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An Absence of Evidence: Mapping the Evidence/Gaps, Themes and Other Issues with Canadian Research on Missing Persons

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Mapping the Evidence/Gaps, Themes and Other Issues with Canadian Research on Missing Persons

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This paper has been commissioned by the Independent Civilian Review into Missing Person Investigations but does not necessarily represent its views

Contents

Executive Summary

In June of 2019, I was asked to prepare a comprehensive review of the Canadian research literature for the independent Civilian Review into Missing Person investigations. The parameters were roughly as follows: to provide

> an overview of existing published and grey literature (ie. governmental and non-governmental studies) on missing person investigations in Canada as well as an overview of ongoing Canadian projects including your own that may inform missing person investigations of adults and research needs in the future.

This is, I note, the fourth independent review of this type touching on issues related to missing persons. Previous commissions and inquiries (Bernardo, Oppal and the Missing and Murdered Indigenous Women's inquiry) were similarly borne – in whole or in part – of what is a statistically rare phenomenon: serial murders. These reviews have produced reports and recommendations, none of which have been based on methodologically rigorous, independent research. Rather they have been based on non-systematic literature reviews, legal and policy analyses, individual opinions, and, at best, some fairly basic descriptive qualitative and quantitative research. None of this work, by the way, tells us anything about what actually works in relation to prevention, investigation, societal and institutional responses to the issue. Instead, public policy and practice in this area remains largely driven by "common sense," untested "best practices", institutional beliefs and personal opinion. To begin the process of better understanding the relevant Canadian research, and thus developing an evidence-base to remedy earlier defects in policy and practice, I have opted to conduct a systematic review of the literature, with a focus on social scientific studies of phenomena related to missing persons in Canada (such as the prevention of such cases, their investigation and so on). As part of that review, I have assessed the volume and the quality of those studies, contrasted included topics and methods to research efforts located in international work to expose gaps, and produced a thematic analysis of the studies' findings. I have also included a description of current and ongoing research efforts underway aimed at tackling gaps in our knowledge and concluded with some final thoughts and a recommendation.

Key findings

Below I list the key findings of this report:

1. **The volume of Canadian studies on missing persons is low**

For this study, I could locate only 16 studies that met the basic inclusion criteria.

2. **The quality of research contained in Canadian studies on missing persons is not high**

Most of the studies utilized basic research methodology, including descriptive statistics and descriptive qualitative research. Although all included a description of their methods, some did not provide a detailed methodology, so discussion of important considerations was absent. In one case, the research sample consisted of two highway signs.

3. **Much of the Canadian research is descriptive in nature and tells us little about 'what works.'**

The majority of studies relied on secondary data, either produced by police or some other group and produced descriptive results (sometimes about risk factors; sometimes about the content of media messaging). In fact, only one study drew on primary data collected from surveys of police services (with a sample of 20 services from a possible 200 Canadian police agencies). None of the studies included a program evaluation to test whether programs aimed at prevention or response met program objectives. Further, none of the studies were experimental in nature – that is, implementing a new program or policy ('intervention') to determine its impact and whether it was effective.

4. **Topics and themes in the literature reflect a narrow range of interests and groups, rather than exploring diverse groups or topics**.

Of the sixteen studies analyzed for this report, 8 or (50% of the sample) focused on indigeneity; for example, as a risk factor for going missing, in media coverage of missing cases and in relation to police responses. That said, the overall volume of studies related to indigenous individuals and groups still remains shockingly low. Other potentially vulnerable groups – including members of the LGBTQ2S communities – netted no similar academic interest. Homelessness was identified as one of several risk factors, but the unique circumstances and vulnerabilities of homeless citizens did not generate a significant focus of the work. Looking for other groups within the literature, including undocumented migrants, did not even yield any results.

Recommendations

Based on the findings documented in this report, I have only one recommendation to offer:

1. Federal and provincial funding programmes aimed at increasing the production of high-quality studies to increase knowledge in a broad array of topics. While more descriptive research is clearly necessary, of equal importance are rigorously tested interventions to improve prevention and response to missing person cases. More details on the nature of research required is provided in the final comments section.

Introduction

It has been estimated that anywhere from 50,000 to 100,00 Canadian adults are reported missing annually (RCMP 2017; Canadian Center for Information on Missing Adults, 2012). While many of these individuals will be reported as such to police (Cohen, Plecas and McCormick 2008), other cases will not be known to authorities until long after the fact, if ever (Shalev, Schaefer and Morgan 2009), raising questions as to the accuracy of these estimates. Of the little available research on missing person cases, we know that the majority of cases are resolved within a matter of days, with the person being located alive and well (Hirschel & Lab, 1988; Payne 1995; Cohen et al. 2008; Shalev et al. 2009). However, as a result of variations in reporting among different segments of the population – with police reporting rates being generally lower among marginalized groups, including street-based populations (Huey and Quirouette 2010; Huey 2012) – the true dimensions of this phenomenon remain unknown, and many contend Canada has a significant problem with missing individuals who remain unknown and unaccounted for (Lavell-Harvard and Brant 2016).

Complicating matters further is the variability of what constitutes 'missing.' This is a broad concept that captures a range of intentional and unintentional behaviours. Among those typically seen as missing are individuals who have voluntarily disappeared, been kidnapped, failed to show up at a set time and place, eloped from an institution, wandered away due to cognitive impairment, became lost, died of natural causes and were not found for several days, left to commit suicide, or met some form of foul play, among other causes (Newiss, 2006). Whereas most police definitions of 'missing' narrow this concept to incidents that have been reported to authorities (ACPO, 2013; RCMP 2019), a broader view that captures how variable the concept of missing can be, is, "if a person is absent from their usual places" (Payne, 1995: 334).

Aside from conceptual, reporting and other issues confounding public policy efforts there is another significant practical concern: Canadians have produced very little research on this issue. What we need is applied research focusing on how to prevent individuals from going missing, how to increase accurate and timely reporting across communities, how to reduce the volume of cases that can be easily resolved, and how to more effectively investigate missing cases. What we have is either descriptive or critical studies of often limited value, opinion pieces and public comments, much of which (if any) is not informed by rigorous research.

In relation to Canadian policing responses, the situation is much the same: preliminary research by Lorna Ferguson at the University of Western Ontario reveals training in missing person investigations undertaken by the Ontario Provincial Police draws on a text produced in the U.S, likely because there is no comparable Canadian data on topics such as effective search and rescue, online tracking, the use of social media to instigate leads, and so on. While some might justify the use of international 'best practices' to shape Canadian policing responses as acceptable, there are legal, social, economic, geographical, political, institutional, public policy and other factors that require us to pay closer attention to how to police effectively in this context rather than on what occurs in other countries. Let me illustrate just a few of these by comparing the situation of Canada

to the United Kingdom, which is often held up as an example from which to import policing and other criminal justice programs[1]. Here are just three significant differences:

1. It is generally accepted that Canada has significantly high rates of missing indigenous children, youth and adults. The U.K. has no indigenous population. Programs that may work in the U.K. to prevent missing cases, will have zero cultural relevance for these populations in Canada.
2. There are approximately 43 police services in the U.K. covering 94, 520 square kilometres of fairly similar terrain. There are approximately 200 police services in Canada covering 9,984,670 km, including a wider variety of climates and terrains. Rural and remote communities in northern Canada are not comparable to rural and remote communities in the U.K.
3. The legislative and regulatory frameworks for policing are different. Criminal justice policy and regulations are set federally in the U.K.; provincial policing policy and regulations in Canada are set by provincial and territorial governments. The latter, which is enshrined in the division of powers' section of the Canadian Constitution, is why we do not have national policing standards.

In short, despite a wealth of public commentary and opinion on the causes and consequences of 'missingness', and on how police could be more 'effective', we actually know nearly nothing on how to effectively address this problem and almost none of the solutions proffered are evidence-based. To demonstrate the extent of this problem, and to highlight where critical gaps exist within our knowledge, I conducted a multi-part programme of research using the results of a systematic review of the Canadian research literature. In the pages that follow, these results are used to inform three separate, smaller studies:

A. An evidence and gap map, which seeks to address the following research questions:

   R1. What types of Canadian research have been produced on topics related to missing person (by literature type[2], topic and methodology)?

   R2. Drawing on the international literature for guidance, what types of topics are missing from Canadian research on missing person?

B. An evidence quality assessment, which answers the following question:

[1] This is called 'naive policy transfer' within the relevant public policy literature because it is based on a 'naive' view that just because something works in one country it will automatically work in another.

[2] Literature type refers to whether the article or report was published in a peer reviewed, academic publication indexed within a scholarly database or is part of the 'grey literature' comprising materials publicly released but not meeting scholarly standards of peer review.

R3. Using the Ratcliffe (2019) and Huey (2019) scales for assessing the strength of evidence produced by quantitative and quantitative research for public policy-making purposes, how useful is each of the studies for informing public policy?

C. A thematic synthesis of research findings highlights the key take-aways from each study:

R4. What are the key findings identified in findings from Canadian missing person research?

R5. What does the Canadian research literature tell us in relation to areas of interest of the Independent Review?

An additional comment

It will not escape anyone's attention that my analyses do not include either the Oppal Report (2012) or the Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls (MMIWG 2019). There are two main reasons for this omission.

First, neither report fit the inclusion criteria for my own study reported here. Neither the Oppal or MMIWG report contained a detailed, explicit methodology explaining what research choices were made, how they were made, and/or justifying those choices from a methodological point of view. For example, what, if any exclusion criteria were used? How did they analyze all of the data? What steps were taken to ensure non-biased results? What were the final working hypotheses or research questions? Evidence based policy requires the adoption of research evidence that, at a minimum, meets accepted standards of research design and integrity. The only exception located was one of the Background Research Reports produced for the Oppal Commission and it is included here (Welch 2012). The other background reports - none of which had any discussion of methodology or how the authors decided on the inclusion or other choices they made included:

- a review of policies in other countries (UK, Australia, and US)
- a policy discussion on vulnerable and intimidated witnesses
- a legal analysis of legal standards and police duties relating to violence against women
- a description of policing in the Lower Mainland

The rest were 'policy discussions' and 'community consultation' reports.

Second, although some will likely disagree, the scope of the MMIWG report is simply too broad to be useful for abstracting useful conclusions with respect to the prevention and response specifically to missing person cases. Further, much of what was covered under the terms of the Inquiry is simply outside the scope of what I was asked to consider. From the Inquiry (2019) overview:

> While the formal name of the Inquiry is "the National Inquiry into Missing and Murdered Indigenous Women and Girls," our mandate covers all forms of violence. This makes our mandate very broad. By not being limited to investigating only

> cases of Indigenous women who went missing or were murdered, we can include women and girls who died under suspicious circumstances.
>
> It also means we can address issues such as sexual assault, child abuse, domestic violence, bullying and harassment, suicide, and self-harm. This violence is interconnected, and can have equally devastating effects. Expanding the mandate beyond missing and murdered also creates space for more survivors to share their stories. They can help us look to the future from a place of experience, resilience, and hope.

Additionally, the MMWIG report does not follow standard social scientific conventions with respect to details about methodology or methodological choices (for example, describing the analytical techniques used to make sense of the data collected), approaches with which I would be familiar. I am not an expert on indigenous scholarship and research methodologies, so any discussion I might contribute based on an assessment of the contents of this report would likely not be helpful and is best left to others.

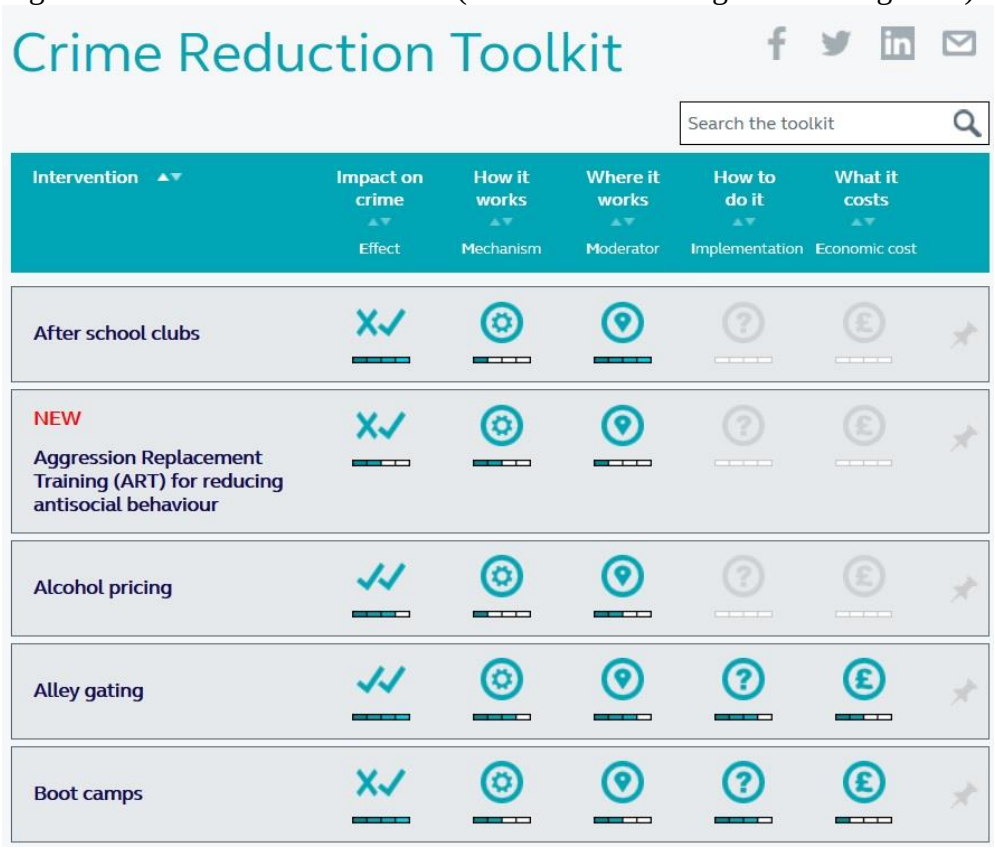
Section I: Mapping the Evidence

What is an evidence/gap map?

Evidence maps –sometimes also referred to as evidence and gap maps - are visual tools for charting the scope of research in a given area, and thus the strengths and limitations in the evidence base (Randall and James 2012). As with other forms of systematic review, the goal is to help researchers, policymakers, knowledge users and other interested groups quickly understand research activity in relation to a broad topic or question (Saran and White 2018), including where a topic has been well-studied or not (McKinnon, Chang, Garside, Masuda and Miller 2015). This understanding can help to better inform policy and guide prioritization of future research efforts (McKinnon et al. 2015).

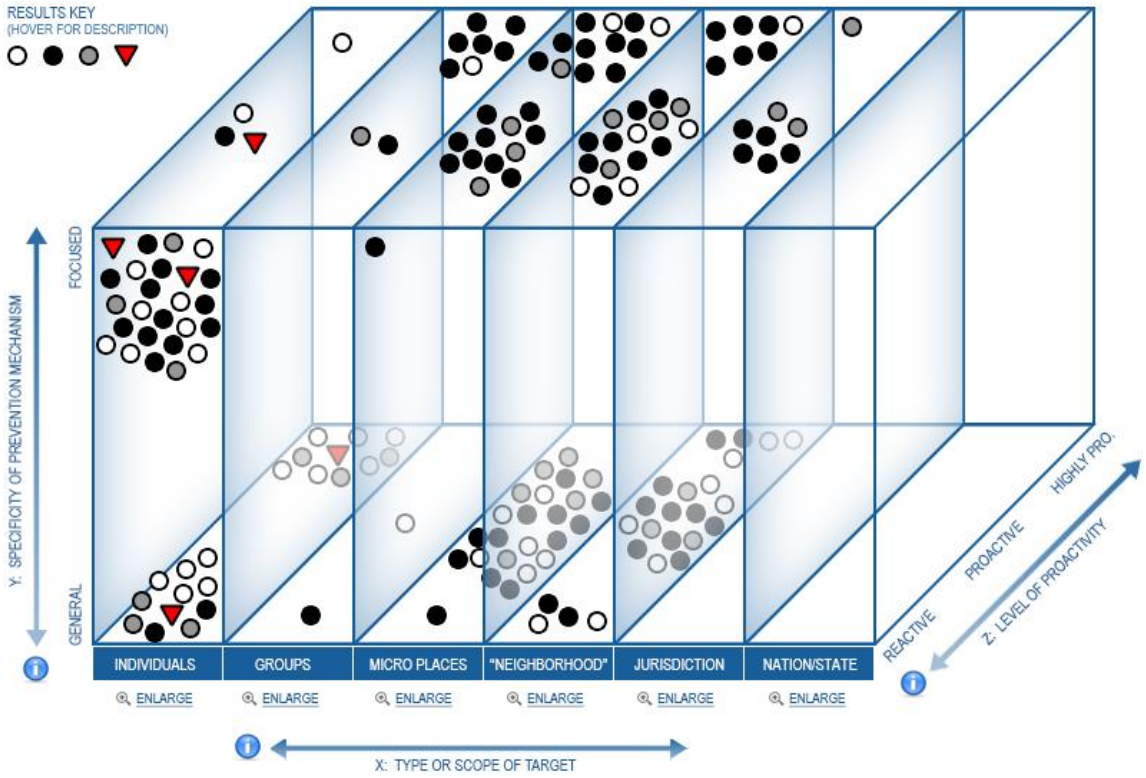
Mapping styles vary widely – from circles to charts - and there is no one accepted standard. Two of the most well known versions in the criminal justice field are the 'Crime Reduction Toolkit' (U.K. College of Policing 2019) and the Evidence Based Policing Matrix (Lum, Koper and Telep 2010). The Toolkit uses a simple chart to answer basic questions on whether, to what extent and how a particular practice, program or policy works to address crime (see Figure 1 below).

Figure 1: Crime Reduction Toolkit (Source: U.K. College of Policing 2019)



By way of contrast, the Matrix is a three dimension graphic that maps criminal justice interventions not only by effectiveness, but also along degrees of proactivity and specificity of the intervention (general deterrence or focused deterrence).

Figure 2: EBP Policing Matrix (source: Lum, Koper and Telep 2010).



Whereas some researchers combine critical assessment of the rigor of selected studies as part of their mapping of the evidence (O'Leary, Woodcock, Kaiser and Pullin 2017), and others set exclusionary criteria to deliberately weed out what are perceived to lower value studies (Lum, Koper and Telep 2010), I have opted to treat critical assessment of the studied collected for this project as a separate issue. In my view, treating these as separate exercises will help provide readers with a fuller sense of the specific limitations of the current evidence base on missing person in Canada.

Methodology

To guide the development of an evidence map for this topic, I used the following research questions to focus my efforts:

1. What types of Canadian research have been produced on topics related to missing person (by literature type, topic and methodology)?

2. Drawing on the international literature for guidance, what topics are not addressed within Canadian research on missing person?

Methodology for question #1: What types of Canadian research have been produced on topics related to missing person (by literature type, topic and methodology)?

As answering the two questions above required the employment of different strategies, I am addressing the methods used separately. To answer Q1 I conducted a systematic review of the relevant literature. A systematic review is a technique for identifying and synthesizing research findings that requires "a detailed and comprehensive plan and search strategy derived a priori, with the goal of reducing bias by identifying, appraising, and synthesizing all relevant studies on a particular topic" (Uman 2011: 57). Although more commonly employed to assess the strength of findings in quantitative work – usually in the form of a meta-analysis – efforts have been made to create systematic review strategies for qualitative and mixed-methods studies as well (Thomas and Harden 2008; Pluye and Hong 2014). Presently, there are at least fourteen different types of systematic review, one of which is the scoping review (Grant and Booth 2009).

This study uses a form of scoping review to map the overall volume, content and type of Canadian research on missing person. As I have said elsewhere, this type of review is useful in that it "allows a researcher to provide an overview as to the key concepts, topics, theories and methodologies employed found within a body of literature, summarize the available evidence and highlight critical knowledge gaps" (Huey 2016: 4). More detailed analysis of the content of findings is dealt with in a later section.

Search strategy

As with any systematic review, this one began with the development of a search strategy. Developing this search strategy included making explicit decisions with respect to what types of materials to search for, where to search for these documents, a set of search parameters (including keywords), inclusion and exclusion criteria, as well as a process for screening for documents that did not fit the inclusion criteria. As I was working with two different types of literature, some variations in methods occurred, as documented below.

Types of materials

For the purposes of this project, I was interested only in Canadian research on topics related to adult missing person consisting of analysis of primary or secondary data. Academic peer reviewed papers could include studies and research reports. Grey literature could encompass research found within government reports, non-peer reviewed academic studies, graduate theses and dissertations and reports produced by non-profit groups.

Where to search

Peer reviewed literature

To search for published scholarly papers, I used the University of Western Ontario's (UWO) online library system. The UWO search engine allows for systematic searching of a wide range of indexed databases of scholarly articles across multiple fields of research, including PubMed, Criminal Justice Abstracts, Sociological Abstracts, etc.).

To limit search results, I selected the 'peer reviewed' and 'journal article' options.

Initial results for 'missing person' using these criteria alone: 597, 672 results.

Grey literature

This entailed using the Google search engine.

Initial results for 'missing person': 333,000,000 results.

Search queries and parameters

The same search queries and search parameters were employed when searching for both types of literature.

Search queries	'missing person' 'missing person investigation' 'repeat missing' 'missing person report' 'missing person study'
Search parameters	And: Canada And: adult Not: youth Not: children Content: Any type

Setting up parameters immediately reduced the volume of results. For example:

'missing person' and 'Canada' in the UWO search engine netted 95,002 results

'missing person' and 'Canada' using Google produced 304,000,000 results.

Inclusion and exclusion criteria

The same inclusion criteria were used for both the peer reviewed and grey literatures:

- the paper contains the results of a research[3] study

[3] For additional clarity, I define research as "an empirically grounded, systematic study for the purpose of identifying, explaining, predicting and/or determining the causes of a given phenomenon" (Huey 2016). Such a study would include, at a minimum, an *a priori* set of research questions or hypotheses, a clearly defined and articulated process for determining data collection, including a set of inclusion and exclusion criteria, provide some discussion of how data were analyzed, include consideration of research ethics and produce results clearly linked to the research question(s) and/or hypotheses. Ideally, such a study would also demonstrate consideration of issues of potential bias.

- the focus of the research is on some aspect of the phenomenon of missing person
- the research was produced in Canada and drew on Canadian data[4]
- the paper contained some description of the methodology employed.

Similarly, the same exclusion criteria were used for both literatures:

- the paper was not a study (ie. opinion pieces, commentaries, special issue introductions)
- the study topic was not on some aspect of missing person
- the study did not use Canadian data
- the study was a historical analysis
- the study was not published in English[5]
- the paper contained no discussion of research methodology
- unable to access the paper

Screening process

For articles indexed to academic databases, initial selection was based on a scan of an article's title and abstract online to determine potential suitability. An example of an article that was included based on an initial scan of the title and abstract:

Figure 3: Example of included article

An example of an article that was excluded:

Figure 4: Example of excluded article

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[4] Again, in accordance with the terms set out by the Independent Review, I was only tasked with looking at Canadian research.

[5] A search of the Canadian academic literature was conducted in French. Queries returned zero results related to missing persons in Canada. Given difficulties with relying on Internet-based sources, and my own lack of proficiency in reading French, the decision was made to include only English language sources.

As results were organized by degree of relevance, a decision was made to stop reading at 200 abstracts, as by this point there was a steep drop in relevance.

Figure 5: Example of excluded article

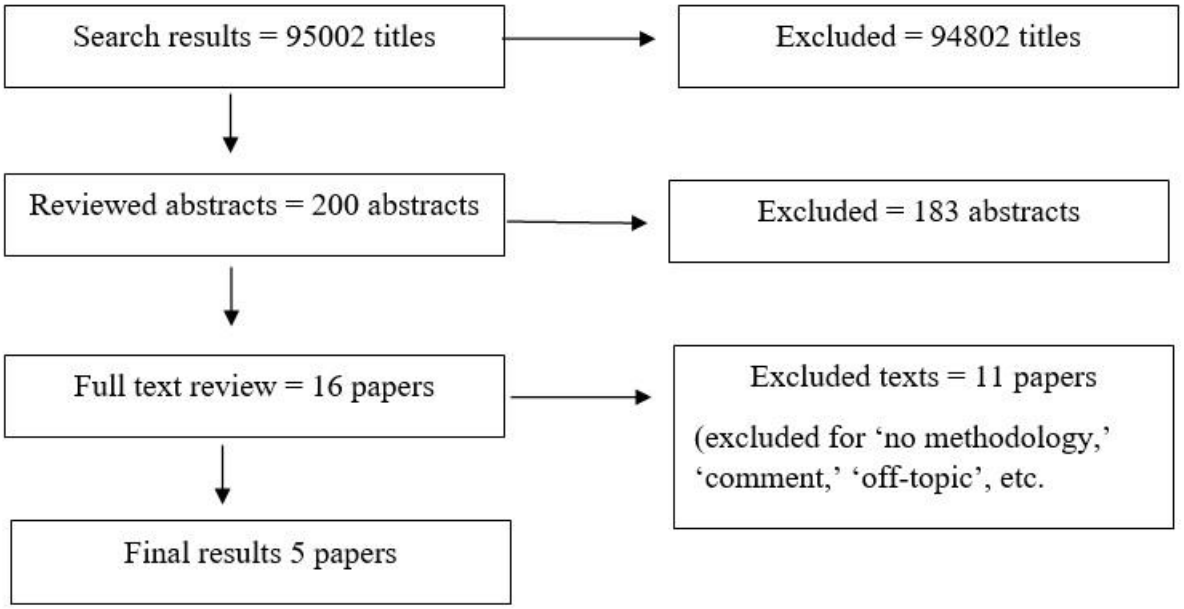
In the case of materials identified through Google searches, if the page or site title and synopsis seemed relevant to the study aims, I clicked the hyperlink and scanned the results. An example of one that was included:

And an example of one that was excluded based on an initial scan:

As with results returned by the UWO library search engine, the degree of relevance in returned search results started to sharply drop before the 200th result. Therefore, only the first 200 results were scanned.

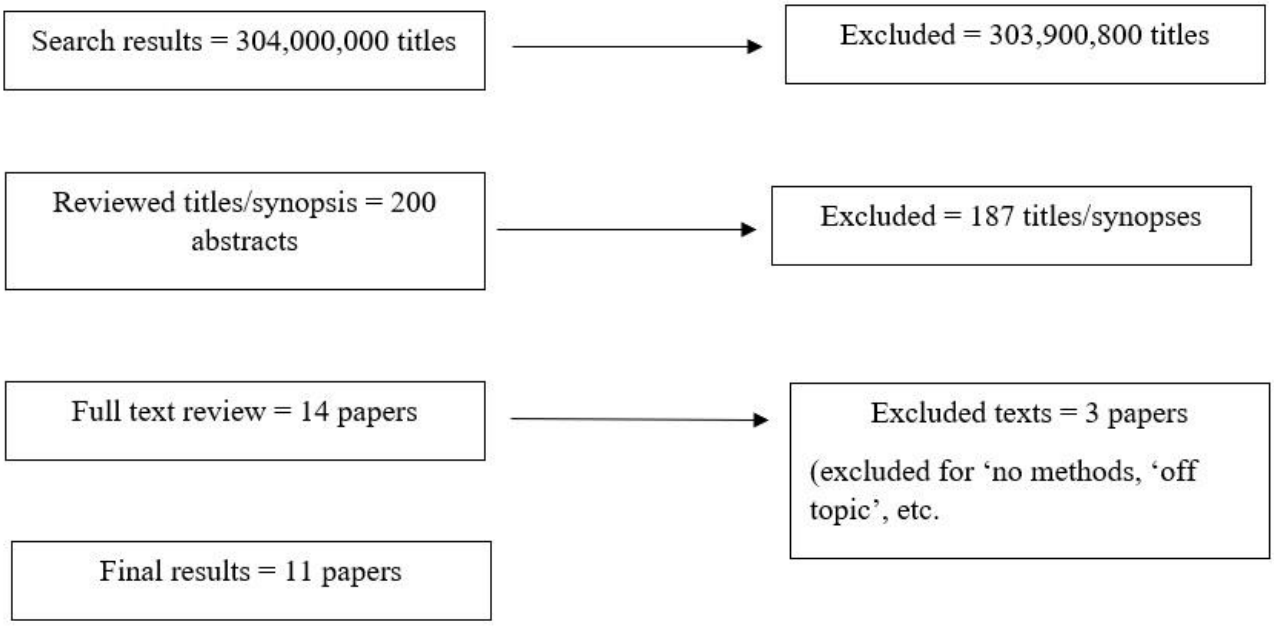
In some instances, it was not immediately apparent upon reading the abstract whether a paper met the inclusion criteria. In those cases, the paper or report was downloaded and subsequently read in full. Once this was done, the net result was: five (n=5) peer reviewed published papers (see Figure 6 below).

Figure 6: Peer reviewed results



After going through the same process with materials collected as 'grey literature, there were eleven (n=11) final results (see Figure 7 below).

Figure 7 Grey literature results



Coding and analysis

To answer Q1 required each of the sixteen studies to be inductively coded in three different ways: by 'literature type' by 'topic type' and by 'research method.' As the literature was already grouped according to type when collected, no specific codes needed to be set up. However, codes were established for the other two categories. These included:

Sub-topic type: 'indigenous women' and 'media reporting,'.

In relation to academic research, the creation of sub-topic types was aided by the use of author keywords.

Research method: 'quantitative,' 'qualitative', 'mixed methods' with sub-codes such as 'survey', 'participant interviews,' 'focus group,' and 'discourse analysis.'

Methodology for question #2: Drawing on the international literature for guidance, what topics are not addressed within Canadian research on missing persons?

The answer to Q2 required a slightly different strategy. For this question, I needed to construct a list of potential missing person topics from which I could compare to the topic results achieved for Q1. To do this, I conducted a systematic review of the scholarly literature using the same techniques as above. As the overall volume was quite low, I also downloaded a copy of the *Handbook of Missing person* (2016) an edited scholarly collection. Once all relevant articles were downloaded and read, I then coded each by specific topic. Again, using author keywords aided

this process. The final list constructed was not intended to be exhaustive, but rather a starting point to understanding what types of topics are missing from current Canadian research (relative to what has been produced in other countries).

Results: evidence map

As the overall volume of Canadian research produced was so low, I opted to forgo visual mapping of some aspects of the literature in favour of tables. To provide a general overview of topics, each of the studies was also coded according to 'primary topic' beyond that of 'missing.' As there was some possibility that a paper could have been coded as 'indigenous women' or 'policing,' some discretion was used in selecting one topic only. These selections were, however, independently verified by a researcher on my team. All relevant themes will be discussed in greater detail shortly.

Table 1: Topics/methods found in the Canadian research literature on missing person

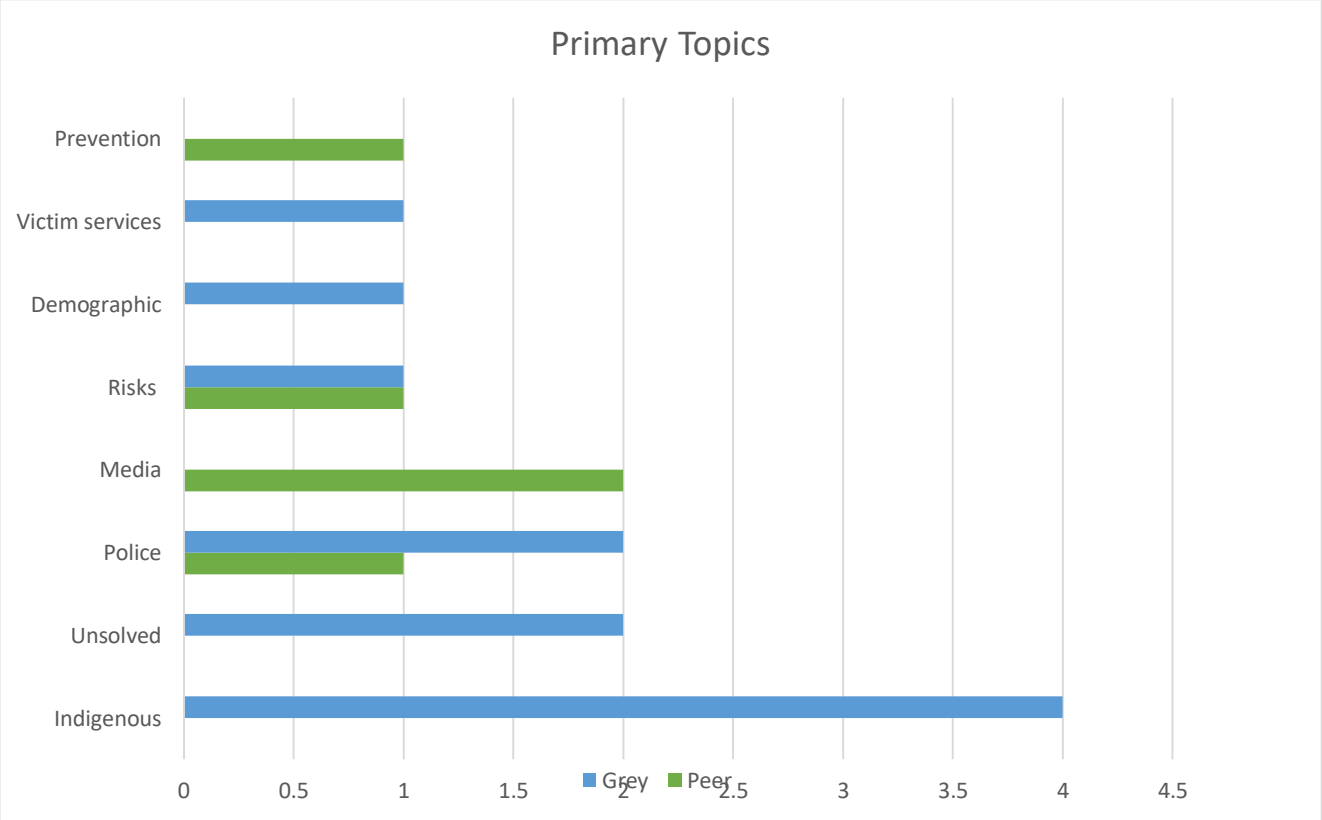
Area of literature	Method	Topic	Author(s)	Overview
Peer-reviewed				
	Qual	Media	Jiwani and Yong 2006	Analysis of news coverage of missing/murdered women in Vancouver's Downtown Eastside
	Qual	Media	Gilchrist 2010	Comparative analysis of press coverage of 3 missing/murdered indigenous woman versus 3 missing/murdered white women
	Quant	Risk factors	Kiepel, Carrington and Dawson 2012	Compares demographic factors of missing person data to explore increased risk of being reported missing
	Qual	Prevention	Morton 2016	Discourse analysis of billboard appeals to reduce risks associated with hitchhiking (violence prevention)
	Qual	Police investigations	LePard, Demers, Langan, Rossmo 2015	Analysis of news coverage of selected missing person/serial murder cases to identify challenges in police investigations
Grey literature (government reports, studies produced by the non-profit sector)				

	Qual	Indigenous women	Human Rights Watch 2013	Study of indigenous women's experiences and beliefs about police and police responses to missing and murdered women and other forms of violence.
	Quant	Indigenous women	RCMP 2015a[6]	Analysis of police data on solved/unsolved cases involving indigenous women
	Mixed	Indigenous women	Puzyreva and Loxley 2017	Using databases on missing person cases constructed from media coverage, and interviews and focus groups ('sharing circles') with family members, the authors look at the economic and social costs associated with missing and murdered women.
	Quant	Indigenous women	Native Women's Association of Canada 2010	Drawing on their database of known cases of missing and murdered indigenous women, the authors present a descriptive analysis of demographic, locational factors associated with reports of missing women, as well as clearance rates
	Quant	Unsolved cases	Cohen, McCormick and Plecas 2008	Using PRIME police data from British Columbia, the authors look at demographic, risk and related factors associated with unsolved cases.
	Quant	Unsolved cases	Cohen, Plecas and McCormick 2009	A comparison of unsolved cases involving indigenous individuals reported missing versus non-indigenous
	Mixed	Risk factors	Pearce	Descriptive results – focusing on issues of 'vulnerability – based on a compilation of stories in media coverage on murdered and missing Canadian women.
	Mixed	Police investigations	Pfeiffer 2006	Description of police processing of missing person cases in Saskatchewan

[6] The 2014 version of this report was not included in the analysis, as the 2015 report contained the same information, as well as updated figures.

	Mixed	Police investigations	Welch 2012	Surveys of select Canadian police services concerning past and current practices in responding to missing person cases.
	Quant	Demographic factors	Patterson 2013	MA thesis using RCMP data to look at demographic and related factors associated with missing cases in British Columbia
	Qual	Victim services	Scrim and Giff-McKinnon 2015	Presents justice officials' views as to the utility of victim services for family members of missing/murdered indigenous women.

Figure 8: Primary topics in Canadian research



As can be seen in Figure 8 above, the topic most frequently observed within the research literature was 'indigenous women,' with four of the studies found in the grey literature focusing on this area of inquiry. This topic was also more frequently noted within searches of the peer-reviewed, published literature, however much of this work was comprised of commentary and

other opinion pieces, which had to be excluded because these are not research studies. The second most frequent topic was 'media', including a published critical analyses of media reporting (of the cases of missing and murdered indigenous women) and one study of billboards (loosely defined here as 'media'), also involving cases of missing and murdered indigenous women. Two peer reviewed studies – by the same set of authors using the same set of police data – focused on unsolved cases, whereas one study each (one by the RCMP using police data and another by researchers using media reports of cases of murdered and missing individuals) explored aspects of police investigations. Other topics covered include victim services for families, demographic factors of those reported missing, and risk factors associated with missing person. One study of the use of billboards as crime prevention, for example, focused on public appeals to reduce the risks associated with hitchhiking.

Table 3 below presents an overview of the methods used by researchers. As can be seen, most of the work in this area tended to be quantitative in nature, focusing on analysis of data on missing person reports from police data and/or news and other media sources. One study assessed demographic risk factors by comparing police missing person data to census records (Kiepal et al. 2012), but otherwise the papers collected tended to be descriptive in nature. Qualitative studies primarily drew on interview data, as well as employing discourse and thematic analysis of media content. None of the studies were experimental in nature[7], only one relied on primary data collected from surveys or questionnaires[8], and none included program evaluations[9].

Table 2: Methods used in Canadian research

Methodology	Peer-reviewed	Grey literature	Total n
Qualitative	2	2	4
Quantitative	2	5	7

[7] Here's an example of a type of experiment that could be conducted. It's based on one that myself and Marianne Quirouette have recently proposed: drawing on our own previous research (Huey and Quirouette 2009) on how to reduce underreporting of criminal victimization within homeless communities, we would work with police and social service providers to pilot a 'remote reporting' program, whereby homeless citizens can make reports of missing persons to a service provider and have these reports forwarded to police. The impact of this intervention can be tested using reporting data from before and after the program is put in place.

[8] Surveys and questionnaires can be administered within any population – including rural, remote or street-based populations without access to phones or the Internet – to garner important knowledge on attitudes, beliefs, experiences of crime and criminal justice topics within a community. Having spent two decades doing this type of work, I have discovered that most people want to provide help on important topics and value being heard and having their voice count.

[9] For example, some police services utilize a program called 'Silver Alert' to notify the public when a senior citizen with cognitive impairments is missing. A program evaluation would collect report and outcome data to determine whether the program is effective in helping to locate missing seniors.

Mixed methods	1	4	4
Total n	5	11	16

Results: gaps in evidence

As much of the international literature uses similar methodologies to those described above, in identifying actual and potential gaps in the Canadian literature, the decision was made to focus solely on topics that are missing from the Canadian literature. Table 3 presents an overview of those missing topics found in other studies that were identified through searches of the international published literature.

Table 3: Topics missing from the Canadian research literature

Topic	Authors	Overview
Missing and risk of suicide	Svetic, Too and de Leo 2012	A retrospective study comparing individuals who were reported missing and commit suicide to those who were not reported missing before committing suicide.
	Yong and Tzani-Pepelasis 2019	Identifies risk factors associated with individuals who go missing and commit suicide.
Mental health issues	Holmes 2017	Interviews with persons with mental illness are used to explore reasons why people go missing and return.
Criminal justice histories of missing person	Sowerby and Thomas 2017	Explores criminal justice involvement as a risk factor for going missing
Repeat missing among adults	Harris and Shalev-Greene 2016	Using interview data, examines police attitudes towards those reported missing multiple times.
	Hayden and Shalev-Greene 2018	Looks at factors associated with individuals reported missing multiple times.
Spatial dimensions of missing cases	Shalev, Schaefer and Morgan 2007	Using resolved cases, explores the distance between site last seen and site located.
	Bunch, Kim, and Brunelli 2017	Authors conducted a retrospective set of case studies to examine the utility of GIS mapping and case

		notes for discerning spatial patterns to help focus search efforts
Search and rescue practices	Harrington, Brown, Pinchin and Sharples 2018	Interviews with search and rescue personnel are used to map decision processes when searching for vulnerable individuals.
Outcomes of missing person cases	Newiss 2006	Uses police data to estimate risk of fatal outcomes in missing cases
	Newiss 2004	Using homicide data from cases where individuals were first reported missing, this study suggests that risk assessments might miss certain factors that increase vulnerability.
Risk assessment processes/ tools	Tarling and Burrows 2004	Drawing on a sample of missing person cases, examines the difficulties of constructing risk assessment tools.
Missing person alerts	Lampinen and Moore 2016	Experiment testing participants' ability to recall someone after seeing a mock missing person' appeal video.
Police investigative practices (not covered in Canadian research)	Bonny, Almond and Woolnough 2016	The study draws on police data to explore adults' behaviours while missing to determine if 'distinct behavioural themes' exist that might aid future investigations.
	Taylor and Riley 2017	Present a model, 'situation calculus for knowledge representation,' to help police conceptualize missing person investigations.
	Fyfe, Parr, Stevenson and Woolnough 2015	This article explores two distinct but vital phases of police investigations: 1. The process of 'identifying and acquiring information', and;

		2. the process of 'interpreting and understanding evidence'.
Families of missing person	Lenferink, de Keijser, Wessel, Boelen 2018	Family members of missing person experience symptoms similar to bereavement. Those who engage in avoidance behaviours or negative thinking experience higher rates of psychopathology
	Parr, Stevenson and Woolnough 2016	Examines the feelings of families of those missing and their attempts at locating loved ones.
	Parr 2015	Interviews with families of missing person reveals insights into their needs, particularly in relation to communications with police investigators.
	Shalev-Green, Clarke, Pake, Holmes 2019	Drawing on interviews with families of missing person with dementia researchers examine factors that inhibit family members from calling police to file a missing report.

As can be seen from Table 3, I was able to identify 8 topic areas found within the peer-reviewed, published international literature that also happen to be missing from Canadian studies. These include such important and relevant topics as search and rescue practices, risk assessment tools and outcomes of missing person cases. Identified risk factors, including suicidality, criminal justice involvement and mental health issues, have not been specific foci of Canadian study. And, issues related to where individuals are likely to be located ('spatial dimensions') has merited little interest among scholars here.

Unfortunately, as this gap analysis makes evident, the literature treats risk factors in one of two ways: as either specific to only certain forms of vulnerability (ie. indigenous women, sex workers) or in a generic way (treating homelessness, for example, as one of several risk factors rather than as something worth directly exploring). Families of missing person, including their experiences, their needs and relevant services for meeting those needs, has generated only one paper in Canada (on the provision of victim services). Of particular concern is the low volume of Canadian research on police investigations and related issues, such as search and rescue procedures and practices. I identified one study from the Canadian peer-reviewed literature, and one in the grey literature. The peer-reviewed analysis, I note, focused exclusively on problems related to the investigation of individuals missing and murdered by serial killers. While some of that work speaks to issues related to the intake of reports, much of it consists of opinions, witness testimony or biographical materials (see Shenher 2010). In short, with respect to the topics covered and methodologies employed, the literature – both Canadian and international – provides a poor basis

for informing an evidence-based public policy. There is, simply put, an insufficient volume of research in any one area upon which to base sound policy. Further, the extent to which this is the case will become more apparent in the next section, which analyzes the methodological rigor of the selected studies.

Section II: Rating the Quality of Evidence

Methods for rating research quality

Standards for evaluating quantitative research are well-established within the social sciences and have led to the development of fairly well accepted scales and guides for assessing such important considerations as validity and reliability (see, for example, Coughian, Cronin and Ryan 2007). A particularly notable example is the Maryland Scientific Methods Scale which rates studies on a 5 point scale, ranging from a simple pre-test/post-test evaluation in one group to a randomized controlled trial (Farrington, Gottfredson, Sherman and Welsh 2004). In a subsequent section I will also present the Ratcliffe Scale (2019), which similarly rates (predominately) quantitative methods in terms of their potential utility as 'strong' or 'best' evidence for informing public policy and/or practitioner decision-making.

While there are widely accepted scales in quantitative research, and some checklists for assessing different forms of quantitative research - from randomized controlled trials to case control studies (CASP 2019) – I could find nothing similar for qualitative research. To address this issue, I developed my own rating scale, which was subsequently shared in multiple forms – blogs, social media – for feedback from the academic community.

Methodology

This study seeks to address the following research questions:

R3. Using the Ratcliffe (2019) and Huey (2019) scales for assessing the strength of evidence produced by qualitative and quantitative research for public policy-making purposes, how useful is each of the studies for informing public policy?

Data collection

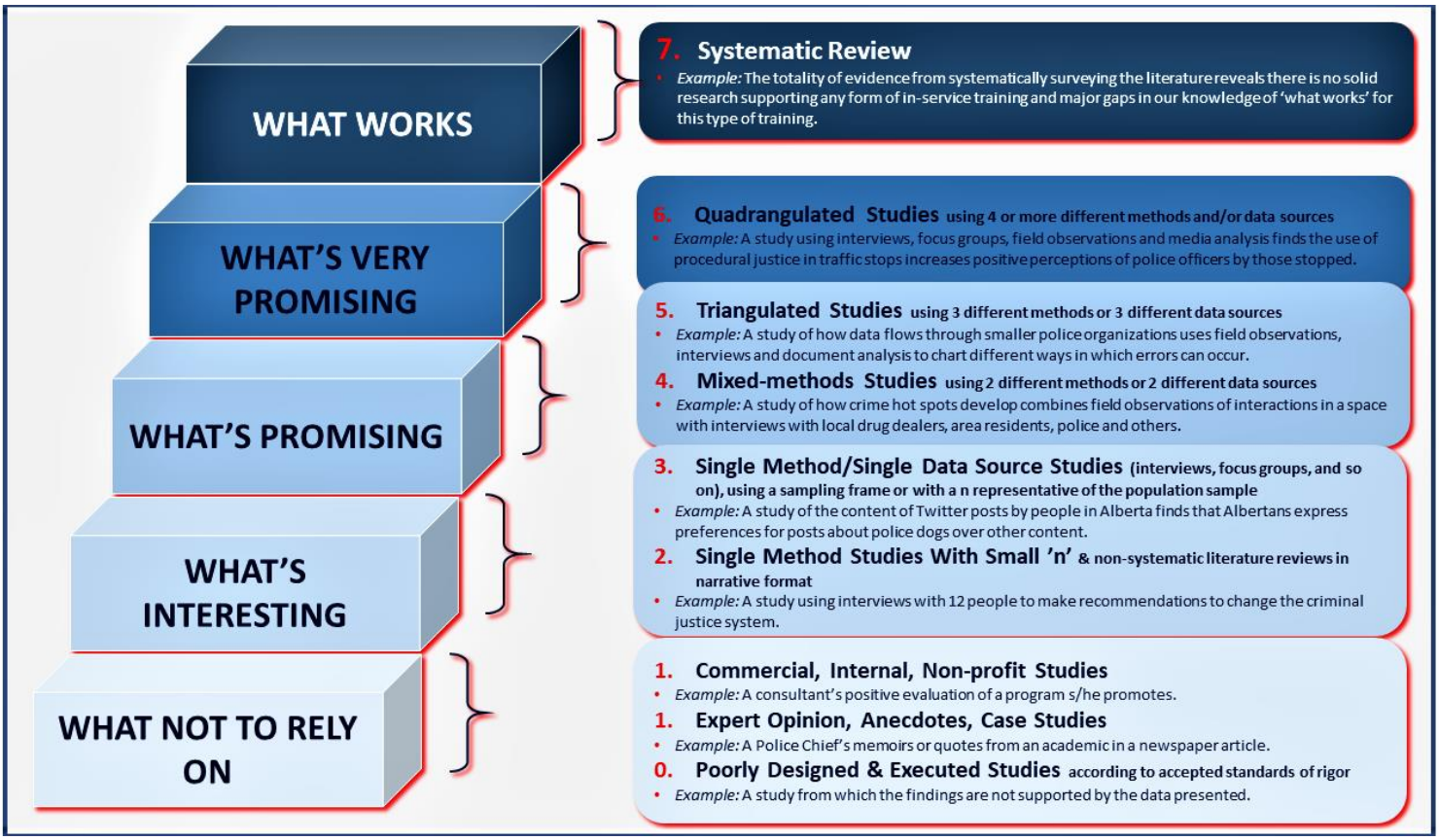
Data used for this study consisted of the 5 peer-reviewed scholarly papers and the 10 reports and other pieces of grey literature collected for the scoping review above.

Data coding and analysis: Instruments

To address the research question above, which focuses on the quality of research in relation to its potential use as evidence to inform public policy, I utilized Ratcliffe's (2019) Evidence Hierarchy for Policy Decision-making (see figure 9 below) to assess the policy-making value of quantitative research. This hierarchy, I note, uses the same rating system as the Maryland Scientific Methods Scale (Farrington et al. 2004).

Figure 9: Ratcliffe (2019) quantitative evidence hierarchy

Figure 10: Huey (2019) qualitative evidence hierarchy



For qualitative research, I created a modified version of the Ratcliffe hierarchy, which was then widely circulated on social media among criminology and criminal justice researchers for critique and feedback, as well as being subsequently shared through an online blog for further comments.

Data coding and analysis: Process

Coding studies to assess where they sit on either the Ratcliffe (2019) or Huey (2019) evidence scales was simple: I simply had to code for the type of methods used ('quantitative', 'qualitative', 'mixed methods') and then for specific methodologies ('randomized controlled trial', 'meta-analysis,' 'non-systematic review,' among others).

Results: 'Evidence strength' for informing public policy

Assessing the studies collected for this project using both scales – Ratcliffe (2019) and Huey (2019) - quickly reveals that none of the studies meet the threshold criteria for what constitutes 'strong evidence' for public policy-making purposes. Implicit within both scales is a view that public policy should only draw on research evidence when:

- there is a sufficient quantity of studies showing the same or similar results
- those studies rely on rigorous methodology
- those studies were subjected to peer-review (external validation)

Clearly, neither group of studies collected for this project meet this criterion. First, most of the studies are one-off explorations of a topic. Second, as the assessment above makes evident, most do not rely on anything approaching the most rigorous methodology and only two of the non-peer reviewed studies were externally validated (the two master's theses, which had supervisory committee review).

Leaving aside the issue of peer review, in relation to the quantitative studies, each is at best a level 1 on the Ratcliffe Scale ('what's interesting'). Most are descriptive – describing, for example, current versus police practices (Welch 2012)– rather than providing insights into 'what works' with respect to police practices, which would help us with the task of informing sound public policy. The qualitative studies are mostly a level 3 on the Huey scale ('what's interesting'). For those unfamiliar with the use of the term 'what's interesting' in relation to evidence based policing, it's generally employed to mean 'needs further research.' Three of the studies in the non-peer reviewed group were a level 3 on the Huey scale, indicating they used two or more methods or forms of data. In all, none of the studies was assessed as of being sufficient quality to suggest it should be used in formulating public policy and, again, none of them is part of a strong evidence base.

Section III: Synthesizing Themes from the Research Findings

What is thematic synthesis?

As the bulk of research into missing person in Canada is qualitative in nature, or mixes qualitative data with descriptive statistics, it was felt that the best method for extracting some sense of what the research literature can tell us would be to use thematic synthesis rather than employing the more common narrative approach. The rationale is simple: one of the drawbacks of narrating research findings is the possibility of researcher bias – more familiarly termed 'cherry picking'.

Developed by Thomas and Hardin (2008), thematic synthesis is "used to formalize the identification and development of themes from multiple primary studies, and subsequently enables the development of a comprehensive conceptual framework" (Sutanto, Singh-Grewal, McNeil, O'Neill, Craig, Jones and Tong 2013: 1753). This occurs through a systematic approach to research collection, followed by a multi-stage coding process that allows researchers to deduce what descriptive themes are present, within and across relevant research, as well as generating new analytical themes from which to create new hypotheses and research questions (ibid.). This approach to literature review has been increasingly adopted within the health sciences (see Sutanto et al. 2013; Griffith, Hutchinson and Hastings 2013; van Leeuwen, van Loon, van Nes, Bosmans, de Vet, Ket, Widdeershoven and Ostelo 2019).

Methodology

The objective in this portion of the paper is to synthesize outcomes of the studies collected using a thematic approach. To do this, I am guided by two research questions:

> R4. What are the key findings identified in findings from Canadian missing person research?
>
> R5. What does the Canadian research literature tell us in relation to areas of interest of the Independent Review?

Data collection

Data used for this study consisted of the five (n=5) peer-reviewed scholarly papers and the ten (n=10) unpublished reports and other pieces of grey literature collected for the scoping review above.

Data coding and analysis

Thomas and Harden (2008) describe thematic synthesis as a three stage process that entails: 1. Coding text; 2. Developing descriptive themes, and; 3. Creating analytical themes. As my purpose here is more narrowly focused – I am looking specifically to address those themes that emerge in findings of interest to the objectives of the Independent Review – I took a slightly different approach.

First, I engaged in a line by line reading of the findings of each study and coded individual results as 'key' and 'other findings.' Key findings can be seen in Table 4 below.

Table 4: Key findings of Canadian research literature on missing person

Area of literature	Author(s)	Overview	Findings
Peer-reviewed			
	Jiwani and Yong 2006	Analysis of news coverage of missing/murdered women in Vancouver's Downtown Eastside	"prevailing and historically entrenched stereotypes about women, Aboriginality, and sex-trade work [in media reporting]continue to demarcate the boundaries of 'respectability' and degeneracy, interlocking in ways that situation these women's lives, even after death, in the margins"
	Gilchrist 2010	Comparative analysis of press coverage of 3 missing/murdered indigenous woman versus 3 missing/murdered white women	"Aboriginal women received three and a half times less coverage; their articles were shorter and less likely to appear on the front page."
	Kiepel, Carrington and Dawson 2012	Compares demographic factors of missing person data to explore increased risk of being reported missing	"Youth, women, Aboriginal people, certain visible minorities, homeless people, women escaping domestic violence, youth in care facilities, and people who are unemployed or outside the labour force faced a disproportionately high risk of being reported missing, compared to the general population. Further, if individuals belong to two or more disadvantaged groups, their risk of being reported missing increases as a result."
	Morton 2016	Discourse analysis of billboard appeals to reduce risks associated with hitchhiking (violence prevention)	"Hitchhiking, as a discourse analysis of the billboards along the Highway of Tears demonstrates, is depicted as dangerous behaviour that should be completely avoided … the implicit messaging of the billboards is that hitchhiking causes women to be victimized. What is absent from these billboards is any consideration for the socio-economic reasons for hitchhiking and any possible redeeming features of hitchhiking."
	LePard, Demers, Langan, Rossmo 2015	Analysis of news coverage of selected missing person/serial murder cases to identify	"Police agencies investigating serial murders involving missing person face unique challenges … some missing person are never reported missing or are reported missing long after they were last seen … when they are

		challenges in police investigations	reported missing, some serial murder victims are not identified as such because police adhere to the theory that they died of causes other than foul play, or are still alive and have simply moved or run away … even when serial murder is suspected, the absence of forensic evidence can delay police in confirming that foul play is involved, therefore compromising or slowing the investigation."
Grey literature			
	Human Rights Watch 2013	Study of indigenous women's experiences and beliefs about police and police responses to missing and murdered women and other forms of violence.	Findings of "incidents of police abuse of indigenous women and girls", which "are compounded by the widely perceived failure of the police to protect women and girls from violence. Not surprisingly, indigenous women and girls report having little faith that police forces responsible for mistreatment and abuse can offer them protection when they face violence in the wider community."
	RCMP 2015a	Analysis of police data on solved/unsolved cases involving indigenous women	"There was a 9.3% reduction in the number of unsolved Aboriginal female homicides and "suspicious" missing person cases from the 2014 Overview (225 cases to 204 cases) across all police jurisdictions. As of April 2015, for all police jurisdictions in Canada, there were 174 missing Aboriginal female cases. This represents 10% of the 1,750 missing females reported on the Canadian Police Information Centre (CPIC). Eleven additional Aboriginal women have gone missing since the 2014 Overview was conducted."
	Puzyreva and Loxley 2017	Using databases on missing person cases constructed from media coverage, and interviews and focus groups ('sharing circles') with family members, the authors look at the economic and social costs associated with missing and murdered women.	"there is a whole array of consequences that inevitably results from the issue of MMIWG left unaddressed: the increased reliance of families on public assistance, families' expenses on searches, counselling, travel and other needs, increased compensations payments, lost opportunities for education and work, grief and suffering, lost leisure time and life enjoyment, and, generally, the continuous social and economic divide between the Indigenous population and other Canadians."
	Native Women's	Drawing on their database of known cases	"There are a disproportionately high number of missing and murdered Aboriginal women and

	Association of Canada 2010	of missing and murdered indigenous women, the authors present a descriptive analysis of demographic, locational factors associated with reports of missing women, as well as clearance rates	girls in Canada. Between 2000 and 2008, 153 cases of murder have been identified in NWAC's Sisters In Spirit database. These women represent approximately ten per cent of the total number of female homicides in Canada despite the fact that Aboriginal women make up only three per cent of the total female population in Canada. The majority of women and girls in NWAC's database were murdered, while 115 women and girls are still missing."
	Cohen, McCormick and Plecas 2008	Using PRIME police data from British Columbia, the authors look at demographic, risk and related factors associated with unsolved cases.	"The majority of non-Aboriginal females and slightly more than three-quarters of Aboriginal females were working as prostitutes at the time of their disappearance. In fact, more than half of the females in this sample were prostitutes. The Aboriginals in this sample were more likely to be homeless or known to be living on the streets and were much more likely to have an addiction problem. The Aboriginal missing person in this sample were reported missing to the police after more than twice as much time had elapsed compared to non-Aboriginals. Aboriginal female prostitutes had the largest elapsed time between when they were last seen and when they were reported missing to the police. Alarmingly, the average amount of elapsed time was approximately 3½ years for Aboriginal female prostitutes."
	Cohen, Plecas and McCormick 2009	A comparison of unsolved cases involving indigenous individuals reported missing versus non-indigenous	"The age of missing person in the current study was substantially older than commonly identified in the research literature. This is likely the result of the current analysis focusing on uncleared cases as opposed to all missing person cases which include cases that have also been solved, just as the large proportion of youth who temporarily run away, but are classified as missing and cleared. Furthermore, the profile of missing person cases in British Columbia has evolved over the past several decades from involving fishermen who were lost at sea to a higher proportion of cases with unknown probable causes involving prostitutes."
	Pearce 2013	Descriptive results – focusing on issues of 'vulnerability – based on	"At the time research for the [dissertation] ceased on September 19, 2013, the DD contained the names of 3,329 individuals …

		a compilation of stories in media coverage on murdered and missing Canadian women.	The Dissertation Database (DD) includes 626 (18.8%) cases of people who remained missing at the conclusion of data collection. The remaining 2,703 people (81.2%) were homicides or suspicious deaths … Ethnicity could not be determined for 1,734 of the individuals (52.1%) within the DD … Of those individuals whose ethnicity was known, 824 (24.8%) were identified as Aboriginal."
	Pfeiffer 2006	Description of police processing of missing person cases in Saskatchewan	Identified challenges include: "resource and personnel issues involved in dealing with chronic runaways … frustration over not being able to provide more open communication with families of missing person due to evidential concerns … frustration over not having the resources to make every missing person case a high priority … confusion over who should be informed regarding missing person (i.e., the immediate family, extended family, community representatives) … concern regarding the length of time before an individual is reported as missing in some cases."
	Patterson 2013	MA thesis using RCMP data to look at demographic and related factors associated with missing cases in British Columbia	"Results indicate specific trends in missing cases in half a century. These include shifts in jurisdictional base lines; definite changes in probably cause of missing incidents; and differences in locations from which people go missing. Other trends remained constant, ie., sex of persons with highest probability of going missing [male]".
	Welch 2012	Background study for the Oppal Commission drawing on the results of two sets of surveys sent to 20 Canadian police agencies.	"Both in 1997/1998 and currently, police agencies accept missing person reports through a variety of means ... However, not all missing persons reports were accepted in 1997/1998 due to restrictions ... [In 2012] fewer police agencies report current restrictions on accepting reports ... In 1997/1998, a minority of police agencies had dedicated Missing Persons Units ... [In 2012] nearly half of participating police agencies report current Missing Persons Units. These units have a range of staffing levels, from one officer to six, and often employ civilian staff as well ... In 1997/1998, the majority of police agencies had systems for assessing the priority of missing

			persons reports ... Over time, systems have become increasingly formal and detailed, but the factors that indicate priority have typically remained the same. In 1997/1998, the vast majority of responding police agencies stated that such factors as whether the missing person was a woman, a sex trade worker or a drug addict, had a history of going missing, or was transient or believed to be of no fixed address had no effect on the acceptance or investigation of missing person reports ... [In 2012] The majority of responding police agencies stated that the above factors continue to have no effect on the acceptance or investigation of missing persons reports. However, there is a greater recognition of vulnerability based on these factors, with a small number of police agencies responding that they would be more likely or somewhat more likely to accept or investigate these reports ... Many police agencies report significant changes since 1998 with respect to investigative procedures, including broad recognition of the seriousness of missing persons investigations, often revealed by more rigorous and detailed policy. Technological advances have also made it possible for police to use new methods to investigate. Since 1997/1998, the majority of police agencies used both inter-jurisdictional police resources and non-police resources.".
	Scrim and Giff-McKinnon 2015	Presents justice officials' views as to the utility of victim services for family members of missing/murdered indigenous women.	"Dedicated liaison positions between police and family members build trust and understanding."

I then assessed each paper's 'key' and 'other' findings for 'fit' in relation to the expressed interests of the Review. Any paper deemed to not be a suitable 'fit' (ie. irrelevant) was excluded. The excluded papers (n=3) were Jiwani and Yong 2006, Gilchrist 2010, and Morton 2016.

Findings from the remaining thirteen papers were then auto-coded on NVivo, which automatically analyzes the files and identifies frequently mentioned themes, ideas, and/or concepts. Through this, NVivo compares each text passage to the content already coded to existing nodes (i.e., the above key findings reference under Table 4). This feature also conducts a word frequency analysis of the sections of each respective paper, thereby providing information on what the most used words are. The purpose of this preliminary analysis was to extrapolate initial themes

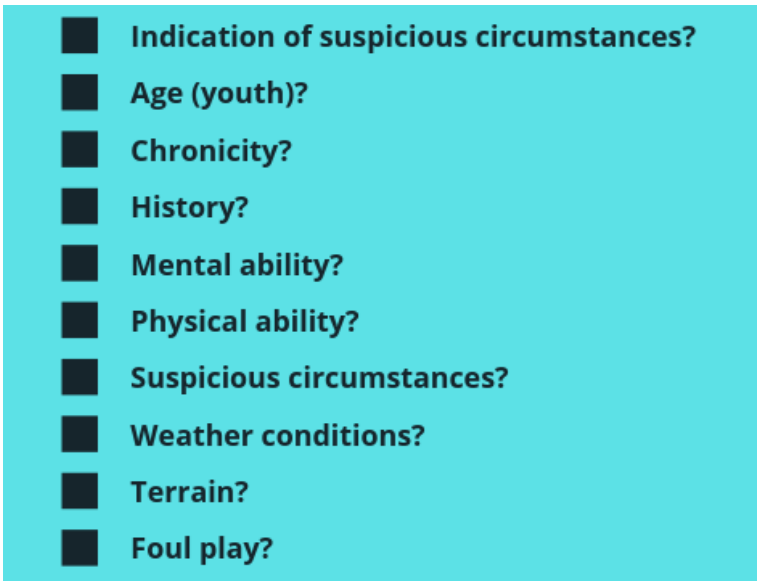
for further exploration, provide areas of interest within the research findings, and discover patterns or trends in the sources. Thus, auto-coding and word frequency analysis developed descriptive themes and served as a starting point to then create analytical themes. It was revealed that the terms ‘female,' ‘Aboriginal,' ‘sex trade,' ‘prostitution,' and ‘standardization' were the most frequently referenced themes throughout all of the twelve papers. Thus, these were the first to be coded and were subsequently developed into analytical themes. To further build themes, I manually coded the papers by thoroughly reading of the findings of each text and coded the passages line-by-line using inductive analysis. This approach was based on keywords located in the instructions from the Independent Review and the results of the auto-coding and word frequency analysis. Lastly, to achieve reliability and validity, I utilized the constant comparison method whereby the codes underwent a continual process of revision, and the next coded text passage was compared to those that were previously coded (Schulenberg and Chenier 2014). Through this process, the codes were synthesized into themes. The below section details the results of the analysis.

Results: Findings of Interest to the Independent Review

Risk Assessments

Available information. Welch (2012) highlighted that through risk assessments, specific investigative procedures can be assigned, such as resource allocation or who the file goes to. That is, reviewing all of the factors included in these assessments allows for investigations to be directed and priority to be assigned (Welch 2012). Pfeifer (2006) outlined several specified priority variables that police services have either formally or informally used to flag an investigation as a higher priority due to the persons level of vulnerability. While the author did not specify these as a form of risk assessment, the information indicates that they are used as such. The priority variables identified are an indication of suspicious circumstances, age of the missing person (i.e., very young), chronicity, the history of the person, mental/physical ability of the missing person, circumstances under which the person went missing (i.e., suspicious), weather conditions, and terrain. As well, it is mentioned that the risk can also be assessed based on the investigative experience of the members involved in the case. Pearce (2013) added that risk assessment tools also include the variable of foul play (i.e., foul play cannot be ruled out). These are also depicted in Figure 11.

Figure 11: Priority Variables for Risk Assessments (Pfeifer 2006, Pearce 2013)



Outcomes of missing person investigations. There is minimal mention of this topic throughout the studies. Regarding the duration of being missing, Kiepal et al. (2012) revealed that most were found or returned within two days of being reported as missing. In the Cohen et al. (2008), it was reported that the average number of days a search lasted was five days, with a range of one day to one year, and that the most common length being two days as well. Cohen et al. (2009) noted that the mean amount of time a search lasted in this study was 9.5 days, with cases involving an Aboriginal subject taking, on average, twice as long.

Concerning incident outcomes, Cohen et al. (2008) reported that, in their study, most people who went missing were classified as an accident, then suicide, whereas the least classified probable cause designations were parental abduction, runaways, and repeat missing persons. Additionally, a vast majority of missing person cases in this study had foul play ruled out. According to Cohen et al. (2009), most of the cases in this study were accident and kidnapping, followed by being pronounced dead, unknown, suicide, and lastly, wandered off/lost. Similarly, according to Patterson (2013), the probable cause of the cases from 1950 to 2004 overall were mostly accident, followed by unknown/other, runaway, wandered off or lost, missing information, parental, and lastly, parental abduction. Finally, according to RCMP (2015), most case outcomes were unknown or foul play suspected, followed by runaway or lost/wandered off. As can be seen, there is variance in the incident outcomes reported across the studies.

Risk factors. Risk factors identified that might be helpful for developing risk assessments are youth, female, being Aboriginal, having substance use/abuse and addiction issues, homelessness, sex trade work, living with economic vulnerability, mental health issues, mental and physical disabilities, and being an illegal immigrant. These are discussed at length in the upcoming section.

Challenges. Pfeifer (2006) discussed that one of the difficulties associated with the current risk assessments used throughout police services Canada is that there is significant disparity regarding the use of and interpretation of the variables, as well as a lack of clarity on the variables in policies. RCMP (2010) reported that it is challenging to conduct a standardized risk assessment

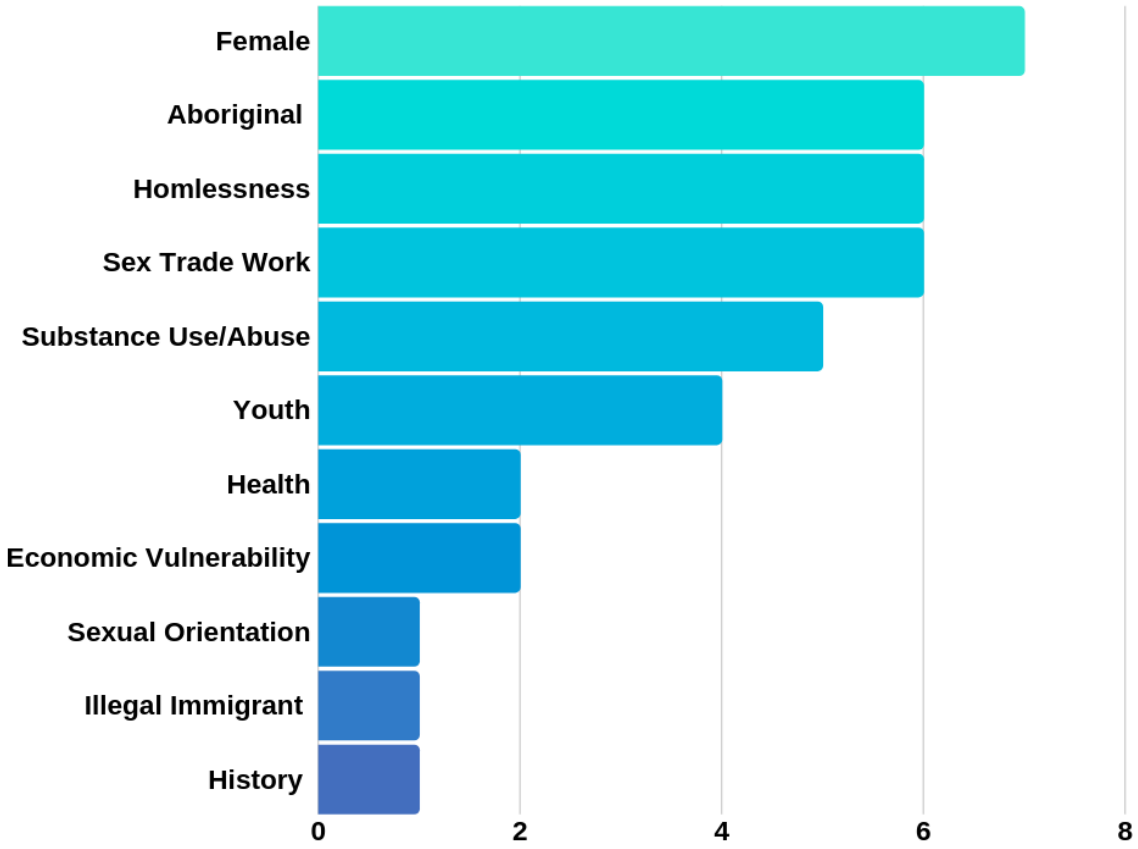
because the dynamics of every missing person case are unique. Pearce (2013) highlighted that one of the challenges with missing person cases are the employment of risk analysis and risk assessment, as it can negatively impact investigations if the evaluation of the related risks is faulty. Cohen et al. (2008) and Cohen et al. (2009) found that the use of a risk assessment occurred in very few/none of the cases in these studies, so most files did not contain useful risk assessment information, showing that there are differences in their implementation and use across services.

Recommendations. Given the above, studies recommended that the variables used in risk assessments be defined consistently across police services (Pfeifer 2006), there be consistent adherence to a risk assessment (Pfeifer 2006), there be a standardized risk assessment/standardized set of risk assessment factors (Pearce 2013; Pfeifer 2006), there be an identification of who in each service makes a decision about the risk through the assessment (Pfeifer 2006), and using risk assessments should be a mandatory investigative tool (Pearce 2013, Patterson 2013).

Risk Factors

This topic revealed the highest number of themes throughout the 12 papers, suggesting that it is a commonly explored subject area within this literature. Results of the analysis showed a total of ten themes, with Aboriginal, female, homelessness, and sex trade work as the most discussed risk factors. Figure 12 below displays a chart depicting the number of papers each risk factor was found within. All of the findings concerning these factors can be concluded as involving those who are vulnerable/marginal, involved in transient lifestyles, and commonly excluded groups. That is, those who are typically regarded as vulnerable/marginal (i.e., youth), living transient lifestyles (i.e., the homeless), and are commonly excluded groups (i.e., Aboriginal people) are the most at risk for going missing. As such, the risk of being reported missing is said to substantially increase if an individual belongs to two or more of these categories (i.e., young, homeless, Aboriginal individual). It should also be said that many of the risk factors identified below are interrelated. For example, Puzyreva and Loxley (2017) noted that high rates of poverty for women force them into the sex trade to earn money, ergo placing them at an even higher risk of going missing.

Figure 12: Risk Factors Associated with Missing Person Cases



Female. Being female was referenced in seven out of the twelve papers as a risk factor for going missing (Kiepal et al. 2012, Cohen et al. 2008, Cohen et al. 2009, Puzyreva and Loxley 2017, NWAC 2010, RCMP 2015, Welch 2012). As can be seen in Figure 13, these articles also emphasized many factors that are related to this group being at risk. Violence against women/domestic violence was stated as a reason for why more females were reported as missing compared to men by Kiepal et al. (2012) and RCMP (2015). Cohen et al. (2008) found that a majority of those who live on the street or are homeless are females in their study, which was similarly discussed by Kiepal et al. (2012), Pearce (2013) Welch (2012), and Puzyreva and Loxley (2017) as a risk factor for going missing for females. Cohen et al. (2008), Pearce (2013), NWAC (2010), Cohen et al. (2009), and Puzyreva and Loxley (2017) noted that addiction/substance use and abuse are an interrelated factor. Furthermore, Cohen et al. (2009) reported that the addiction problems women are likely to face are linked to working in the sex trade, as more than half of the females in their sample who were employed when they went missing were prostitutes. Interestingly, Pearce (2013) noted that the vulnerabilities women face could actually result in women engaging in sex work, which then can lead to further vulnerabilities and going missing. That is, as explicitly stated by Puzyreva and Loxley (2017), sex work is a risk factor that is not a direct cause of females disappearing, but instead is an interrelated factor that stems from a limited number of options and experiencing multiple forms of victimization and trauma. Participation in the sex trade was also discussed by Cohen et al. (2009) and NWAC (2010). Poverty was stated as

placing women at a higher risk of going missing by Loxley (2017), Kiepal et al. (2012), Pearce (2013), and Cohen et al. (2009). Related to this, economic vulnerabilities experienced by women, such as a lack of full-time employment opportunities, can influence women to participate in sex trade work and place women at risk for going missing (Puzyreva and Loxley 2017). Lastly, Pearce (2013) was the only study to identify that one of the risk factors for women is their ethnicity. Specifically, the author notes that an Aboriginal identity places women at a higher risk of going missing.

Figure 13: Factors Related to Females Going Missing

Aboriginal. Having an Aboriginal identity was highlighted as a risk factor throughout 50% of the included papers (Kiepal et al. 2012, Cohen et al. 2008, Cohen et al. 2009, Puzyreva and Loxley 2017, NWAC 2010, and RCMP 2015). These studies also identified several related factors, which are shown in Figure 14 below, revealing that most Aboriginal people have multiple factors contributing to their risk of going missing. Some of these were sex trade work (Cohen et al. 2009; Puzyreva and Loxley 2017; Pearce 2013; NWAC 2010), being female (Kiepal et al. 2012; Pearce 2013; Cohen et al. 2008; Cohen et al. 2009; Puzyreva and Loxley 2017; NWAC 2010; RCMP 2015), and substance use/abuse and addiction (Cohen et al. 2008; Cohen et al. 2009; Puzyreva and Loxley 2017; Pearce 2013). Pearce (2013) was the only study to report that mental and physical disabilities, involvement in the child protection system (i.e., removal from parental relationship before age 18), adoption and fostering, residential schools or group homes, sexual or physical abuse or neglect as a child, and a reliance on hitchhiking for transportation are factors related to Aboriginal people being at risk for going missing. Lastly, the NWAC (2010) report and Pearce (2013) addressed the temporary or semi-permanent residence situations (i.e., insecure housing) that impact Aboriginal people and racism as factors that affect their risk of disappearing.

Figure 14: Factors Related to Aboriginal People Going Missing

Homelessness. Homeless people were reported as being at a higher risk for going missing in six studies (RCMP 2015; Cohen et al. 2008; Cohen et al. 2009; Kiepal et al. 2012; Puzyreva and Loxley 2017; Welch 2012). Most noted that this group is a marginal, transient population, which places them at an increased risk. As well, those who used/were reliant on shelters were highlighted by Kiepal et al. (2012) as being overrepresented among missing person reports, which led the authors to conclude that those who use shelters and are homeless face a disproportionately high risk of being reported as missing.

Sex Trade Work. This risk factor was identified by LePard et al. (2015), Cohen et al. (2008), Cohen et al. (2009), Puzyreva and Loxley (2017), Welch (2012), and NWAC (2010). It is reported that the transient lifestyle associated with this work renders them vulnerable and puts this group at a higher risk of going missing. The issues outlined related to this group are that they are at an increased risk for violence, harm/foul play, and victimization, are mostly females and Aboriginal, and are commonly reported as missing to the police after a substantial amount of time had passed (See Figure 15).

Figure 15: Factors Related to Sex Trade Work and Going Missing

Substance Use/Abuse. Five papers identified this factor as placing people in this category at a higher risk of being reported as missing (LePard et al. 2015; Cohen et al. 2008; Cohen et al. 2009; Puzyreva and Loxley 2017; Welch 2012)). These studies discussed that most of those who went missing had an addiction or substance use problem, which directly contributed to their vulnerability and unstable lifestyle, as well as their risk of going missing.

Youth. Young people were reported as being at higher risk of going missing in four of the twelve studies (Kiepal et al. 2012; Cohen et al. 2008; Loxley 2017; NWAC 2010). Most discussed that a vast majority of those who went missing were young, highlighting that they face a disproportionate risk of being reported missing. Furthermore, Kiepal et al. (2012) noted youth in care are at a higher risk for being reported as missing as there was a large majority in care of all the youth reported as missing in their study.

Health. Certain health-related factors were highlighted as related to an increased risk of going missing in two studies. As previously mentioned, mental and physical disabilities were stated as interrelated risk factors by Pearce (2013), specifically concerning female Aboriginal persons. Cohen et al. (2008) discussed that a large majority of people who went missing had a history of mental illness, medical condition, and/or disease at the time of going missing, such as diabetes, eating disorders, and thyroid conditions, suggesting that these factors are somehow related to the risk of going missing.

Economic Vulnerability. This risk factor was mentioned in two studies (Kiepal et al. 2012; Puzyreva and Loxley 2017). Kiepal et al. (2012) noted that people who are unemployed or are not in the labour force (i.e., retired, students, etc.) face a disproportionate risk of being reported missing compared to the general population. Puzyreva and Loxley (2017) mentioned similar

findings, as the authors suggest that poverty and a lack of full-time employment opportunities place people in vulnerable situations and at a higher risk of being reported as missing.

Sexuality. Those with a sexual orientation other than heterosexual (i.e., LGBTQ2S+ persons) were revealed as at higher risk for dying by suicide when going missing by Cohen et al. (2008). That is, LGBTQ2S+ persons are more likely to be identified as suicidal when reported as missing when compared to those who are heterosexual.

Immigrant status. Being an illegal immigrant was highlighted as increasing the risk of being reported as missing by one study. It is said these persons are typically a part of the marginal and transient population, thereby putting them at increased risk for not being reported as missing at all, being reported long after they were seen, or being a murder or serial murder victim (LePard et al. 2015).

History. Lastly, having a history of going missing was identified by Welch (2012) as increasing one's risk of being reported as missing. The author highlighted that police agencies are more likely to prioritize these reports as some services include this factor in their risk assessment.

Police Responses

Investigative Practices. Cohen et al. (2008) discussed some of the investigative practices employed by police services to be, in order of most used, checking bank activity, credit or debit card use, welfare activity, Human Resources and Development Canada (HRDC), post office activity, tax submissions, and email account activity. Further, they outlined that photographs were on file with the police in a vast majority of cases, as well as fingerprints and dental records. Some cases also had birth certificates and DNA exhibits utilized to find the missing person. Welch (2012) noted that most police agencies have systems in place for assessing and assigning priority of missing person reports, such as search urgency charts or risk assessment forms, but that there is great diversity in the investigation practices for missing person cases among police agencies. For example, the author highlighted that assorted officers are assigned responsibility for following-up on missing person files and that the officers employed for initial investigations varies (i.e., patrol, designated missing person officers, etc.). No other studies discussed police investigative practices for missing person cases.

Some articles did discuss the challenges outlined regarding missing person investigations. Some of which were:

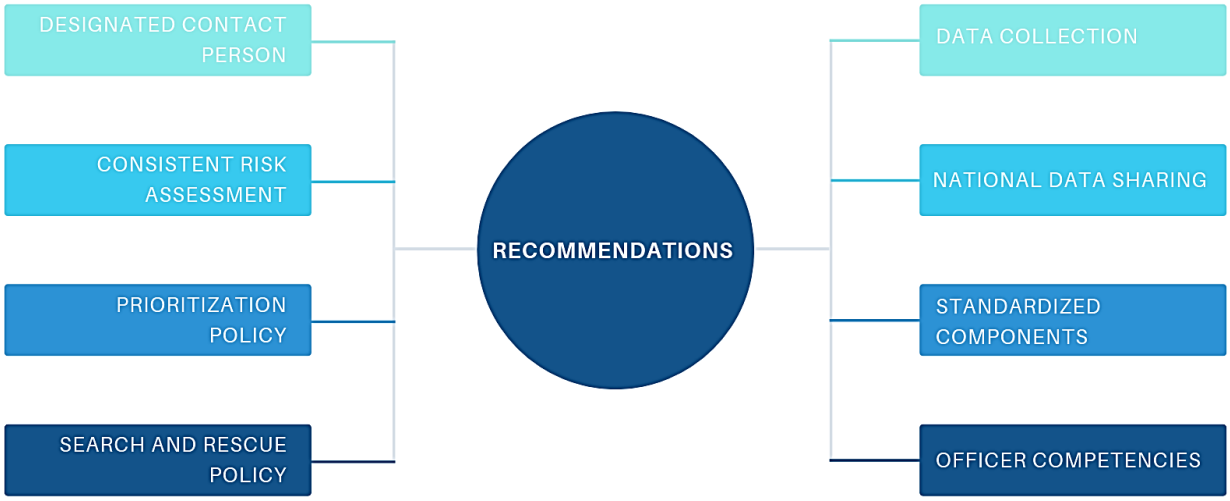
- An absence of information, leads, and evidence (RCMP 2015)
- Resource issues (i.e., with chronic runaways) (Pfeifer 2006)
- Time delay in reporting and incomplete missing person records (RCMP 2015. Pfeifer 2006)
- A lack of collaboration between services, stakeholder organizations, community representatives (Pfeifer 2006)
- Issues with communication (i.e., lack of updates) between the police and the affected families (HRW 2013)
- Linkage problems (i.e., with the missing who have transient lifestyles) and challenges with cross-agency collaboration (RCMP 2015, Pfeifer 2006)

- A lack of clear and consistent policy regarding search and rescue teams and their use, as well as confusion over their role (Pfeifer 2006)
- Officer assumptions/perceptions and attitudes/bias, as well as officers working off of experience only (RCMP 2015, HRW 2013)
- Challenges associated with transient, unstable, and marginalized populations (RCMP 2015, HRW 2013)
- Difficulties with and a lack of data collection (HRW 2013, Loxley 2017, RCMP 2015)

Finally, some studies outlined a few recommendations for improving the current investigative practices used by police services. These highlighted the following as ways to improve current practices, which are also displayed in Figure 16 below:

- Strengthening the data collected and placing resources into databases for national data sharing, analytical support, coordination and liaison and development of investigational best practices (RCMP 2015)
- Employing/mandating standardized components to practices (not just standardization) (HRW 2013, Pfeifer 2006)
    - E.g., Standardization formally established and implemented at each service, specific to each service (Pfeifer 2006)
- Establishing officer competencies for investigations involving missing persons (RCMP 2015)
- Establishing a designated contact person for missing persons (Pfeifer 2006)
- Develop a consistently used risk assessment across police services (Pfeifer 2006)
- Create a formal policy for how missing person cases are prioritized (HRW 2013, Pfeifer 2006)
- Create policy for search and rescue teams (Pfeifer 2006)

Figure 16: Investigative Practices Recommendations



Search and Rescue Practices. Pfeifer (2006) noted that there are a few confusing issues related to search and rescue, which are: 1) when search and rescue is called, 2) participation in search and rescue by local residents and 3) liability issues related to search and rescue if members

are injured while engaging in a search and rescue effort. Further, the author recommended that police services develop consistent operational policies regarding the use of search and rescue teams, which are to be developed in collaboration with communities, search and rescue organizations, and government agencies. No other studies discussed search and rescue practices.

Costs. Puzyreva and Loxley (2017) noted that, based on the average annual salary expenditures of all unsolved long-term missing person cases (of which there were six in this study), police investigation costs for missing persons total to around $2.0 million (see Figure 17). No other estimates concerning the costs associated with missing person cases were provided within the findings of the included studies.

Figure 17: Costs of Investigating the Missing (Puzyreva and Loxley 2017)

Missing	
Project Devote's share of salaries spent on investigating missing cases	$344,031
Salary spending on other missing cases (assuming the same intensity of search as in the case of Project Devote)	$1,662,818
Total 2	$2,006,849

Community Volunteers and Family. Puzyreva and Loxley (2017) relayed that, because of the associated costs for searchers and police investigations, family members have participated in searches to reduce their anxieties and fulfill their duty of care for their loved ones by taking action. Further, the authors highlighted that there is a volunteer organization called Drag the Red that helps with laborious searches for missing people. No other studies discussed the use of community volunteers and family participation in missing person investigations.

Media and Social Media. No studies discussed the use of media releases and social media as a police response for missing person investigations. However, Puzyreva and Loxley (2017) and Pearce (2013) did highlight that utilizing these services can be intrusive and traumatizing for the families and other parties involved, as well as ineffective if there is misinformation publicized or information left out.

Spatial Dimensions

Currently, there is no available knowledge about the spatial dimensions of missing person cases as none of the included studies discussed this topic.

Ontario

There was only one article, Pearce 2013, that outlined some comparisons of Ontario to other provinces and territories with respect to missing persons cases. Throughout this research, the following was discussed:

1. The Ontario Provincial Police (OPP) publicly listed rewards for cold cases, which helped with gathering information, but also produced a higher number of listed cases of unsolved missing persons cases where foul play is expected;
2. There is less information on missing women from Ontario and Alberta than other provinces due to there being no consistent approach(es) outlined in these provinces for

listing missing persons. The author highlights that the Winnipeg, Regina, and Saskatoon police services do this regularly. The issue with this inconsistency across the provinces and territories is that comparisons regarding the rates of missing persons are not possible given that lack of available and consistent information gathered;

3. Regionalized forces are common in Ontario, which can be helpful in providing communication and collaboration for missing persons investigations; and
4. The mandated use of ViCLAS in Ontario and Quebec is helpful in determining the completeness of an investigation and the creation of linkages. Specifically, it captures information on missing persons where the circumstances indicate the possibility of foul play, unidentified bodies or suspected homicide, and non-parental abduction and attempts, which can assist with linking crimes across jurisdictions and by the same person. Thus, this paper discusses that ViCLAS can avoid linkage blindness.

Police Officers in Missing Person Investigations

No studies discussed the disciplinary measures, police resistance to discipline and organizational change, and operational stress injuries related to missing person investigations.

Communication

Welch (2012) discussed that most agencies have procedures that involve regular communications with family members, such as an assigned officer for liaising with them. As well, it was noted that civilian members/specialists can be involved in this process. One problem highlighted is that the person responsible for communicating with the family members may change due to file transfers or changes to a different unit. Additionally, it is reported that the amount of communication between police agencies and family members varies as some agencies have policies that standardize this practice and some do not. Overall, this study relayed that communication with the families varies, there are no consistent policies for the process, and there are no standardized components to liaising either. Pearce (2013) noted that the police should have an awareness of the importance of communications with the families and others (i.e., effective, respectful, clear, comprehensive, meaningful, regular, and collaborative) and how there is a need for this beyond just investigative reasons. Additionally, the author stated that a family spokesperson or key contact would be an effective method for providing updates and disseminating information to these involved parties. No other studies discussed communication with families and others who report people missing.

Prevention Strategies

Kiepal et al. (2012) discussed prevention strategies for Aboriginal women who go missing, whereby they outline that policies of prevention should focus on funding counselling, shelters, and other related services both on and off reserves. Pearce (2013) similarly reported that mental health and addiction services (i.e., counselling), integrated programs for sex workers, and changes to the social assistance system (i.e., increased welfare rates to bring women out of poverty) may help prevent Aboriginal women from going missing. Lastly, RCMP (2010) also discussed the following strategies specifically for reducing the higher rates of Aboriginal people who go missing:

- Have a dedicated police liaison that shares information, develops relationships, and works collaboratively with Aboriginal communities;
- Increase public awareness (i.e., through campaigns, videos, and prevention programs) that informs and educates on the timely reported of missing persons and the importance of relaying all details when reporting it;
- Pursue and encourage the lawful and appropriate release of data to keep the public aware and to promote prevention efforts;
- Strengthen national data sharing, analytical support, the development of best practices, and the liaison and coordination of best practices;
- Publish missing person cases on publicly available websites (i.e., Canada's Missing), in consultation with victim's families, for public assistance and tips; and
- Ensure reliable and relevant data is available for decision-making.

Concerning youth, Kiepal et al. (2012) noted that policies of prevention should focus on child abuse prevention, suicide prevention, and offering counselling and mentorship to this group and their families. Pearce (2013) also reported that support, training, and education for families would be a helpful preventative measure that empowers parents and can help with ensuring youth are monitored and are safe.

For adults, Kiepal et al. (2012) highlighted that focusing on the underlying problems affecting those who go missing should be of priority when generating policies of prevention and that these should target at-risk groups. As such, they recommended poverty reduction, employment opportunities, job training and education, and ending domestic violence, homelessness, and other social problems to assist with preventing adults being reported as missing. Specifically, for adult women, RCMP (2010) relayed that prevention strategies must focus on stopping family-related violence to prevent and reduce female missing cases.

The remaining prevention strategies discussed are analysis and risk assessments by police can prevent the number of new investigations for the same individual (Pearce 2013), identifying risk factors (RCMP 2010), incorporating a multi-agency community response (RCMP 2010), prevention campaigns and increasing public awareness (RCMP 2010), and increasing and implementing prevention programs specific to Aboriginal persons and communities (RCMP 2010). No studies outlined prevention strategies for the homeless and undocumented migrants who may not be reported to the police as missing, as well as those with have a history of going missing.

Section IV: Current Research and Potential New Areas for Pilot Programs and Evaluative Research

In this section I provide an overview of ongoing and potential research in the area of missing person in Canada that might help us to fill in some of the significant knowledge gaps surrounding this phenomenon. To be clear: this is not intended to be the most comprehensive of overviews, as there is always the possibility that some researcher or group might be working on relevant studies currently unknown. However, I did reach out to those individuals and groups who were known to be interested and/or conducting research in this area for information as to current and ongoing projects. To round out this section, I also present potential research avenues that are as yet unexplored.

Completed but not published studies

The Missing person Project – Phase 1 (Principal Investigator L. Huey (UWO))

This project seeks to provide descriptive analysis of various unexplored aspects of missing person cases. To date, the following papers have been completed and submitted for peer review:

Huey, Laura and Lorna Ferguson. In review. '"Did Not Return in Time for Curfew": A Descriptive Analysis of Homeless Missing person Cases,' at *Journal of Interpersonal Violence*.

Homeless communities have garnered recent public attention in Canada due to their high rates of violence, victimization, and being reported as missing. There have been several high profile cases, investigations, and inquiries involving missing homeless persons, yet very little is known about what cases are reported to the police, under what circumstances they go missing, and the outcomes of those cases. As a result, the purpose of this study is to shed much-needed light on some of these unresolved issues by offering an exploratory, descriptive analysis of 291 closed missing person cases from the records of a municipal police service. What this analysis reveals is a somewhat more mundane picture. Specifically, results indicate that the majority of missing person reports are of those who are female and White, have a drug/alcohol addiction, are residing at a homeless shelters/missions, and have no previous history of being reported as missing. As well, incident characteristics revealed that most reasons for being reported as missing are to due being missing from shelters and issues with curfews and that all are located alive. This study extends the minimal existing scholarship on the relationship between homelessness and being reported as missing, as well as provides information on vulnerabilities and factors that impact missing homeless person cases.

Huey, Laura. In review. 'The Power Few of Missing person Cases' at *Policing, an International Journal.*

Purpose: The purpose of this paper is to test the 'power few' concept in relation to missing persons and the locations from which they are reported missing. The power few are those individuals or

locations which account for a significant portion of police events (crimes, missing persons reports, and so on).

Design/methodology/approach: Data on missing person cases (n=26,835) were extracted from the record management system of a municipal Canadian police service and used to create data sets of all of the reports associated with select repeat missing adults and repeat missing youth (n=131). From these sources, the 5 most frequently reported individuals were identified in each group (the 'power few'). Then the 5 locations from which these individuals were most commonly reported missing were identified ('power few' locations). The overall frequency of reports generated by these locations was then assessed by examining all reports of both missing and repeat missing cases.

Findings: When the volume of reports listing each address within all missing person data were tabulated, it was found that 'power few' adult addresses only accounted for approximately 12% of all locations associated with missing person, whereas the power few youth addresses accounted for 31% of all locations.

Practical implications: The results suggest that focusing on the places from which youth are likely to go missing, and targeting initiatives appropriately, could produce up to a 30% reduction in the overall volume of missing person cases.

Huey, Laura, Hina Kalyal and Lorna Ferguson. In review. 'Risk and Higher Risk within Missing Children Reports: A Canadian Sample', at *Child Abuse and Neglect*.

In Canada, there are approximately 270,000 missing children reports documented between 2013 to 2018, of which a vast majority are runaways. Reasons why children go missing and run away are complex, and there is a myriad of factors that precede and contribute to these occurrences. Additionally, there is little to no research on what risk factors are related to children being repeatedly reported as missing in Canada, which is problematic because they at higher risk of victimization and exposure to risky behaviours while out on the streets. Thus, the purpose of this study is to construct risk profiles and identify risk factors of children who repeatedly go missing and runaway. To explore this phenomenon, this study uses Canadian police missing person data recorded from 2013 to 2018 with respect to youth aged 0 to 21. Results gathered by logistic regression indicate that there seven significant risk factors – age, gender, race, location, history of offence, disability and under 16 prostitution – that are associated with repeat missing and runaway children. By identifying these risk factors, police can adopt a more targeted approach to handling at-risk children.

Huey, Laura, Koziarski, Jacek and Lorna Ferguson. In review. 'How Far Do They Go? Using Canadian Data to Explore Where Missing person Are Located', for the *International Journal of Police Science and Management.*

In Canada, there are approximately 30,000 missing adult cases reported each year, with the most recent figures noting a total of 31,387 missing adults for 2018. Even though adult missing person cases can place a strain on policing resources and represent a significant public safety issue, very little is known about the circumstances in which these persons go missing or are found. Specifically, there is little-to-no research on how far missing adults go and locations where missing

adults are found in Canada, which is troublesome as such research could help with the prioritization of search areas and a reduction in police response times. As a result, the purpose of this study is to explore where adults reported missing are typically found, as well as how far they travel before they are found. Using a sample consisting of approximately 8,500 closed case files (2013-2018) from a Canadian municipal police service, we examine similarities and differences in our data from a comparable U.K. study (Shalev, Schaeffer and Morgan 2009) and identify spatial behaviour patterns. Results suggest that most missing adults stay within city limits, return of their own volition, and do not travel further than their province of residence. By identifying these spatial behaviour patterns associated with missing adults, police can refine probable search areas, allocate resources more efficiently, find missing adults timelier, and develop better-informed responses and policies.

Kowalski, Larissa and Laura Huey. In review. 'Who Is at Risk of Wandering and Going Missing? A Preliminary Study of Missing Reports in a Canadian City' at *Canadian Review of Sociology*.

Despite an increased research and policy focus on the economic, health and other shifts affecting our aging population, one area which has generated little attention is the phenomenon of elderly missing person. The present study offers an analysis of Canadian police data (2013-2018), from which we find that males, who are community-dwelling and have dementia or a related condition are most likely to be reported missing to the police. Consistent with previous studies outside of Canada, we find that location is a significant risk factor for going missing, and that community-dwelling individuals are more likely to be reported missing than those in institutional care. Most importantly, we find a relationship between going missing and having dementia or related condition. Although previous literature indicates there might be a relationship between going missing and having dementia, ours is the first to identify a relationship between dementia and going missing using retrospective police reports.

Ongoing research

This section describes projects of which I am currently aware. I also reached out to researchers across Canada who I knew were working on projects on this topic, explained I was seeking information on their work for the Independent Review, but, after several emails, received no response.

Typical Missing person Calls and the Cost of Police Responses (Principal Investigator L. Huey (UWO) with Colin Watson (Victoria Police Department)

Drawing on five years of closed missing person files, this study aims to achieve two significant goals. First, to develop typologies of both adult and youth/child missing person cases (in progress). Second, to use detailed police occurrence data to develop estimates of policing frontline and investigative costs for different types of missing person calls. Costs will be calculated through estimating average times officers spend on tasks associated with different call types.

The Missing person Project – Phase 1I (Principal Investigator L. Huey (UWO))

This programme of research extends the previous set of studies through the inclusion of anonymized data from participating police services across Ontario. As to date, attention has largely been focused on missing cases in major urban centres (Toronto, Vancouver), this project examines missing person in smaller cities, which may fewer resources to prevent and respond to these cases. In development as a Social Sciences and Humanities Research Council of Canada Insight Grant application, five Ontario police services have agreed to participate. The focus will include: identifying local risk factors in order to validate risk assessment tools, exploring the quality and quantity of data on missing person cases, examining the geographical dimensions of missing cases (ie. exploring missing 'hot spots' found and reported from locations), among others.

Missing person Investigations (Principal Investigator L. Ferguson (UWO))

This doctoral research project explores the strengths and limitations of current investigative, search and rescue other police practices in relation to missing person cases. To date, 23 interviews have been conducted at nine police services across Canada.

Elderly Missing person (Principal Investigator L. Kowalski (UWO))

In tandem with the missing person investigations project being conducted by L. Ferguson, this project explores aspects of the phenomenon of elderly missing person and police responses to these cases.

Using Social Media to Solve Missing person Cases (Principal Investigator V. Soave (UWO))

This project looks to measure audience consumption of missing person messaging on social media through an experiment testing recall and knowledge of select cases.

Social Media Use by Police Services for Missing person Investigations (Principal Investigator L. Ferguson [UWO])

This research project explores the use of one social media tool, Twitter, by fifteen Canadian police services with the most followers (i.e., most outreach capabilities) to assist with missing person investigations. Drawing on almost 400 tweets posted regarding missing person, this study will provide much-needed insights into the features of, and engagement with, these tweets, to assist with proving research evidence on the best practices of Twitter use for missing person investigations.

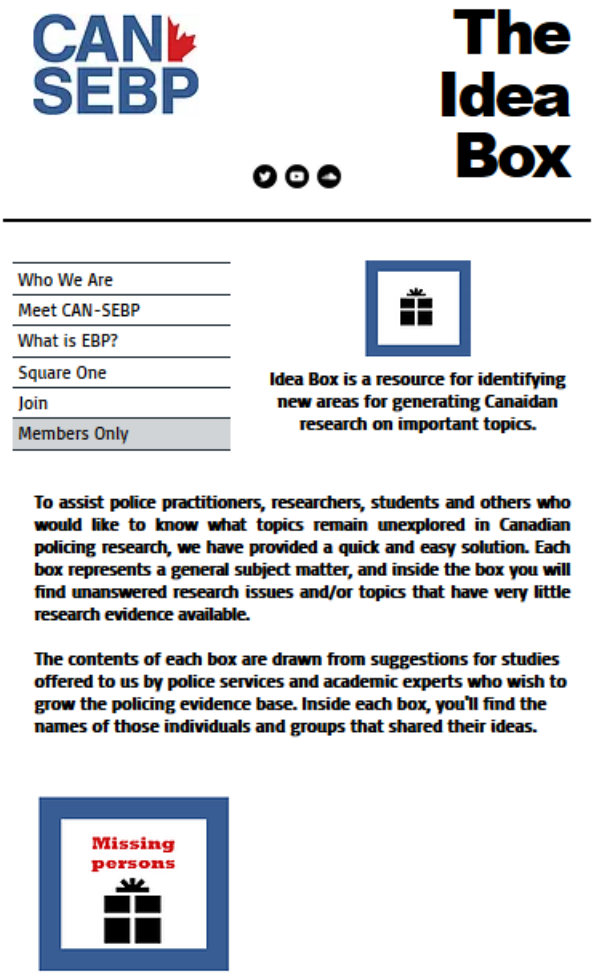
Murdered and Missing Women's Indigenous Women and Girls Inquiry project

Through contacts with indigenous colleagues I am aware that some research is being conducted on questions associated with risk factors that render indigenous females uniquely vulnerable. To date, I have been unable to acquire more details on the size and scope of that project.

Potential research projects

Over the years, a number of possible measures have been put forward as remedial responses to prevent or more effectively report and/or investigate missing person cases. Many of these solutions centre on reducing risk to sex workers, indigenous women and girls and other vulnerable groups. To avoid duplicating ideas already in the public domain, in this section I have opted to propose a series of new testable solutions, derived from my understanding of the research literature, the police operational environment, as well as from some of the questions posed to me through the Independent Review, questions that remain unanswered.

Additionally, to increase further uptake of these topics for potential research, I have arranged for the Canadian Society of Evidence Based Policing to launch a new tool – the Idea Box – which will help to guide future studies by alerting interested researchers to significant gaps in our knowledge. The first 'box' created is for missing person topics and many of the questions below can be found within that box. This program will go live on our website in January 2020.



Re-evaluating risk factors and validating risk tools

Of the little research on missing person in Canada that has been produced, risk factors associated with sex work, homelessness, mental health and lower socio-economic status have been highlighted, particularly in relation to possibly fatal outcomes (Cohen et al. 2008). However, the reality is more complex. While those groups appear to be at a higher risk of being abducted or murdered (cites), we know very little about risk factors associated with other fatal outcomes, notably accidents and suicides. This lack of knowledge has repercussions for how cases are prioritized. For example, most risk based protocols would prioritize investigations for missing youth, and yet suicide rates peak for men aged 40+ (Canadian Mental Health Association 2019) and outcomes of suicidal events for this group are more likely to be fatal (ibid.).

Research is urgently required that deconstructs 'missing' into different categories of associated risk clusters. These risk clusters can then be used to develop risk-based assessment tools to be used only after they have been validated through rigorous trials.

Plural Policing

The Canadian Council of Academies Report (2017) described the complex array of private, self and public policing forms that currently exist in the community safety sector. What that report did not do, however, is evaluate the evidence base for determining what is effective (ie. 'what works') in relation to employing different forms of private and self policing to address crime and community safety issues. Certainly, this is true with respect to the problem of missing person, and how best to prevent or respond to reports individuals are missing. The reality is that such an endeavour would have produced similar results to the present report: very few studies, generally of insufficient quality to be useful for public policy-making purposes.

I was asked for the purposes of this report to consider the use of indigenous community safety programs, or other such local patrol-based groups, to help address the problem of missing person from both indigenous and other communities. The reality is that I could not find one single independent, published evaluation of such a program. In short, there is no credible scientific evidence to suggest that alternate modes of policing – including local patrols consisting of community members – can effectively prevent, investigate or otherwise respond to missing person cases. Indeed, there *is* research that suggests that marginalized communities seeking to engage in community policing often struggle with maintaining community safety functions over time, as they lack sufficient resources (individually and collectively) to sustain their efforts (Herbert 2006; Huey and Quirouette 2010).

None of the above is to suggest that exploring the possibility of para-policing, private policing and/or community-based responses would not be worthwhile, in tandem with public police or otherwise. Rather, any such efforts should be encouraged as a pilot study aimed at providing a rigorous evaluation of a given program, policy or practice.

Third Party Reporting

One of the issues identified in the literature is what has been termed elsewhere as 'failure to report' (Skogan 1984) – that is, within some communities there is a significant delay between when someone is first noticed as absent or 'missing', and when a report is filed with police (see

LePard et al. 2015). There are many reasons for this, including previous negative experience with police (Koster, van de Luen and Kunst 2018), fear of being arrested for an outstanding warrant (Huey 2012) or for their immigration status (Deshman 2009), the belief that a report might not be taken seriously (Skogan 1984) or their fears, suspicions and/or experiences are not worth reporting (Singer 1988). To address unreported hate crimes within the LGBTQ2S community in Edinburgh, in the early 2000s police in Scotland launched an innovative program: remote, third party or distance reporting. Today, the program has been expanded to include homeless, deaf and other vulnerable communities.

As I've documented elsewhere:

> Remote Reporting encourages victim reporting of crimes to police through the use of service providers, who serve as third parties in the process. Upon receiving a client's complaint of experiencing or witnessing criminal victimization, a service provider consults with the client as to whether to bring the complaint forward to the police. Should the client wish to do so, two options are available for proceeding: the victim or witness can 1) report the matter for police investigation or 2) report the information anonymously for police intelligence purposes (Huey and Quirouette 2009: 13).

Service providers receive training from police as to how to take the initial report, as well as on how to walk complainants through the process (which may include attending a meeting with a non-uniformed officer if they victim/witness chooses the first option above).

First studied for potential use in Canada in 2009 (Huey and Quirouette 2009), a version of this program has been adopted by the RCMP for sexual assault cases (Smith 2017). Unfortunately, no evaluations of its efficacy in increasing reports among sexual assault victims could be located. That said, based on their analysis of the operation of remote reporting in the U.K., and interviews with stakeholders in both Toronto and Vancouver, Huey and Quirouette (2009) recommended evaluating a pilot program in Canada for homeless and other street-based communities. As with the Scottish model, a pilot program could also easily be developed for the LGBTQ2S communities and other groups. Such a program would not necessarily need to focus on missing person but could easily encompass such reports.

Changing shelter curfew policies

One of the realities of missing person cases is the significant volume of reports that flood into police services each year. These range from children who have been parentally abducted to elderly individuals who have wandered away from a hospital or other home. Each report must be logged and treated as a potential investigation requiring officer follow up. My own research – as described above – as well as that of other scholars (Hirschel and Lab 1988; Payne, 1995; Tarling & Burrows, 2004; Shalev et al., 2008; Shalev et al., 2009), reveals that the overwhelming majority of reported missing person cases are resolved without fatal or other negative outcomes, with the individual being located alive, or having returned on their own volition, and usually within a fairly short period of time. In many instances, and particularly for those using shelter or hospital facilities, such individuals have histories of repeat missing reports, often simply as a result of missing an institutional curfew.

As a result of the above, some police services have experimented with enacting policies that delay official responses up to 24 hours after the time an institutional has filed a missing report to ensure the individual is actually missing (Newiss 1999). Given the genesis of this Review, I can imagine this suggestion will be viewed as controversial; however, if over 90% of cases are resolved within a few days, and in countless numbers of instances with the person returning on their own, finding strategies to winnow the volume of calls is critical (the other option is, of course, increasing municipal and provincial budgets to fund additional resources to handle the volume). I am not, however, proposing wholesale adoption of such policies. Rather I'm suggesting a limited trial at one or two shelter facilities to ascertain whether such policies can effectively reduce call volume, without providing negative outcomes, thereby allowing police to focus greater resources on priority cases.

Staggered response

In line with the proposed program and evaluation above, is the possibility of prioritizing responses to adult missing person cases based on the length of time since noticed or reported missing. Again, staggering responses recognizes that adults may, of their own volition, leave home, an institution or some other situation (Newiss 1999). Where there are no known situational, health or personal risk factors – such as reports of suicidality, reported missing outdoors, individuals requiring medication, extreme weather conditions and so on – a potential experiment might entail reprioritizing police responses every twenty-four hours an individual is missing and/or as new information is reported. Such a scalar process could easily be piloted in one police jurisdiction, evaluated for both beneficial effects and potential problems, and then, if the evidence supports doing so, rolled out and tested with other police services.

The dissolution and possible resurrection of the OPP Resolve Initiative

A few years ago, the Ontario Provincial Police launched an online database of missing person cases called the Resolve Initiative. Resolve quietly folded and, before the webpage was removed, police services were advised to submit missing person cases to the RCMP's National Centre for Missing person and Unidentified Remains (NCMPUR) site. Presumably, this was intended as a cost-cutting exercise. However, as the NCMPUR program acknowledges, this national database cannot provide comprehensive statistics for Ontario (or other provinces) because it is up to individual investigators to notify NCMPUR of the existence of missing file and/or the resolution of a case. Given this limitation, among others, the dissolution of Resolve is unfortunate. Again, this is an issue of scale: Ontario has approximately 52 police services, whereas there are an estimated 200+ nationally. It would be worthwhile having independent researchers explore why Resolve was eliminated, what factors were weighed into that decision, and whether a provincial database with mandatory reporting (through provincial regulations or legislation) would be viable.

Comparing and contrasting response, search and investigation processes across different provinces and territories

Provincial legislation and regulations govern various aspects of police work, including police response and prioritization of missing person cases. For example, British Columbia (BC)

has the Missing person Act (SBC 2014) that sets out conditions for police demands for access to records privately held or held by third parties. As well, there are provincial regulations intended to guide police response. Research could explore to what extent laws and regulations are effective in creating an useful framework for responding to missing person cases. Further, we also do not know the extent to which there are similarities and differences across provinces and territories, and whether some guidelines are more or less helpful to resolving cases.

Evaluating whether active outreach to community groups affects reporting practices

A central concern prominently highlighted in the aftermath of both the McArthur and Pickton cases, was the issue of police relations with local community groups. In particular, news articles questioned the existence of continuing tensions between police and the LGBTQ2S community and whether there was a need for improved relations. Community engagement has long been considered a fundamental cornerstone of not only community policing, but of public policing more generally. That said, there has been very little evaluative research that shows whether such efforts are effective in producing desirable outcomes, what types of efforts are more successful than others, or even, more specifically, what positive goals can be achieved through such efforts. Further, there is some research that suggests that such efforts can often be viewed as rhetoric rather than substance, in that people talk more about community policing than engage in it (Saunders 1999). In short, there is a desperate need for objective research that evaluates the effects of specific forms of outreach to communities that may be over or under-policed and/or have had tense relations with the police in the present or in the past.

Final thoughts

As the preceding chapters make evident, the quantity and quality of Canadian research on missing persons and related topics is poor. There are insufficient studies on any one topic to cobble together even the weakest approximation of an evidence base in support of any one policy or program.

One of the questions posed in response to an earlier draft of this report was whether demanding that public policy and practice in the field of missing persons be evidence based was realistic given the current state of the Canadian and international research literature. This is a fair question and one with which I am happy to address. I began my career in the late 1990s studying policing in the Downtown Eastside of Vancouver during years in which the serial killer, Robert Pickton, was actively targeting women within this community. Some of you may recall that Pickton was arrested in 2002 and convicted in 2007. That case led to a provincial inquiry in 2010 with a report released in 2012 (Oppal 2012). This was not the first provincial inquiry of this nature. The Paul Bernardo case released a report of investigational and other failures involving missing and murdered women in 1996. Subsequent to the Oppal Report, other cases, notably the Highway of Tears investigations in British Columbia, led to the formation of a National Missing and Murdered Indigenous Women's Inquiry in 2016, which released its own report in 2019. Between 2002 and 2019, we produced the volume of reports and papers contained in the document. Given the apparent public interest in these issues – as demonstrated by three separate major inquiries and now this fourth one – why is there so little solid research?

The answer is simple: not one single provincial or federal government has committed significant funding to support independent, social scientific research conducted by experts in their respective fields. Instead, funding has gone to successive commissions and inquiries to produce largely non-systematic literature reviews and/or non-scientific inquiries – that is, inquiries that do not, for example, systematically screen for bias by setting explicit inclusion and exclusion criteria for data collected, or even provide a detailed discussion of how data was collected and analyzed (to avoid the previously mentioned problem of 'cherry picking' one's results). Instead, what little funding is available to researchers is through highly competitive funding streams, most notably those found under the Social Sciences and Humanities Research Council of Canada (SSHRC). Here, social scientists compete for funding with all other social scientists, including those working on other socially important topics. A search of SSHRC competition results from 1998 to 2019 reveals one funded project where the title or keyword included 'missing' and 'person': an award in 2017 to a master's student for a project entitled "Investigating patterns of gendered and racialized violence in Canada." In short, research in this area has not been treated as a priority by successive provincial/territorial and federal governments, and approximately $17,500 of funds has been awarded in this area by SSHRC over approximately 20 years. As the expression goes, "you get what you pay for."

Returning to the question of whether it is realistic to develop public policy and practice given the dearth of Canadian research the answer is: yes. Not only is it realistic, it is a public safety imperative. Good public policy should not be made in a vacuum or in haste. And, clearly, given the lack of sustained public resources and/or governmental efforts to develop a solid evidence base with which to create sound policy - dating from at least the 1990s – it is a bit hard to argue now that we suddenly must jettison research to 'do something now.' To put the matter more baldly: this is exactly what public policy makers and practitioners have been doing, and, some twenty years later, we continue to grapple with the same issues. We still have no idea what is or is not effective

in police practice. We still have no idea if there are viable programs or practices for preventing missing person cases. We have only untested ideas and beliefs as to what might work to increase reporting of missing person cases among marginalized communities. And somehow, from our state of profound ignorance, some would naively believe that good public policy can still come. I'm not one of them. The past bears witness to too many failures of hope devoid of scientific skepticism and empirical realism. More plainly still, we have had twenty plus years of non-evidence based public policy on missing persons, and one is quite right to question how well that state of affairs has served anyone, including the communities this review and others seek to protect.

It is the expectation of all inquiries and commission to produce recommendations. In light of the lack of a credible, high quality evidence base from which to abstract general principles, effective ideas, programs, practices and so on, I am of the view there is only one sound recommendation to make: for governments to fund applied and other research into missing person cases, from improving our understanding of 'what works' in relation to prevention and reporting to exploring the strengths and challenges of specific forms of police response.

What should that research look like? As can be seen from the analysis in this report, of the few studies produced in Canada on missing persons. the focus has largely been on missing indigenous women and girls. If one were to speculate, a likely explanation is media reports on high profile cases – from the Pickton case to the Highway of Tears – as well as the provincial and national attention generated by public inquiries. Such attention naturally also generates interest among researchers. This is not to suggest that missing and murdered indigenous women and girls are not an important topic, or that there is little need for further, deeper exploration of the issues that lead to increased risk; however, this focus obscures several other important considerations, including the fact that indigenous boys and men also go missing, and are also likely number among the unreported. So too do members of other ethnic and racial groups, members of the LGBTQ2S community, homeless citizens and, especially, those individuals who fall within multiple risk categories. At a minimum, we need better basic research that describes all of the populations, and other demographic groups, potentially at risk, as well as research-based estimates of the purported volume (the 'dark figure') of unreported missing persons. At present, it is an accepted truism that persons within certain risk categories – mainly those within vulnerable or marginalized populations – fail to generate missing person reports because of antagonistic relations with police, and yet this 'truth' is not well documented across all groups and the extent to which failures to report occur within different groups is unknown.

Beyond basic descriptive research, we need to begin testing prevention-based interventions (programs, policies and/or practices) to reduce missing person cases, and these interventions need to be rigorous tested through carefully designed studies to ensure they actually meet stated objectives (ie. 'work'). Too often, well-meaning programs are put in place that are based on 'common sense' or personal belief, or institutional 'ideology' and not on existing research. Once implemented, police services rarely evaluate their programs for effectiveness, beyond collecting anecdotal stories by those already primed to believe a program 'works.' The classic example of this in policing is the D.A.R.E. (Drug Abuse Resistance Education) program involving pre-programmed classroom anti-drug messaging delivered to students by police officers. Rolled out to successive generations of young people, researchers have fairly conclusively demonstrated through systematic review of many, many rigorous studies, that D.A.R.E. does not reduce the use of drugs by young people (West and O'Neal 2004). And yet, many police services in North America continue to use it today.

We also have an urgent need for research to help inform police responses in missing persons cases and to better understand the resource and other constraints services face in dealing with the volume of missing person cases each year. For example, as I have discussed previously, some preliminary research is currently underway to look at frontline policing costs associated with patrol responses to missing reports. An associated issue is investigative costs. Recently, someone suggested to me the possibility of having police collect digital evidence in all cases involving a missing person - from local area surveillance footage to their phone and social media messages. The little bit of research that has been conducted in Canada to date on the collection of digital evidence in relation to Special Victims Unit (SVU) cases highlights how improbable of a scenario that would be in terms of police resources and costs. In a study of the impact of police technology on a SVU department in Canada, an officer cited a recent case that "had five thousand text messages", which had to be manually read and categorized (Watson and Huey *in progress*). Another case produced "close to a terabyte" of data (ibid.). In discussing digital evidence, officers used phrases such as "hundreds of hours," "too much information" and "overload" to describe their workload as a result of having to collect and process various forms of digital evidence (ibid.). These costs do not include, by the way, special processing of locked phones, which, officers advised, can cost in the range of $1000 USD to unlock (ibid.) Keeping in mind the overwhelming majority of individuals return unharmed within days, this type of response is not feasible and the police would collapse under the weight of such a demand. Outside of policing circles, such knowledge is largely unknown and very few researchers have documented these types of issues (see also Dodge, Spencer, Ricciardelli and Ballucci 2019). Clearly, there is a need for more research that documents these issues, as well as providing cost estimates to help inform public policy and public discussion.

There is a view that predominates within academic and other circles that policing is a 'closed shop', unwelcoming of researchers. That is only partially correct. Police organizations have limited resources and providing access to data[10], research participants and so on, consumes those resources. Not surprisingly, most police services are willing to grant access only to those researchers who can successfully demonstrate that the investment a service makes in the research will yield usable findings from which they will benefit. This is not always the case, and I have heard many horror stories of self-interested researchers, who produced nothing or nothing of value to the service (see also Griffiths 2014). As my own research demonstrates, much of it cited in this very report, when there is a demonstrable benefit to a police service through, for example, improved practice, as well as a trusted relationship with the researcher, negotiating access – even access to file data – is not only possible but probable. My current missing person project (with Craig Bennell and Marianne Quirouette) entails our team working with five different police services across the Province of Ontario, who have each committed to partnering on the project, sharing data and resources to develop applied research to improve understanding of missing person cases and various aspects of police response. Any argument that police act as a barrier to creating evidence based policy on missing person cases, by blocking, is simply not sustainable. That said, given our current need to populate the Canadian research on missing persons, we should also consider research that actively pairs researchers with police services, as well as with social service and other providers, to actively co-create and execute research that is directly beneficial to communities and communities of practice.

[10] For example, just having a crime analyst extract, clean and anonymize police occurrence and/or detailed investigational reports can consume several hours of work.

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