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ARTICLE



Learning to de-escalate: evaluating the behavioural impact of Verbal Judo training on police constables

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ABSTRACT

This article presents findings from an assessment of the immediate behavioural impact of the 'Verbal Judo' de-escalation training program, delivered to officers in a Canadian police service in 2017, and represents the first evaluation of Verbal Judo. The evaluation utilized systematic observations of officers in videotaped simulations, comparing a baseline group of officers to officers trained in Verbal Judo. The study found that five of 15 coded behaviours were impacted at a statistically significant level in the hypothesized direction, and these tended to be simpler behaviours encouraged by the training (such as identifying oneself or providing a reason for contact), while more complex behaviours (such as empathizing with the subject) were not impacted. The evaluation also found that likelihood of utilizing de-escalation skills decreased as an officer's years of experience increased. The paper closes by outlining the implications of these findings for de-escalation training, and elaborates the main limitations of the study.

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Introduction

De-escalation training is being increasingly utilized by police services around the world to reduce the levels at which police officers use force to resolve situations. If successful, such training should have the dual effect of increasing both officer safety and citizen safety. However, little is known about whether de-escalation training achieves its stated goals – whether police officers, once trained, are better at resolving situations with words and avoiding uses of force where possible. As police services continue to make de-escalation part of their cadet and in-service training strategies, it is important that the impacts of de-escalation training on officer behaviour become a greater part of the evidence base in policing research.

To help address this evidence gap, this article presents findings from an evaluation of a situational de-escalation training program, 'Verbal Judo' (VJ), conducted with police officers in Halifax, Canada in 2017. The evaluation sought to understand whether and to what degree Verbal Judo training had an impact on officer behaviours immediately post-training. Using systematic observation of video-based training scenarios, the research team examined whether officers were more likely to exhibit a range of behaviours that were associated with de-escalation after receiving training, when compared to a baseline group that had not received the training. The evaluation also considered the possible impact of officer characteristics – particularly gender and years of experience – on the likelihood that an officer would exhibit de-escalation behaviours.

The article first provides some background on the advent of Verbal Judo training and its relationship to contemporary police work. The paper then sets out the evaluation methods and findings, recognizing the challenges inherent in measuring the impact of police training. The paper closes by discussing the implications of these findings, both for understanding the value of Verbal Judo training specifically, and considering what these findings may mean for de-escalation training more generally.

Verbal Judo and de-escalation in contemporary policing

Verbal Judo training begins from the notion that fewer police use-of-force incidents are possible without negatively impacting operational effectiveness. Police organizations are often conceptualized as ‘para-military’ organizations, due to their rank structure and their claim to the legitimate use of force, up to and including deadly force, in the execution of their mandate. Police in democratic societies can be distinguished from the military, however, in their professional orientation toward using the *minimal* level of coercive force necessary to achieve an operational objective. Skilful policing is judged in part by whether officers can avoid the use of force when other options are available (see, for example, Manning, 2016).

While much has been made in recent decades on the rise of militarization in policing (see especially Balko, 2013), over the same period many police organizations, trainers and officers have been working toward an alternative conceptualization of policing. Encapsulated in recent calls toward a move (or return) to a ‘guardian’ mentality as opposed to a ‘warrior’ mentality in police work (Owens, Weisburd, Amendola, & Alpert, 2018; President’s Task Force on 21st Century Policing, 2015), there are voices within and outside of policing that believe that police work can accommodate substantial reductions in use-of-force incidents while not compromising officer safety (and potentially improving it).

Police organizations continue to, in general, spend more time, energy and money training use-of-force skills than the skills required to avoid force and de-escalate situations (Police Executive Research Forum (PERF), 2016). This to some degree reflects the police quasi-monopoly on the legitimate use of force (Bayley & Shearing, 1996) and the importance of proper exercise of those powers, but also to some degree ignores the relatively well-established fact that most police, most of the time, are not using force or, indeed, dealing with crime (Brodeur, 2010, pp. 150–164). However, verbal skills development has not been ignored, and more recently researchers have started to examine how training might provide the set of skills required to ‘effectively manage potentially dangerous situations’ rather than just learning to apply force within established legal parameters (Rajakaruna, Henry, Cutler, & Fairman, 2016). Nonetheless, research into effective de-escalation techniques has primarily been focused on the mental health context or in response to emotionally disturbed persons (see, e.g., Engel, 2015; Krameddine, Silverstone, DeMarco, & Hassel, 2014; Lum et al., 2016; PERF 2016; Richmond et al., 2012) rather than in the application of de-escalation skills to general call response. In recent years and in response to high-profile police violence in the US, there may be a trend toward more generalized de-escalation strategies in a number of major US police departments (Griffith, 2016), but these have yet to be evaluated.

There are also verbal skills and related competencies embedded in other training packages, such as packages related to implicit bias and improving police-citizen interactions more generally such as Fair and Impartial Policing (Fridell, 2016), the Procedural Justice Training programs in Chicago and Greater Manchester (Owens et al., 2018; Skogan, Van Craen, & Hennessy, 2015; Wheller, Quinton, Fildes, & Mills, 2013), and the Stop and Search training package developed by the UK College of Policing (Giacomantonio et al., 2016; Miller & Alexandrou, 2016). However, again, these do not focus only on de-escalation and involve a range of skills and competencies.

Prior to the advent of many of these training packages, in the early 1980s the Verbal Judo de-escalation approach – relevant to a wide range of police responses, and not focused on mental health crises – was developed by Dr George Thompson. Dr Thompson was an academic

who became a police officer and immediately upon beginning patrol work grew concerned about the lack of verbal skills he witnessed on the job. Thompson believed that police officers often made situations worse by following training that required them to establish authority in a situation, rather than focus on seeking a peaceful resolution. In turn, Thompson observed that many situations were unnecessarily escalated by the words and verbal tactics police used – an insight that is supported by social psychology literature, at least insofar as power imbalances (as would be found between a police officer and citizen) and disrespectful language in interpersonal interactions are both known to increase the likelihood of an interaction becoming aggressive or violent (e.g., Anicich, Fast, Halevy, & Galinsky, 2015; Felson, 1982).

Verbal Judo is meant to provide officers with the tools necessary to resolve situations without the need for coercive force wherever possible, in particular to achieve ‘voluntary compliance’ through ‘the gentle art of persuasion’ (Thompson, 1983). It is not intended to replace coercive force in situations where this is required. To learn VJ, police officers (and other public safety personnel) generally attend in-person training. In keeping with the martial arts theme of the training, the skills and competencies are organized around a series of 16 ‘katas’ or skill patterns that include training on:

- being professional/disinterested (referred to as the ‘professional face’)
- learning communication and deflection skills
- developing an understanding of two ‘contact models’ for achieving voluntary compliance (an 8-step contact model for non-confrontational individuals, and a 5-step intervention model where individuals are not moving toward compliance)
- recognizing ‘when words fail’ and how to respond
- case studies and exercises to illustrate these principles and models

Verbal Judo in police training pre-dates, but is in many ways aligned with, the more contemporary anti-bias and procedural justice-oriented training packages mentioned above. Each of these training approaches focuses on verbal skills and tend to share common characteristics, including (a) improving outcomes in situations where there is no immediate jeopardy to police or others (which constitute the vast majority of police interactions with citizens and suspects); (b) ensuring that citizens, even criminal suspects, are able to retain their dignity in interactions with police; (c) removing biased assumptions about citizens and suspects and ‘slowing down’ police decision-making and (d) encouraging empathy towards citizen well-being.

It is outside of the scope of this paper to fully consider the ways in which these training packages differ from one another theoretically, normatively or practically, or the level of potential conflict or contradiction between one training approach and another. Nonetheless, the Verbal Judo training approach appears to be more scripted and – with its martial arts metaphor – remains focused on police ‘winning’ the encounter by gaining voluntary compliance. In turn, it is not as holistic an approach as, for example, procedural justice-based training, which also focuses on others’ perceptions of an event (e.g., victims and community members). However, conversely, the narrower focus of VJ and its use of ‘scripts’ (phrases an officer may find useful in achieving voluntary compliance) may make it somewhat more straightforward to incorporate into the officers’ working toolkit. Nonetheless, it appears possible that police services could offer VJ, procedural justice and bias-oriented trainings alongside one another without substantial conflict between tactics or perspectives.

The relative efficacy of these kinds of training is mostly unknown – despite some efforts to incorporate impact and process evaluations into these trainings, there is a limited understanding of whether these trainings achieve behavioural change or whether one kind of training fares better than another in doing so (Owens et al., 2018). In similar fashion to police organizations’ relative disinterest in training verbal skills over other skills and competencies, the evidence-based policing community of researchers has spent comparably less time looking at the impact of verbal skills

training (or police training generally) than examining the impact, for example, of crime-reduction strategies. Indeed, Sherman (2018) noted that he was unable to identify a single impact evaluation looking at verbal de-escalation training (see also Lum et al., 2016). Yet, as public trust and confidence in police have increasingly become priorities for police organizations – and as these have been empirically shown to be important antecedents to community cooperation with police (Oberwittler & Roché, 2018) – improving day-to-day interactions between police and citizens through verbal skills may be a priority area for research.

The challenges of evaluating police training

The impacts of police training on officer behaviour in real-world situations are not well understood in the research literature. This gap in understanding stems in part from practical and structural constraints on the systematic testing of training outcomes. On the one hand, as noted above, police training has not been among the major focal points of evaluation research in policing. Even considering the important contributions of researchers looking at training over the last 20 years (e.g., Buerger, 1998; Lum et al., 2016; Neyroud, 2011; Skogan & Frydl, 2004; Wheller & Morris, 2010), the existing data is nowhere near robust enough to make firm conclusions even on a single training program or package, much less discern generalizable statements about ‘what works’ in police training.

Contextually, police training never occurs outside of the political realities of police activity. A number of past studies on police training have demonstrated how (a) police training is often tied rhetorically to local or national reform efforts, which can complicate training uptake by officers; (b) that training is not particularly well suited to reform, insofar as the target of reform is often organizational or institutional while the target of training is normally individual, and; (c) that the impacts of similar training interventions, in different places at different times, may have differing impacts on behaviour (Buerger, 1998; Giacomantonio & Litmanovitz, 2017; Litmanovitz & Montgomery, 2015; Mastroski & Ritti, 1996).

Moreover, measuring training impacts on real-world behaviour is further complicated by evaluation problems such as inability to control for intervening or missing variables (such as high-profile incidents, other prior or later-stage training, or changes in leadership or middle management during or after the training period) that impact officer behaviour. Even where control groups are put in place to isolate the training impact, between-group contamination is hard to avoid in the context of police personnel deployment and management, especially in smaller police services. For example, it is often unavoidable that treatment group officers (who have learned new skills, competencies or strategies) may work on shifts with, be transferred into partnership with, or come to supervise control group officers in their organization a short time after training is complete (and will almost certainly socialize with those other officers whether or not they work directly with them). While not a training intervention, this kind of issue was identified in a study examining limitations of controlled trials using body-worn video (BWV), where a form of ‘contagious accountability’ was observed among officers not issued BWV in the trial period, that mirrored the impact of BWV on the treatment group (Ariel et al., 2017). These issues do not eliminate the possibility of evaluating training or implementing controlled interventions in policing, but rather temper the expectations of training evaluators.

Evaluating Verbal Judo

The Verbal Judo program offered by Verbal Judo Canada is a licensed program that has been adapted for use in Canada. Prior to delivering the course, Halifax Regional Police (HRP) hosted a five-day train-the-trainers course in the fall of 2016, which was led by a trainer from Verbal Judo Canada. The total content from the train-the-trainers course was then pared down by training staff in order to fit within HRP’s annual ‘block’ training¹ parameters. This process involved the

trainers identifying the content that appeared to be most central to the VJ model – specifically those ‘katas’ that focused on improved interpersonal contact skills such as the eight-step contact model, the five-step intervention model, the S.A.F.E.R. model (Security, Attack, Flight/fear, Excessive repetition and Revised Priorities), and the personal and professional faces (including principles about professional disinterest and lack of ego). These katas included training components that were intended to improve officer articulation, recognize when force was and was not necessary, and use appropriate phrases and expressions at each stage of the interaction – and such content is reflected in the evaluation approach in terms of the kinds of training outcomes we sought to measure.

Training delivery included lectures, classroom practice (role-playing and discussion), videos, discussion of scenarios and then simulation exercises. The total curriculum was designed to involve approximately 3.5 hours of lecture and classroom practice time in a morning session, followed by an afternoon session where officers could practice these skills in simulation exercises. The training as delivered was designed for police officers, though versions of the training have been used for police recruits, correctional officers, border security personnel and others in roles where de-escalation may be considered a valuable tool.

Prior to the training taking place, Verbal Judo Canada provided Halifax Regional Police with an outline of the kinds of impacts that a police service *should* experience following implementation of VJ training. These included improved officer safety through a reduction in use-of-force incidents, enhanced professionalism and improved articulation in police-citizen encounters, reduced on-the-job stress and improved morale, and a reduction in complaints and lawsuits brought against the police service related to officer conduct.

Other training evaluations, like this one, recognized the limitations of testing the impact of training through administrative data such as arrests, use-of-force incidents and complaints (see, e.g., Miller & Alexandrou, 2016; Rosenbaum & Lawrence, 2011; Wheller et al., 2013 though Owens et al., 2018 is an important exception).² In prior training evaluations, the main behavioural outcomes were tested through either self-report questionnaires measuring attitudes and predicted behaviours, or measurements of performance in role-play exercises. Our evaluation follows a similar strategy for similar reasons, and in turn the immediate behavioural impact assessment focused specifically on the aspects of enhanced professionalism and articulation – behavioural changes that should be directly observable after training was received – measured through behaviours observed in response to a video-based scenario. The contribution of this research is therefore primarily empirical, as we apply a relatively well-established police training evaluation strategy to a de-escalation training program that has not previously been evaluated systematically.

Other hypothesized outcomes, such as reduced complaints and use-of-force incidents, can certainly be considered through examining internal administrative data, which may provide indicative evidence. After presenting our evaluation findings we therefore also describe data from the pre- and post-training periods relevant to use-of-force and complaints. However, any observed change in administrative data will be hard to attribute to Verbal Judo training, because (a) the time period available (only six months post training) does not provide an adequate sample of behaviours for robust statistical testing; (b) we were not able to randomize in this evaluation and (c) because the use-of-force and complaints data have a number of limitations (in both quality and quantity) that make a meaningful time-series analysis unlikely.³ In turn, a focus on immediate impact was the most tenable training evaluation approach, as any observed changes can be attributed to the training in a more straightforward manner.

Evaluation methods

The primary evaluation strategy used in this study was a systematic observation of video-recorded simulation scenarios using the MILO Range system. MILO Range is a video-based interaction system where officers working in pairs (with one primary and one secondary officer) respond to

a situation displayed on a life-size video screen. A trainer/operator plays a situation on the screen that normally has a one or more branch/decision points in which the officers have to choose between de-escalation and scaled force options (e.g., pepper spray, baton, taser, gun). The officers' actions in the simulation are video-recorded and officers are debriefed after the end of the simulation to discuss why they chose a certain option.

Through its operation, the MILO program automatically generates data on:

- Simulation scenario used
- Officers involved
- Officer choice (using force or not, and type of force used, i.e., gun, taser, spray, baton)
- Timing of officer choice (amount of time it took for the officer to choose to use force)

Alongside data generated by the MILO Range system, within this evaluation, we used a systematic observation tool to record a set of 11 specific behaviours that should be exhibited by those trained in VJ and also for four behaviours that are explicitly discouraged by VJ. The behaviours are described in [Table 1](#).⁴

Due to metadata contained in reports on each scenario, it was not possible to 'blind' the coder as to whether the officers were in the baseline or post-training ('treatment') group; in turn, to limit risk of bias by the coder, the coding tool was designed to be as objective as possible – particularly, using binary (yes/no) rather than scaled categories, and providing clear instructions as to which behaviours should be coded in which ways.⁵

In December 2016 (T1), before verbal judo training had begun, a randomly-selected⁶ baseline group of 64 constables responded to a pair of scenarios, where the constables were blinded as to the purpose of the scenario exercises (so they would not be aware that they were being tested on de-escalation capabilities). After the baseline data had been collected, all active members of the HRP were trained in Verbal Judo through HRP's block training, with officers receiving training between January and May 2017. Directly following the completion of VJ classroom training (T2),

Table 1. De-escalation behaviours in systematic observation tool.

Behaviour	Description: Mark this behaviour as present if an officer in the pair...
Ask for any justification	...offers the subject an opportunity to explain himself at any point in the interaction
Ask for identification	...asks the subject to identify themselves at any point in the interaction
Confirm non-compliance before using force	...offers a 'second chance' to the subject after initial non-compliance by the subject
Identify agency during introduction	...identifies his/her agency before discussing the substance of the complaint or seeking any form of compliance
Identify self during introduction	...identifies him/herself before discussing the substance of the complaint or seeking any form of compliance
Provide a reason for contact at any time during the scenario	...explains why s/he is involved in the situation at any time during the interaction..
Provide a reason for contact during the introduction	...explains why s/he is involved in the situation before seeking any form of compliance
Provide options (ask rather than tell)	...offers the subject options for resolving the issue at hand at any point in the interaction, or makes efforts to discuss reasonable solutions
Use appropriate close	...closes the interaction with a simple, respectful and non-inflammatory statement
Use appropriate greeting	...makes a simple, respectful and non-inflammatory greeting during their opening sentence.
Use empathetic statements	...makes statements recognizing the problem through the eyes of the subject
<i>Use anti-peace statements</i>	...makes statements that could aggravate the interaction
<i>Use excessive repetition</i>	...repeats him/herself multiple times in order to gain compliance without attempting different phrasings
<i>Use force</i>	...uses physical force of any kind at any stage in the interaction
<i>Use verbal commands</i>	...makes any demands of the subject that are not phrased as a request

Behaviours in italics should be reduced following training; all others should increase.

the treatment group of all HRP officers completed the same MILO range scenarios completed in the baseline period.

In both phases, the officers responded to the same scenarios: S1, where an intoxicated individual offered verbal resistance before becoming aggressive; and S2, involving an agitated but non-violent man with a baseball bat who had just been released from prison. Both scenarios offered officers an opportunity to employ de-escalation, while S1 required use of force intervention for resolution, and S2 should not have resulted in use of force.

Only pairs of constables were examined within this study because all officers in the baseline group were constables, and also to eliminate confounding dynamic variables within scenario responses related to, for example, behaviours in the presence of a superior officer. The total sample size is shown in Table 2.

Officer characteristics in baseline and treatment groups are shown in Table 3. As indicated above, rank was recorded for each participant but is omitted here since only constables are included in the study. Officer pair composition was largely similar between groups – as indicated above, all officers were constable rank; gender balance was relatively similar, with equal proportions of male-only pairs in each group (69% in each)⁷; and range of experience (average difference between the senior and junior officer) was not significantly different. Average years of experience in each pair were significantly different between the baseline and treatment group, with the baseline group on average lower in experience in each officer pair (7.5 years compared to 10.1 years),⁸ and so regression testing (described below) was used to understand what impact if any this difference may have had in the findings.⁹

The data from the observation tool and the MILO range system was tested against three study hypotheses:

- (1) After receiving VJ training, officers will be less likely to use force than officers in the baseline group in S2, with no difference in S1;
- (2) After receiving VJ training, officers will use force less quickly than officers in the baseline group, in both S1 and S2; and
- (3) After receiving VJ training, officers will exhibit a higher proportion of behaviours associated with VJ than officers in the baseline group, in both S1 and S2.

Additionally, to understand whether participants found the training useful and usable, as well as whether they understood the key concepts involved, after the training officers were asked to provide overall ratings of the VJ training, their comfort in using VJ concepts in their daily work,

Table 2. Count of constable-pair videos in baseline and treatment samples.

	Baseline	Treatment (total)	Treatment (codable for behaviour)
Scenario 1 (intoxicated individual)	32	161	155
Scenario 2 (prison release)	32	168	162
Total	64	329	317

Some videos, due to audio quality or missing information could not be included in the sample; however, this only removed 12 of 329 videos from the total available treatment period sample, and all baseline period videos were usable.

Table 3. Characteristics of baseline and treatment samples.

	Gender balance % (n)			Avg. years experience in pair	Avg. experience range
	Two male officers	One male and one female	Two female officers		
Baseline group	68.8% (44)	31.2% (20)	0.0% (0)	7.5	5.3
Treatment group	69.1% (219)	22.4% (71)	8.5% (27)	10.1	6.1

and the likelihood that they would use VJ in the coming year. They were also issued a brief 'knowledge check' to test recall of the course content, including the components of the 'eight step contact model', the 'three types of people', and to identify 'anti-peace' statements and instances where VJ is not an appropriate response.

As with any evaluation, it is important to recognize the local conditions in which a program was implemented. HRP is a police service of approximately 500 police officers in a provincial capital city in Eastern Canada and is the largest municipal police service in Canada's Atlantic provinces. It shares a municipal jurisdiction with the Royal Canadian Mounted Police (RCMP) in an 'integrated'¹⁰ policing model. While HRP officers work with RCMP officers on a regular basis, only HRP officers participated in the VJ training.

It is also important to note that many HRP officers involved in this training had received Verbal Judo or other de-escalation training prior to this training. For example, some will have been trained in de-escalation during their time at the police academy, and others will have received VJ training through HRP when it was offered in previous years (most recently in 2011). Indeed, post-training questionnaires revealed that approximately two-thirds of officers reported having previously received VJ training at one point in their careers, and de-escalation training forms part of the core curriculum at the Atlantic Police Academy, where most of the newer officers (hired since 2011) would have received their cadet training. Additionally, HRP officers are asked to report their attempts at de-escalation in any use-of-force report, suggesting that all officers should have a minimum level of awareness of de-escalation.

In turn, this evaluation is measuring the impact of the training on officers most of whom have had some exposure to de-escalation training, rather than with officers who by and large have not been introduced to de-escalation previously.¹¹ Having had at least a small amount of prior de-escalation training would presumably be common for police officers in Canada and elsewhere in the Anglo-American world, however, so these evaluation findings would in that sense be transferable to other similar police officer populations.¹² Additionally, the findings outlined below (at Table 6) suggest that officers' prior training in de-escalation was unlikely to have resulted in a ceiling effect in the data in this case (i.e., where pre-existing de-escalation skills made significant post-training improvements highly unlikely), as observed de-escalation behaviours in the baseline group tended to be low.

It is also worth recognizing that Verbal Judo Canada recommends that VJ be trained within a two-day course (and up to four days of training). However, due to the nature of HRP's block training schedule, the training had to be shortened to a half-day classroom session followed by practical exercises involving VJ skills, or amounting to approximately one day of total VJ training. It is not possible to know the degree to which this truncated version of the training had any impact on the level of training uptake by HRP officers, and it appears likely that many police services would only find it possible to provide shortened versions of this training if (as in HRP) annual training time is relatively limited.¹³ Nonetheless, this difference between the 'ideal' VJ training length and the training actually implemented at HRP should be considered when interpreting the data.

Statistical testing methods

Hypothesis 1 & 3: To determine whether the proportion of officers employing or avoiding certain behaviours, as appropriate, differed between the baseline and treatment groups, a series of chi-squared tests were conducted on coded data relating to each behaviour. Additionally, regression testing was conducted on behavioural data to determine whether other predictor variables including officer gender, years of experience, range of experience within officer pairs and scenario, explained any behavioural differences between baseline and treatment groups.

Hypotheses 2: To determine whether there was a difference in the speed at which officers used force between the baseline groups and treatment groups in each scenario, a t-test was conducted between the baseline and treatment groups on the measure of time of use of force. The use of force was measured in second from the last branch point within the scenario.

Findings

Hypotheses 1 and 2: proportion and speed of use of force

No statistically significant results were found in the analysis of use of force between the baseline group and the treatment group. In analysing the proportion of constables who used force in each of the scenarios, an increase of 10.7% was found in S1 (where force was expected) and a decrease of 3.7% was found in S2 (where force should not have been used), however this difference was not significant in either case (Table 4).

In analysing the mean time before use of force, an increase in the average time to use of force in both scenarios was found; however, this increase was not significant (Table 5).¹⁴

Hypothesis 3: de-escalation behaviours

Chi-Squared tests were used in order to determine differences in the proportions of officers using the observed de-escalation-relevant behaviours. The chi-squared tests revealed that the proportion of officers using four of the 15 coded behaviours changed significantly at a $p < 0.05$ level and that the proportion of officers using one other behaviour changed significantly at the $p < 0.10$ level.

The proportion of officers who identified themselves during the introduction increased after training ($\chi^2(1) = 27.523$, $p = 0.000$) as did the proportion of constables who used an appropriate greeting ($\chi^2(1) = 8.96$, $p = 0.003$). Additionally, the proportion of officers who used excessive repetition decreased after verbal judo training ($\chi^2(1) = 4.895$, $p = 0.0027$) as did the proportion of constables using verbal commands ($\chi^2(1) = 5.067$, $p = 0.024$). Finally, the proportion of officers who identified their agency during the introduction increased ($\chi^2(1) = 2.751$, $p = 0.099$). None of the other coded behaviours changed at a statistically significant level. Full results for the chi-squared tests can be found in Table 6.

Additional regression testing to determine whether other predictor variables had an impact on the observed behaviours showed that no additional behaviours were impacted by training, where there was not already a significant finding from the chi-squared testing. However, when controlling for gender, experience (both average years of experience and range of years of experience within the pair) and also for scenario-specific effects, the impact of training on already-significant behaviours was amplified; in particular, the significance of the training in relation to identifying one's agency increased from <0.10 to <0.05 ($\beta = 0.668$, $p = 0.046$).

Table 4. Use of force by scenario and baseline or treatment group.

Scenario	Baseline % use of force	Treatment % use of force	% change	Pearson Chi-square	df	Kramer's V
S1 (intoxicated individual)	78.1%	88.8%	10.7%	2.708	1	0.100
S2 (prison release)	28.1%	24.4%	-3.7%	0.199	1	0.655
All	53.1%	56.3%	3.2%	.220	1	0.639

Table 5. Time to use of force.

	Baseline mean (seconds)	Treatment mean (seconds)	T	Sig.
Time to use of force decision from last branch (all cases)	6.79	7.29	-0.451	0.696
Time to use of force decision from last branch (S1)	5.27	5.70	-0.564	0.574

Table 6. Chi-square tests of the relationship between receiving training (treatment) and Verbal Judo behaviours.

Behaviour	% of baseline group	% of treatment (post-training) group	% change	Pearson Chi-square (sig)	df	Kramer's V (sig)
Ask for any justification	10.9	6.3	(4.6)	1.732 (.188)	1	.067 (.188)
Ask for identification	15.6	13.2	(2.4)	.255 (.614)	1	.026 (.614)
Confirm non-compliance before using force	0	2.8	2.8	1.861 (.173)	1	.070 (.173)
Identify agency during introduction	73.4	82.3	8.9	2.751 (.099)	1	.085 (.099)
Identify self during introduction	15.6	51.4	35.8	27.523 (.000)	1	.269 (.000)
Provide a reason for contact at any time during the scenario	53.1	51.4	(1.7)	.062 (.803)	1	.013 (.803)
Provide a reason for contact during the introduction	7.8	9.5	1.7	.174 (.677)	1	.021 (.677)
Provide options (ask rather than tell)	29.7	24.9	(4.8)	.633 (.426)	1	.041 (.426)
Use appropriate close	20.3	25.3	5.0	.696 (.404)	1	.044 (.404)
Use appropriate greeting	21.9	41.8	19.9	8.916 (.003)	1	.153 (.003)
Use empathetic statements	25.0	24.9	0.1	.000 (.989)	1	.001 (.989)
Use anti-peace statements	51.6	53.9	2.3	.121 (.728)	1	.018 (.728)
Use excessive repetition	32.8	20.2	(12.6)	4.895 (.027)	1	.113 (.027)
Use force	53.1	56.3	3.2	.220 (.639)	1	.024 (.639)
Use verbal commands	87.5	74.4	(13.1)	5.067 (.024)	1	.115 (.024)

Behaviours in italics should be reduced following training; all others should increase.

While gender, officers' average experience, experience range and scenario did not appear to substantially affect the significance of the findings related to the impact of the training on the coded behaviours, there were some interesting relationships between those factors and the coded behaviours. For example, pairs of officers containing one or more females were slightly more likely to use an appropriate close than male pairs ($\beta = 0.589$, $p = 0.067$). Those pairs of officers with more average experience were more likely to use anti-peace statements ($\beta = 0.023$, $p = 0.084$), excessive repetition ($\beta = 0.048$, $p = 0.002$) and force ($\beta = 0.031$, $p = 0.059$) and were less likely to provide a reason for contact at any point during the interaction ($\beta = -0.040$, $p = 0.005$). Those officer pairs with a smaller range in experience between them were more likely to identify themselves during the introduction ($\beta = -0.023$, $p = 0.100$), provide a reason for contact during the introduction ($\beta = -0.080$, $p = 0.074$), and use excessive repetition ($\beta = -0.072$, $p = 0.008$).

The scenario in which the officer was participating had the largest effect on the use, or not, of de-escalation-relevant behaviours. Individuals participating in S1 (with the intoxicated individual, which should have ended in use of force) were more likely to use an appropriate greeting ($\beta = -0.864$, $p = 0.000$), provide a reason for contact during the scenario ($\beta = -0.946$, $p = 0.000$), use verbal commands ($\beta = -0.640$, $p = 0.011$), anti-peace statements ($\beta = -0.374$, $p = 0.072$) and use force ($\beta = -3.047$, $p = 0.000$) than those in S2. Conversely, those in the prison release scenario (S2) were more likely to ask for justification ($\beta = 1.825$, $p = 0.001$), ask for identification ($\beta = 1.465$, $p = 0.000$), identify their agency ($\beta = 0.506$, $p = 0.059$), provide options ($\beta = 1.050$, $p = 0.000$), use empathetic statements ($\beta = 2.930$, $p = 0.000$), use an appropriate close ($\beta = 3.796$, $p = 0.000$) and use excessive repetition ($\beta = 0.650$, $p = 0.012$) than those in S1. Full regression results can be found in the appendix tables.

Knowledge check and course evaluation data

Overall, the course evaluation data suggested that a substantial majority of officers had a positive assessment of the VJ course, with 84% rating it 'good' or 'excellent'. Ninety per cent reported that they felt they would be able to use the skills trained in the VJ package following the training, and 91% said they expected to use it in the coming year. The Knowledge Check asked officers to recall 13 concepts and ideas presented in the course. More than two-thirds of officers were able to recall each component of the 'contact model' and identify situations in which Verbal Judo was inappropriate, although only about half of officers were able to identify all three 'types of people' or provide an instance of an 'anti-peace phrase'.

Use of force and complaints data

While there are substantial limitations to administrative data analysis in a non-controlled study – and these have already been discussed at length – for contextual purposes, it is still worthwhile to briefly review relevant administrative data that have been collected prior to, and in the six months following, Verbal Judo training at HRP.

One way to consider the impact of VJ is through examining use-of-force incidents. Use-of-force data in Canadian policing are recorded through Subject Behaviour/Officer Response (SBOR) forms completed by police officers whenever a police call for service results in an officer using force of any kind. These forms include approximately 140 data 'points' relating to time, date, location, subject behaviour, officer response along the force continuum and results of use of force. The SBOR allows an officer to indicate whether they attempted de-escalation during the incident. The forms are completed manually by officers and, at HRP since 2012,¹⁵ have been entered into a spreadsheet that allows for longitudinal analysis. It should be noted that manual form completion, changing data recording practices over time, and the large number of data categories in the SBOR results in the variable quality of data from report to report, so SBOR data needs to be understood as a proxy for actual behaviour, rather than an exact reflection of activities.

Table 7. Use of force data and complaints data 2012–2016 and post-treatment.

Period	Total calls for service	SBORs	SBORs per 1000 calls	% of SBOR reporting a de-escalation attempt	Formal complaints	Complaints per 1000 calls
Six months prior (Jul-Dec 2016)	96,102	198	2.06	59%	42	0.44
Six months post (Jul-Dec 2017)	100,318	264	2.63	67%	43	0.43
Five year annual average (2012–2016)	187,742	503	2.68	58%	48	0.26

In the five-year pre-treatment period (see Table 7), HRP entered an average of 503 SBOR reports per year, against an average of about 188,000 calls for service per year, or approximately 2.7 use of force incidents per 1,000 calls for service. In the six months prior to VJ training (July–December 2016), HRP entered 198 SBORs while responding to 96,102 calls for service, or a rate of 2.06 SBOR per 1,000 calls. In the six months after training was completed (July–December 2017, as the last VJ training sessions were in June 2017), HRP entered 264 SBORs while responding to 100,318 calls for service, a rate of 2.63 SBOR per 1,000 calls. All else being equal, this may suggest a mild-to-moderate increase in the use of force resulting from VJ training; however, when examined over the six years for which data are available, the post-training figure is very similar to (and slightly lower than) the 2012–2016 average of 2.68 SBOR per 1,000 calls.

Another possible way to use SBOR data is to examine the proportion of cases in which de-escalation was recorded as attempted. In the six months prior to training, de-escalation was reported by officers in 59% of SBORs, while in the six months following training this figure increased to 67%. The six-year average reported use of de-escalation was 59%. This suggests that officers may have been more likely to attempt de-escalation in use-of-force situations after receiving VJ training, which may be seen as a positive outcome. However, since SBOR only reports incidents where force was ultimately used, such an inference is speculative at this stage, and also needs to be considered against the actual proportion of calls resulting in a need to use force, which did not show significant improvement – so even if it was attempted more often, there are no data showing that de-escalation reduced the need to use force.

Like use-of-force data, complaints data do not reveal any clear impact in any direction from Verbal Judo training. Indeed, in the six-month post-training period, there were approximately the same number of formal complaints against officers as in the six months prior to training taking place. Only a handful of complaints (six pre-training and eight post-training) were related to unnecessary force, so it is not possible to discern any effect here due to small numbers. Additionally, formal complaints overall have been increasing at HRP from a low of 36 in 2014 to a high of 81 in 2017 (with 42 and 66 in 2015 and 2016 respectively), so an upward trend in complaints had been observed in each of the three years pre-dating VJ training.

Limitations

There are four main limitations to this study. First, the study relates to the implementation of Verbal Judo training at a specific police service at a specific time. Since there are no other comparable data on Verbal Judo from other (similar and dissimilar) police services, we cannot be confident that these (moderately positive) results are not a function, in whole or in part, of the trainers and officers at HRP. Relatedly, the findings could also be related to the fact that many HRP officers had prior VJ or de-escalation training – although this would not easily explain the pre-post differences observed in this study.

Second, related to the first limitation, the study was conducted on an ‘abbreviated’ 1-day Verbal Judo training. It is possible that, had HRP implemented a full two-day Verbal Judo course, the impact of the training may have been more substantial. Third, the measurement approach – systematic coding of immediate behavioural impact, based on video simulations – may suffer from inadequate

validity relative to real-world tests of the impact of the training – a point discussed at some length in the methodology section above. The ambiguity of the pre-post administrative use-of-force and complaints data reinforces the real-world limitations of this kind of study. Fourth, the baseline sample is relatively small and, while officers were randomly selected, the small sample nonetheless puts the study at risk of Type II errors (i.e., the failure to reject a false null hypothesis).

Discussion

The data demonstrate that certain behaviours associated with a Verbal Judo de-escalation approach were significantly more likely to occur immediately after training took place than before. Additionally, none of the behaviours encouraged or discouraged by the training were negatively impacted by the training between the baseline and post-treatment groups; in other words, no backfire effects were observed. Course evaluations suggest that officer perceptions of the training were largely positive, and a majority of officers understood the training content (as measured by the post-training knowledge check). Taken as a whole, these findings suggest that Verbal Judo training resulted in a modest immediate behavioural impact on HRP officers, and that this impact was all in the direction intended by the training.

While the main conclusion of this evaluation is that VJ training worked reasonably as expected, there were many behaviours that did not change. The behaviours that were immediately adopted post-treatment – for example, identifying oneself and their agency, avoiding excessive repetition, and refraining from using verbal commands, may have been less complex (or more ‘natural’) behaviours to adopt than some of the behaviours where no pre-post change was observed – for example, asking the subject for a justification of their actions, making empathetic statements, or confirming non-compliance before moving to use force. Indeed, the VJ package as delivered may have been considered largely ‘observational’ learning, which tends to be more effective for simple skills than for complex skills (Chance, 2013). It may, in turn, be the case that more intensive training, repeated training, or ongoing coaching would be needed to encourage adoption of these potentially more complex behaviours.

Most of the coded behaviours were more likely to occur in one of the scenarios than in the other, which may suggest that some of the behaviours are scenario-specific rather than generalizable to a wide range of situations. For example, using empathetic statements may have been easier to do and more likely to occur in the prison release scenario (S2) because the individual spoke more to the officers and gave more opportunities for these skills to be employed than in the scenario with the intoxicated individual (S1). It may be, therefore, that officers were unable to employ de-escalation skills in the scenarios provided, whether or not they had learned them. This should also help set expectations about the contexts in which we may expect officers to employ the VJ ‘script’ after receiving training, and recognize that there are real-world scenarios in which certain aspects of VJ will be impracticable. Certainly, this is a point accounted for in the VJ tactical communication model, and is reinforced by these findings.

The finding related to average years of experience within an officer pair, while not predicted as a hypothesis of the study, presents an interesting challenge for police trainers. In this study, officer pairs with more collective experience were less likely to adopt the intended behaviours, both within the sample as a whole and between treatment and control groups. This finding may illuminate a wider issue – that it may be harder to change behaviour among more experienced officers, whose patterns of behaviour may be more established than those of their junior colleagues. Past studies have found a similar resistance amongst more experienced officers toward, for example, cultural diversity training (Gould, 1997) and lower levels of adoption of Problem-Oriented Policing training among higher-ranking officers (Quinet, Nunn, & Kincaid, 2003), suggesting that officers at later stages in their careers may not be as receptive to training. However, other studies (e.g., Lurigio & Skogan, 1994) found older officers were more supportive of the ideals of a new program than younger officers (in that case, a community policing program). In turn, the possible impact of experience on behaviour change warrants further investigation.

Relating to the administrative data, as discussed earlier, prior research has demonstrated that attribution of outcomes to training is rarely straightforward, and in this case, such an analysis would also need to consider the question of whether the use of force should be reduced following ‘successful’ training. In other words, expecting such an outcome from VJ training assumes that unnecessary uses of force will be reduced following training, but it is possible that a substantial majority of use of force incidents in HRP data may have been appropriate and unavoidable. In that case, even if all ‘unnecessary’ cases were eliminated as a result of the training, the impact may not register as statistically significant. Additionally, the VJ package encourages officers to appropriately use force; it is possible that, following training, officers may use force in situations where they previously would not have, through employing VJ principles. Nonetheless, any possible ‘backfire’ effect related to VJ and increased use of force should be monitored.

Additionally, the ongoing impact of any training has much to do with how the training messages are adopted and reiterated (or not) throughout a police organization, and so the observed real-world training impact (or not) would hinge in part on factors well outside of the control of the training designers and trainers. In turn, the data relating to the actual behavioural impact on officer behaviour in the field ought to be treated as ambiguous at this stage, and may remain ambiguous even after an adequate period has passed for more robust statistical analysis.

Conclusion

The skilful application of minimal force in resolving conflict situations remains a central police competency within democratic policing institutions. In turn, de-escalation training is likely to continue to grow in use amongst police organizations seeking to reduce the use of force by officers and improve the quality of police and public interactions. To ensure such training is achieving its stated aims, police services and training providers need to critically examine the training packages they are using.

This, in the first instance, will require more evaluation evidence on immediate and real-world impacts of training. This study provides a starting point – and an initial indication that de-escalation training may be effective – but replication studies in different contexts as well as more robust real-world examinations of the impacts of de-escalation training would be valuable to build the evidence base. Additionally, we need to collectively consider the relative strengths and areas of overlap of a range of training models – including procedural justice, anti-bias and de-escalation training packages. It is possible that some of the skills and competencies embedded in each of these training areas could be mutually reinforced between training packages, which may support more efficient delivery in police services that have limited capacity to train and re-train officers.

Finally, we need to consider which of the kinds of skills and abilities presumably taught in de-escalation training can actually be learned in a short-course format. It may be relatively straightforward to teach a police officer to improve the way they introduce themselves or how to avoid inflammatory language when speaking with citizens. It may be a more complicated matter to teach them to articulate their intentions during a conflict situation, to be empathetic when faced with risk, or to override prior use-of-force training that emphasizes quick neutralization of threats. The conditions under which an officer may learn how to perform these skills in the short term, but also continue to practice them in the field long after the training is complete, may not be satisfied by training alone. Police organizations will likely need to find ways to encourage, promote, coach and reinforce de-escalation behaviour through multiple channels if such training is to translate into consistent changes in behaviour.

Notes

1. Block training is an annual two-day exercise that all HRP officers are required to complete. Block training 2017 included Verbal Judo training, alongside ‘business as usual’ use-of-force re-certification training for the remainder of the two-day session.

2. Both Miller and Alexandrou, and Wheller and colleagues, also used administrative data (written grounds and stop and search rates in the former; victim feedback data in the latter), but in both cases these were treated as secondary outcome metrics, while attitudinal and (in Wheller et al) role play data were treated as 'primary' outcomes.
3. There are no appropriate data sources for longitudinal or pre-post measurement of officer stress and morale, and there have been far too few lawsuits brought against HRP officers relating to their behaviour in recent years for this to be considered a relevant outcome metric.
4. A full description of the categories and coder instructions can be made available on request to the authors.
5. Additionally, the coder's work was supervised by the project lead, and after the first 100 videos were coded by the coder, 12 randomly-selected videos were 'double-coded' (independently, once by the project lead and once by the coder). The results were then tested for inter-rater agreement. Overall, there was 85% agreement between the two datasets, across 199 data points coded by each coder. Any points of disagreement were then discussed, coding instructions were modified for clarity, and any required modifications were retroactively made to the first 100 coded videos for consistency.
6. A random list of officers was generated using internal records, and email requests were sent for officers to attend a session at the training facility. In the email request, officers were advised that they were being asked to participate in an exercise to help assess our training, that their participation was voluntary, and that they were welcome to ask questions and given the opportunity to decline to take part. Some officers initially selected to take part were unable to attend due to operational needs or other responsibilities, so in total approximately 100 officers were invited to take place, and the first 64 to be available were included in the baseline group.
7. There were no female-only pairs in the baseline group, while female-only pairs made up approximately 8% of the treatment group. The female only pairs have been nonetheless included for statistical testing in this study; however even when accounting for female-only pairs the results of the analyses are effectively the same.
8. Using an independent samples t-test, the difference in average experience was significant at $p < 0.01$.
9. Due to the nature of the training, officers in the baseline exercise were by necessity included in the treatment phase, albeit in different pair combinations than observed in the baseline phase. While this means that some participants in the treatment phase had previously experienced the simulation scenarios, the results described later in the paper are not significantly altered if we isolate the analysis to only those treatment phase officers that had no involvement in the baseline exercise.
10. For more on integrated policing in Canada, see Giacomantonio 2015.
11. For a series of reasons – related to i) the need to blind 'baseline' participants as to the nature of the baseline exercise, ii) an inability to link anonymous post-training questionnaires to behavioural data and iii) limitations in personnel records related to prior training – it was not possible to control for prior de-escalation training in the study; however, this is a minor issue in that it is safe to assume that all officers had prior exposure of some sort to de-escalation concepts and methods.
12. While this evaluation seeks to understand whether Verbal Judo impacted officer behaviour, it is important to recognize that the evaluation does not involve any value judgements about the behaviour of officers who did not exhibit behaviours encouraged by VJ. This is primarily because we do not, at this stage, have evidence to show that VJ behaviours result in better outcomes in the field – while such a claim is supported in general terms by social psychology research on aggression in dispute contexts, there is no systematic evidence on this question specific to the policing environment.
13. The issue of shortening the training to fit available training time was discussed during the train-the-trainers session, suggesting that the Verbal Judo Institute has worked with police services providing VJ at a range of different program lengths.
14. As it turned out, this approach to measuring speed of use of force was primarily relevant to the ways in which officers used force in S1, since (a) there were very few uses of force in S2 and (b) there was no obvious 'branch' point in S2 after which force may be appropriate, while there was a clear singular branch point in S1 after which force was appropriate.
15. SBOR have been collected since before 2012; however, 2012 is the first year for which a consistent internal dataset has been produced internally.

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Disclosure statement

No potential conflict of interest was reported by the authors.

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