	(21.3)
Q12_2. Meta-analysis			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	3.40	n	26	48	225	263	37	353	[599]	(257)
Std Dev	0.89	%	4.3	8.0	37.6	43.9	6.2	29.2	[100.0]	(21.3)
Q12_3. Case studies			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	3.77	n	29	34	184	554	125	26	[926]	(257)
Std Dev	0.84	%	3.1	3.7	19.9	59.8	13.5	2.2	[100.0]	(21.3)
Q12_4. Surveys			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	3.32	n	52	83	361	380	49	25	[925]	(259)
Std Dev	0.92	%	5.6	9.0	39.0	41.1	5.3	2.1	[100.0]	(21.4)
Q12_5. Non-experimental studies			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	2.90	n	72	155	404	180	17	123	[828]	(258)
Std Dev	0.91	%	8.7	18.7	48.8	21.7	2.1	10.2	[100.0]	(21.3)
Q12_6. Quasi-experimental studies			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	3.00	n	47	98	342	168	12	285	[667]	(257)
Std Dev	0.87	%	7.0	14.7	51.3	25.2	1.8	23.6	[100.0]	(21.3)
Q12_7. Interviews			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	3.51	n	38	57	291	452	72	42	[910]	(257)
Std Dev	0.89	%	4.2	6.3	32.0	49.7	7.9	3.5	[100.0]	(21.3)
Q12_8. Ethnography			**1**	**2**	**3**	**4**	**5**		**Total Valid**	**Missing Data**
Mean	3.23	n	32	59	258	195	30	376	[574]	(259)
Std Dev	0.91	%	5.6	10.3	44.9	34.0	5.2	31.1	[100.0]	(21.4)

Q13. Thinking about the WAPol, to what extent do you agree that the following present barriers to the more wide spread use of EBP research

			Strongly Disagree	Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree		
Q13_1. Police do not see the value of EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.62	n	29	100	228	405	161	[923]	(286)
Std Dev	1.00	%	3.1	10.8	24.7	43.9	17.4	[100.0]	(23.7)

			Strongly Disagree	Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree		
Q13_2. Police see little benefit for themselves in using EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.67	n	25	96	228	387	186	[922]	(287)
Std Dev	1.00	%	2.7	10.4	24.7	42.0	20.2	[100.0]	(23.7)
Q13_3. Police are unwilling to change / try new ideas			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.08	n	104	232	177	309	100	[922]	(287)
Std Dev	1.21	%	11.3	25.2	19.2	33.5	10.8	[100.0]	(23.7)
Q13_4. There is not a documented need to change practice through EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.09	n	44	181	411	218	67	[921]	(288)
Std Dev	0.95	%	4.8	19.7	44.6	23.7	7.3	[100.0]	(23.8)
Q13_5. Police do not feel capable of evaluating the quality of EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.11	n	59	170	364	267	62	[922]	(287)
Std Dev	0.99	%	6.4	18.4	39.5	29.0	6.7	[100.0]	(23.7)
Q13_6. Police are isolated from knowledgeable colleagues with whom to discuss EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.50	n	27	118	264	377	135	[921]	(288)
Std Dev	1.08	%	2.9	12.8	28.7	40.9	14.7	[100.0]	(23.8)
Q13_7. Police are unaware of EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.50	n	41	143	205	377	155	[921]	(288)
Std Dev	1.08	%	4.5	15.5	22.3	40.9	16.8	[100.0]	(23.8)
Q13_8. There is insufficient time on the job to implement new ideas from EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.74	n	23	113	199	336	250	[921]	(288)
Std Dev	1.07	%	2.5	12.3	21.6	36.5	27.1	[100.0]	(23.8)
Q13_9. The resources are NOT adequate in supporting the translation of EBP research into practice			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.88	n	12	57	234	343	275	[921]	(288)
Std Dev	0.95	%	1.3	6.2	25.4	37.2	29.9	[100.0]	(23.8)
Q13_10. Police officers do not feel they have authority to change practice based on EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.70	n	21	84	259	345	212	[921]	(288)
Std Dev	1.00	%	2.3	9.1	28.1	37.5	23.0	[100.0]	(23.8)

			Strongly Disagree	Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree		
Q13_11. Police do not have the time to read EBP research			1	2	3	4	5	Total Valid	Missing Data
Mean	4.06	n	12	63	128	373	344	[920]	(289)
Std Dev	0.95	%	1.3	6.8	13.9	40.5	37.4	[100.0]	(23.9)
Q13_12. Police officers feel that findings from EBP research is not relevant to their own job			1	2	3	4	5	Total Valid	Missing Data
Mean	3.55	n	16	117	268	381	139	[921]	(288)
Std Dev	0.95	%	1.7	12.7	29.1	41.4	15.1	[100.0]	(23.8)
Q13_13. Senior police are not supportive of the implementation of EBP and practices			1	2	3	4	5	Total Valid	Missing Data
Mean	3.11	n	58	174	391	209	89	[921]	(288)
Std Dev	1.02	%	6.3	18.9	42.5	22.7	9.7	[100.0]	(23.8)
Q13_14. When a new idea is presented from the Executive, it is usually a fad, and things will eventually return to normal			1	2	3	4	5	Total Valid	Missing Data
Mean	3.76	n	20	98	222	327	254	[921]	(288)
Std Dev	1.04	%	2.2	10.6	24.1	35.5	27.6	[100.0]	(23.8)

Q14. Drawing on your experience concerning the use of EBP research, please indicate your opinion regarding the following statements

			Never	Rarely	Sometimes	Usually	Always		
Q14_1. I receive EBP research that is relevant to my work			1	2	3	4	5	Total Valid	Missing Data
Mean	2.19	n	241	351	236	70	12	[910]	(299)
Std Dev	0.96	%	26.5	38.6	25.9	7.7	1.3	[100.0]	(24.7)
Q14_2. I have read and understood the EBP research that I receive			1	2	3	4	5	Total Valid	Missing Data
Mean	2.81	n	193	160	242	245	66	[906]	(303)
Std Dev	1.25	%	21.3	17.7	26.7	27.0	7.3	[100.0]	(25.1)
Q14_3. I have participated in meetings for discussion of EBP research			1	2	3	4	5	Total Valid	Missing Data
Mean	1.83	n	484	206	129	68	22	[909]	(300)
Std Dev	1.08	%	53.2	22.7	14.2	7.5	2.4	[100.0]	(24.8)
Q14_4. I have cited EBP research in reports or documents			1	2	3	4	5	Total Valid	Missing Data
Mean	1.71	n	533	178	144	37	16	[908]	(301)
Std Dev	0.99	%	58.7	19.6	15.9	4.1	1.8	[100.0]	(24.9)

			Never	Rarely	Sometimes	Usually	Always		
Q14_5. I have adapted the findings of EBP research to provide information useful to police decision-making			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	1.98	n	383	242	216	51	16	[908]	(301)
Std Dev	1.02	%	42.2	26.7	23.8	5.6	1.8	[100.0]	(24.9)
Q14_6. I have made efforts to promote the adoption of EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.29	n	315	217	219	110	47	[908]	(301)
Std Dev	1.21	%	34.7	23.9	24.1	12.1	5.2	[100.0]	(24.9)
Q14_7. EBP research has influenced changes in policies and practices developed by the QPS			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.57	n	176	220	352	130	27	[905]	(304)
Std Dev	1.05	%	19.4	24.3	38.9	14.4	3.0	[100.0]	(25.1)

Q15. Please list the top THREE (3) operational areas you think place the greatest demands on the Western Australia Police in relation to costs and harms to the community

(Please list these in order of importance, with the first being the most important area).

Q15_1. Area 1		**Value Lable**	**Frequency**	**Valid %**
Mean	6.53	Alcohol/Drug Fuelled Violence	274	29.9
Std Dev	4.18	Child Protection	5	0.5
		Community Engagement	2	0.2
		Counter Terrorism/Countering Violent Extremism	4	0.4
		Crime Prevention	4	0.4
		Domestic and Family Violence	227	24.8
		Drug related crimes	133	14.5
		General Duties/Frontline policing	182	19.9
		Investigations/Prosecutions	6	0.7
		Major/Organised Crime	12	1.3
		Mental Health	18	2.0
		Personal Crime	8	0.9
		Property Crime	24	2.6
		Road Policing	13	1.4
		Other	3	0.3
		Total Valid	[915]	[100.0]
		Missing Data	(294)	(24.3)

Q15_2. Area 2		Value Lable	Frequency	Valid %
Mean	7.69	Alcohol/Drug Fuelled Violence	182	19.9
Std Dev	4.38	Child Protection	7	0.8
		Community Engagement	5	0.5
		Counter Terrorism/Countering Violent Extremism	10	1.1
		Crime Prevention	9	1.0
		Cyber and Financial Crime (+Fraud)	2	0.2
		Domestic and Family Violence	279	30.5
		Drug related crimes	121	13.2
		Events/Disasters	2	0.2
		General Duties/Frontline policing	61	6.7
		Investigations/Prosecutions	40	4.4
		Major/Organised Crime	19	2.1
		Mental Health	96	10.5
		Personal Crime	12	1.3
		Property Crime	30	3.3
		Road Policing	38	4.2
		Other	2	0.2
		Total Valid	[915]	[100.0]
		Missing Data	(294)	(24.3)
Q15_3. Area 3		**Value Lable**	**Frequency**	**Valid %**
Mean	9.86	Alcohol/Drug Fuelled Violence	90	9.8
Std Dev	4.37	Child Protection	11	1.2
		Community Engagement	6	0.7
		Counter Terrorism/Countering Violent Extremism	8	0.9
		Crime Prevention	6	0.7
		Cyber and Financial Crime (+Fraud)	6	0.7
		Domestic and Family Violence	124	13.6
		Drug related crimes	126	13.8
		Events/Disasters	2	0.2
		General Duties/Frontline policing	126	13.8
		Investigations/Prosecutions	54	5.9
		Major/Organised Crime	25	2.7
		Mental Health	145	15.9
		Personal Crime	17	1.9
		Property Crime	83	9.1
		Road Policing	75	8.2
		Other	10	1.1
		Total Valid	[914]	[100.0]
		Missing Data	(295	(24.4)
Q15_0. Other This question was qualitative:				
Frequency	30			
Valid Percent	2.5			

Q16. For the operational area you listed Area 1, to what extent do you think the current practices used by the WAPol are evidence-based?

			EBP is N/A	Not At All	Partially	Somewhat	Completely		
			1	2	3	4	5	Total Valid	Missing Data
Mean	2.97	n	43	242	343	249	27	[904]	(305)
Std Dev	0.92	%	4.8	26.8	37.9	27.5	3.0	[100.0]	(25.2)

Q17. For the operational area you listed Area 2, to what extent do you think the current practices used by the WAPol are evidence-based?

			EBP is N/A	Not At All	Partially	Somewhat	Completely		
			1	2	3	4	5	Total Valid	Missing Data
Mean	3.07	n	44	207	330	286	37	[904]	(305)
Std Dev	0.95	%	4.9	22.9	36.5	31.6	4.1	[100.0]	(25.2)

Q18. For the operational area you listed Area 3, to what extent do you think the current practices used by the WAPol are evidence-based?

			EBP is N/A	Not At All	Partially	Somewhat	Completely		
			1	2	3	4	5	Total Valid	Missing Data
Mean	3.04	n	42	229	325	267	41	[904]	(305)
Std Dev	0.96	%	4.6	25.3	36.0	29.5	4.5	[100.0]	(25.2)

Q19. Please rate the percentage that you think represents what the balance between Personal Experience and Scientific Knowledge should be in day-to-day decision making in the WAPol. The total should equal 100%. (e.g., if you think experience should be most important and scientific knowledge should make little contribution, you might rate experience as 90% and scientific knowledge as 10%)

Scientific Knowledge	Frequency	Valid %
0-30%	438	48.4
31-59%	357	39.4
60-100%	110	11.5
Missing Data	304	25.1
Personal Experience	**Frequency**	**Valid %**
0-30%	64	7.1
31-59%	221	24.2
60-100%	620	68.4
Missing Data	304	25.1

Q20. Please indicate your agreement with the following statements

			Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree		
Q20_1. Senior managers in WAPol don't listen to the views of their staff			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.76	n	21	114	173	338	251	[897]	(312)
Std Dev	1.07	%	2.3	12.7	19.3	37.7	28.0	[100.0]	(25.8)
Q20_2. I am happy with the level of communication I receive from senior managers			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.81	n	143	233	214	263	43	[896]	(313)
Std Dev	1.16	%	16.0	26.0	23.9	29.4	4.8	[100.0]	(25.9)
Q20_3. Senior managers are open and honest with staff			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.63	n	156	278	238	195	30	[897]	(312)
Std Dev	1.10	%	17.4	31.0	26.5	21.7	3.3	[100.0]	(25.8)
Q20_4. Decisions are made fairly in WAPol			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.46	n	197	261	287	133	18	[896]	(313)
Std Dev	1.05	%	22.0	29.1	32.0	14.8	2.0	[100.0]	(25.9)
Q20_5. In WAPol risk taking is encouraged without fear of punishment for mistakes			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	1.80	n	439	274	120	44	17	[894]	(315)
Std Dev	0.98	%	49.1	30.6	13.4	4.9	1.9	[100.0]	(26.1)
Q20_6. In WAPol area supervisors / team leaders are receptive to change			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.10	n	60	229	195	390	22	[896]	(313)
Std Dev	1.02	%	6.7	25.6	21.8	43.5	2.5	[100.0]	(25.9)
Q20_7. In WAPol senior leaders are receptive to change			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.93	n	95	235	233	298	32	[893]	(316)
Std Dev	1.08	%	10.6	26.3	26.1	33.4	3.6	[100.0]	(26.1)
Q20_8. In WAPol new practices and ways of doing business are encouraged			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.85	n	100	238	275	262	21	[896]	(313)
Std Dev	1.04	%	11.2	26.6	30.7	29.2	2.3	[100.0]	(25.9)
Q20_9. In WAPol new practices and ways of doing business are encouraged			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.61	n	154	215	377	131	19	[896]	(313)
Std Dev	1.00	%	17.2	24.0	42.1	14.6	2.1	[100.0]	(25.9)

Q21. Have you ever attended an Evidence-based Policing workshop?

		n	Valid %
Yes	1	229	25.4
No	2	650	72.1
Unsure	3	23	2.5
	Total Valid	[902]	[100.0]
	Missing Data	(307)	(25.4)

Q22. Are you interested in attending an Evidence-based Policing workshop?

		n	Valid %
Yes	1	452	50.2
No	2	303	33.6
Unsure	3	146	16.2
	Total Valid	[901]	[100.0]
	Missing Data	(308)	(25.5)

Q23. What is your gender?

		n	Valid %
Male	1	762	86.0
Female	2	124	14.0
	Total Valid	[886]	[100.0]
	Missing Data	(323)	(26.7)

Q24. How old are you?

		n	Valid %
18-24 years	1	17	1.9
25-29 years	2	64	7.1
30-34 years	3	92	10.2
35-39 years	4	114	12.6
40-44 years	5	167	18.5
45-49 years	6	189	20.9
50-54 years	7	165	18.3
55-60 years	8	95	10.5
	Total Valid	[886]	[100.0]
	Missing Data	(323)	(26.7)

Q25. How long have you worked in the QPS?

Years	Frequency	Valid %
0	2	0.2
1	13	1.4
1.5	3	0.3
2	28	3.1
2.5	6	0.7

Years	Frequency	Valid %
3	46	5.1
3.5	4	0.4
4	30	3.3
4.5	1	0.1
5	23	2.6
6	20	2.2
6.5	3	0.3
7	19	2.1
7.5	1	0.1
8	30	3.3
8.5	1	0.1
9	42	4.7
9.5	1	0.1
10	49	5.5
10.5	2	0.2
11	29	3.2
12	24	2.7
13	25	2.8
14	22	2.5
15	18	2.0
16	16	1.8
17	20	2.2
18	6	0.7
19	16	1.8
19.5	1	0.1
20	34	3.8
20.5	1	0.1
21	33	3.7
22	27	3.0
23	23	2.6
24	9	1.0
25	11	1.2
26	16	1.8
27	29	3.2
28	33	3.7
29	22	2.5
30	27	3.0
31	22	2.5
32	16	1.8
33	12	1.3
34	17	1.9
35	18	2.0

Years	Frequency	Valid %
36	8	0.9
37	11	1.2
38	7	0.8
39	6	0.7
40	5	0.6
41	3	0.3
41.5	1	0.1
42	3	0.3
43	2	0.2
Total	[897]	[100.0]
Missing	(312)	(25.8)

Q26. What is your highest educational achievement?

		n	Valid %
Postgraduate education	1	170	18.8
University / College degree	2	195	21.6
Trade / Technical certificate or diploma	3	321	35.6
Completed senior high school (year 12)	4	171	19.0
Completed junior school (year 10)	5	43	4.8
Primary school	6	1	0.1
No school	7	1	0.1
	Total Valid	[902]	[100.0]
	Missing Data	(307)	(25.4)

Q27. How important do you think pursuing higher education is for police officers in general?

			Not At All Important	Slightly Important	Moderately Important	Very Important	Extremely Important		
			1	2	3	4	5	Total Valid	Missing Data
Mean	3.07	n	108	125	367	203	101	[904]	(305)
Std Dev	1.13	%	11.9	13.8	40.6	22.5	11.2	[100.0]	(25.2)

Q28. What is your current position within WAPol?

		n	Valid %
Commissioned Officer	1	54	6.0
Sergeant Rank	2	356	39.9
Constable Rank	3	483	54.1
	Total Valid	[893]	[100.0]
	Missing Data	(316)	(26.1)

Q29. What is your Command/Portfolio in WAPol?

		n	Valid %
Metropolitan – North West	1	101	11.3
Metropolitan – Central	2	123	13.7
Metropolitan – South East	3	87	9.7
Metropolitan – South	4	79	8.8
Regional WA	5	224	25.0
Frontline Support	6	34	3.8
Other	7	247	27.6
	Total Valid	[895]	[100.0]
	Missing Data	(314)	(26.0)

Q30. Is there anything else you would like to comment about evidence-based policing or any issues raised in this survey?

This question was qualitative: **n = 182; Valid % = 18.2**

Appendix B: Queensland codebook

INFORMATION ABOUT THIS SURVEY

Researchers from the University of Queensland and the Queensland Police Service (QPS) are working together to identify how the use of evidence-based policing research can be facilitated across different operational areas. This includes assessing how police feel about the use of evidence-based policing research in police decision-making.

We invite you to participate in this research. Your feedback on whether evidence-based policing research can improve the effectiveness of the QPS in the short or long term is important. Your answers are being collected to identify the support that is required to assist police to use evidence-based research.

All of your answers are being collected on behalf of the School of Social Science to better identify how evidence can inform police decision-making.

Completion of the survey is voluntary. You can withdraw from the research at any time by not completing the questionnaire. It is expected that the survey will take about 20 minutes to complete.

The risks to you in completing this research are negligible. Your responses will remain confidential. Your personal information will **NOT** be disclosed with QPS or any third party unless required by law. Your responses will be converted to **de-identified data** and only disseminated in aggregate form to the QPS or beyond. By completing this survey you are consenting to participate in this research. If you choose not to complete the survey or choose not to answer any specific questions, you can do so without penalty, judgement or discriminatory treatment.

How Will You Have Access To The Results?

A published report will be made available to the QPS that will then be disseminated throughout the service.

Ethical Clearance

This study has been given ethical clearance by the University of Queensland and the Queensland Police Service.

This study adheres to the Guidelines of the ethical review process of The University of Queensland and the National Statement on Ethical Conduct in Human Research. Whilst you are free to discuss your participation in this study with project staff (Adrian Cherney contactable on 3365 6663 or email a.cherney@uq.edu.au), if you would like to speak to an officer of the University not involved in the study, you may contact the Ethics Coordinator on 3365 3924.

HOW TO PARTICIPATE

By pressing the 'NEXT' button, you consent to participate in this research. If you do not agree to these conditions you should not take part in this study and should "Exit" from the survey by quitting out of the browser window. To accommodate for your browser and device type, we may capture this information.

You can complete the survey online in two ways from 7th February to 7th of March, 2017:

1. You can complete the survey now by clicking the "NEXT" button at the bottom of this page
2. You can complete the survey at a later time by using the link https://uqissr.co1.qualtrics.com/SE/?SID=SV_3I8vmnLFGAgz24d or http://bit.ly/2hPMWyS

(Note: If you start the survey but are unable to complete it in one sitting, you can return to the survey using the same computer and internet browser within one week and pick up the survey where you left off. Please contact Emma Antrobus (e.antrobus@uq.edu.au or 3346 9306) if you have any questions.

Thank you very much for your feedback.

Evidence Based Policing in the QPS

In the following survey, reference will be made to the term **evidence-based policing (EBP)**. In this survey, evidence-based policing refers to the process of using the best research and scientific methods to make decisions in police work.

Q3. Below is a list of policing strategies. Indicate next to each strategy whether you think it is very effective, effective, somewhat effective, or not effective for reducing crime and disorder.

(Check the last column if you are unaware of the tactic).

			Not Effective	Somewhat Effective	Effective	Very Effective	Unaware of Tactic		
Q3_1. Random preventive patrol			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.17	n	28	51	25	11	2	[117]	(0)
Std Dev	0.91	%	23.9	43.6	21.4	9.4	1.7	[100.0]	(0.0)
Q3_2. Hot spots policing			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.04	n	1	23	62	30	1	[117]	(0)
Std Dev	0.70	%	0.9	19.7	53.0	25.6	99.1	[100.0]	(0.0)
Q3_3. Community-oriented policing			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.62	n	8	43	49	15	2	[117]	(0)
Std Dev	0.80	%	6.8	36.8	41.9	12.8	1.7	[100.0]	(0.0)

			Not Effective	Somewhat Effective	Effective	Very Effective	Unaware of Tactic		
Q3_4. Problem-oriented policing			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.81	n	8	25	64	19	1	[117]	(0)
Std Dev	0.79	%	6.8	21.4	54.7	16.2	0.9	[100.0]	(0.0)
Q3_5. Rapid response to 000 calls			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.78	n	12	30	42	29	3	[116]	(1)
Std Dev	0.95	%	10.3	25.6	35.9	24.8	2.6	[100.0]	(0.9)
Q3_6. Follow up visits for domestic violence			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.80	n	7	30	51	22	7	[117]	(0)
Std Dev	0.83	%	6.0	25.6	43.6	18.8	6.0	[100.0]	(0.0)
Q3_7. "Pulling levers" interventions for violent offenders			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.57	n	6	28	35	7	41	[117]	(0)
Std Dev	0.77	%	5.1	23.9	29.9	6.0	35.0	[100.0]	(0.0)
Q3_8. Restorative justice			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.30	n	17	43	30	8	19	[117]	(0)
Std Dev	0.85	%	14.5	36.8	25.6	6.8	16.2	[100.0]	(0.0)
Q3_9. Mandatory arrest for domestic violence			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.58	n	9	46	42	16	4	[117]	(0)
Std Dev	0.83	%	7.7	39.3	35.9	13.7	3.4	[100.0]	(0.0)
Q3_10. Zero tolerance policing			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.47	n	19	40	39	17	2	[117]	(0)
Std Dev	0.94	%	16.2	34.2	33.3	14.5	1.7	[100.0]	(0.0)
Q3_11. Procedural justice policing			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.56	n	8	41	31	15	22	[117]	(0)
Std Dev	0.86	%	6.8	35.0	26.5	12.8	18.8	[100.0]	(0.0)
Q3_12. Drug diversion			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	1.85	n	41	53	18	3	2	[117]	(0)
Std Dev	0.78	%	35.0	45.3	15.4	2.6	1.7	[100.0]	(0.0)
Q3_13. RBT			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.76	n	8	33	53	21	2	[117]	(0)
Std Dev	0.83	%	6.8	28.2	45.3	17.9	1.7	[100.0]	(0.0)
Q3_14. Mobile devices for accessing police systems (e.g., iPads, tablets, etc)			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.20	n	2	18	51	45	1	[117]	(0)
Std Dev	0.76	%	1.7	15.4	43.6	38.5	0.9	[100.0]	(0.0)
Q3_15. Body worn cameras			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.20	n	2	23	41	50	1	[117]	(0)
Std Dev	0.82	%	1.7	19.7	35.0	42.7	0.9	[100.0]	(0.0)

Q4. When you decide to respond to a particular policing problem, which BEST describes your approach? (Check only one answer)

		n	Valid %
I use tactics that have worked for me in the past	1	30	27.8
I let calls for service and other public requests guide my response	2	7	6.5
I try new tactics that I hear about from my supervisors	3	3	2.8
I try new tactics that I have learned about from other sources. NAME SOURCE:	4	19	17.6
I try new tactics based on materials/data from crime analysis	5	49	45.4
	Total Valid	[108]	[100.0]
	Missing Data	(9)	(7.7)

Q5. How willing would you be to take the following actions to test whether a particular tactic the police are currently using is effective?

			Not Willing At All	Slightly Willing	Moderately Willing	Very Willing	Extremely Willing		
Q5_1. Stop the tactic to see if the problem gets worse			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.56	n	17	36	35	18	2	[108]	(9)
Std Dev	1.01	%	15.7	33.3	32.4	16.7	1.9	[100.0]	(7.7)
Q5_2. Stop the tactic in one small area and compare what happens in another area where you didn't stop the tactic			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.32	n	7	15	31	47	8	[108]	(9)
Std Dev	1.02	%	6.5	13.9	28.7	43.5	7.4	[100.0]	(7.7)
Q5_3. Find the top 20 areas where this problem exists and toss a coin to assign 10 areas to have the tactic and 10 areas not to receive the tactic and compare			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.35	n	46	13	18	27	4	[108]	(9)
Std Dev	1.35	%	42.6	12.0	16.7	25.0	3.7	[100.0]	(7.7)
Q5_4. Use data before the police implemented the tactic and compare it to data from after the tactic was up and running			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	4.02	n	0	6	15	58	29	[108]	(9)
Std Dev	0.80	%	0.0	5.6	13.9	53.7	26.9	[100.0]	(7.7)
Q5_5. Approach a researcher from a university or research organisation to help you evaluate your tactic			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.52	n	5	17	21	47	18	[108]	(9)
Std Dev	1.09	%	4.6	15.7	19.4	43.5	16.7	[100.0]	(7.7)

			Not Willing At All	Slightly Willing	Moderately Willing	Very Willing	Extremely Willing		
Q5_6. Seek assistance from within the organisation to create an evaluation method that would be acceptable to the organisation			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.68	n	5	7	24	54	18	[108]	(9)
Std Dev	0.98	%	4.6	6.5	22.2	50.0	16.7	[100.0]	(7.7)
Q5_7. Undertake online research to try and find out what others have done			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.94	n	1	7	18	53	29	[108]	(9)
Std Dev	0.88	%	0.9	6.5	16.7	49.1	26.9	[100.0]	(7.7)
Q5_8. Stop a tactic on the basis that a researcher told you there was research showing it was ineffective			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.09	n	6	28	38	22	14	[108]	(9)
Std Dev	1.10	%	5.6	25.9	35.2	20.4	13.0	[100.0]	(7.7)
Q5_9. Try a new tactic to solve the problem			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	4.32	n	0	1	9	53	45	[108]	(9)
Std Dev	0.67	%	0.0	0.9	8.3	49.1	41.7	[100.0]	(7.7)
Q5_10. Allow a member of your staff to try a new tactic to solve the problem			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	4.32	n	0	2	8	51	47	[108]	(9)
Std Dev	0.70	%	0.0	1.9	7.4	47.2	43.5	[100.0]	(7.7)

Q6. What level of importance do you place on the information available from each of the sources listed below to inform your day-to-day operational decision-making?

			Very Unimportant	Unimportant	Neither Important nor Unimportant	Important	Very Important		
Q6_1. Intel officers within the QPS			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	4.21	n	1	3	10	52	42	[108]	(9)
Std Dev	0.80	%	0.9	2.8	9.3	48.1	38.9	[100.0]	(7.7)
Q6_2. Statistical Services staff			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.54	n	4	4	38	54	8	[108]	(9)
Std Dev	0.84	%	3.7	3.7	35.2	50.0	7.4	[100.0]	(7.7)
Q6_3. QPS Staff with research-related roles			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.74	n	3	6	22	62	15	[108]	(9)
Std Dev	0.87	%	2.8	5.6	20.4	57.4	13.9	[100.0]	(7.7)
Q6_4. Federal or other state police			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.84	n	1	4	19	71	13	[108]	(9)
Std Dev	0.71	%	0.9	3.7	17.6	65.7	12.0	[100.0]	(7.7)

			Very Unimportant	Unimportant	Neither Important nor Unimportant	Important	Very Important		
Q6_5. Anti-corruption commissions			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.43	n	5	8	38	50	7	[108]	(9)
Std Dev	0.90	%	4.6	7.4	35.2	46.3	6.5	[100.0]	(7.7)
Q6_6. Other government departments			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.76	n	3	3	21	71	10	[108]	(9)
Std Dev	0.77	%	2.8	2.8	19.4	65.7	9.3	[100.0]	(7.7)
Q6_7. Non-government organisations and private consultants			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.55	n	5	5	32	58	8	[108]	(9)
Std Dev	0.88	%	4.6	4.6	29.6	53.7	7.4	[100.0]	(7.7)
Q6_8. University researchers			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.57	n	4	11	23	60	10	[108]	(9)
Std Dev	0.93	%	3.7	10.2	21.3	55.6	9.3	[100.0]	(7.7)
Q6_9. News media			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.24	5	12	47	40	4	[108]	(9)	(9)
Std Dev	0.87	4.6	11.1	43.5	37.0	3.7	[100.0]	(7.7)	(7.7)
Q6_10. Internet sources (e.g., Wikipedia)			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.04	n	6	16	58	24	4	[108]	(9)
Std Dev	0.86	%	5.6	14.8	53.7	22.2	3.7	[100.0]	(7.7)

Q8. What level of importance do you place on the information available from each of the sources listed below to inform your day-to-day operational decision-making?

			Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree		
Q8_1. I do not have the necessary skills to interpret results from statistical analyses			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.53	n	9	56	23	14	5	[107]	(10)
Std Dev	0.98	%	8.4	52.3	21.5	13.1	4.7	[100.0]	(8.5)
Q8_2. I lack expertise in how to apply the results of research studies			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.34	n	16	54	22	15	0	[107]	(10)
Std Dev	0.90	%	15.0	50.5	20.6	14.0	0.0	[100.0]	(8.5)
Q8_3. I lack sufficient decision-making power to ensure decision-making is based on research evidence			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.23	n	23	54	15	12	3	[107]	(10)
Std Dev	1.01	%	21.5	50.5	14.0	11.2	2.8	[100.0]	(8.5)

			Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree		
Q8_4. I do not have enough time in the day or week to read relevant research studies			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.16	n	4	29	33	28	13	[107]	(10)
Std Dev	1.07	%	3.7	27.1	30.8	26.2	12.1	[100.0]	(8.5)
Q8_5. I am not encouraged to use EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.78	n	8	45	25	21	8	[107]	(10)
Std Dev	1.08	%	7.5	42.1	23.4	19.6	7.5	[100.0]	(8.5)
Q8_6. I have few opportunities to build relationships with researchers outside the police service			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.27	n	6	30	14	43	14	[107]	(10)
Std Dev	1.17	%	5.6	28.0	13.1	40.2	13.1	[100.0]	(8.5)
Q8_7. My colleagues opinions and experience is more useful to me than EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.85	n	5	34	45	18	5	[107]	(10)
Std Dev	0.92	%	4.7	31.8	42.1	16.8	4.7	[100.0]	(8.5)
Q8_8. My own opinions and experience is more useful to me than EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.79	n	6	14	45	36	6	[107]	(10)
Std Dev	0.94	%	5.6	33.6	42.1	13.1	5.6	[100.0]	(8.5)

Q9. What level of risk in each of the following domains would you be willing to accept when trying a new tactic to solve a police problem?

(Please slide the scale to the level of risk you would be willing to accept when trying a new tactic).

Q9_1. Cost/financial risk			**0-20**	**21-40**	**41-60**	**61-80**	**81-100**	**Total Valid**	**Missing Data**
Mean	57.84	n	4	23	23	43	11	[104]	(13)
Std Dev	21.39	%	3.8	22.1	22.1	41.3	10.6	[100.0]	(11.1)
Q9_2. Risk to community safety			**0-20**	**21-40**	**41-60**	**61-80**	**81-100**	**Total Valid**	**Missing Data**
Mean	19.68	n	66	27	6	4	2	[105]	(12)
Std Dev	20.07	%	62.9	25.7	5.7	3.8	1.9	[100.0]	(10.3)
Q9_3. Political risk			**0-20**	**21-40**	**41-60**	**61-80**	**81-100**	**Total Valid**	**Missing Data**
Mean	50.63	n	18	22	20	34	11	[105]	(12)
Std Dev	26.00	%	17.1	21.0	19.0	32.4	10.5	[100.0]	(10.3)
Q9_4. Risk to officer safety			**0-20**	**21-40**	**41-60**	**61-80**	**81-100**	**Total Valid**	**Missing Data**
Mean	16.79	n	74	22	4	2	3	[105]	(12)
Std Dev	20.01	%	70.5	21.0	3.8	1.9	2.9	[100.0]	(10.3)

Q9_5. Risk to the organisation's reputation			0-20	21-40	41-60	61-80	81-100	Total Valid	Missing Data
Mean	31.17	n	43	25	22	13	2	[105]	(12)
Std Dev	24.11	%	41.0	23.8	21.0	12.4	1.9	[100.0]	(10.3)
Q9_6. Risk to your personal reputation			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	50.92	n	21	13	26	35	9	[104]	(13)
Std Dev	26.74	%	20.2	12.5	25.0	33.7	8.7	[100.0]	(11.1)

Q11. In the last 12 months, how often have you used evidence-based policing research to inform your decision-making?

			Never	Sometimes	About Half The Time	Most Of The Time	Always		
			1	2	3	4	5	Total Valid	Missing Data
Mean	2.48	n	14	55	10	24	2	[105]	(12)
Std Dev	1.05	%	13.3	52.4	9.5	22.9	1.9	[100.0]	(10.3)

Q12. To what extent do you find research conducted by academics regarding police tactics useful?

			Not At All Useful	Slightly Useful	Moderately Useful	Very Useful	Extremely Useful		
			1	2	3	4	5	Total Valid	Missing Data
Mean	3.12	n	5	25	38	28	10	[106]	(11)
Std Dev	1.03	%	4.7	23.6	35.8	26.4	9.4	[100.0]	(9.4)

Q13. To what extent do you find research conducted internally by your organisation regarding police tactics useful?

			Not At All Useful	Slightly Useful	Moderately Useful	Very Useful	Extremely Useful		
			1	2	3	4	5	Total Valid	Missing Data
Mean	3.27	n	4	18	38	37	9	[106]	(11)
Std Dev	0.97	%	3.8	17.0	35.8	34.9	8.5	[100.0]	(9.4)

Q15. When it comes to the use of EBP research by police, please rate how much of a priority you think each of the following factors should be given:

			Not A Priority	Low Priority	Moderate Priority	High Priority		
Q15_1. The scientific quality of the research			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.36	n	2	11	38	52	[103]	(14)
Std Dev	0.75	%	1.9	10.7	36.9	50.5	[100.0]	(12.0)
Q15_2. That research findings are unbiased			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.68	n	2	4	19	78	[103]	(14)
Std Dev	0.65	%	1.9	3.9	18.4	75.7	[100.0]	(12.0)
Q15_3. Findings are available at a time when decisions need to be made			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.51	n	2	6	33	62	[103]	(14)
Std Dev	0.70	%	1.9	5.8	32.0	60.2	[100.0]	(12.0)

			Not A Priority	Low Priority	Moderate Priority	High Priority		
Q15_4. Findings have direct implications for police policy and practice			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.43	n	1	8	40	54	[103]	(14)
Std Dev	0.68	%	1.0	7.8	38.8	52.4	[100.0]	(12.0)
Q15_5. The research adds to theoretical knowledge			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.08	n	3	17	52	31	[103]	(14)
Std Dev	0.76	%	2.9	16.5	50.5	30.1	[100.0]	(12.0)
Q15_6. Research findings are written in a clear style			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.65	n	1	3	27	72	[103]	(14)
Std Dev	0.59	%	1.0	2.9	26.2	69.9	[100.0]	(12.0)
Q15_7. Any statistical analysis is clearly explained			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.62	n	1	4	28	70	[103]	(14)
Std Dev	0.61	%	1.0	3.9	27.2	68.0	[100.0]	(12.0)
Q15_8. Findings can be generalised to other police jurisdictions			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	2.89	n	3	28	49	23	[103]	(14)
Std Dev	0.78	%	2.9	27.2	47.6	22.3	[100.0]	(12.0)
Q15_9. Any reports provide brief summaries of key findings			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.61	n	1	5	27	70	[103]	(14)
Std Dev	0.63	%	1.0	4.9	26.2	68.0	[100.0]	(12.0)
Q15_10. Research recommendations are economically feasible			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.27	n	2	12	45	44	[103]	(14)
Std Dev	0.74	%	1.9	11.7	43.7	42.7	[100.0]	(12.0)
Q15_11. Research findings support a position already held			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	1.89	n	39	41	18	5	[103]	(14)
Std Dev	0.86	%	37.9	39.8	17.5	4.9	[100.0]	(12.0)
Q15_12. Research offers police new ways of thinking about an issue			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	3.41	n	2	6	43	52	[103]	(14)
Std Dev	0.69	%	1.9	5.8	41.7	50.5	[100.0]	(12.0)
Q15_13. Research recommendations are politically feasible			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	2.68	n	10	29	48	16	[103]	(14)
Std Dev	0.85	%	9.7	28.2	46.6	15.5	[100.0]	(12.0)
Q15_14. Reputation of the person producing the research			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	2.81	n	7	25	52	19	[103]	(14)
Std Dev	0.82	%	6.8	24.3	50.5	18.4	[100.0]	(12.0)
Q15_15. Reputation of the person communicating the research			**1**	**2**	**3**	**4**	**Total Valid**	**Missing Data**
Mean	2.85	n	7	23	52	21	[103]	(14)

			Not A Priority	Low Priority	Moderate Priority	High Priority		
Std Dev	0.83	%	6.8	22.3	50.5	20.4	[100.0]	(12.0)

Q17. What level of importance would you place on the following research methods to inform a specific practice or decision you might take? (Please select the last column if you do know what the method involves).

			Very Unimportant	Unimportant	Neither Important nor Unimportant	Important	Very Important	I Don't Know What This Method Involves		
Q17_1. Randomised control trials			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	4.07	n	2	5	15	45	22	8	[97]	(20)
Std Dev	1.05	%	2.1	5.2	15.5	46.4	22.7	8.2	[100.0]	(17.1)
Q17_2. Meta-analysis			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	4.16	n	2	7	18	43	8	23	[101]	(16)
Std Dev	1.27	%	2.0	6.9	17.8	42.6	7.9	22.8	[100.0]	(13.7)
Q17_3. Case studies			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	4.08	n	1	1	8	70	21	0	[101]	(16)
Std Dev	0.64	%	1.0	1.0	7.9	69.3	20.8	0	[100.0]	(13.7)
Q17_4. Surveys			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	3.52	n	4	6	31	53	5	1	[100]	(17)
Std Dev	0.88	%	4.0	6.0	31.0	53.0	5.0	1.0	[100.0]	(14.5)
Q17_5. Non-experimental studies			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	3.47	n	4	10	50	22	2	13	[101]	(16)
Std Dev	1.23	%	4.0	9.9	49.5	21.8	2.0	12.9	[100.0]	(13.7)
Q17_6. Quasi-experimental studies			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	3.77	n	3	9	35	33	3	18	[101]	(16)
Std Dev	1.30	%	3.0	8.9	34.7	32.7	3.0	17.8	[100.0]	(13.7)
Q17_7. Interviews			**1**	**2**	**3**	**4**	**5**	**9**	**Total Valid**	**Missing Data**
Mean	3.79	n	1	3	22	65	10	0	[101]	(16)
Std Dev	0.70	%	1.0	3.0	21.8	64.4	9.9	0	[100.0]	(13.7)
Q17_8. Ethnography			**1**	**2**	**3**	**4**	**5**		**Total Valid**	**Missing Data**
Mean	4.33	n	3	1	29	30	3	35	[101]	(16)
Std Dev	1.39	%	3.0	1.0	28.7	29.7	3.0	34.7	[100.0]	(13.7)

Q18. In general terms, how often do you think police agencies in Australia...

			Never	Rarely	Occasionally	Sometimes	Frequently		
Q18_1. Set up meetings or workshops to discuss EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.87	n	6	33	33	26	3	[101]	(16)

			Never	Rarely	Occasionally	Sometimes	Frequently		
Std Dev	0.97	%	5.9	32.7	32.7	25.7	3.0	[100.0]	(13.7)
Q18_2. Organise training activities which integrate research into police practice			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.77	n	7	38	30	23	3	[101]	(16)
Std Dev	0.98	%	6.9	37.6	29.7	22.8	3.0	[100.0]	(13.7)
Q18_3. Invest material or financial resources in the dissemination of EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.76	n	7	36	32	26	0	[101]	(16)
Std Dev	0.92	%	6.9	35.6	31.7	25.7	0.0	[100.0]	(13.7)
Q18_4. Develop new approaches, new interventions, or new delivery systems based on EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.92	n	5	31	34	29	2	[101]	(16)
Std Dev	0.94	%	5.0	30.7	33.7	28.7	2.0	[100.0]	(13.7)
Q18_5. Use EBP research to guide their decision-making			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.17	n	6	39	24	28	3	[100]	(17)
Std Dev	1.01	%	3.0	28.0	24.0	39.0	6.0	[100.0]	(14.5)
Q18_6. Have formal contact with University researchers regarding EBP strategies			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.44	n	3	17	29	37	15	[101]	(16)
Std Dev	1.03	%	3.0	16.8	28.7	36.6	14.9	[100.0]	(13.7)
Q18_7. Have informal contact with University researchers regarding EBP strategies			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.39	n	3	19	29	36	14	[101]	(16)
Std Dev	1.04	%	3.0	18.8	28.7	35.6	13.9	[100.0]	(13.7)

Q20. Thinking about the QPS, to what extent do you agree that the following present barriers to the more wide spread use of EBP research

			Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree		
Q20_1. Police do not see the value of EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.64	n	3	11	20	51	15	[100]	(17)
Std Dev	0.97	%	3.0	11.0	20.0	51.0	15.0	[100.0]	(14.5)
Q20_2. Police see little benefit for themselves in using EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.58	n	3	15	17	51	14	[100]	(17)
Std Dev	1.01	%	3.0	15.0	17.0	51.0	14.0	[100.0]	(14.5)

			Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree		
Q20_3. Police are unwilling to change / try new ideas			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.02	n	8	40	7	32	13	[100]	(17)
Std Dev	1.26	%	8.0	40.0	7.0	32.0	13.0	[100.0]	(14.5)
Q20_4. There is not a documented need to change practice through EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.84	n	15	25	26	29	5	[100]	(17)
Std Dev	1.15	%	15.0	25.0	26.0	29.0	5.0	[100.0]	(14.5)
Q20_5. Police do not feel capable of evaluating the quality of EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.25	n	6	18	26	45	5	[100]	(17)
Std Dev	1.01	%	6.0	18.0	26.0	45.0	5.0	[100.0]	(14.5)
Q20_6. Police are isolated from knowledgeable colleagues with whom to discuss EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.58	n	3	14	17	54	12	[100]	(17)
Std Dev	0.98	%	3.0	14.0	17.0	54.0	12.0	[100.0]	(14.5)
Q20_7. Police are unaware of EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.61	n	4	17	11	50	18	[100]	(17)
Std Dev	1.09	%	4.0	17.0	11.0	50.0	18.0	[100.0]	(14.5)
Q20_8. There is insufficient time on the job to implement new ideas from EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.38	n	5	23	15	43	14	[100]	(17)
Std Dev	1.14	%	5.0	23.0	15.0	43.0	14.0	[100.0]	(14.5)
Q20_9. The resources are NOT adequate in supporting the translation of EBP research into practice			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.77	n	2	11	17	48	22	[100]	(17)
Std Dev	0.98	%	2.0	11.0	17.0	48.0	22.0	[100.0]	(14.5)
Q20_10. Police staff do not feel they have authority to change practice based on EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.56	n	3	18	17	44	18	[100]	(17)
Std Dev	1.08	%	3.0	18.0	17.0	44.0	18.0	[100.0]	(14.5)
Q20_11. Police do not have the time to read EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.62	n	4	14	19	42	21	[100]	(17)
Std Dev	1.09	%	4.0	14.0	19.0	42.0	21.0	[100.0]	(14.5)

			Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree		
Q20_12. Police staff feel that findings from EBP research is not relevant to their own job			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.34	n	3	17	32	39	9	[100]	(17)
Std Dev	0.97	%	3.0	17.0	32.0	39.0	9.0	[100.0]	(14.5)
Q20_13. Senior police are not supportive of the implementation of EBP and practices			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.61	n	16	33	31	14	6	[100]	(17)
Std Dev	1.10	%	16.0	33.0	31.0	14.0	6.0	[100.0]	(14.5)
Q20_14. When a new idea is presented from top commanders, it is usually a fad, and things will eventually return to normal			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.95	n	12	27	25	26	10	[100]	(17)
Std Dev	1.19	%	12.0	27.0	25.0	26.0	10.0	[100.0]	(14.5)

Q22. Drawing on your experience concerning the use of EBP research, please indicate your opinion regarding the following statements.

			Never	Rarely	Sometimes	Usually	Always		
Q22_1. I receive EBP research that is relevant to my work			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.69	n	6	36	42	13	2	[99]	(18)
Std Dev	0.85	%	6.1	36.4	42.4	13.1	2.0	[100.0]	(15.4)
Q22_2. I have read and understood the EBP research that I receive			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.58	n	4	9	24	48	13	[99]	(18)
Std Dev	0.97	%	4.1	9.2	24.5	49.0	13.3	[100.0]	(15.4)
Q22_3. I have participated in meetings for discussion of EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.58	n	23	23	27	25	1	[99]	(18)
Std Dev	1.14	%	23.2	23.2	27.3	25.3	1.0	[100.0]	(15.4)
Q22_4. I have cited EBP research in reports or documents			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.49	n	22	26	33	17	1	[99]	(18)
Std Dev	1.05	%	22.2	26.3	33.3	17.2	1.0	[100.0]	(15.4)
Q22_5. I have adapted the findings of EBP research to provide information useful to police decision-making			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.76	n	12	24	41	20	2	[99]	(18)
Std Dev	0.98	%	12.1	24.2	41.4	20.2	2.0	[100.0]	(15.4)

			Never	Rarely	Sometimes	Usually	Always		
Q22_6. I have made efforts to promote the adoption of EBP research			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.10	n	14	15	30	27	13	[99]	(18)
Std Dev	1.23	%	14.1	15.2	30.3	27.3	13.1	[100.0]	(15.4)
Q22_7. EBP research has influenced changes in policies and practices developed by the QPS			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.83	n	8	24	47	17	3	[99]	(18)
Std Dev	0.92	%	8.1	24.2	47.5	17.2	3.0	[100.0]	(15.4)

Q23. Please list the top THREE (3) operational areas you think place the greatest demands on the QPS in relation to costs and harms to the community

(Please list these in order of importance, with the first being the most important area).

Q23_1. Area 1		
Values Label	**Frequency**	**Valid %**
Domestic and Family Violence	32	27.4
Property Crime	1	0.9
Drug Related Crimes	12	10.3
General Duties/Frontline policing	25	21.4
Major/Organised Crime	2	1.7
Road Policing	4	3.4
Child Protection	1	0.9
Mental Health	4	3.4
Counter Terrorism/Countering Violent Extremism	1	0.9
Crime Prevention	2	1.7
Personal Crime	1	0.9
Other	10	8.5
Total Valid	[117]	[100.0]
Missing Data	(22)	(18.8)

Q23_2. Area 2		
Values Label	**Frequency**	**Valid %**
Domestic and Family Violence	17	14.5
Property Crime	2	1.7
Cyber and Financial Crime (+Fraud)	1	0.9
Drug Related Crimes	21	17.9
General Duties/Frontline policing	8	6.8
Major/Organised Crime	1	0.9
Events/Disasters	1	0.9
Investigations/Prosecutions	9	7.7
Alcohol/Drug Fuelled Violence	1	0.9
Road Policing	14	12.0

Q23_2. Area 2		
Values Label	**Frequency**	**Valid %**
Child Protection	4	3.4
Mental Health	7	6.0
Counter Terrorism/Countering Violent Extremism	3	2.6
Community Engagement	1	0.9
Personal Crime	2	1.7
Other	3	2.6
Total Valid	[117]	[100.0]
Missing Data	(22)	(18.8)

Q23_3. Area 3		
Value Label	**Frequency**	**Valid %**
Domestic and Family Violence	9	7.7
Property Crime	1	0.9
Cyber and Financial Crime (+Fraud)	3	2.6
Drug Related Crimes	9	7.7
General Duties/Frontline policing	11	9.4
Major/Organised Crime	2	1.7
Events/Disasters	3	2.6
Investigations/Prosecutions	4	3.4
Alcohol/Drug Fuelled Violence	8	6.8
Road Policing	23	19.7
Child Protection	1	0.9
Mental Health	6	5.1
Community Engagement	2	1.7
Personal Crime	4	3.4
Other	9	7.7
Total Valid	[117]	[100.0]
Missing Data	(22)	(18.8)

Q25. For the operational area you listed Area 1, to what extent do you think the current practices used by the QPS are evidence based?

			EBP is N/A	Not At All	Partially	Somewhat	Completely		
			1	2	3	4	5	Total Valid	Missing Data
Mean	3.19	n	2	16	42	34	2	[117]	(21)
Std Dev	0.81	%	2.1	16.7	43.8	35.4	2.1	[100.0]	(17.9)

Q26. For the operational area you listed Area 2, to what extent do you think the current practices used by the QPS are evidence based?

			EBP is N/A	Not At All	Partially	Somewhat	Completely		
			1	2	3	4	5	Total Valid	Missing Data
Mean	3.29	n	2	17	36	33	8	[117]	(21)
Std Dev	0.93	%	2.1	17.7	37.5	34.4	8.3	[100.0]	(17.9)

Q27. For the operational area you listed Area 3, to what extent do you think the current practices used by the QPS are evidence based?

			EBP is N/A	Not At All	Partially	Somewhat	Completely		
			1	2	3	4	5	Total Valid	Missing Data
Mean	3.31	n	4	14	30	44	4	[117]	(21)
Std Dev	0.92	%	3.4	12.0	25.6	37.6	3.4	[100.0]	(17.9)

Q28. Please rate the percentage that you think represents what the balance between Personal Experience and Scientific Knowledge should be in day-to-day decision making in the QPS. The total should equal 100%. (e.g., if you think experience should be most important and scientific knowledge should make little contribution, you might rate experience as 90% and scientific knowledge as 10%)

Scientific Knowledge	Frequency	Valid %
0-33%	30	30.3
34-66%	52	52.5
67-100%	17	17.2
Missing Data	18	15.4
Personal Experience	**Frequency**	**Valid %**
0-33%	17	17.2
34-66%	52	52.5
67-100%	30	30.3
Missing Data	18	15.4

Q29. Please indicate your agreement with the following statements

			Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree		
Q29_1. Senior managers in the QPS don't listen to the views of their staff			1	2	3	4	5	Total Valid	Missing Data
Mean	2.81	n	14	35	13	30	7	[99]	(18)
Std Dev	1.22	%	14.1	35.4	13.1	30.3	7.1	[100.0]	(15.4)
Q29_2. I am happy with the level of communication I receive from senior managers			1	2	3	4	5	Total Valid	Missing Data
Mean	3.77	n	7	6	14	48	24	[99]	(18)
Std Dev	1.11	%	7.1	6.1	14.1	48.5	24.2	[100.0]	(15.4)
Q29_3. Senior managers are open and honest with staff			1	2	3	4	5	Total Valid	Missing Data
Mean	3.42	n	8	15	15	49	12	[99]	(18)
Std Dev	1.14	%	8.1	15.2	15.2	49.5	12.1	[100.0]	(15.4)
Q29_4. Decisions are made fairly in the QPS			1	2	3	4	5	Total Valid	Missing Data
Mean	3.27	n	10	15	19	48	7	[99]	(18)
Std Dev	1.12	%	10.1	15.2	19.2	48.5	7.1	[100.0]	(15.4)

			Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree		
Q29_5. In the QPS risk taking is encouraged without fear of punishment for mistakes			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	2.40	n	21	39	18	20	1	[99]	(18)
Std Dev	1.07	%	21.2	39.4	18.2	20.2	1.0	[100.0]	(15.4)
Q29_6. In the QPS area supervisors / team leaders are receptive to change			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.44	n	7	17	12	51	12	[99]	(18)
Std Dev	1.13	%	7.1	17.2	12.1	51.5	12.1	[100.0]	(15.4)
Q29_8. In the QPS new practices and ways of doing business are encouraged			**1**	**2**	**3**	**4**	**5**	**Total Valid**	**Missing Data**
Mean	3.43	n	8	10	20	52	8	[98]	(19)
Std Dev	1.06	%	8.2	10.2	20.4	53.1	8.2	[100.0]	(16.2)

Q30. Have you ever attended an Evidence Based Policing workshop?

		n	Valid %
Yes	1	53	54.1
No	2	44	44.9
Unsure	3	1	1.0
	Total Valid	[98]	[100.0]
	Missing Data	(19)	(16.2)

Q31. Are you interested in attending an Evidence Based Policing workshop?

		n	Valid %
Yes	1	77	79.4
No	2	11	11.3
Unsure	3	9	9.3
	Total Valid	[97]	[100.0]
	Missing Data	(20)	(17.1)

Q32. What is your gender?

		n	Valid %
Male	1	84	86.6
Femle	2	13	13.4
	Total Valid	[97]	[100.0]
	Missing Data	(20)	(17.1)

Q33. How old are you?

		n	Valid %
18-24 years	1	1	1.0
25-29 years	2	0	0
30-34 years	3	0	0
35-39 years	4	1	1.0
40-44 years	5	5	5.1
45-49 years	6	29	29.6
55-60 years	8	17	17.3
	Total Valid	[98]	[100.0]
	Missing Data	(19)	(16.2)

Q33. How long have you worked in the QPS?

Years	Frequency	Valid %
6	1	1.1
15	1	1.1
17	1	1.1
22	3	3.2
23	1	1.1
24	1	1.1
25	3	3.2
26	8	8.4
27	5	5.3
28	6	6.3
29	4	4.2
30	19	20.0
31	5	5.3
32	4	4.2
33	7	7.4
34	5	5.3
35	8	8.4
36	5	5.3
37	1	1.1
38	1	1.1
39	2	2.1
40	2	2.1
41	1	1.1
42	1	1.1
Total	[95]	[100.0]
Missing	(22)	(0.0)

Q35. What is your highest educational achievement?

		n	Valid %
Postgraduate education	1	67	67.7
University / College degree	2	17	17.2
Trade / Technical certificate or diploma	3	7	7.1
Completed senior high school (year 12)	4	4	4.0
Completed junior school (year 10)	5	2	2.0
Primary school	6	0	0
	Total Valid	[902]	[100.0]
	Missing Data	(307)	(25.4)

Q36. How important do you think pursuing higher education is for police officers in general?

			Not At All Important	Slightly Important	Moderately Important	Very Important	Extremely Important		
			1	2	3	4	5	Total Valid	Missing Data
Mean	3.78	n	1	10	30	27	31	[99]	(18)
Std Dev	1.04	%	1.0	10.1	30.3	27.3	31.3	[100.0]	(15.4)

Q37. What is your current position within the QPS?

		n	Valid %
Senior Executive	1	1	1.1
Superintendent / Chief Superintendent	2	18	18.9
Inspector	3	71	74.7
Senior Sergeant	4	3	3.2
Sergeant	5	0	0
Senior Constable	6	0	0
Constable	7	0	0
QPS Administration staff	8	1	1.1
Other	9	1	1.1
	Total Valid	[95]	[100.0]
	Missing Data	(22)	(18.8)

Q38. What is your owning command in the QPS?

		n	Valid %
Northern region	1	5	5.4
Central region	2	5	5.4
Southern region	3	8	8.6
South Eastern region	4	7	7.5
Brisbane region	5	7	7.5
Community Contact command	6	4	4.3
Intelligence, Counter-terrorism and Major Events command	7	5	5.4
Operations support command	8	5	5.4
Road Policing command	9	2	2.2
State Crime command	10	9	9.7
Commonwealth Games group	11	4	4.3
Crime Corruption Commission Police group	12	3	3.2
Ethical Standards command	13	7	7.5
Legal division	14	1	1.1
Organisational Capability command	15	8	8.6
People Capability command	16	9	9.7
Other	17	r	4.3
	Total Valid	[93]	[100.0]
	Missing Data	(24)	(20.05

Q39. Is there anything else you would like to comment about evidence-based policing or any issues raised in this survey?

This question was qualitative: **n = 40; Valid % = 34.2**

CRG reports

CRG 07/16–17

Dr Adrian Cherney is an Associate Professor at the University of Queensland.

Dr Emma Antrobus is a Lecturer in Criminology at the University of Queensland.

Dr Sarah Bennett is a Senior Lecturer in Criminology at the University of Queensland.

Bevan Murphy is a former research assistant at the University of Queensland.

Mike Newman is a Detective Inspector with the Queensland Police Service.

crg.aic.gov.au