

TIME FOR A CHANGE IN POLICE USE OF FORCE

by

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Abstract

This major paper examines police use of force and provides a historical review of the force options available to police in British Columbia. Subject Behavior Officer Response forms over five years, from 2014 to 2018 from five small to mid-size municipal police departments from the Lower Mainland area of Vancouver, British Columbia were examined. The data was analyzed to provide an overview of the force options used by police. Based on the data analysis from these forms, police agencies could limit the amount of equipment on their duty belts, focus future use of force programs and training, and implement use of force tools and techniques that have a better chance of keeping both the officers and subjects safe. This major paper concludes with recommendations for future police training, as well as for improving the data collection of police use of force incidents.

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Dedication

This paper is dedicated to all the hard-working police officers who go to work everyday to keep our communities safe. Their dedication, sacrifices, and facing the dangerous aspects of the job of policing are inspirational. A special thank you goes to police officers who are also instructors and their effort and dedication to helping police officers be as safe as possible. This dedication does not go unnoticed and makes a big difference in the safety of police and the public.

“The only thing necessary for the triumph of evil is for good people to do nothing.”

Edmund Burke

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Acronyms

BC – British Columbia

BCPC – British Columbia Police Commission

BCPPS – British Columbia Provincial Policing Standards

CAD - Computer Aided Dispatch

CEW – Conducted Energy Weapon

CID - Crisis Intervention and De-escalation

ECD – Electronic Control Device

ERIW – Extended Range Impact Weapon

ICAT – Integrated Communications, Assessment, and Tactics

LMPD – Louisville Metro Police Department

NUFF – National Use of Force Framework

OC - Oleoresin Capsicum

PRIME - Police Records Information Management Environment

PSB – Policing and Security Branch

RCMP – Royal Canadian Mounted Police

SBOR - Subject Behavior Officer Response

TIP – Trauma Informed Practice

US – United States of America

VNR - Vascular Neck Restraint

Introduction

Police use of force is a heavily debated topic around the world (Gerber & Jackson, 2017). One of the defining and distinct characteristics of police work is the ability to use force to enforce laws (Klahm & Tillyer, 2010). Given this power, the media and the public scrutinize police use of force and there are calls for action against any use of force viewed as unjust or inappropriate (Colletta, 2020). There have been many high-profile cases involving police use of force resulting in the death of a person. George Floyd's death on May 25th, 2020 was broadcast around the world and sparked civil unrest, protests, and movements across the United States of America (US) and other countries, including Canada (Ayers et al., 2020). As is evident in the case of George Floyd, police use of force is more visible to the public beyond the immediate community affected by an incident. This visibility has largely resulted from increased recordings and publicity of use of force events (Hollis, 2018).

To ensure that police have the necessary skills and tools for the use of force, police training, tactics, and equipment continue to evolve and improve. Today's police officers work in a different environment from a police officer's world 20 years ago (Hovbrender & Raschke, 2011). Advances in technology, changing demographics, and emerging trends in policing present a unique challenge to today's police departments when considering how to keep police officers and the community safe, effective, and up to date (Hovbrender & Raschke, 2011). Nonetheless, with changing tactics, training, technology, and equipment, police typically do not eliminate any of their previous equipment. Instead, police add new equipment to the tools provided to patrol officers. Critics have argued that some of the equipment being used by police officers have resulted in police becoming too militaristic in how they enforce the law

(Phillips, 2017). One of the tools that has been criticized as leading towards the militarization of police is the patrol carbine rifle because this is the military's primary weapon system (Brown, 2019). Military personnel carry the carbine rifle everywhere they go; however, in the context of policing, this weapon system is only selected and carried by police during high-risk incidents that require it. Concerns over carbine rifles and guns have extended to the point where some have argued that police should not carry firearms at all as firearms result in unlawful police shootings (Wright, 2018). In part, this is one of the reasons many police officers in the United Kingdom do not carry firearms (Wright, 2018).

This major paper examines the weapons and tools available to police in British Columbia (BC) in relation to use of force. Police in the Province of BC are bound by standards that have been developed by the Provincial Government. This major paper will begin with a historical overview of the British Columbia Provincial Police Standards (BCPPS). Following this, a review of each use of force weapon will be conducted to provide the history of the weapons used by the police and outline any significant changes that have been made to each weapon as it relates to police work. When examining police use of force, all the force options available to police need to be discussed: police firearms, baton, conducted energy weapon (CEW), oleoresin capsicum (OC) spray, vascular neck restraint (VNR), extended range impact weapon (ERIW), hard physical control, soft physical control, crisis intervention and de-escalation (CID) techniques, and officer presence. Using subject behavior officer response (SBOR) data from five municipal police departments, this major paper will examine the statistics on the frequency of the various use of force options from 2014 to 2018. This major paper will investigate SBOR statistics to examine whether there is an argument in support of eliminating some of the aforementioned equipment

a general duty police officer carries while on duty. Related to this, the Worker's Compensation Board has seen an increase in claims by police officers for injuries sustained as a result of carrying or using this equipment. For example, simply the amount of equipment on the duty belt of police officers affects their lumbar spine when sitting or twisting to work on the computer in a police vehicle (Hovbrender & Raschke, 2011). Finally, this major paper concludes with recommendations in relation to use of force weapons and tools that police deploy, future areas of training, and improvements in the SBOR template, which document police use of force incidents.

History of the British Columbia Provincial Policing Standards

Police in BC are regulated by the British Columbia Provincial Policing Standards (BCPPS). These standards are relatively new, and it is important to understand the history of these standards. The British Columbia Police Commission (BCPC) established Provincial Standards for Municipal Police Departments in British Columbia in consultation with police stakeholders in the 1990s (BC Provincial Policing Standards, 2017). The intent of the BCPC was to facilitate uniform policing standards throughout the province and to identify the minimum criteria against which police departments would be audited by the BCPC. In 1998, the BCPC was dissolved and the responsibility for policing standards was transferred to the director of police services (BC Provincial Policing Standards, 2017). Police Services Division upheld and continued to maintain the BCPC standards, making several amendments following provincial reviews of detention facilities and emergency response teams. These new amendments were never published as more comprehensive changes were being planned and initiated. In January 2012, the new framework was formally implemented when a series of amendments to the Police Act

took effect (BC Provincial Policing Standards, 2017). These changes gave the director of police services the clear authority to set standards addressing specific policing issues. The director's standards are binding and all police agencies in BC are required to follow the standards (BC Provincial Policing Standards, 2017). The first director's standards developed under this new framework, the British Columbia Provincial Policing Standards (BCPPS), included governing critical use of force issues, such as the use of conducted energy weapons and firearms, police training, and video surveillance in areas of detention. As a general practice, priorities for standards are set by the Director of Police Services in consideration of the level of risk associated with the issue, consultations and recommendations from public inquiries, other review processes, and input from stakeholders (BC Provincial Policing Standards, 2017).

BCPPS Use of Force Policy

The BCPPS outlines that police in BC must use the approved use-of-force model that includes the following force options: (a) officer presence; (b) communication, including specifically incorporating and using crisis intervention and de-escalation techniques; (c) physical control¹; (d) intermediate weapons²; and (e) lethal force (BC Provincial Policing Standards, Use of Force Model, 2020). In addition, the BC provincial standard outlines when police officers in BC must report their use of force. The standard states that when any of the following use of force options are used, the incident must be reported by the officer: (a) use of physical control-soft³, if an injury occurred to either the person or the officer from the application of that force;

¹ Physical techniques used to control a person that do not involve the use of a weapon.

² A device intended or designed to be used as a weapon, but for which the normal use is not intended or likely to cause serious injury or death. Impact weapons, aerosols, and conducted energy weapons fall within this category. Intermediate weapons may also be referred to as less-lethal weapons.

³ Soft techniques are control oriented and have a lower probability of causing injury. They may include restraining techniques, joint locks, and non-resistant handcuffing.

(b) use of physical control-hard⁴; (c) vascular neck restraint⁵; (d) intermediate weapon display⁶ or discharge/application⁷; (e) firearm display or discharge; (f) police dog bites (intentional or unintentional); (g) use of specialty munitions⁸; and (h) use of weapons of opportunity (BC Provincial Policing Standards, Reporting and Investigation 2020). The reporting format and timelines that all officers must adhere to are as follows: (a) ensure that all use of force are recorded in a provincially approved manner and format; (b) ensure that each use of force report is completed within 48 hours of the incident, unless there are exceptional circumstances that warrants an extension; (c) ensure that all use of force reports are linked to the relevant PRIME files⁹; (d) ensure that a supervisor or use of force instructor confirms all use of force reports are completed fully and reviews each use of force report for compliance with policy; and (e) submit a report to the chief constable, chief officer, commissioner, or their delegate if a use of force is considered to be non-compliant with policy (BC Provincial Policing Standards, Reporting and Investigation 2020).

The BCPPS ensures that any use of force by a police officer that results in death or injury to a person is reported as required by s.89 of the Police Act and the Memorandum of Understanding respecting investigations between the Independent Investigation Office and

⁴ Physical techniques that are intended to impede a person's behaviour or to allow application of a control technique and have a higher probability of causing injury. These may include empty hand strikes, such as punches or kicks.

⁵ Physical control technique that applies compression of the vascular tissue along the lateral aspects of the neck that results in temporary decreased cerebral blood flow and may result in temporary loss of consciousness.

⁶ The act of pointing, aiming, or showing an intermediate weapon or a firearm at or to a person without discharging it for the purpose of generating compliance from a person.

⁷ The act of firing or applying an intermediate weapon against a person. This includes situations whereby the discharge was intentional or not, and situations whereby the intermediate weapon is discharged but malfunctions or is unsuccessful in reaching the intended person.

⁸ Munitions that require specialized training and certification by officers and may include extended range impact munitions, impact rounds containing chemical agents, breaching munitions, Noise Flash Diversionary Devices, and munitions designed specifically for crowd dispersal.

⁹ Police Records Information Management Environment (PRIME) files.

Royal Canadian Mounted Police, Municipal Police of BC, Transit Police, and Stl'at'imx Tribal Police (BC Provincial Policing Standards, Reporting and Investigation 2020). The BCPPS also covers the observations of excessive use of force. The BCPPS states that any officer who has reasonable grounds to believe that they have witnessed excessive use of force by another officer is required to report the incident to a supervisor or senior officer as soon as reasonably practicable. An officer must be appointed to investigate the incident and submit a report to the chief constable, chief officer, commanding officer, or their delegate (BC Provincial Policing Standards, Reporting and Investigation 2020). The BCPPS stipulates that police agencies must monitor data trends and submit a year-end report covering off all use of force by the police department to the Director of Police Services at the end of each calendar year and at any time requested by the Director. The report must include any information requested by the Director related to the use of force in the police agency that is the subject of the request and a complete dataset of all the use of force reports generated by the police agency. BCPPS ensures that all data and information requests are completed within 90 days of the request being received (BC Provincial Policing Standards, Reporting and Investigation 2020).

Intermediate Weapons and Restraints

The BCPPS defines an intermediate weapon as a device intended or designed to be used as a weapon, but for which the use is not intended or likely to cause serious injury or death. For example, impact weapons¹⁰, aerosols, and conducted energy weapons fall within this category. Intermediate weapons may also be referred to as less-lethal weapons (BC Provincial Policing Standards, Intermediate Weapons and Restraints, 2021). The BCPPS mandates that officers

¹⁰ Any intermediate weapon or object that is used to strike, including, but not limited to batons.

must successfully complete a training course and be qualified on an intermediate weapon before carrying and using it. Furthermore, the BCPPS requires any officer who is authorized to carry and use an intermediate weapon requalify to use that weapon once every three years, unless otherwise required by the BCPPS (BC Provincial Policing Standards, Intermediate Weapons and Restraints, 2021).

Each year, the Policing and Security Branch (PSB) collects summary data from police agencies in BC on their use of extended range impact weapons (ERIWs), OC spray, batons, and CEWs. The PSB also collects more detailed information regarding police use of CEWs pursuant to its association with BCPPS (BC Police Intermediate Weapons Use by Police, 2020). Data about the perceived emotional state of subjects has been collected and reported with respect to CEW discharges since 2013, and this data collection was expanded in 2019 to include other intermediate weapons (BC Police Intermediate Weapons Use by Police, 2020). The request for 2019 summary data included new questions about intermediate weapon displays, which refers to a situation where an officer displays an intermediate weapon at a person but does not discharge or apply the weapon. In addition to public reporting, the PSB uses the information collected from police agencies about the use of force to monitor compliance with provincial policing standards and to identify priorities for further study, standards, or training. The information is also used by police agencies to inform local training and policies (BC Police Intermediate Weapons Use by Police, 2020).

Based on the PSB report, the overall number of intermediate weapon discharges or applications reported to PSB has increased since 2014 (BC Police Intermediate Weapons Use by Police, 2020). For example, in 2014, there were 41 extended range impact weapon (ERIW)

discharges by police in BC. In 2019, there were 103 ERIW discharges or applications in BC; a 151% increase between 2014 and 2019. PSB acknowledged that several factors may have contributed to this trend, including increased intermediate weapon use, enhanced reporting, changes to the number of officers deployed with ERIWs, or a combination of other factors. The PSB report acknowledged that the number of reported OC spray discharges has generally decreased each year since 2013 (BC Police Intermediate Weapons Use by Police, 2020). For example, in 2013, there were 290 OC spray discharges by police in BC. In 2019, there were 218 OC spray discharges by police; a 25% decrease.

The PSB report also noted that the number of reported baton applications in 2019 (n = 68) was lower than the number reported in 2012 (n = 118). The number reported each year fluctuated from 2012 to 2016 but has decreased since 2017. The PSB report noted that the numbers of ERIW and CEW discharges reported in 2019 (n = 103 and n = 289, respectively) were both higher than the numbers reported in 2012 (n = 31 and n = 88, respectively) (BC Police Intermediate Weapons Use by Police, 2020). ERIWs and CEWs are intended to be used during high-risk incidents as a less lethal option. ERIWs and CEWs also allow the police to remain at a distance and deploy the less lethal weapon.

Use of Force Options for Police in BC

Firearms

Police forces across Canada all carry an issued handgun. The brand or style of handguns and rifles varies by police department. The RCMP uses two models of Smith and Wesson pistols for general duty, models 5946 and 3953 (CBC News, 2020). The other common handgun for police in Canada is the Glock handgun. Similarly, the majority of municipal police departments

in BC use the Glock handgun. There have been very few changes in police issued firearms in the last decade (Brown, 2019). For example, in 2018, Blue Line Magazine conducted a survey of police issued firearms across Canada and compared it to the previous survey conducted in 2007. As noted in Figure 1, the survey found that the changes since 2007 were that most police agencies in Canada were issuing patrol carbine rifles and some switched one make of pistol for another (Brown, 2019). For example, in 2007, Glock held 38% of the police market and, in 2018, it held 75% of the police market.

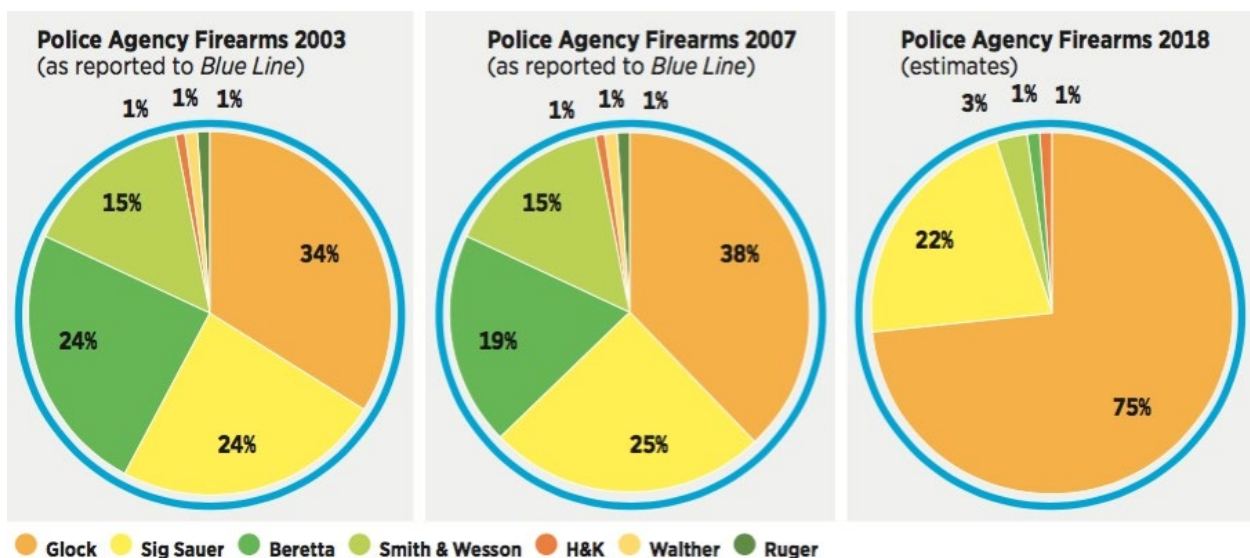


Figure 1: Changes in Police Agency Firearms

One change that has occurred in the last decade has been the caliber of ammunition used for police issued handguns. Many police agencies across Canada have transitioned from .40 calibre handguns to 9mm calibre handguns (Brown, 2019). This change was mainly due to improvements in ammunition and scientific tests performed by the agencies, such as the Federal Bureau of Investigations (FBI), coupled with results from actual shooting incidents (Brown, 2019). The results of these studies revealed that the only two factors that stop

assailants are shot placement and shot penetration. This reason is why many police departments have transitioned to a smaller calibre handgun because it is easier to shoot and results in better shot placement by police officers. The 9mm calibre is easier to shoot because there is less recoil from the ammunition compared to 40 calibre ammunition. This leads to quicker follow up shots and is easier to shoot more rounds for practice (Brown, 2019). There are other advantages of the 9mm calibre handguns, such as the ammunition being less expensive, an increase in the number of rounds in the pistol magazines compared to .40 calibre pistol magazines, longer service life, and lower maintenance costs (Brown, 2019).

Handguns continue to develop with new designs and internal parts. For handguns, the biggest changes have been in the design function of the handguns to allow for additional accessories to be mounted, such as undergun flashlights. The most recent adaption for police firearms use is the engineering advancement that allows an optic or red dot sight to be mounted on the top slide of a handgun (Edwards, 2020). Recently, Glock Canada announced that Abbotsford Police Department, Delta Police Department, and New Westminster Police Department have all switched to the 9mm calibre Glock handgun. Furthermore, New Westminster Police Department became the first agency in Canada to purchase the Glock handgun with the adaption for mounting an optic on top of the handgun (Cassels, 2020).

The single biggest advancement in police weapons in Canada has been the introduction of patrol carbine rifles (Brown, 2019). Patrol carbine rifles are very accurate at distances as far away as 200 metres. There are several different brands of carbine patrol rifles in use across police agencies in Canada. The most popular brand in Canada is the Colt Canada C8 (Brown, 2019). Police carbine rifles are not the same as military style assault rifles because they do not

have full-automatic capability, but they are built to the same high standard as military firearms (Brown, 2019). Some police agencies in Canada also have access to shotguns. Shotguns can be used as a lethal force option with slug ammunition or can be used as a less lethal weapon system with beanbag ammunition (Brown, 2019).

Baton

The baton has been used by law enforcement since the 1800's (RCMP, 2014). The baton began in the United Kingdom as a truncheon and has developed over time to the side-handled baton, the metal collapsible baton, and the hybrid baton. The expandable batons are the most common types of batons used by police today; these batons collapse together to limit its size. When the police officer deploys the baton, the force of deployment causes the baton to expand and lock out in an extended state. Over the past 20 years, most police agencies have switched to issuing police officers an expandable/collapsible metal baton for street use (RCMP, 2014).

A study on baton use by police in Calgary, Canada found that the baton was the most injurious force intervention (Butler & Hall, 2008). In this study, researchers found that 16.1% more subjects who were controlled with a baton sustained an injury requiring medical treatment than with a CEW (Butler & Hall, 2008). Training and recertification in the baton vary by police department. Butler and Hall's (2008) study found that officers felt they should receive continued training annually. Studies indicated that police departments that provided the most frequent refresher training experienced the lowest level of complaints (Butler & Hall, 2008).

Prior to the 1980s, in Canada, police used large batons, sometimes referred to as "billy clubs," which were short clubs. Another intermediate weapon that police were issued was a small, eight-inch long, leather pouch with lead weights in the end and a spring in the handle

(Christmas, 2013). In 1989, police officers in Canada were issued a firearm and a club, called a “Tonfa.” This weapon evolved from Asia and had a handle that stuck out to the side so that it could be swung with force. This weapon was awkward to carry but effective because of the amount of force that could be applied if the police officer was trained properly in its deployment (Christmas, 2013). Since 2010, the Tonfa has been replaced by the expanding tactical baton, which is a collapsible metal baton that can be easily carried on a service belt. Armament Systems and Procedures, Inc. is a large producer of these tactical batons, which is why many refer to this intermediate weapon as an ASP baton. The benefit to the collapsible baton is that it is compact and small so even plainclothes detectives and members can carry them easily (Christmas, 2013). This weapon is now standard issue for most police departments in Canada.

Conducted Energy Weapon

The Conducted Energy Weapon (CEW) is also known by its trade name, TASER. There has been significant research into the effects of the CEW and its connection to several publicized deaths (Report following a public interest investigation, 2009). TASERs, or CEWs, are hand-held electronic immobilizing devices that rely upon over-riding the body’s electro-muscular current to eliminate voluntary muscle control (Hall & Votova, 2013). It is a public misconception that the CEW is an alternative to a firearm because its use is not restricted to situations in which the use of lethal force or firearms deployment is deemed to not be appropriate (Hall & Votova, 2013).

In 1998, the Victoria Police Service became the first Canadian law enforcement agency to adopt TASER CEWs. Since then, CEWs have become ubiquitous among police. At the end of

2010, nearly two-thirds (n = 129) of Canadian law enforcement agencies were known to have adopted a CEW. As of 2016, an estimated 9,174 CEWs were in use in Canada (Oriola, 2016). A report by the Toronto Police Service demonstrated that the TASER CEW was effective in that a TASER CEW successfully incapacitated a suspect 94% of the time it was deployed without any serious injuries sustained by the subject or the police officer. CEW manufacturers, particularly TASER International, in addition to the public, have led the call for law enforcement officers to have less lethal options available to them. TASER CEWs are presented as a fundamental, effective, and safe tool for policing in today's risk-prone world (Oriola, 2016).

Examining the use of CEWs in the UK, Stevenson and Drummond-Smith (2020) concluded that the use of CEWs as a use of force option may be associated with the subject suffering some kind of injury; however, the overwhelming majority of the injuries reported were classified as minor. According to Stevenson and Drummond-Smith (2020), more severe injuries, including death, were rare and any deaths that were reported to be caused by a CEW needed to be examined very carefully to determine whether the CEW was the actual cause of death. Post-incident data collected during this study indicated that the CEW was a safe weapon choice and should be an accepted use of force option for police. The study indicated that there was a greater chance of both a police officer and/or the subject suffering an injury, as a proportion of use, when baton, irritant spray, or physical confrontation was used compared to a CEW (Stevenson & Drummond-Smith, 2020).

Commissioner Braidwood released the first report of the Braidwood Commission Inquiry in 2009 after the death of Robert Dziekanski¹¹. One of the outcomes of this inquiry was the enhanced reporting requirements and closer regulation of police use of CEWs by the Province of BC. Commissioner Braidwood concluded that CEWs were a useful tool for police and law enforcement officers in BC, but that their use should be restricted and governed. Commissioner Braidwood made 19 recommendations covering a range of issues, including training, testing, medical assistance, data collection, and a common threshold for deploying a CEW. The Province of BC accepted the findings and began work to implement the recommendations. A common threshold for police use of CEWs was issued to police agencies in 2009 and later formalized in the BCPPS in 2012 (BC Policing and Security Branch, 2019). Prior to the Braidwood Inquiry, the CEW was used on fleeing or resisting subjects. Currently, the threshold for CEW deployment is that the subject is causing bodily harm or the subject's behavior is a threat to the physical harm of officers or others (Haskins, 2019). Officers are also required to consider lesser force options and crisis intervention and de-escalation techniques prior to the use of CEWs (BC Policing and Security Branch, 2019).

The BC Policing and Security Branch, Conducted Energy Weapon Trends report for 2007-2016 reported that the use of CEWs in BC by police was significantly lower in 2016 than in 2007. In 2007, there were 879 CEW incidents in BC compared to 619 CEW incidents in 2016; a decrease of 30%. From 2007 to 2011, there was a consistent decrease in CEW use by police officers in BC followed by smaller but steady increases between 2012 and 2016. In 2012, there

¹¹ Robert Dziekanski was killed on October 14, 2007 after an altercation with police at the Vancouver International Airport. A TASER was discharged against Dziekanski and then he went into medical distress and died.

were 310 CEW incidents and, in 2016, there were 619 CEW incidents. In 2007, there were 640 CEW discharge incidents reported by police in BC. In 2016, there were 222 discharge incidents; a decrease of 65%. The increase in CEW discharges between 2012 and 2016 was accompanied by a corresponding decrease in the use of OC spray (Policing and Security Branch, 2019). With the introduction of new force option choices, the general decreased use of OC spray was not surprising. Despite some negative outcomes, such as the death of Robert Dziekanski, the CEW has been accepted into policing as an effective less lethal intermediate weapon choice. Furthermore, science has yet to yield conclusive evidence that CEWs, when used properly, cause any lasting cognitive, psychological, or physical damage to individuals in nonvulnerable categories (Haskins, 2019).

OC Spray

Oleoresin capsicum (OC) spray, also known as pepper spray, is a natural product made from the oil of ground chili peppers (Stern, 2018). It is an inflammatory agent that causes the mucous membranes in the eyes, nose, and throat to immediately become inflamed and swollen. OC sprays were introduced to provide law enforcement officers with tools to control non-compliant subjects, while posing the least amount of risk to the officer, the subject, and other citizens (Stern, 2018). OC sprays were officially endorsed by the Federal Bureau of Investigations (FBI) in 1987; however, the concept of incapacitating a subject with the properties of chili peppers began centuries ago in ancient Japan where ninjas and samurai police incapacitated opponents or citizens by blowing powdered peppers into the subject's face through a hole in a box (Stern, 2018).

The chemical effects of OC spray usually wear off within half an hour, but can be assisted with fresh air, water, and baby shampoo (Stern, 2018). There are some injuries that have been reported after the use of OC spray, specifically damage to the cornea of the eye (Stern, 2018). Even more concerning is the potential damage to the respiratory tract that, depending on the level of impairment to breathing from the OC oils, could prevent a person from getting enough oxygen and could potentially lead to death (Stern, 2018). OC spray was introduced as a less lethal intermediate weapon to decrease the potential from harm when trying to control a subject who presents a risk to themselves or others. While OC spray is relatively safe, it is not totally innocuous (Stern, 2018). OC spray incapacitates subjects by causing burning and irritation of the skin, eyes, and respiratory tract. Upon contact with the skin, OC oils cause a burning sensation. Upon contact with the eyes, OC oils induce burning and irritation. The irritation can cause swelling of the exposed parts of the eye, such as the skin over the whites of the eye and the eyelids. In addition, the pain and swelling often cause the eyes to shut (Stern, 2018).

Vascular Neck Restraint

The use of vascular neck restraint (VNR) in law enforcement is controversial due to several well publicized deaths that have occurred after its use (RCMP, 2014). VNR is a physical control technique that applies compression of the vascular tissue along the lateral aspects of the neck that results in temporary decreased cerebral blood flow and may result in temporary loss of consciousness (BC Provincial Policing Standards, Neck Restraints, 2020). Many people refer to the VNR as a chokehold; however, a chokehold applies pressure to the front of the neck and trachea/windpipe and restricts a person's ability to breath (BC Provincial Policing

Standards, Neck Restraints, 2020). In recent years, there has been calls from the public to abolish the chokehold and remove it completely from the force options for police. Many police departments across the US have banned the chokehold. Similarly, the BC Provincial Policing Standards ban the use of chokeholds.

On February 27, 2020, the BCPPS changed the standards for the VNR qualifications and made two distinct categories of qualifications. The first standard allows police departments to requalify in the VNR once every three years. This standard applies if the VNR is only permitted in circumstances where there are reasonable grounds to believe that lethal force is justified (BC Provincial Policing Standards, Neck Restraints, 2020). The second standard requires police departments to requalify yearly. This standard applies if the VNR is allowed in circumstances other than those where there are reasonable grounds to believe that lethal force is justified (BC Provincial Policing Standards, Neck Restraints, 2020).

Extended Range Impact Weapon

An extended range impact weapon (ERIW) consists of a device firing a special projectile designed to gain compliance, overcome resistance, or prevent serious injury or death (BC Provincial Policing Standards, Intermediate Weapons, 2021). Approved models of ERIWs include multiple single-shot launchers in 12 gauge, or 37 or 40 millimeters, capable of discharging various munitions. The munitions may include rubber or pellet rounds, sponge rounds, or bean bag rounds (BC Provincial Policing Standards, Intermediate Weapons, 2021). For a police officer to deploy with an intermediate weapon, they must successfully complete a training course and must requalify at least once every three years (BC Provincial Policing Standards, Intermediate Weapons, 2021).

Hard Physical Control

Hard physical control is defined as physical techniques that are intended to impede a person's behavior or to allow application of a control technique. These techniques have a higher probability of causing injury (BC Provincial Policing Standards, Reporting and Investigation Following the Use of Force, 2020). Some examples of hard physical control techniques are punches, kicks, and arm bar takedowns. Police learn hard physical control techniques at their basic training during their use of force classes. There is no requirement outlined in the BCPPS that requires any requalification or updated training in hard physical control techniques.

Soft Physical Control

Soft physical control is defined as physical control techniques that are control-oriented and have a lower probability of causing injury. They may include restraining techniques, joint locks, and non-resistant handcuffing (BC Provincial Policing Standards, Reporting and Investigation Following the Use of Force, 2020). Similar to hard physical control techniques, soft physical control techniques are learned at basic training during use of force classes. There are also no requirements outlined in the BCPPS that requires any requalification or updated training in soft physical control techniques.

Crisis Intervention and De-Escalation

In the wake of the Robert Dziekanski tragedy, the Braidwood Commission made several recommendations that emphasized the importance of police officers having the necessary training and skills to effectively intervene and de-escalate crisis situations. Since January 2012, in accordance with the BCPPS, police officers in British Columbia are required to be qualified in

a crisis intervention and de-escalation (CID) course and need to recertify in these skills once every three years. The CID course provides police officers in BC with education about mental health and police responsibilities. It also provides effective communication techniques and strategies for people in crisis, including those suffering from mental illnesses.

The CID course introduces a four-phase CID model and several accompanying techniques designed to accomplish the goal of de-escalating crisis situations, including incidents involving intervention in a mental health crisis. The content of this course was developed by the BC Ministry of Justice (Police Services Division) in consultation with the Braidwood Recommendation Implementation Committee and a working group of police and non-police subject matter experts (Canadian Police Knowledge Network, 2020). The initial face-to-face course that every police officer must take is seven hours long. This course is now part of police recruit training and is completed at the police academy for municipal police officers. The refresher course is an on-line course through the Canadian Police Knowledge Network and takes approximately 3.5 hours to complete. It consists of videos, interactive exercises, scenarios, and an exam, and members must receive 80% or higher to pass. The CID refresher course must be completed once every three years (Canadian Police Knowledge Network, 2020). The introduction of mandatory CID training is a benefit to police officers in BC; however, on online course once every three years may not be sufficient.

Learning the basics of CID tactics in a classroom or online gives police officers a baseline of knowledge but does not provide the reality of the difficulties of police work and does not include any of the stresses of real-life police work. A gap has been identified in police training between the softer skills, communication, and police tactics (Police Executive Research Forum,

2016). It is recommended that police in BC examine the content of the Integrating Communications, Assessment, and Tactics (ICAT) course, which is described below, to determine its application for policing in BC.

Since 2014, the Police Executive Research Forum (PERF) has been studying developments regarding police use of force, particularly with respect to officer safety, the safety of the people they encounter, and the effect of these issues on police-community relationships (Police Executive Research Forum, 2016). Throughout the research conducted by PERF, one critical issue surfaced repeatedly, namely the need for better and more consistent training of police officers (Police Executive Research Forum, 2016). Research by PERF found that the type of calls that affected the public trust and confidence in police were those that likely involved disturbed individuals either acting irrationally and unarmed or armed with a weapon, other than a firearm (Police Executive Research Forum, 2016). These types of circumstances were the ones that have raised the most questions about police training and practices on use of force. According to the research conducted by PERF (2016), only a small minority of people second-guessed an officer's decision to use lethal force against a suspect who was armed with a firearm and was threatening a police officer or the public (Police Executive Research Forum, 2016).

In April 2016, the New York City Police Academy hosted nearly 70 participants for one week as a working group to develop a new training course for defusing critical incidents (Police Executive Research Forum, 2016). This course was designed to bridge the gap in current police tactics training and move towards a more flexible, less authoritative approach to many situations. The adage of never backing down and drawing a line in the sand created several

challenges and issues and can create a situation in which police officers use force when a more flexible, slower approach to the situation would have been more appropriate. The course that was developed in 2016 in the US was called Integrating Communications, Assessment, and Tactics (ICAT) (Police Executive Research Forum, 2016).

The ICAT training is presented in six modules (Police Executive Research Forum, 2016). Module one is an introduction that explains the purpose and focus of the training emphasizing that public safety and officer safety lie at the heart of the entire Training Guide. Module two discusses the importance of critical thinking and decision-making and presents a critical-decision-making model. Module three provides basic information on how to recognize individuals who are experiencing a behavioral crisis caused by mental illness, drug addiction, or other conditions. Module four provides more specific and detailed instruction on communication with subjects who are agitated and initially non-compliant. Module five covers tactical responses and decision for police officers, with a focus on slowing things down, proper positioning, and allowing time for additional police resources to respond. Module six incorporates all the learning from the other five modules using video case studies and scenario-based exercises. This module gives the police officers opportunities to practice the concepts and skills learned throughout the training.

The University of Cincinnati Center for Police Research and Policy examined the effect of ICAT de-escalation training for the Louisville Metro Police Department (LMPD) in September 2020 (Engel et al., 2020). This study was one of the first large-scale evaluations of the ICAT training. To examine the effect of the de-escalation training on LMPD police officers' knowledge and attitudes, three training surveys were administered by the LMPD Training Division staff to

police officers immediately before, immediately after, and approximately four to six months following police officers' participation in the training (Engel et al., 2020). The research collected quantitative data from three sources: (1) officer surveys, (2) field supervisor surveys, and (3) official reports of officer behavior. In summary, the effect of ICAT de-escalation training in Louisville was a 28.1% reduction in use of force incidents, a 26.3% reduction in citizen injuries, and a 36% reduction in officer injuries (Engel et al., 2020). The final recommendation from this study was for LMPD to continue to implement ICAT training and assess the program to involve all stakeholders, including examining the potential of having citizens participate as role players and provide feedback to officers (Engel et al., 2020).

Police Use of Force Reports

There are increasing social expectations for transparent police reporting, and police agencies are expected to be open to audit at the municipal, provincial, and federal levels (Hall & Votova, 2016). Hall and Votova's (2016) study emphasized the value in use of force reporting that was consistent, trackable, and scientifically robust. In addition, they argued that there was safety in the truth and the truth was in the data on police use of force reporting. To achieve these goals, the authors recommended that the collection of use of force data needed to be a uniform and ongoing process that included all use of force events. In other words, the recording and collection of use of force data should not be reserved for extreme events in which the subject died or suffered serious injury. Hall and Votova (2016) noted remarkable differences between agencies, not only in what data was collected, but how it was collected, stored, analyzed, and reported. They concluded that the threshold of use of force must be defined clearly and consistently within and between agencies. In their study, the definition of use of

force was when any use of force beyond a simple joint lock was utilized, regardless of whether that force was used along with or in a combination with other use of force techniques and equipment (Hall & Votova, 2016). These recommendations have been adopted in BC, and the BC provincial policing standards outlines that police must report any use of force starting with the use of physical control soft if an injury occurred to either the person or the police officer from the application of the force (BC Provincial Policing Standards, Reporting, and Investigation, 2020).

There are certain aspects of policing that are similar regardless of the jurisdiction, such as enforcing laws and keeping the peace. Some countries have police that are unarmed, such as Britain and Norway (Kuhns & Knutson, 2010). Critics of police use of force question why police in BC are armed as the duties they perform and the societies that they police are similar to jurisdictions that do not commonly arm their police. For example, in 2018, Toronto Mayor John Tory began questioning why anyone in the City of Toronto needed a gun in response to the Federal Government announcement that it was exploring a potential ban on handguns and assault weapons within the city limits (Wright, 2018). This conversation quickly focused on the behaviour of the police and questions were raised as to whether municipal police need to be armed. Proponents of de-arming the police believe that removing guns from police officers will force the police to develop and use other techniques and strategies when interacting with the public and will prevent officers from shooting people (Wright, 2018). In Canada, police shootings are very rare (Carmichael, 2015). The concern with this perspective is that there are times where no matter what techniques police utilize the situation could get extremely volatile and require the use of a firearm to stop a threat. Still, as evidence that all police officers do not

need to carry firearms, Wright (2018) pointed out that the London Metropolitan Police Service responded to approximately 3,300 incidents involving firearms in 2016 and never fired a single bullet.

While many people in society, including the police, do not accept the use of physical force to direct or control the behavior of others, some have argued that the police must be trained, equipped, and prepared to use force to ensure compliance when lawfully carrying out their duties and responsibilities (Alpert & Dunham, 2004). Still, there is increasing pressure to limit and restrict the use of force by the police against citizens (Alpert & Dunham, 2004). In part, this pressure can derive from incidents of police use of force that are misinterpreted or exaggerated by the media, resulting in the public perception that the abuse of force is at epidemic proportions (Alpert & Dunham, 2004). In contrast, there is evidence that police use of force in Canada is a rare occurrence. Hall, Votova, and Wood (2016) determined that 99.9% of police public interactions do not include police use of force. This study was a multi-site prospective study in four urban centres in Canada and reflected the use of force experience of seven independent municipal police agencies. Use of force was defined as the use of any police use of force modality/action above soft physical control techniques. All force options defined as more serious than simple joint locks were included in the study, whether the use of force option occurred by itself or in combination with other force options and regardless of outcome (Hall et al., 2016).

Prior to 2012, research on police use of force was surprisingly sparse (Alpert & Dunham, 2004). Over time, there has been more research on use of force; however, that research has not always been widely disseminated to police executives or acted upon by agencies (Police

Executive Research Forum, 2021). The Police Executive Research Forum (PERF) believed that police leaders needed to know what use of force data their agencies should be collecting and how that data should be analyzed and used. Rigorous data collection and analysis are critical to understanding the issue and to guide improvements in policy, training, and use of force outcomes (Police Executive Research Forum, 2021).

Today, most BC police departments have comparatively strict and extensive policies controlling the use of force. Police departments provide training to limit the types and levels of force and many use violence-reduction techniques. Figure 2 illustrates the National Use of Force Framework Model used by municipal police in BC. Police must continually assess all situations and respond with the appropriate level of force based on the situation and the subject's behavior (BC Provincial Policing Standards, Use-of-Force Models, 2020).

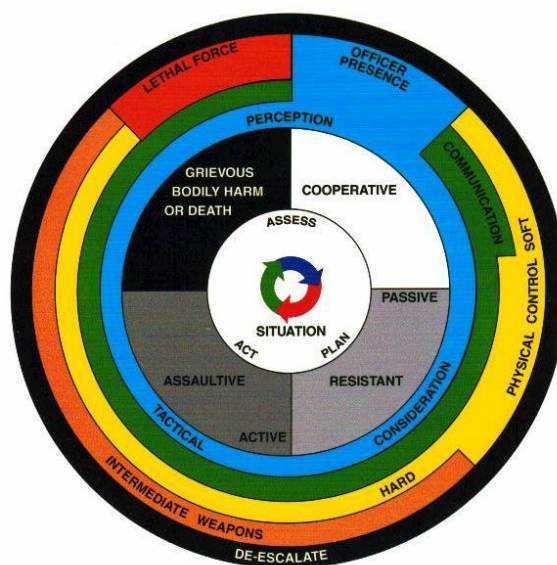


Figure 2: NUFF Model

Most departments also have internal investigative units and many have civilian boards to review officer use of force (Office of the Police Commissioner of British Columbia, 2020).

Clearly, policing has undergone considerable change, and views on police use of force and its regulation have undergone as much if not more change than other aspects of policing (Police Executive Research Forum, 2021). The research literature shows that training can affect use of force, both in terms of when it is deployed and in minimizing injuries to police officers and subjects. Of note, officers who receive more training hours have a decreased likelihood of using force (Police Executive Research Forum, 2021).

When an officer uses a level of force considered excessive or unwarranted, the general public's confidence and trust in the police can be undermined. Excessive force by police can be investigated because another officer questions the use of force by another member or a member of the public lodges a complaint that will then be investigated by an officer and monitored by the Office of the Police Complaint Commissioner of British Columbia (OPCC) (Office of the Police Commissioner of British Columbia, 2020). Controversial police use of force have sparked unrest across the US and Canada, damaged police-community relationships, raised fundamental questions about the use of government authority to enforce laws, and spurred efforts by local, provincial and federal governments to improve police-civilian encounters (Police Executive Research Forum, 2021). The use of excessive force is considered an egregious violation of trust. This loss of trust, in turn, threatens the ability of all officers to function properly in society as it undermines the basic principle of police legitimacy. It is important to note that over the past 30 years, tools accessible to police have been added that can complicate the choices made during highly stressful and even life-threatening events. For example, in BC, as mentioned above, police officers carry OC spray and electronic control devices (ECD), typically a TASER. The practical challenge is to balance the amount of force a

police officer must use to perform their duties effectively with the unpredictable actions of citizens and the public's level of tolerance for police use of force. In effect, it is a requirement of modern policing that the public and the police understand when and why force is used, and the processes used to hold police officers and departments accountable when abuses occur. Successfully meeting this challenge will positively affect the public's trust in their police and develop a better understanding of the duties the police perform on behalf of the public.

The use of force continuum is highly complex compared to 30 years ago, in part, because police officers have many choices with the added tools on their duty belts. One commonly held belief is that greater use of force options available to police increases and complicates the decision-making process (Christmas, 2013). The argument is that all these choices can slow down the officer's reaction because they have too many options and that this may, therefore, increase the risk to an officer's safety. Of note, the research literature does not support this belief. Research suggests that complicated policing scenarios can be mastered with training and experience (Christmas, 2013). Still, the complexity and accountability of policing has increased substantially over previous decades (Christmas, 2013). For example, as opposed to the past, police officers must articulate in detail all use of force encounters. The police officer must articulate why certain force options were used and clearly outline their decision-making process. This accounting is reviewed by a supervisor and use of force trainer, and if the report is not completed fully, the member will be asked to clarify. If the subject complains about the police officer's actions, the police officer can face reprimand (verbal or written), suspension, or even loss of employment. In these cases, it is important for the police officer to articulate their

use of force properly. If the incident is brought before a court, the officer will likely be further questioned about the event, their actions, and their decision-making process (Christmas, 2013).

As calls for accountability continue to increase, so too must training and education for police officers. However, designing and conducting training can result in logistical challenges (Christmas, 2013). In addition to regular annual standard training, there are other issues that require extra training for officers and the entire police service, such as mental health training and wellness, new computer systems, trauma informed practices (TIP), police-initiated stops, and diversity and inclusion. Police officers are not given a lot of training time once they graduate and are fully operational police officers. It is important to distinguish between the high expectations people have of officers entrusted with immense power and authority in the interest of public safety and the capabilities of the individual police officer (Christmas, 2013). At the same time, a growing body of research highlights the need for more training for officers across the broad spectrum of tasks they are called upon to do (Christmas, 2013). Research on police training across North America in 1993 found that the most highly trained police recruits receive about 800 hours of instruction, whereas barbers receive 4,000 hours, lawyers 9,000 hours, and doctors 11,000 hours. In 2013, police recruits in Winnipeg receive 1,552 hours training in total (Christmas, 2013). This is still less than half the hours of training that a barber receives. Expectations on police are high and for police officers to perform to a high standard, they must be trained properly.

With increasing public scrutiny on police use of force, the techniques involving striking, kicking, and punching are rarely publicly accepted (Mendleson & Gillis, 2020). Brazilian jiu-jitsu instructors have recently developed courses specifically for police. These courses allow police

officers to learn the fundamentals of controlling a suspect that proponents of these techniques claim teach police officers how to control people without hurting them (The Uplift, 2020). The techniques taught to police include how to fall to the ground safely, how to get up, how to block a kick, techniques to use when someone grabs a police officer, and how to control a subject and exhaust them without having to resort to strikes (The Uplift, 2020). One testimonial from a US police chief who participated in jiu-jitsu training for police said that he has no doubt that he will be less likely reach for a weapon now that he has trained in jiu-jitsu tactics (The Uplift, 2020).

As police use of force is a nationwide spotlight in the US, the Marietta Police Department incorporated Brazilian jiu-jitsu into its training for police officers (Dixon, 2019). The Marietta Police Department contended that using more grappling techniques reduced the need for officers to resort to punching a resisting suspect (Dixon, 2019). This police department incorporated Brazilian jiu-jitsu training into their recruit training program. All police recruits are required to attend at least one training session per week from the time they are hired until they complete the police academy and their field training portion, which usually lasts approximately five months. The Marietta Police Department implemented jiu-jitsu training to facilitate their goal of using the least amount of force possible.

In summary, police use of force reports are important for several main reasons. These reports keep police accountable to the public when force is used, they allow for the monitoring of use of force trends, and they can be used to guide policy and training development. The type of training police conduct is very important, and police should continually look for ways to improve how they conduct themselves. One aspect of policing where this is extremely

important is the use of force. As such, this major paper examined police use of force reports from five municipal police departments across a five-year period to examine the frequency of various techniques and their effectiveness, with the goal of making recommendations regarding police use of force.

Project Methodology

Subject Behavior Officer Response (SBOR) reports are required when a police officer in BC uses force (BC Provincial Policing Standards, 2020). The SBOR document asks a series of questions related to the initial report of the incident, the subject's history, and any information known to the police regarding the subject. This could be information relayed by the complainant, dispatcher, or the police officer's known history of the subject. The next category on the template is the on-scene subject's behaviours. After these categories are completed, the police officer completes the officer response options. The officer goes through all the use of force options and completes a Yes or No for each category. If the officer selects Yes, there are additional follow up questions that need to be completed. At the conclusion of the template, the officer completes a narrative portion detailing, in their own words, what occurred.

For this major paper, SBOR data from five small to mid-size municipal police departments¹² in the Lower Mainland area of BC were analyzed. The SBOR data that was provided was extracted from PRIME to a spreadsheet that was coded with the various options available on the SBOR template. The SBOR data encompassed the years 2014 to 2018 and included 3,151 SBOR reports. The analyses compared the frequency of use of force techniques

¹² For this major paper, small to mid-size police departments are defined those with less than 300 sworn police officers.

as a result of a call for service. The calls for service statistics were derived from the Police Records Information Management Environment (PRIME) calls that were given a priority 1-3 response code (Police Records Information Management Environment, 2009). Priority 1 calls require urgent attention and are life threatening (e.g., shooting). A priority 2 call requires immediate attention, is deemed serious, but may not be life threatening (e.g., motor vehicle accident with injuries). A priority 3 call requires routine response, with no emergency lights and siren, and there is no current threat to life or property (e.g., theft from a store whereby the suspect is no longer on scene). A priority 4 call is an event that must be documented and may or may not require police attendance (e.g., damaged vehicle whereby there is no suspect and the vehicle owner requires a police file number for an insurance claim). The reason for using priority 1-3 response coded police calls for service is that these calls likely result in a police officer having contact with people. In effect, using all PRIME files of Computer Aided Dispatch (CAD) calls for each police department would underestimate statistics on the frequency of use of force as there are many police files in which an officer never deals with anyone or takes the report over the phone (Police Records Information Management Environment, 2009).

The SBOR reports are a template on the PRIME computer system in a fillable form factor. The SBOR template begins with tombstone data regarding the police officer such as name, identification number, years of service, and assignment/duty. The second section deals with the incident details and any history known to police on the subject prior to attendance. The third section covers the subject's history (e.g., criminal record). The fourth section outlines the subject behaviors at the scene of the incident. The fifth section covers the police officer's force response options. The next section covers injuries to the officer and subject, and the final

portion of the SBOR template is the narrative section where the police officer provides an account of what occurred.

There are recognized limitations to the SBOR data. The policy on reporting by BCPPS states that police must report physical control-soft if an injury occurred to either the person or the officer from the application of that force. An injury is not defined by BCPPS, which can lead to inconsistencies and differences in reporting between police officers and departments.

Another limitation of the SBOR data is there could be police use of force that is not captured in the SBOR data (e.g., the police officer does not complete a SBOR template). Furthermore, there could be police officers that overreport their use of force. Police officers may complete a SBOR template anytime they use force above basic handcuffing as an accountability measure; however, this type of force would not fall under the BCPPS policy, as there needs to be an injury to the subject or officer. Another limitation of the SBOR data is, if a force option is used, the box to select 'yes' or 'no' is not a mandatory field. As a result, there could be force options used but no way to record if the use was effective or not. As well, there are many fields in the SBOR template that rely on the police officer's subjective belief of the situation. For example, there is no definition of a high-risk situation. As a result, one police officer might believe a situation warranted the high-risk designation while another police officer may decide that the exact same situation did not warrant this designation. This can lead to inconsistent data.

Results

The total number of SBOR reports from 2014 to 2018 from all five police departments was 3,151. These SBOR reports involved 799 unique police officers. Therefore, the mean number of SBOR reports per officer across the five years was 3.94. As demonstrated in Table 1,

the most common use of force options reported were soft physical control (43.1%), firearms (38.8%), and hard physical control (31.7%). The least common use of force options reported were OC spray (2.9%), baton (2.7%), and VNR (1.2%). There are some SBORs where more than one force option was selected. In these cases, the report contributes to all selected categories when calculating statistics.

The SBOR reports also included information about whether the use of force option was considered effective. Of note, there is no explicit definition provided for what is considered effective use of force. Each police officer that completes a SBOR report subjectively decides whether the force they used was effective. Commonly, a police officer determines that a force option was effective if the subject was taken into custody as a result of the force option being used. In all the incidents in which they were used, firearms (86.5%), ERIW (81.5%), and hard physical control techniques (81.4%) were most commonly coded as effective, whereas CEW (6.7%) was rarely considered effective.

With respect to officer injury, the use of VNR (52.6%) was most likely to result in officer injury, and ERIW (2%) and firearms (2%) were least likely to result in officer injury. However, it is important to note that it is not possible to know if the officer or subject was injured as a result of the use of force option or whether any injuries were sustained prior to or after the use of force option. Still, with these limitations in mind, of all the use of force options, based on the available data, the most effective use of force technique was ERIW as this option was coded as effective four-fifths of the time and rarely resulted in the officer being injured in the encounter.

Regarding subject injury, baton (59.5%) and OC spray (50%) were most likely to result in subject injury and firearms (6.7%) were least likely to result in subject injury. Of note, this

finding related to firearms is the result of firearms being drawn and displayed 99.7% of the time that a firearm was selected as the use of force option. Lastly, the use of various force options was examined in the context of high-risk incidents, which again has no specific definition assigned to it. As mentioned above, the police officer determines whether an incident would be considered high-risk based on their subjective judgment of the incident. Commonly, incidents involving a subject with a weapon or reported to have a weapon are considered high-risk. Regarding high-risk incidents, firearms (85.9%) and ERIW (83.8%) were used most commonly in high-risk incidents, while CEW was used in approximately half (54.2%) of all high-risk incidents. This finding for high risk was calculated by how many times that force option was used and flagged as a high-risk incident. Each force option was examined individually for this category and not overall because there were some high-risk incidents that involved more than one force option deployed.

Table 1: Frequency and Nature of Use of Force Options

	Frequency	Effective	Officer Injury	Subject Injury	High Risk Incident
Soft Physical Control (n = 1,360)	43.1%	66.3%	20.5%	27.4%	14.6%
Firearm (n = 1,223)	38.8%	86.5%	2%	6.7%	85.9%
Hard Physical Control (n = 1,001)	31.7%	81.4%	26.5%	37.8%	11.7%
ERIW (n = 302)	9.6%	81.5%	2%	16.2%	83.8%
CEW (n = 251)	8.0%	6.7%	6.4%	33.5%	54.2%
OC Spray (n = 92)	2.9%	67%	17.8%	50%	26.1%
Baton (n = 84)	2.7%	60%	28.6%	59.5%	9.5%
VNR (n = 38)	1.2%	65.8%	52.6%	47.4%	2.6%

* VNR = Vascular neck restraint; CEW = Conducted energy weapon; ERIW = Extended range impact weapon.

Table 2 reports the frequency that certain weapons were displayed and discharged or applied, in addition to how effective each weapon was when displayed and discharged or applied. The focus of this section is on OC spray, CEW, baton, ERIW, and firearms because the SBOR template does not differentiate displayed versus discharged or applied for the other use of force techniques or this distinction is not applicable (e.g., soft physical control). Of the five use of force techniques examined, ERIW (88.8%) and firearms (85.8%) were considered most effective when displayed, whereas OC spray (30.7%) was considered least effective when displayed. In contrast, firearms (100%), OC spray (75%), and baton (72.5%) were considered most effective when discharged or applied, whereas CEW (43.7%) was considered least effective when discharged or applied.

Table 2: Use of Force Displayed and Discharged

	Displayed	Effective When Displayed	Discharged or Applied	Effective When Discharged or Applied
OC Spray (n = 92)	14.1% (n = 13)	30.7% (n = 4)	82.6% (n = 76)	75.0% (n = 57)
CEW (n = 251)	92.4% (n = 232)	N/A	12.7% (n = 32)	43.7% (n = 14)
Baton (n = 84)	33.3% (n = 28)	71.4% (n = 20)	47.6% (n = 40)	72.5% (n = 29)
ERIW (n = 302)	76.8% (n = 232)	88.8% (n = 206)	18.9% (n = 57)	66.7% (n = 38)
Firearm (n = 1,223)	99.7% (n = 1,219)	85.8% (n = 1,046)	0.33% (n = 4)	100% (n = 4)

* N/A = This information is not available as it is not assessed in the SBOR template.

Discussion

Police must consider various factors when determining policies and practices concerning police use of force, such as the need to protect the public, officers, and suspects, the effectiveness of various techniques, and concerns raised by the public regarding the

consequences of police use of force. As a first step towards contributing to this discussion, this major paper examined police use of force incidents across a five-year period from five municipal police departments. Although soft physical control, firearms, and hard physical control were the most frequent use of force techniques, each of these options were used less than half the time in all use of force incidents. From the perspective of effectiveness, firearms, ERIW, and hard physical control were coded to be the most effective. Lastly, with respect to officer and subject injury, firearms and ERIW resulted in the lowest reports of injury.

Considering effectiveness, officer injury, and subject injury, firearms appear to be effective and almost exclusively displayed but not fired in this dataset. Based on this data, there is no reason to suggest that firearms should be removed or that more stringent conditions be placed on its deployment. This is based on the finding that officers perceive firearms to be effective in approximately two-thirds of incidents and they result in very low levels of officer injury and subject injury. An important caveat is that this may only be true when firearms are displayed rather than discharged or applied. Firearms were displayed in the vast majority of incidents (99.7%) and rarely discharged or applied (0.33%). Although firearms were deemed effective in all incidents involving discharge or application (100%), this was based on a small number of incidents and it is also unclear whether discharge or application involves both discharge and missing the subject and discharge and hitting the subject.

Conducted energy weapons (CEW) have become highly scrutinized due to the death of Robert Dziekanski. This study found that less than 10% of all use of force reports involved the use of CEWs and more than 90% of the time, the use of CEWs involved a display of the weapon only as opposed to the discharge or application of the weapon. As such, it appears that the

recommendations of the Braidwood inquiry have resulted in more display and less discharge of the CEW. Unfortunately, the SBOR template does not allow an officer to select whether the display of the CEW was effective or not, so it is difficult to say whether this should be considered positive change. It is important to note that the CEW is considered a higher-level intermediate weapon and is only to be used in situations where bodily harm has occurred, or the police officer can articulate that the threat of bodily harm was imminent. However, there are differences in how each police department assigns or provides access to CEWs for their officers. Some departments have a pool of CEWs available to members who sign out the CEW each shift and return it at the end of the shift whereas other departments issue a CEW to each member. Furthermore, some departments leave it up to each individual member to decide whether to carry a CEW, while others make it mandatory for general duty patrol members to carry a CEW while working.

There are a number of force options that are used very infrequently by police, such as OC spray (2.9%), baton (2.7%), and VNR (1.2%). The history of police and advancements in force options shows that police continue to add additional force options, but do not conduct further evaluation to determine if they could benefit from eliminating older force options. The continual addition of force options adds weight to the duty belts of police officers, can lead to injuries, slow reactionary response to choose a force option, and does not consider the police officer's strengths and preferences.

Physical control hard and soft techniques were used frequently and are an area that does not receive continual training. There are BCPPS for firearms training and qualifications that outlines the minimum training that must occur yearly for every police officer in BC.

However, there are currently no BCPPS for minimum training required for physical control soft or hard, although they are used as frequently as firearms. Kicking and punching are considered hard physical control techniques that are permissible; however, they are not viewed as acceptable by many members of the public. It is important for the public to support and trust the police and if a force option is not accepted by the public, the police need to look for other options that may be effective. Some police agencies have adopted physical control soft and hard training that is based on Brazilian Jujitsu that allows a person to use control techniques, not punching and kicking, to control a subject.

In BC, since 2012, all police officers are required to complete CID training and must requalify in CID course every three years. CID tactics help a police officer communicate with a subject who is in crisis. Recently, some research has suggested that police officers need to receive training that incorporates the softer skills that are learned during CID training, along with incorporating tactics and realistic stress scenarios involved in high-risk calls (Police Executive Research Forum, 2016). ICAT was developed in the US in an attempt to bridge this gap.

BC has developed use of force reporting requirements for police in BC, where all use of force above physical control soft (that results in injury) must be reported. The reporting of use of force in BC is provided to the BC Police Services that releases the information to the public to remain transparent and accountable. The SBOR template that an officer completes after a use of force incident can be improved to allow for greater data analysis to properly analyze use of force in BC.

Recommendations

Recommendation #1: Limit the Amount of Equipment

Police have a variety of options to use when force is deemed appropriate and necessary. Equipment continues to advance and new weapon systems are developed yearly with companies trying to find the next best option for police. For example, recently, a company developed a shield that claims to provide officers extra time to de-escalate a situation (Wunderlich, 2021). This vector shield is a lightweight, low profile, small shield that can be secured to an officer's arm (Wunderlich, 2021). While this might prove to be a useful tool for officers, this option has not received appropriate testing and could put officers in greater danger by creating a false sense of security or protection and lead to further escalation or injury. As with all new equipment or technology, police need to be very cautious before implementing or integrating these options without proper evaluation and testing. Moreover, while it is important for the police to constantly be on the lookout for new equipment that would allow them to do their jobs more safely for themselves and the public, it is equally important to continue to assess the utility of the equipment or devices currently in use.

The SBOR data for this major paper brings into question whether police need to be equipped with a full duty belt. Based on this dataset, there are an overwhelming number of police officers who have never deployed their OC spray, baton, or CEW. Moreover, these officers potentially account for thousands of interactions with the public each year. Less lethal weapons are important to have; however, does a police officer need to always carry all these options? The WorkSafeBC report by Hovbrender and Raschke (2011) addressed issues arising with police officers having muscular skeletal injuries because of all the equipment they are

required to carry daily. Most of the time when officers in this dataset had to use force, they resorted to soft physical control, hard physical control, or their firearm. The data would support a further examination of the benefits and risks of limiting the number of tools on the toolbelt for police.

One of the limitations with using the SBOR dataset to determine which force option tools to eliminate is that the SBOR dataset does not consider differences in the skills and abilities of each police officer. Police officers receive the same basic training at their police academies; however, their abilities to perform certain force options and their comfort level in selecting and using different force options may be very different. For example, some police officers have trained for years prior to becoming a police officer in various martial arts and self-defence techniques. Given this, it is likely that these police officers would be more capable and comfortable applying certain force options, such as soft and hard physical control, compared to their police academy classmates who do not have the same background and experiences. The SBOR dataset also does not account for or collect information on the size and strength of the police officer applying the force or the size and strength of the subject.

Based on the SBOR dataset, the four force options that are used the least were: VNR (1.2 per cent), baton (2.7 per cent), OC spray (2.9 per cent), and CEW (8.0 per cent). Moreover, the least effective force option was CEW (6.7 per cent). Of note, the next least effective force option was baton; however, it was 60.0% effective. Based on this data, the CEW could be a force option that could be eliminated from the duty belt; however, there are some serious challenges with eliminating this less lethal tool completely. The CEW is a higher-level intermediate weapon used on an assaultive subject. The requirements to deploy a CEW are

outlined in the BC police services policy for CEWs and require the person to be causing or about to cause bodily harm to either themselves, the officer, or a third party (BC Provincial Policing Standard, 2015). In practical terms, the CEW can be the only less lethal force option available to a police officer before lethal force would have to be used. To eliminate the CEW completely would not be appropriate as this may result in more lethal force encounters, which would be counter productive. An option to explore further would be to remove the CEW from the duty belt and allow members to decide which calls for service to bring the CEW with them to, similar to the way other less lethal tools, such as ERIW, are deployed. The benefit to this approach would be to free up space on the duty belt that could help with reducing muscular skeletal injuries. A potential downside to this approach may be that there are situations that do not initially appear to require a CEW, but as the occurrence develops, a CEW would be appropriate. In these cases, having a member that does not have access to this less lethal tool might result in a very negative outcome.

OC spray is another use of force tool that was used infrequently (2.9%) and had the second highest level of subject injury (50%). The use of OC spray usually also requires the use of at least soft physical control to take a subject into custody, which also puts the police officer at risk of cross contamination from the OC spray. Given this, it is recommended that OC spray be an intermediate weapon that is optional for a police officer to deploy with. Similarly, the baton was also used infrequently (2.7%) and had the highest percentage of subject injury (59.5%) and the highest percentage of officer injury (28.6%). The use of baton will also require the use of soft physical control to take a subject into custody. As such, it is recommended that baton also be an intermediate weapon that is optional for a police officer to deploy with.

The SBOR data for this major paper leads to questions as to why police officers are deploying with every force option if these options are not being used and, more importantly, when the option is used, there is a heightened risk for police officer and subject injuries. With this in mind, in addition to the variability of officer size, strength, training, and experience, it is recommended that police officers have more choice in which force options they deploy with, specifically in relation to CEW, OC spray, and baton. This major paper is not recommending the elimination of any force option as the elimination of a force option could lead to more negative outcomes than the benefit gained from eliminating it, but that officers who are not comfortable with certain options, have rarely or never deployed a particular option, and do not foresee a situation in which they would choose a particular force option, have the opportunity to not deploy with this option on their duty belt.

Recommendation #2: More Training in Commonly Used Force Options

Police officers receive basic training at their respective police academies where they are taught self-defence tactics and how to use the force options effectively. The SBOR data indicated that soft physical control (43.1%), firearms (38.8%), and hard physical control (31.7%) were the most commonly used options. Police officers receive continual firearms training throughout their career, with police in BC required to qualify yearly as per police services firearms standards (BC Provincial Policing Standards, 2017). However, police officers do not receive continual training in soft physical control and hard physical control tactics. Research has concluded that police officers who were competent in use of force had a wider range of techniques and used less force than unskilled and often frightened police officers who were more likely to use excessive force (Cushion, 2020). Moreover, hard physical control, such as

kicks and punches, have the tendency to cause injuries to the subject and the police officer. Furthermore, this type of force can be viewed negatively by the public and can contribute to poor police-public relations (Coletta, 2020).

The sport of Brazilian Jujitsu has recently offered courses to law enforcement and promotes the techniques of Jujitsu in allowing police officers to control and apprehend subjects while causing the least amount of injury to the subject and the police officer. Brazilian jiu-jitsu instructors have recently developed courses specifically for police (Dixon, 2019). These courses teach police officers the fundamentals of controlling a suspect that allows police officers to control people without hurting them (The Uplift, 2020). The testimonials from some of the police officers involved in this type of training included reference to the notion that they believed they would be less likely to reach for a weapon to use on a subject after they received training in jiu-jitsu tactics (The Uplift, 2020). It is important that this belief be empirically tested to ensure that the techniques are effective, not result in more use of force incidents, and reduce injuries to police officers and subjects.

There is very little empirical evidence on use of force training for police officers. Therefore, it is difficult to make an evidence-based argument for training in one area of use of force over another (Cushion, 2020). Given this, it is recommended that police officers are provided with more training time to practice the techniques of soft and hard physical control and incorporate the fundamentals of martial arts, such as Brazilian Jujitsu. To determine the exact amount of training time required to become competent in these skills is a debated topic with no empirical evidence. As a result, it is important for police departments to invest in providing their officers with adequate time for training in the hopes that these techniques and

skills will reduce injuries and liability to the departments. It is also recommended that data be collected prior to and throughout this training to allow for an analysis of whether new types of training is effective and achieving its goals. Doing so will assist in developing proper training based on evidence-based results.

Recommendation #3: More Training that Combines Communication and Force Options

PERF research found that many police departments provided their officers with specialized training on how to interact with persons in crisis because of mental health or other conditions, such as addictions or homelessness. While these efforts are important and promising, PERF also found that there was often a gap between crisis intervention and communications and police tactics. The ICAT training attempts to fill the gap in training for dynamic and potentially dangerous encounters (Police Executive Research Forum, 2016). The lesson plans for ICAT training include PowerPoint presentations and video recordings of use of force incidents. The areas covered are decision making, crisis recognition and response, tactical communications, negotiations, and operational safety tactics. The course integrates these skills and provides opportunities to practiced them through video case studies and scenario-based exercises (Police Executive Research Forum, 2016).

The benefits to police departments incorporating ICAT is that this training integrates crisis recognition/intervention, communications, and tactics. In many of the officer-involved shootings that PERF reviewed, police officers were trained in crisis intervention tactics but, when the situation turned dynamic, they no longer used any of that training (Police Executive Research Forum, 2016). CID tactics, used by police in BC, are like the crisis intervention tactics in the USA. It is recommended that police in BC incorporate the ICAT curriculum into their

required courses for all police officers. The CID tactics could be incorporated into the ICAT curriculum that would not add on substantial amount of training time for each agency. As the ICAT training guide was created in the USA, it is recommended that a working group of trainers from BC examine the ICAT curriculum to determine what material is relevant and can be adapted for policing in BC.

Recommendation #4: Changes to the SBOR Template

The SBOR template covers many areas of force used by police. As a result of extracting data for this major paper, there are several recommendations for improving the SBOR template that will assist with future analysis of SBOR data. First, the section in the SBOR template addressing communication needs to be expanded. Currently, the section has a yes-no box that asks the police officer, “Did you use communication in this incident?” The police officer can then describe what that communication was. The question needs to ask specifically about crisis intervention and de-escalation tactics. It should include several boxes describing a range of communication options and allow the police officer to check all that apply. The choices could include used calm voice, introduced self, active listening, rapport building, told subject police are there to help, and asked subject to drop weapon, for example.

Second, the SBOR template does not define what is a high-risk event or what criteria an officer should use to define whether a force option was effective or not. There needs to be consistency in how high-risk and use of force effectiveness are defined to allow for more consistent data. It is recommended that a definition section be added to the SBOR template to provide this clarity.

Third, the SBOR data does not allow for a final determination between why a force option was effective or not. For example, there were 1,223 SBOR reports in which a firearm was used and the effective rate was 86.5%. However, there were only four SBOR reports where a firearm was discharged. Currently, there is no way to determine why the 1,058 SBOR reports in which a firearm was used was coded as effective. Given this, it is recommended that the SBOR form include another drop down menu after the question of whether a force option was effective to ask follow-up questions as to why the officer believed their force option was effective. This list could include items, such as subject observed force option and complied, further CID techniques were conducted and subject complied, or unknown why subject complied.

Fourth, the CEW section has a separate section for display only and discharges. The display only section is confusing because it states “check all that apply” and then the first option is “draw and display only.” Many of the SBOR forms had “draw and display only” and other options, such as “weapon pointed at subject” also selected. To alleviate this concern, it is recommended that the “only” option be removed from the draw and display list. Implementing this recommendation will allow police officers to check all the options that applied to their situation and eliminate any possible confusion. Moreover, the ‘CEW display only’ section does not have an “effective” drop-down menu and the discharge section does have an “effective” drop-down selection available to indicate whether these use of force options were effective. Therefore, it is recommended that the SBOR template add an “effective” drop down menu to the display only section.

Finally, language through the SBOR template needs to be consistent. In the CEW section of the SBOR template, there is the question “did EHS/paramedics attend the scene?” In contrast, in the section for subject/officer injuries, it asks whether “Paramedics/BCAS attended.” The language needs to be consistent to eliminate any confusion.

Conclusion

One of the unique aspects of policing is the power given to police to use force to enforce laws (Klahm & Tillyer, 2010). Police need to continually assess their training, tactics, and equipment to ensure they are operating to the highest standards possible. This major paper provided an overview of the force options used by police, analyzed SBOR data from five municipal police departments, and provided recommendations for police to improve their responses when force must be used, through equipment choices and training.

In part, due to several high-profile police use of force situations that resulted in serious injury and death, the police and public relationship have been strained. Support for police, especially when force is used, has decreased considerably (Ayers et al., 2020). Police need to develop and maintain good relationships with the public and work towards building trust and support. One way the police can build public support is to invest in training time and properly train their police officers in use of force techniques that cause the least number of injuries while still being effective in controlling a subject that needs to be restrained. To achieve this goal, it is important for police to incorporate the skills involved in communication and de-escalation to ensure that use of force incidents remain a very small proportion of all police-public interactions and an option of last resort. One way to do this is for BC to examine the utility of the ICAT model. Moreover, it is critical for all police agencies to establish their use of

force programs in a way that how police are trained, how police are responding in the community to both high-risk and lower-risk incidents, and the options and tools that police use can be properly and consistently evaluated and assessed. In effect, training police to a high standard, being transparent with the public about use of force, and involving the public in discussions about use of force options will lead to better public and police relationships that will help foster more community-based policing, ultimately leading to a better policing model for the public and the police.

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